SELF-ASSESSMENT REPORT

Bachelor's Degree in Chemical Engineering (GEQ)
&
Bachelor's Degree in Mechanical Engineering (GEM)

School of Chemical Engineering (ETSEQ)

Academic year 2020-21

Montserrat Ferrando
Head of the School of Chemical Engineering
13/05/2022

Maria Montserrat Ferrando Cogollos - DNI 22699740M (AUT)

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0. Acronyms

ASIIN Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik/Accreditation Agency for Degree Programmes in Engineering, Computer Science and Natural Sciences
ABET Accreditation Board for Engineering and Technology
AEQT Associació Empresarial Química de Tarragona / Chemical Business Association of Tarragona
API Avantprojectes Integrats / Integrated Preliminary Designs
AQU Agencia de Qualitat Universitària (Catalunya) / The Catalan University Quality Assurance Agency
BOE Boletín Oficial del Estado (Spanish official publications) / / Official State Gazette
CAE Comitè d'Avaluació Externa / External self-assessment committee
CAI Comitè d'Avaluació Interna / Internal self-assessment committee
CdG Consell de Govern / Governing Council
CM Coordinador/a de màster / Head of master's programme
CPAD Coordinador del Pla d'Acció Tutorial / Head of Tutorial Action Plan
CQ Comissió de Qualitat / Commission for Quality
CRAI Centre de Recursos per a l'Aprenentatge i la Investigació / Learning and Research Resource Centre
CU Consejo de Universidades / Ministry of Education of Spain Committee
DEQ Departament d'Enginyeria Química / Department of Chemical Engineering
DEM Departament d'Enginyeria Mecànica /Department of Mechanical Engineering
ECTS 1 ECTS credit = 25 hours of student involvement in classroom and non-contact activities.
EHEA European Higher Education Area
ENAEE The European Network for Accreditation of Engineering Education
ENQ Enquestes / Surveys
ESTAN. Estàndard / Standard
EPA Encuesta de Población Activa (Instituto Nacional de Estadística) / Employment rate in Catalonia
EQF European Qualifications Framework for lifelong learning
ETSEQ Escola Tècnica Superior d'Enginyeria Química / School of Chemical Engineering
GEBA Grau d'Enginyeria de Bioprocessos Alimentaris / Bachelor's Degree in Bioprocess and Food Engineering
GTBA Grau de Tècniques de Bioprocessos Alimentaris / Bachelor's Degree in Food Technology
GEBA-GTBA Grau Enginyeria-Tècniques de Bioprocessos Alimentaris / Bachelor's Degree in Food Bioprocess Technology-Engineering/ Inte
GEM Grau d'Enginyeria Mecànica /Bachelor's Degree in Mechanical Engineering
GEQ Grau d'Enginyeria Química / Bachelor's Degree in Chemical Engineering
GPQ Gabinet de Programació i Qualitat de la URV / Bureau for Programming and Quality
GR Gabinet de la Rectora / Rector's Bureau
ICE Institut de Ciències de l'Educació / Institute of Education Science
ICREA Institució Catalana de Recerca i Estudis Avançats / Catalan Institution for Research and Advanced Studies
I-CENTER Centre Internacional / International Center
IDESCAT Institut d'Estadística de Catalunya / Statistics Institute of Catalonia
ISEP - International Student Exchange Program
IST Informe de seguimiento de Título / Programme Monitoring report
JdC Junta de Centre / Executive Board
MEC Ministerio de Educación y Cultura / Ministry of Education of Spain
MECES Marco Español de Cualificación para la Educación Superior / Spanish Qualification Framework
MEAiSE Master Universitari en Enginyeria Ambiental i Sostenibilitat Energètica / Master Degree in Environmental Engineering and Sustainable Energy
MEQ Master Universitari en Enginyeria Química / University Master's Degree in Chemical Engineering
MGET Master Universitari en Gestió d'Empreses Tecnològiques /Master's Degree in Technology and Engineering Management
MNMP Master Universitari en Nanociència, Materials i Processos: Tecnologia Química de Frontera / Master's Degree in Nanoscience, Materials and Processes: Chemical Technology at the Frontier
MPRL Màster Universitari en Prevenció de Riscos Laborals / Master's Degree in Occupational Risk Prevention

MEFCO Màster Universitari en Mecànica de Fluids Computacional / Master's Degree in Energy Conversion Systems and Technologies
MIT Massachusetts Institute of Technology
MSGIQ Manual del Sistema de Garantia Interna de la Qualitat / QA System Manual
OLC Oficina Logística de Campus / Campus Logistics Office
OOU Oficina d'Orientació a l'estudiant/ Student's Office
PAS Personal Administrativo y de Servicios / Administration and Services Staff
PAT Pla d'Acció Tutorial / Tutorial Action Plan
PDI Personal Docent i Investigador/ Teaching Staff
PE Pràctiques Externes / Work Placement
PI Projectes Integradors / Integrating Projects
QA Quality Assurance
RE Responsable d'Ensenyament / Head of education
RESP. Responsable
RRII Relaciones Internacionales / International Relations Service
RSIGQ Responsable del SIGQ / Head of the internal quality assurance system
RUCT Registro de Universidades, Centros y Títulos / Register of Universities, Centres and Degrees
SAR Self-Assessment Report
SEDE Application of the Ministry where the verifications and modifications of the degree programmes are introduced
SET Suplemento Europeo al Título / European Diploma Supplement
SIGQ Sistema Intern de Garantia de la Qualitat / Internal Quality Assurance System (IQAS)
SREd Servei de Recursos Educatius / Educational Resources Service
SRI Servei de Recursos Informàtics / Computer Service
SSC Subject-Specific Criteria
TFG Trabajo de final de Grado/ Bachelor's Thesis
TFM Trabajo de final de Master / Master's Thesis
TSQD Tècnic/a de Suport a la Qualitat Docent / Teaching Quality Support Officer
URV Universitat Rovira Virgili / Rovira Virgili University
USGCD Unitat de Suport a la Gestió de Centre i Departaments (ETSEQ-DEQ-DEM) / Unit of Support to the Management of Faculties, Schools and Departments (ETSEQ-DEQ-DEM)
VR Vicerector/a
VSMA Marc Verificació, Seguiment, Modificació i Acreditació / The Framework for the Verification, Monitoring, Modification and Accreditation of Official Degrees

This document provides the relevant information that the AQU and ASIIN agencies require for the accreditation processes of our Bachelor's Degree in Chemical Engineering (GEQ) and Bachelor's Degree in Mechanical Engineering (GEM). Chapter 1 presents the identifying data of the ETSEQ School and the degree programmes subject to accreditation, whereas Chapter 2 and Chapter 3, respectively introduces the School and describes the four phases that make up the drafting of the self-assessment report; Chapter 4 provides information about how courses were adapted in response to the COVID-19 pandemic of 2019-20 and 2020-21; Chapter 5 explains the measures taken by the institution to include the gender perspective in the URV's degree programmes; Chapter 6 outlines a reflection that justifies how the requirements and criteria established for the accreditation are fulfilled. Finally, Chapter 7 summarizes the continuous improvement process plans for both Bachelor's degrees; Chapter 8 lists the set of evidences that have been collected to support the accreditation processes and, finally, Chapter 9 contains the annexes.

1. Identifying data and presentation of the programmes subject to accreditation

1.1 Identifying data

Higher Education Institution	Universitat Rovira i Virgili (URV)
Website of the Higher Education Institution	https://www.urv.cat/en/
School	School of Chemical Engineering (ETSEQ)
Website of the School	http://www.etseq.urv.cat/etseq/en/
Contact details	Montserrat Ferrando Cogollos, director of ETSEQ Sescelades Campus Avinguda dels Països Catalans,26 - 43007 Tarragona, Spain Tel (34) 977 55 97 00 diretseq@urv.cat

SAR responsible		
Name	**Position**	**Responsibility**
Daniel Montané	Head of the Bachelor's Degree in Chemical Engineering (GEQ)	The sections of the report about the degree programmes to be accredited
Francisco Huera	Head of the Bachelor's Degree in Mechanical Engineering (GEM)	
Montserrat Ferrando	ETSEQ Director	The sections of the report about the School and the implementation of the SIGQ
Cristina Urbina	Secretary and Head of the Internal System for Quality Assurance	The sections of the report about the School and the implementation of the SIGQ
Francisco Huera	Head of the Tutorial Action Plan	The sections of the report about the Tutorial Action Plan
Carme Pérez	ETSEQ Specialist in Teaching Quality	Support to all sections of the support

Beside the aforementioned, the Self-Assessment Report has been drawn up within the framework of the Internal self-assessment committee (CAI), as described in chapter 3 of this Self-Assessment Report.

1.2 Presentation of the Bachelor's Degree being monitored

Seals applied for

Internal code	Name of the degree programme (in original language) / Acronym	(Official) English translation of the name	Labels applied for	Subject areas	Previous accreditation (issuing agency, validity)
2020	Grau en Enginyeria Química (GEQ)	Bachelor's Degree in Chemical Engineering	ASIIN, EUR-ACE® Label, AQU	TC 01 - Mechanical Engineering/ Process Engineering	AQU – 20/07/2016 until 20/07/2022 EUR-ACE® Label (by ANECA) 27/09/2016 until 27/09/2022
2022	Grau en Enginyeria Mecànica (GEM)	Bachelor's Degree in Mechanical Engineering	ASIIN, EUR-ACE® Label, AQU	TC 01 - Mechanical Engineering/ Process Engineering	AQU – 20/07/2016 until 20/07/2022 EUR-ACE® Label (by ANECA) 27/09/2016 until 27/09/2022

The **Degree in Chemical Engineering** was first taught in the academic year 2010-11. It has a total of 240 ECTS credits, belongs to the branch of knowledge Engineering and Architecture and is taught face-to-face in the classroom. It qualifies students for professional practice as a Technical Industrial Engineer, specialising in Chemical Engineering.
It is part of the Study Programme Bachelor's Degree in Process Engineering together with the Bachelor's Degree in Bioprocesses, with which it shares 96 credits: https://www.urv.cat/ca/estudis/graus/admissio/reconeixements/reconeixements-etseq/#rc_2023_2020

The accreditation process of all of its standards was satisfactorily completed on 20/07/2016 (Standard 3 with quality). The EUR-ACE label was also awarded on 27/09/2016.

Bachelor's degree website:
https://www.urv.cat/en/studies/bachelor/courses/graudenginyeriaquimica/

Further information at: https://estudis.aqu.cat/euc/en/Titulacions/Fitxa?titulacioId=9817#

The **Degree in Mechanical Engineering** was first taught in the academic year 2010-11. It has a total of 240 ECTS credits, belongs to the branch of knowledge Engineering and Architecture and is taught face-to-face in the classroom. It qualifies students for professional practice as a Technical Industrial Engineer, specialising in Mechanical Engineering.
The accreditation process of all of its standards was satisfactorily completed on 20/07/2016 (Standard 3 with quality). The EUR-ACE label was also awarded on 27/09/2016.

Bachelor's degree website: https://www.urv.cat/en/studies/bachelor/courses/graudmecanica/

Further information at: https://estudis.aqu.cat/euc/en/Titulacions/Fitxa?titulacioId=9810#

Characteristics of the Degree Programme/s

Name	Final degree	Areas of Specialization	Corresponding level of the EQF (MECES correspondence)	Mode of Study	Double/ Joint Degree	Duration	Credit points/unit	Intake rhythm & First time of offer	Degree web site	More information
GEQ	Bachelor's Degree in Chemical Engineering	-	First Cycle Degree – EQF 6 (MECES 2)	Full time/ Face-to-face On-campus/ classroom-based course type	No	4 courses	240 ECTS	2010-11	https://www.urv.cat/en/studies/bachelor/courses/graudenginyeriaquimica/ https://www.etseq.urv.cat/en/studies/grau-d-enginyeria-quimica/	https://estudis.aqu.cat/euc/en/Titulacions/Fitxa?titulacioId=9817
GEM	Bachelor's Degree in Mechanical engineering	-	First Cycle Degree – EQF 6 (MECES 2)	Full time/ Face-to-face On-campus/ classroom-based course type	No	4 courses	240 ECTS	2010-11	https://www.urv.cat/en/studies/bachelor/courses/graudmecanica/ https://www.etseq.urv.cat/en/studies/grau-d-enginyeria-mecanica/	https://estudis.aqu.cat/euc/en/Titulacions/Fitxa?titulacioId=9810#

2. Presentation of the School of Chemical Engineering (ETSEQ)

The School of Chemical Engineering (ETSEQ) is a unique institution both within the Universitat Rovira i Virgili and in the Spanish university system because it is the only school of its kind in the country. This uniqueness stems from the aspiration of all its members to be a centre of excellence and a leader in the field of Chemical Engineering in Catalonia, Spain and Europe. This aspiration for excellence applies to education, research and transfer and was extended with the addition of new programmes related to other branches of Engineering. This excellence can only be guaranteed to last if there is a commitment to continuous improvement, the result of management mechanisms and the rational use of resources.

One of the indicators of our desire for excellence is that all our degrees have been awarded international accreditations when this is possible. We were one of the first schools in Catalonia to be awarded the EUR-ACE label in 2016 for the bachelor's degrees in Chemical Engineering and Mechanical Engineering, and the Master's Degree in Chemical Engineering. In 2021, the label was awarded to the Master's Degree in Environmental Engineering and Sustainable Energy and, in the future, we hope to obtain similar awards for all the degrees taught by the School.

The School's educational model is the corner stone of its uniqueness. Students are required to acquire social competences as well as technical competences in hands-on engineering activities during the educational process. In the spring of 2014, our School's educational model allowed us to join the CDIO initiative (www.cdio.org), which brings together more than 115 universities from all over the world and is led by the MIT. They all believe that the best way to train future engineers is for them to work on the conception, design, implementation and operation of prototypes and systems while they are being trained. The curricula associated with the CDIO implement 12 standards that focus on current trends, which have also been suggested by ABET and ENAEE, and which are aligned with the School's educational model.

The ETSEQ's mission, then, is to train capable, innovative, versatile and competitive professionals, who can work as part of a team, lead groups and take part efficiently and independently in research, development, innovation and transfer. It is also the School's mission to contribute to the development of the region and the spread of knowledge in the field of engineering and associated disciplines.

The School of Chemical Engineering has its own website (http://www.etseq.urv.cat) where all the information about the courses is posted.

Table 1. Degrees taught at the School in the academic year 2021-22

Degrees taught at the School							
Name	**RUCT code**	**ECTS credits**	**Year first taught**	**Type**	**Head of programme**	**Date of accreditation renewal**	
						dd/mm/yy	Result
Bachelor's							
Agricultural and Food Engineering (being phased out)	2501491	240	2010-11	Face to face	Sílvia de Lamo Castellví	22/05/2015	Accredited
Mechanical Engineering	2501675	240	2010-11	Face to face	Francisco J. Huera-Huarte	30/05/2016	Accredited (1)
Chemical Engineering	2501676	240	2010-11	Face to face	Daniel Montané Calaf	30/05/2016	Accredited (1)
Bioprocess and Food Engineering	2503580	240	2017-18	Face to face	Sílvia de Lamo Castellví	-	-
Food Bioprocess Technology	2503587	180	2018-19	Face to face	Sílvia de Lamo Castellví	-	-
Double Degree in Chemical Engineering and Techniques for Dietary Bioprocesses	-	291	2019-20	Face to face	Sílvia de Lamo Castellví	-	-
MASTER'S (coordinated by the URV)							
Occupational Risk Prevention	4311422	60	2009-10	Blended	Magdalena Constantí Garriga	26/07/2019 (2nd)	Accredited
Chemical Engineering	4314039	90	2013-14	Face to face	Frank Erich Stüber	23/04/2021 (2nd)	Accredited (1)
Nanoscience, Materials and Processes: Chemical Technology at the Frontier	4313876	60	2013-14	Face to face	Jordi Riu Rusell	23/04/2021 (2nd)	Accredited
Environmental Engineering and Sustainable Energy	4315870	90	2016-17	Face to face	Sandra Contreras Iglesias	23/04/2021	Accredited (1)
Technology and Engineering Management	4315851	60	2017-18	Face to face	Mónica Martín Bofarull	23/04/2021	Accredited
Computational Fluid Dynamics	4316468	60	2018-19	Blended	Anton Vernet Peña	-	-
Energy Conversion Systems and Technologies	4316809	60	2019-20	Blended	Daniel Salavera Muñoz	-	-

(1): Standard 3: With quality. Degrees with the EUR-ACE® European accreditation label.

Table 2. Evolution of students enrolled

DEGREE	Number of students enrolled				
	2017-18	2018-19	2019-20	2020-21	2021-22
Graus					
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	282	283	286	288	291
2021-BACHELOR'S DEGREE IN AGRICULTURAL AND FOOD ENGINEERING (2010)	34	21	17	3	1
2022-BACHELOR'S DEGREE IN MECHANCIAL ENGINEERING (2010)	313	317	312	309	300
2023-BACHELOR'S DEGREE IN BIOPROCESS AND FOOD ENGINEERING (2017)	19	13	8	17	14
2024-BACHELOR'S DEGREE IN FOOD BIOPROCESS TECHOLOGY/ENGINEERING (2018)			5	6	2
2090-DOUBLE DEGREE IN CHEMICAL ENGINEERING AND FOOD BIOPROCESS TECHNOLOGY (2019)			12	20	29
20F0-BACHELOR'S DEFREE IN FOOD BIOPROCESS TECHNOLOGY/ ENGINEERING (2018)		23	32	40	45
Subtotal	**648**	**657**	**672**	**683**	**682**
MASTER'S (coordinated by the URV)					
2060-OCCUPATIONAL RISK PREVENTION (2009)	40	48	49	49	59
2067-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE PRODUCTION (2011)	1				
2069-CHEMICAL ENGINEERING (2013)	51	47	44	44	46
2070-NANOSCIENCE, MATERIALS AND PROCESSES: CHEMICAL TECHNOLOGY AT THE FRONTIER (2013)	20	17	21	13	17
2071-FLUID THERMODYNAMICS ENGINEERING (2014)	9	10			
2072-TECHNOLOGY AND ENGINEERING MANAGEMENT (2017)	10	12	12	21	21
2073-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE ENERGY (2016)	39	44	48	33	35
2074- COMPUTATIONAL FLUID DYNAMICS (2018)		25	33	43	46
2075-ENERGY CONVERSION SYSTEMS AND ECHNOLOGIES (2019)			19	28	35
Subtotal	**170**	**203**	**226**	**231**	**259**
TOTAL ETSEQ	**818**	**860**	**901**	**914**	**941**

Report date: 19/01/2022 (data for 2021-22 are not fully available)
Source: URV en Xifres. ACRG03 Number of students enrolled and ACRM03 Number of students enrolled

Table 3. Evolution of graduated students

DEGREE	Graduates			
	2017-18	2018-19	2019-20	2020-21
BACHELOR'S				
2020-BHACELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	55	41	56	49
2021-BACHELOR'S DEGREE IN AGRICULTURAL AND FOOD ENGINEERING (2010)	10	4	12	
2022-BACHELOR'S DEGREE IN MECHANCIAL ENGINEERING (2010)	38	52	50	42

DEGREE	Graduates			
	2017-18	2018-19	2019-20	2020-21
2023-BACHELOR'S DEGREE IN BIOPROCESS AND FOOD ENGINEERING (2017)				5
2024-BACHELOR'S DEGREE IN FOOD BIOPROCESS TECHOLOGY/ENGINEERING (2018)			2	1
Subtotal	**103**	**97**	**120**	**97**
MASTER'S (coordinated by the URV)				
2060-OCCUPATIONAL RISK PREVENTION (2009)	34	37	43	42
2067-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE PRODUCTION (2011)				
2069-CHEMICAL ENGINEERING (2013)	23	26	21	17
2070-NANOSCIENCE, MATERIALS AND PROCESSES: CHEMICAL TECHNOLOGY AT THE FRONTIER (2013)	19	15	20	10
2071-FLUID THERMODYNAMICS ENGINEERING (2014)	8	8		
2072-TECHNOLOGY AND ENGINEERING MANAGEMENT (2017)	7	10	10	12
2073-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE ENERGY (2016)	21	15	26	17
2074- COMPUTATIONAL FLUID DYNAMICS (2018)		6	12	13
2075-ENERGY CONVERSION SYSTEMS AND ECHNOLOGIES (2019)			7	7
Total	**112**	**117**	**139**	**118**
TOTAL ETSEQ	**215**	**214**	**259**	**215**

Report date: 19/01/2022 (data for 2021-22 are not fully available)
Source: URV en Xifres. ACRG11 Bachelor's graduates and ACRM09 Master's graduates

Table 4. Evolution of teaching staff

DEGREE	Lecturers				
	2016-17	2017-18	2018-19	2019-20	2020-21
BACHELOR'S					
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	104	109	116	116	121
2021-BACHELOR'S DEGREE IN AGRICULTURAL AND FOOD ENGINEERING (2010)	90	88	42	17	2
2022-BACHELOR'S DEGREE IN MECHANCIAL ENGINEERING (2010)	66	70	70	73	70
2023-BACHELOR'S DEGREE IN BIOPROCESS AND FOOD ENGINEERING (2017)		48	71	50	79
2024-BACHELOR'S DEGREE IN FOOD BIOPROCESS TECHOLOGY/ENGINEERING (2018)			70	71	52
20F0-BACHELOR'S DEFREE IN FOOD BIOPROCESS TECHNOLOGY/ ENGINEERING (2018)			71	0	0
2090-DOUBLE DEGREE IN CHEMICAL ENGINEERING AND FOOD BIOPROCESS TECHNOLOGY (2019)				55	76
Subtotal	**260**	**315**	**440**	**382**	**400**
MASTER'S (coordinated by the URV)					
2060-OCCUPATIONAL RISK PREVENTION (2009)	12	13	13	15	13
2067-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE PRODUCTION (2011)	3	1			
2069-CHEMICAL ENGINEERING (2013)	36	38	40	40	35
2070-NANOSCIENCE, MATERIALS AND PROCESSES: CHEMICAL TECHNOLOGY AT THE FRONTIER (2013)	33	39	41	38	38
2071-FLUID THERMODYNAMICS ENGINEERING (2014)	7	9	9		
2072-TECHNOLOGY AND ENGINEERING MANAGEMENT (2017)	2	20	22	23	23
2073-ENVIRONMENTAL ENGINEERING AND SUSTAINABLE ENERGY (2016)	34	44	43	43	39

DEGREE	Lecturers				
	2016-17	2017-18	2018-19	2019-20	2020-21
2074- COMPUTATIONAL FLUID DYNAMICS (2018)			12	12	14
2075-ENERGY CONVERSION SYSTEMS AND ECHNOLOGIES (2019)				9	11
Subtotal	**127**	**164**	**180**	**182**	**174**
TOTAL ETSEQ	**387**	**479**	**620**	**564**	**574**

Report date: 19/01/2022
Source: URV en Xifres. ACRG15 – General profile of the teaching staff of the bachelor's degrees by rank, age and sex. ACRM13 - General profile of the teaching staff of the master's degrees by rank, age and sex.

3. Drafting process of the Self-Assessment Report (SAR)

The key purpose of this self-assessment report is to give an exhaustive response to the established Standards required to approve the accreditation process of our Bachelor's degrees. This implies/gives rise to a systematic and objective analysis of every Standard that is based on relevant and accessible evidences confirming the excellence of the degrees subject to accreditation. This process also allows us to reflect upon the effectiveness of the measures taken by the programmes/School, and encourages us in our commitment towards continuous improvement.

This report was drafted by taking as a reference the PR-ETSEQ-003 Monitoring and improvement of degrees, which lists the requirements of the report, and the PR-ETSEQ-006 Process for accrediting degrees, which specifies the drafting activities and the approval of the report.

The present report combines two levels of analysis: the specific courses to be accredited and the School. In accordance with the "Guide to the accreditation of recognised bachelor's and master's degree programmes, published by AQU Catalunya, Standards 2 (public information), 3 (SIGQ) and 5 (learning support systems) are analysed at a school level, whilst Standards 1 (quality of the training programme) 4 (teaching staff) and 6 (quality of programme learning outcomes) are analysed for each programme subject to accreditation. In the case of the Standards analysed at programme level, firstly, for those aspects that are common between programmes, a general assessment for both programmes will be found. Then, the specific programme will be accordingly identified with the programme name title.

The drafting process was divided into four phases.

- **Collection of information phase**

The collection of the cross-sectional information about the URV was coordinated by the Bureau for Programming and Quality, and carried out using the web tool Sínia-Net for data on fees, numerical indicators and the results of the surveys. To collect the information on the satisfaction of the various groups of stakeholders, we used the instruments noted in Table C.1. of Annex C of this report. The information on methodologies, assessment systems and the use of the URV's Virtual Learning Environment, Moodle, was provided by the University's Education Resources Service (SREd). The data from the course guides was extracted from the application DOCnet. The information about the School was collected by the ETSEQ's specialist in teaching quality.

We have also taken into account the current validation report, the latest degree monitoring report that includes the improvement plan and, finally, the reports evaluating the proposals for modification and accreditation, issued by AQU's CEA in the branch of engineering and architecture.

The ETSEQ students, the International Center, the Human Resources Service, the Student Office (OFES), the Academic Management Service (SGA), the Learning and Research Centre (CRAI), the Institute of Education Science (ICE) and the Department of Chemical Engineering all took part in the information-collection phase.

The report covers the period between the academic years 2017-18 and 20208-21, and also includes the data available so far for the academic year 2021-22 until this report was drafted.

➢ Drafting of the report phase

As has been mentioned in section *0. Identifying data*, this report has been drawn up by the coordinator of the Bachelor's Degree in Chemical Engineering, the coordinator of the Bachelor's Degree in Mechanical Engineering, the director of ETSEQ, the head of SIGQ, the coordinator of PAT and the School's specialist in Teaching Quality (TSQD).

The heads of the degree programmes to be accredited played a leading role in drafting the corresponding sections. The sections on the ETSEQ were drawn up jointly by the Director, the head of the Internal Quality Assurance System (IQAS) and the ETSEQ's teaching quality support officer. The Programming and Quality Bureau has played a role in and reviewed all the standards.

The members of the Internal Evaluation Committee (CAI) of each of the degree programmes have also made a contribution. On 15 February 2022, this committee became the ETSEQ's Quality Committee (CQ).

The members representing GEQ were:

- Montse Ferrando, director and chair
- Allan Mackie, deputy director of ETSEQ
- Cristina Urbina, secretary and head of the ETSEQ's Internal System of Quality Assurance (SIGQ)
- Daniel Montané, head of the Bachelor's programme in Chemical Engineering (GEQ)
- Francisco Huera, head of the Bachelor's programme in Mechanical Engineering (GEM) and coordinator of the Tutorial Action Plan (PAT)
- Marta Sales, head of equality
- Joan Salvadó, director of the Department of Chemical Engineering (DEQ)
- Silvia De la Flor, director of the Department of Mechanical Engineering (DEM)
- Josep Font, GEQ lecturer
- Eduard De La Heras Garcia, GEQ student
- Enric Prats, GEQ graduate
- Isabel Gavaldà, head of the ETSEQ's Unit of Support for the Management of Faculties, Schools and Departments (USGCD ETSEQ-DEQ-DEM)
- Carme Pérez, ETSEQ specialist in Quality, as the technical secretary

The members representing GEM were:

- Montse Ferrando, director and chair
- Allan Mackie, deputy director of the ETSEQ
- Cristina Urbina, secretary and head of the ETSEQ's Internal System of Quality Assurance (SIGQ)
- Francisco Huera, head of the Bachelor's programme in Mechanical Engineering (GEM) and coordinator of the Tutorial Action Plan (PAT)
- Marta Sales, head of equality
- Joan Salvadó, director of the Department of Chemical Engineering (DEQ)
- Silvia De la Flor, director of the Department of Mechanical Engineering (DEM)
- Albert Fabregat, GEM lecturer
- Antoni Crusells, GEM student
- Josep Ramon Badia, GEM graduate
- Isabel Gavaldà, head of the ETSEQ's Unit of Support for the Management of Faculties, Schools and Departments (USGCD ETSEQ-DEQ-DEM)
- Carme Pérez, ETSEQ specialist in Quality, as the technical secretary

The students have only indirectly taken part in the drafting phase of the self-report by expressing their opinions in the various surveys they have been given. During the period in which the self-report was on public display, the students were asked by institutional email (@estudiants.urv.cat) to take part directly and individually. It should also be borne in mind that they are represented on the School Board (see standard section 1.4) and that they can channel their opinions and comments through the year delegates (see standard section 5.1). Finally, it should also be pointed out that students have a role in the internal evaluation committees that produced the self-report and ETSEQ's Quality Committee.

Availability of collected data and evidences

The tables that justify the ratings can be found in the annexes:

- Annex A: General information about the School of Chemical Engineering (ETSEQ)
- Annex B: Information about the bachelor's degrees to be accredited: Bachelor's Degree in Chemical Engineering and Bachelor's Degree in Mechanical Engineering
- Annex C: Results of the satisfaction surveys of the various agents involved

The proposals for improvement, which are listed in the improvement plan for the academic year 2020-21, like those in the improvement plan for the previous academic year (2018-19) are coded as follows:
Academic year – Name of course/ETSEQ – Substandard – Number of the Substandard improvement (for example: *2020.21-ETSEQ-2.1-M1)*

To collect evidence a Space for Virtual Campus (Moodle) Accreditation was set up. Evidence was sought on the coordination of the course, the academic guidance, the subjects and various other aspects so that the Internal and External Evaluation Committee could share the information online and asynchronously. This space also provides access to the document of constitution of the CAIs and the agreements taken by the School Board approving the CAIs and the self-report.

- **Public display phase**

The information was put on public display between 29 of April and 8 of May 2022 in the Notice board section of the School's website. To reinforce this display, an email was sent to all the members of the School (teaching staff, administrative and service staff and students) and particularly to all those involved in the bachelor's degrees seeking accreditation (teaching staff and students) via Virtual Campus.

Feedback of public display

No feedback was given during the period of public display. Even so, the writers of the report detected and corrected typographical errors, and added some extra information.

- **Approval of the report phase**

The report was approved by the School Board on 10 of June 2022.

Assessment of the quality of the report-writing process:

The accreditation report gives an exhaustive response to the Standards required in the accreditation process, makes a systematic and objective analysis of every Standard, and gives relevant and accessible evidence on which to base the analysis and confirm the excellence of the degree. For all these reasons we believe that the process has been a success.

4. Adaptation of teaching during the academic years 2019-20 and 2020-21 as a result of the COVID-19 health crisis.

In response to the exceptional situation caused by the COVID-19 health alert during the 2019-20 and 2020-21 academic years, the Universitat Rovira i Virgili took measures to adapt teaching to the distance learning format, while guaranteeing academic and teaching quality.

To ensure that all members of the university community were aware of the measures adopted, a website was made available with all the information on COVID-19 [https://www.urv.cat/ca/ly/coronavirus/]. This website was regularly updated with the new developments, resolutions and agreements as they occurred. It is still functioning today.

Students were provided with information about the adaptations made to teaching for the academic years 2019-20 and 2020-21 through two different channels: the course guide and the subject.

Course guide. During the two academic years in question, the course guides explained that teaching could be subject to change because of the COVID-19 health crisis and that the details would be given on the Virtual Campus.

Subject. All the changes made to courses were announced in the online classroom of each subject taught at the ETSEQ. This information was displayed in the initial section, next to the notice and news board, under the title "Adaptation of teaching and assessment to the distance learning format", clearly indicating that these were changes to the information provided in the course guide because of the COVID-19 health crisis.

Since COVID-19 had its first effects in the second semester of the academic year 2019-20, to ensure that teaching could go ahead with a minimum of disruption, information was given about the following aspects of each study programme:

The change from face-to-face teaching in the classroom to distance learning, the difficulties detected, the tools used and the adaptation of such special subjects as the bachelor's- and master's-degree thesis and the work placements.

The coordination of the teaching staff, communication with the students and the problems some students had in accessing distance learning.

The weekly monitoring of all the changes made. All changes were monitored from the week beginning 16 March 2020 to the week beginning 25 May 2020 (the last week of classes scheduled at the beginning of the academic year).

During the initial period of adaptation to distance learning, the URV provided a series of webinars as part of the PROFID program, in order to help teachers redesign and adapt their teaching to the distance learning format. The increase in the number of Technology courses can be seen in Table A.4.3.1, and the details of the COVID courses taught in 2019-20 and the number of participants in Table A.4.3.3.

Attendance on PROFID courses for ETSEQ lecturers. These webinars were also available during the academic year 2020-21.

ETSEQ

In compliance with URV guidelines, the ETSEQ took a series of measures during the academic years 2019-20 and 2020-21.

Academic year 2019-20.
In this first phase, the specific measures taken by the ETSEQ were aimed at coordinating and monitoring the adaptation to distance teaching. The teaching and research staff were informed of the resources available for distance teaching on the Virtual Campus and of the training activities organized by the Educational Resources Service. The coordinators of each course monitored how the various types of subjects were adapted to the online format, and provided personalized support to resolve specific needs and incidents.

The assessment criteria were adapted and the examination schedules were modified to include three different assessments: continuous assessment, a single special assessment (both part of the 1st exam call) and the assessment corresponding to the 2nd call.

In coordination with the URV's services, mechanisms were activated to assist students with difficulties in pursuing distance learning. This included providing students with computer equipment and giving them remote access to specific software for certain subjects.

With regard to external internships, the priority was for students who were already working for companies and those who had already been assigned companies to complete their training. The first option was to allow students to work from home if the activities would allow it. Likewise, the assessment deadlines were extended to November 2020 (i.e., after the academic year 2020-21 had begun). These measures did not enable all students who had registered in the subject for the academic year 2019/20 to take it because some of them were unable to find a host company / institution. Many companies cancelled their agreements because they were unable to take on internship training. Given this situation, the students affected were allowed to re-register in the subject for the academic year 2020-21 at no extra cost.

Academic year 2020-21.
The course was planned around the adapted face-to-face teaching that was described in each degree's course guide. The changes resulting from the development of the health situation and how they were put into practice in each subject were explained in the Virtual Campus.

The ETSEQ Board approved a contingency plan (September 2020) which set out the guidelines and instructions regarding the planning of teaching. Among other things, it specified which bachelor's- and master's-degree teaching activities had to be done face-to-face in the classroom and the mechanisms to modify them depending on the development of the health situation.

During the academic year 2020-21, the ETSEQ, with the assistance of the URV's Educational Resources Service, adapted the classrooms for purposes of videoconferences so that they would be prepared for distance and/or hybrid teaching.

The coordinators of the ETSEQ degrees made an effort to find solutions to all incidents caused by the health situation, whether they affected students or teaching and research staff.

In conclusion, the ETSEQ made every effort and used all the tools at its disposal to adapt teaching to the prevailing situation. Despite the changes in methodologies, classes and assessment systems, it was possible to continue providing quality teaching, suited to the expectations of all stakeholders, and students were able to achieve the expected learning outcomes.

Below we list the specific measures that have been taken in the ETSEQ's degree courses to adapt the teaching for the academic years 2019-20 and 2020-21 to the COVID-19 health crisis.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

In compliance with the framework regulations put in place by the URV and the ETSEQ, the teaching activities on the Bachelor's Degree in Chemical Engineering for the academic year 2020-21 respected the timetables and dates scheduled at the beginning of the year and announced on the School's website. The teaching activities were of the following types:

Lectures and seminars: All lectures and problem sessions were taught remotely using Microsoft Teams, a tool that the URV's Education Resource Service integrated into the URV Virtual Campus as the standard application for this purpose. Teachers were asked to record all the sessions, and these were made available to the students within each subject's online classroom to help students to follow the subject.
Practicals/exercises in computer rooms: The practical sessions in computer rooms were also taught remotely. Students were able to install opensource software versions on their computers. If a program was commercially licensed, students were able to run it from their computers using the VirtLabs tool.

Experimental laboratories: All practical sessions in experimental laboratories were carried out on site. The size of the groups was adapted to the regulations governing room capacity, and the number of group rotations was increased so that all the scheduled practicals could be completed. Prior to initiating the sessions in the laboratories, teachers and students were sent specific instructions regarding the PPE they required and procedures for the shared-use of laboratory devices.

Project activities and tutorials: All project activities and tutorials were done online, except the "Open Lab" experimental laboratory sessions in the first year, which were done on site under the same restrictions as experimental practical sessions in the other subjects.

Individual tutorials: Individual tutoring and academic guidance sessions were always done remotely on Teams.

Continuous assessment tests throughout the semester: They had a variety of formats. Problem-solving activities and questionnaires were done online. It was left to the discretion of the teachers responsible for the subjects how students took written exams. When lecturers required that they be done in person, well in advance and in accordance with the examination schedule that had been announced on the Virtual Campus, the Campus Logistics Office (OLC) reserved the necessary classrooms in compliance with the restrictions on capacity. Classrooms were reserved for the whole morning, so that students could attend other subjects that they had before or after the examination from the same classroom. In all cases, students and teachers were sent specific instructions about COVID-19 prevention.

Final continuous assessment exams and second call: All final exams were held on campus. Due to the restrictions on classroom capacities, in some cases the exam times had to be adjusted. As with other face-to-face activities, students and teachers were given specific instructions regarding COVID-19 prevention at the beginning of the exam periods.

Bachelor's-degree theses: From the very beginning of the pandemic, the tutorials and all supervision of the bachelor's-degree theses were done online with little effect on students' ability to follow the subject. The most important change was in the defence, which was done online via Teams in all cases.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

Lectures: All lectures were given online via Teams. Most were recorded so that all students could follow. The bibliography was adapted to on-line access with the help of the CRAI.

Laboratories and seminars: All the classes that used this sort of methodology were also done online via Teams. The platform enables students to take part using the written chat tool or the microphone. This made it possible to engage in the interaction required by these teaching methodologies and increased the use of the activities provided on the Moodle platform.

The criteria and format of assessment were also adapted. During the academic year 2019-2020, in addition to the call for continuous assessment and the second call normally available to students, the University gave students other assessment option. Students who did not pass the subjects in the ordinary calls had other options to compensate for the possible effects of the health situation.

With regard to **external internships**, the priority was for students who were already working for companies and those who had already been assigned companies to complete their training. The first option was to allow students to work from home if the activities and the companies would allow it. Likewise, the assessment deadlines were extended to November 2020 (i.e., after the academic year 2020-21 had begun).

These measures did not enable all students who had registered in the subject for the academic year 2019/20 to take it because some of them were unable to find a host company / institution. Many companies cancelled their agreements because they were unable to take on internship training. Given this situation, the students affected were allowed to re-register in the subject for the academic year 2020-21 at no extra cost.

Bachelor's-degree theses: The tutorials were done online from the very beginning of the pandemic with little effect on students' ability to follow the subject

5. The gender perspective on degree programmes

The URV is an institution committed to gender equality and, for this reason, it promotes gender mainstreaming, understood as the process of assessing the implications for men and women of all actions that are planned, designed and/or implemented, whether they be legislation, policies, projects or programmes, in all areas and at all levels. As a principle underlying all action taken by public authorities, it must also be applied to university teaching, including the processes of the internal quality assurance system, as established in article 28 of Law 17/2015, of July 21, on effective equality between men and women.

At the structural and regulatory level, the URV has a Gender Equality Committee (art.77, Statute approved by the Senate on 5 November, 2021). Among other things, this committee advises the Equality Observatory and the Equality Unit, promotes gender mainstreaming as a part of all university policies, and carries into effect the Equality Plan. Its members are the heads of equality at each faculty or school, and the representatives of the main areas of the university involved in developing the Plan and implementing the measures (for example, the Office of Programming and Quality, the Office of Social Commitment, the Office of Research Support and the Doctoral School).

The Equality Unit is the technical body responsible for implementing the measures set out in the URV's Equality Plan. Among other functions, the Equality Unit promotes equality at the University; implements and evaluates the URV's Gender Equality Plan; encourages the entire community to reflect on equality issues in the areas of teaching, research, management and transfer; encourages the gender perspective to become a part of all fields of knowledge, paying special attention to the most influential areas because of their importance in society; promotes studies on the situation of men and women at the URV, and promotes and encourages specific training on and research into women's studies, equality and gender.

The head of equality at each faculty of school is appointed by the faculty/school board and is responsible for implementing the measures set out in the Equality Plan, promoting and encouraging the URV's equality policies at each faculty/school and acting as a liaison between the faculties/schools and the Equality Unit.

Likewise, the Observatory for Equality acts as a permanent body that collects and analyses relevant information on gender equality, and works to raise awareness of gender inequalities at the URV.

Finally, the Advisory Council of the URV's Equality Unit is made up of representatives of different groups from within the University, and of different areas of the private sector who have a leading role in the region and in the field of equality between men and women. Through the Advisory Council, the aim is for society and the university community to take part in drawing up, assessing and implementing gender policies at the URV; and to facilitate the convergence between the experience of external professionals and the knowledge generated at the URV regarding the principle of equal opportunities between men and women.

The URV's Governing Council of 27 February 2020 passed the 3rd Equality Plan, which continues the objectives of the previous plans, the first of which goes back to 2007 and which already contained aspects of the gender perspective. The new plan has a special package of measures designed to promote the gender perspective in teaching (axis 4):

- Measure 4.1 Guarantee the presence of gender equality contents in bachelor's and master's degrees.
- Measure 4.2 Promote the gender perspective in teaching practice.
- Measure 4.3 Provide resources for learning outcome R1 (Understand the main gender inequalities and discriminations, and understand the causes) of competence CT7 (Apply ethical principles and social responsibility as a citizen and as a professional) aimed at undergraduates, master's degree students, and the teaching and research staff.
- Measure 4.4 Encourage courses and talks that include the gender perspective in all fields of knowledge (non-formal education).
- Measure 4.5 Design and implement gender studies at the URV.

Likewise, since 2020 the URV's quality policy incorporates the following objective in this area: "To effectively include the gender perspective in all areas of teaching, research and university management".

In order to comply with the document by AQU Catalunya "General framework for the incorporation of the gender perspective in university teaching", the Equality Unit and the GPQ coordinate to guarantee that the measures of the III Equality Plan are aligned with the Framework document. This alignment ensures that the gender perspective is effectively included in teaching. In this respect, the self-report provides plenty of proof that this has in fact occurred.

The following are some of the instruments by which the **gender perspective** has become a part of teaching:

- The cross-disciplinary competence CT7 "Apply ethical principles and social responsibility as a citizen and as a professional" has been added to the URV's map of competences. Among the learning outcomes for undergraduates is "RA1. Understand the main gender inequalities and discriminations and understand their causes" and for master's-degree students "Incorporate the gender perspective and other inequalities in both student and professional activities."

- An indicator on the gender perspective "Action undertaken in the field of gender equality" has been included in the performance contract between the university and the faculties/schools.

- A general optional course Gender, Science and Social Change" is now taught in various faculties/schools and on a variety of degrees (Economics, Business Administration, Audiovisual Communication, Journalism, Advertising and Public Relations, Chemical Engineering, Architecture, Tourism, Tourism and Hotel Management, Labour Relations and Employment).

- Training on equality is provided at different times throughout the academic year for the teaching and research staff, the administration and services staff and students. This training consists of lectures as part of the Equality Week (15th edition), webinars on equality and violence, the FemIgualtat podcast channel, and the organisation of institutional events for international days such as 8 March or 25 November.

- The guides published by the Xarxa Vives for incorporating the gender perspective in teaching are actively publicised.

In the academic year 2019-2020, Dr Marta Sales Pardo was appointed head of Equality at the ETSEQ, and joined the Quality Committee and the Internal Evaluation Committees for the accreditations.

During the academic year 2020-21, the following action was undertaken to incorporate the gender perspective into the ETSEQ:

- Ensure parity between men and women in the committees responsible for selecting personnel and in the internal commissions that deal with teaching and research staff.
- Provide specific training on gender issues for the School's teaching and research staff (PROFID courses).
- With the help of heads of the degree programmes, design training activities to incorporate the gender perspective into the school's courses.
- In the degrees that have been modified (GEQ, GEM, GEBA, GTBA, MPRL and MEFCO), determine the subjects in which gender learning outcomes will be included.
- Teach the cross-curricular optional course Gender, Science and Social Change on the GEQ curriculum.
- Monitor conflicts among students that involve expressions of gender (potential harassment, situations of vulnerability).
- Encourage girls to take up technological and scientific vocations by involving the ETSEQ, the teaching and research staff, and the administration and services staff in such programmes as:
    *Coordination of the INSPIRA project in the province of Tarragona (https://inspirasteam.net)
    *Participation in the programme "100tífiques"
    *Organisation of GIRL'S DAY: scientific and technological workshops for girls doing 3rd year of compulsory secondary education.
    *Participation in Repte Experimenta (www.repteexperimenta.cat/), a competition in which secondary-school students design experiments.
    *A video filmed by former pupils to encourage girls in primary and secondary education to become engineers.

For the academic year 2021-22, we hope to specify which master's-degree subjects will include gender learning outcomes for those degrees that have not yet been modified (MGET, MEAiSE, MEQ, MNMP and MECST). Finally, we aim to define the content and also a set of criteria that can evaluate these social competencies.

Also for the 2021-22 academic year, we hope to initiate a pilot programme that teaches brief modules on equality issues for undergraduate students during the second semester.

6. Assessment of compliance with accreditation Standards

In what follows, we provide an evidence-based argument to demonstrate that our degrees comply with the national and international accreditation Standards required. Each Standard is assessed by reference to the most significant data that reveal compliance as well as the effectiveness of the improvement actions taken since the last accreditation in 2016.

The complete list of evidences is included in chapter 6 of the present report.

As both AQU (2021, "*Guide to the accreditation of recognised Bachelor and Master's degree programmes*,") and ASIIN agencies (2015 "0.3 Criteria for the Accrediation of Degree Programmes") have defined their own Standards for the criteria and requirements of programme assessment, the equivalence between the two guides is summarized in tables 6.1 and 6.2:

Table 6.1 Equivalence ASIIN-AQU

ASIIN Requirements		Corresponding AQU Catalunya Standard
1. THE DEGREE PROGRAMME: CONCEPT, CONTENT & IMPLEMENTATION		
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] The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes. [2.1] The HEI publishes truthful, complete, up-to-date and accessible information on the characteristics of the degree programme and its delivery. [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 [6.4] The values for the graduate labour market/destination indicators are adequate for the characteristics of the programme.
1.2	Title of the degree programme	[1.2] The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes.
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] The existence of effective teaching coordination mechanisms for the programme. [3.1] The implemented IQAS has processes which ensure the design, approval, monitoring and accreditation of the degree programmes
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. [2.1] The HEI publishes truthful, complete, up-to-date and accessible information on the characteristics of the degree programme and its delivery. [5.1] The academic guidance services provide adequate support for the learning process, and the professional guidance services facilitate entry into the labour market.
2. DEGREE PROGRAMME: STRUCTURES, METHODS AND IMPLEMENTATION		
2.1	Structure and modules	[1.2] The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes. [1.5] The different regulations are complied with in the correct way and this has a positive impact on the programme 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.
2.2	Workload and credits (1.5)	[1.2] The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes.
2.3	Teaching methodology (1.6)	[6.2] The training activities, the teaching methodology and the assessment system are suitable to ensure the achievement of the expected learning outcomes.
2.4	Support and assistance	[5.1] The academic guidance services provide adequate support for the learning process, and the professional guidance services facilitate entry into the labour market
3. EXAMS: SYSTEM, CONCEPT AND ORGANISATION		

ASIIN Requirements		Corresponding AQU Catalunya Standard
		[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
4. RESOURCES		
4.1	Staff	[4.1] The teaching staff meet the qualifications requirements for programme delivery in the faculty, and they have sufficient and recognised 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 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	[5.2] The available physical resources are adequate for the number of students and the characteristics of the programme
5. TRANSPARENCY AND DOCUMENTATION		
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.
5.2	Diploma and Diploma Supplement	-
5.3	Relevant rules	[2.1] The HEI publishes truthful, complete, up-to-date and accessible information on the characteristics of the degree programme and its delivery. [1.5] The different regulations are complied with in the correct way and this has a positive impact on the programme outcomes
-	-	[2.2] The HEI publishes information on the academic and satisfaction outcomes. [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
6	**Quality management: Quality assessment and development**	
		[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 enhancement plan that is used for its continuous enhancement. [6.3] The values for the academic indicators are adequate for the characteristics of the programme

Table 6.2 Equivalence AQU-ASIIN

AQU Catalunya Standards	ASIIN Criteria
Standard 1 - Quality of the training programme	
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	1.1
1.2. The curriculum and structure of the curriculum are consistent with the programme's competence profile and learning outcomes	1.1; 1.2; 1.3; 2.1; 2.2;
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	1.4;
1.4. The existence of effective teaching coordination mechanisms for the programme	1.3
1.5. The different regulations are complied with in the correct way and this has a positive impact on the programme outcomes	2.1; 5.3
Standard 2 - Relevance of the public information	
2.1. The HEI publishes truthful, complete, up-to-date and accessible information on the characteristics of the degree programme and its delivery.	1.1; 1.4; 5.1; 5.3;
2.2. The HEI publishes information on the academic and satisfaction outcomes	5
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
Standard 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.	1.1; 1.3; 6
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.	1.1; 6
3.3. The implemented IQAS is periodically reviewed and generates an enhancement plan that is used for its continuous enhancement.	6
Standard 4 - Suitability of teaching staff for the training programme	
4.1. The teaching staff meet the qualifications requirements for programme delivery in the faculty, and they have sufficient and recognised teaching, research and, where applicable, professional experience.	4.1;
4.2. There are sufficient teaching staff in the faculty, and staff assignment is adequate for them to carry out their duties and attend the students.	4.1
4.3. The HEI offers support and opportunities for enhancing teaching quality in the faculty	4.2
Standard 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.	1.4; 2.4;
5.2. The available physical resources are adequate for the number of students and the characteristics of the programme.	4.3;
Standard 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	2.1;
6.2. The training activities, the teaching methodology and the assessment system are suitable to ensure the achievement of the expected learning outcomes.	2.1; 2.3; 3
6.3. The values for the academic indicators are adequate for the characteristics of the programme	3; 2.4; 6
6.4. The values for the graduate labour market/destination indicators are adequate for the characteristics of the programme.	1.1;

Standard 1. Quality of the study programme

"The design of the degree (competency profile and curriculum structure) has been updated to comply with the requirements of the discipline and the educational level required by MECES (Spanish Framework for Higher Education Qualifications)."

The interests of society in the quality and Standards of study programmes in higher education requires the setting up of an established qualifications framework endorsed by the ministers responsible for higher education in the EHEA, which also allows for mutual recognition between the member states. It is within this context that the Spanish qualifications framework for higher education (MECES, from "Spanish Framework for Higher Education Qualification") has been developed in alignment with the European Framework constructed on the basis of the Dublin descriptors.

This framework is valid for HEIs and entities responsible for the external quality assurance of degree programmes. It should also promote a shared understanding of the expectations associated with qualifications that allows for the consistent use of degrees awarded and facilitates the international mobility of graduates.

HEIs should have processes in their IQAS which allow the design and approval of the degree programmes, in a way that is consistent with the European Standards and guidelines for internal quality assurance in higher education institutions, especially **ESG 1.2 (Design and approval of programmes)**, which provides that "HEIs should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the framework for qualifications of the European Higher Education Area", as well as **ESG 1.3 (Student-centred learning, teaching and assessment)** which provides that "HEIs should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach" (ENQA, 2015).

The profile of competences should be relevant within the disciplinary field and independent of the mentions or specialities of the degree programme. The proposed competences should correspond with those of national and international networks and entities. The justification for assessment of the relevance of the proposed profile for the programme is more important in the case of programmes that are either new or not traditional in the Catalan university system. Furthermore, the competence profile has to correspond with the level of studies for the proposal, in line with the MECES (in the present context, either Bachelor's or Master's studies). In the case of study programmes that qualify for performing a regulated professional activity in Spain, the general competences will also need to conform to those laid down in the legal regulations.

The Framework for the Verification, Monitoring, Modification and Accreditation of Official Degrees (VSMA in Catalan and Spanish) connects the quality assessment (QA) processes to ensure the correct implementation of MECES Standards in Spanish higher education centres. The VSMA Framework provides a structured and comprehensive overview of the four QA processes that take place throughout the life cycle of a degree course. This framework is compatible with the prevailing regulatory requirements that cover the quality assurance of university degree courses and awards, in particular, the new revised version of the European Standard Guidelines (ESG).

The four QA processes are as follows:

Verification (ex-ante assessment)	New degrees are promoted by the governing bodies of the URV's faculties and schools, in accordance with the URV's Map of Degrees and the needs of society and require the approval of the URV's academic programming proposal, the authorization of the General Directorate of Universities (DGU) and a favourable verification of the degree report proposal (AQU). Verification is thus the process of submitting the degree report proposal for the first evaluation by the Catalan University Quality Assurance Agency (AQU Catalunya). After internal approval and validation from the DGU and AQU Catalunya, the Council of Ministers establishes the official name of the degree and registers it in the Register of Universities, Centres and Degrees (RUCT in Spanish).
Monitoring	VSMA Framework stipulates that the university is primarily responsible for the process of monitoring its programmes and awards, whereas the role of AQU Catalunya is that of an external quality assurance provider. Monitoring requires for each degree, the drafting of an annual or biannual report that reflects the degree's development. Monitoring has two main objectives: • To be a useful tool for the university management to evaluate the development of the URV's degrees through the analysis of data and indicators, and the proposal, if necessary, of improvement measures to correct the deviations detected between the original outline of the degree and its actual state. • To provide the basis for degree accreditation, in the sense that the accreditation is the culmination of the monitoring process. The idea is to understand these two processes as one of continuous improvement that culminates in the external validation of the results achieved.

Modification	The Framework establishes that proposals for the modification of degrees shall only result from the process of monitoring, and that they are understood as natural outcomes of this process. Changes can be classified in two categories:
	• **Non-substantial modifications:** Minor changes that improve the degree and that the University can implement as the result of the monitoring process. These changes are included in the monitoring report and incorporated into the degree report when the degree has to undergo a modification process.
	• **Substantial modifications:** Changes in the verified degree that lead to alterations to its structure or to its nature and objectives. These can be subdivided into two further types:
	  ○ Allowable modifications: Changes that affect the structure of the degree but do not entail a change in its nature and objectives. These changes are requested through the modification process.
	  ○ Non-allowable modifications: Substantial changes that affect the nature and objectives of the verified degree and

	that cannot be requested through the modification process. These changes can only be made effective by requesting verification of a new degree and terminating the existing degree.
Accreditation (ex-post assessment)	AQU Catalunya requests degree's accreditation 6 years after its verification. Accreditation process includes the submission of a self-evaluation report and a site inspection by an external Committee that issues a final report. If the accreditation is favourable, the degree may continue for the established period. Otherwise, the degree will have to end following a given time schedule.

As pointed out in the previous table, both (external) AQU/ASIIN agencies and (internal) ETSEQ/URV institution play a leading role in the correct execution of the QA processes (VSMA) of degrees subject to accreditation.

Regarding the internal quality control, ETSEQ School has implemented its proper quality assurance system (called SIGQ). The SIGQ establishes thus a process-based approach that regulates the different processes and aspects occurring in a degree's life cycle:
1) design, monitoring and accreditation of degrees;
2) administration and accountability of human, material and financial resources necessary for a proper functioning;
3) evaluation and continuous training of teachers;
4) management of complaints, suggestions and congratulations, and assessment of the satisfaction of interest groups,

The aim of the SIGQ is to ensure a continuous improvement of the degrees and the proper functioning of the ETSEQ School.

The results of the programme external evaluations (accreditation) and the SIGQ of the ETSEQ are presented in detail in Standard 3 of this self-assessment-report.

Sections 1.1 and 1.2 of this Standard are deemed as met upon the initial verification of the study programme.

1.1 The competency profile of the degree is consistent with the requirements of the discipline and the educational level required by MECES (Spanish Framework for Higher Education Qualifications).

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

The competencies in the URV's teaching model are planned, programmed and assessed at three different levels.

At the first level, the study programme of the degree is proposed in the **Official Degree Report**. In the case of the GEQ and the GEM, the degrees were designed in accordance with the provisions of "*Order CIN/351/2009*, of February 9, which establishes the requirements for the validation of official university degrees that qualify for the practice of the profession of industrial technical engineer". This Order establishes the requirements for curricula leading to the award of bachelor's degrees that qualify for the practice of the profession of industrial technical engineer in accordance with the level II standards of MECES (Spanish Framework for Higher Education Qualifications). Order CIN/351/2009 sets guidelines about the structure and length of the study programme, which is organised in three modules (this will be discussed in greater detail in section 1.2 of the standard). In fact, the competences described in this Order have been completely transferred to the map of competences of the degree report. Nevertheless, the competency profile of the degree was defined by also taking into account the Universitat Rovira i Virgili's model of cross-sectional and core competences (the latter already repealed), based on the Dublin and MECES Descriptors, as well as the competences that were part of the ETSEQ's educational model, particularly the cross-sectional competences.

As described in section 2.3, for the preparation of the Validation Report the main stakeholders such as the lecturers on the degree courses and representatives of the companies working in the sector were consulted.

At the second level, the teaching guide for GEQ and the teaching guide for GEM, published prior to enrolment, present the relevant public information organized by subjects. They include the **list of competences**, which is structured in: a) URV's cross-sectional competences (where the corresponding MECES level is also indicated) and b) specific competences of the degree, and the **Map of Competences**, which explains the link made between the competences and the learning outcomes by the head of the degree programme and the teaching staff.

The third level consists of the **Work Plan**. It gives the detail of the assessment activities that the students will have to undertake in a subject. The plan is posted in the space for the subject on the URV's Virtual Campus and can be consulted once the students have enrolled.

These levels (Report, Map, Work Plan), each one more specific than the one before, ensure that the curriculum and the curriculum structure are consistent with the competency profile defined in the report and are coordinated by the head of the degree programme and the teaching staff.

As a result of the corresponding validation, modification, monitoring and accreditation processes, the GEQ and GEM competency map has been modified in response to different requirements and improvement proposals.

The reports applying for the validation of the degree were submitted for evaluation to the "Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA)" (National Agency for Quality Assessment and Accreditation). As a result, ANECA issued the favourable evaluation for the application for validation by the Bachelor's Degree in Chemical Engineering, and the favourable evaluation for the application for validation by the Bachelor's Degree in Mechanical Engineering on 01/02/2010. In these two reports, the ANECA Commission recommended including learning outcomes in all subjects, which was done when the first modifications were made.

As a result of the implementation of the degrees, ETSEQ has decided to make two modifications to the official degree reports (2015 and 2021) on the platform of the Ministry of Education and Science (SEDE). AQU Catalunya issued favourable evaluation reports for the GEQ's request for modification and favourable evaluation reports for the GEM's request for modification. In the 2015 report, the Evaluation Committee did not detect areas for improvement. In the 2021 report, the Committee proposed the same improvement for the two bachelor's degrees "Establish a scale to award 6 ECTS credits for every year of full-time work experience." As this improvement affects the regulations of the University, it will be developed in section 1.5 of the standard.

The 2016 accreditation provided the evidence required to confirm that the competencies defined for each degree are consistent with the requirements of the discipline and the corresponding MECES educational level, which is the reason why AQU and ANECA (the evaluation agency for the EUR-ACE label) did not make a proposal for improvement or mention any aspects that needed to be corrected in the current standard in the favourable evaluation report for the GEQ accreditation, or the favourable evaluation report for the GEM accreditation.

Subsequently, at the Governing Council on 16/07/2015, the URV approved the simplification and updating of the cross-sectional competences of the bachelor's and master's degrees, as a result of recommendations made by AQU in the processes of validating and accrediting the degrees. This new list of cross-sectional competences was added to the competency profile of the degrees in the modifications of 2021, in response to the proposals for improvement of the last follow-up report 2018.19-GEQ-1.1-M1 and 2018.19-GEM-1.1-M1.

The last modification of the degree programme determined which subjects would evaluate competence B.6.1 "Apply ethical principles and social responsibility as a citizen and professional" (CT7 in the case of the URV), which encompasses the learning outcome linked to the gender perspective.

It was decided that the GEQ subjects best suited to evaluating the gender perspective were those that involved integrated projects (APIs) in the 1st, 2nd and 3rd year, the External Internships and the Bachelor's Degree Thesis. In the academic year 2021-22, a pilot test has been implemented in the APIs during the second semester consisting of short teaching capsules on issues of equality and the gender perspective. Likewise, the optional subject "Gender, Science and Social Change" (3 ECTS credits), taught throughout the URV, was activated for GEQ students in the 2020-21 academic year, in compliance with improvement 2019.20-GEQ-1.2-M2.

It was decided that the GEM subjects best suited to evaluating the gender perspective learning outcome were the integrated projects (APIs) in the 1st and 3rd year. As in the GEQ, this academic year (2021-22) the same pilot test has been implemented in the three integrated projects.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

Correlation of the learning outcomes of the Bachelor's Degree in Chemical Engineering (GEQ) and the learning outcomes from the relevant Subject-Specific Criteria (SSC 01):

With a focus on the EUR-ACE® accreditation, it is extremely important to establish the correlation of the competency profile of the bachelor's degree with the learning outcomes defined by the relevant ASIIN-ENAEE Standards (Subject Specific Criteria).

Table SAR1.1.1 GEQ in the SAR Annex shows the correspondence between the learning outcomes of the Subject-Specific Criteria (SSC 01) of the ASIIN *Bachelor's degree programmes in mechanical engineering, process and chemical engineering - more practice-oriented* with those of GEQ.

Section 1.2 reports the correspondence between the learning outcomes of the Subject-Specific Criteria (SSC 01) and the subjects of the bachelor's degree (Table SAR1.2.1 GEQ).

It should be noted that table SAR1.1.1 GEQ makes it clear that the competencies that define the professional profile of our bachelor's degree comply with the stipulations of the ASIIN-ENAEE Standards for EUR-ACE® accreditation.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

Correlation of the learning outcomes of the Bachelor's Degree in Mechanical Engineering (GEM) and the learning outcomes from the relevant Subject-Specific Criteria (SSC 01):

With a focus on the EUR-ACE® accreditation, it is extremely important to establish the correlation of the competency profile of the bachelor's degree with the learning outcomes defined by the relevant ASIIN-ENAEE Standards (Subject Specific Criteria).

Table SAR1.1.1 GEM in the SAR Annex shows the correspondence between the learning outcomes of the Subject-Specific Criteria (SSC 01) of the ASIIN *Bachelor's degree programs in mechanical engineering, process and chemical engineering - more practice-oriented* with those of GEM.

Section 1.2 reports the correspondence between the learning outcomes of the Subject-Specific Criteria (SSC 01) and the subjects of the bachelor's degree (Table SAR1.2.1 GEM).

It should be noted that table SAR1.1.1 GEM shows the competencies that define the professional profile of our bachelor's degree and comply with the stipulations of the ASIIN-ENAEE Standards for EUR-ACE® accreditation.

1.2 The curriculum and the curriculum structure are consistent with the competency profile and the objectives of the degree programme

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
1.2 Title of the degree programme
1.3 Curriculum
2.1 Structure and Modules
2.2 Workload and credits

As has been mentioned in section 1.1, Order CIN/351/2009 stipulates the requirements of those programmes that lead to the award of bachelor's degrees that qualify for the practice of the profession of industrial technical engineer.

With reference to the minimum number of credits to be taken for each of the blocks, it says: "Students must take the basic training block of 60 credits, the industry block of 60 credits, a complete block of 48 credits for each area of specific technology, and a final degree thesis of 12 credits." The difference between GEQ and GEM lies mainly in the 48 ECTS credits of the specific technology module (for the GEQ it is called "Industrial Chemistry" and for the GEM it is called "Mechanics") and the 60 ECTS credits not defined in the Order, which serve to improve competences in the specific technology block of each degree.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

Name of the bachelor's degree

The name of the bachelor's degree is defined in Order CIN/351/2009, of 9 February.

Curriculum

The GEQ curriculum consists of 240 credits, 63 of which are basic training, 135 compulsory, 18 optional, 12 for External Internships (PE) and 12 for the Thesis (TFG). In terms of the blocks of the Order, the credits are distributed in the following way: 63 in the basic training module, 69 in the industry module, and 84 in the industrial chemistry specific technology module, for a total of 216 ECTS credits. To these are added the 12 ECTS credits of the Bachelor's Degree Thesis and the 12 ECTS credits of the External Internships to complete the 240 ECTS required.

The curriculum is available in the teaching guide in Catalan, Spanish and English, and in Catalan in the curriculum section of the URV website. The GEQ subjects do not have any pre-requisites for enrolment, except for the External Internships and the Bachelor's Degree Thesis.

The table of the curriculum as found in section 5 of the validation report is presented in Table SAR1.2.1 GEQ of the Annex to the SAR.

In the curriculum, the External Internships are mandatory. In the 2019-20 academic year, however, they had to be temporarily made optional, as seen in improvement 2019.20-GEQ-1.2-M1, included in modification request 2019.20_GEQ_2 (Table B.1.1. of Annex B). As a result of the lockdown measures decreed by the Government following the outbreak of the COVID-19 pandemic in March 2020 and the ensuing health emergency, most companies suspended their internship programs. Many companies made cut backs or even stopped working altogether, and applied temporary lay-offs (ERTO) to their workforces. This meant that a considerable number of students in the academic year 2019-20 who had already started their internship or were scheduled to do it in the summer of 2020 were unable to complete it. For those students affected, the URV cancelled their enrolment in this subject for the academic year 2019-20, did not add this information to their transcript and gave them a refund. However, the fact that 2020-21 was declared to be an exceptional academic year by the Catalan Government and the uncertainty of the health situation at the time made it advisable to make the internships an optional subject in the academic year 2020-21 to limit the number of students who could not graduate because they had not yet completed their internships. However, in view of the current favourable evolution of the health situation, for the next academic year 2022-23 it has been suggested that the External Internship subject once again be compulsory (*2020.21-GEQ-1.2-M1*).

The structure of the GEQ curriculum includes three integrated projects (API) that are part of 9 ECTS-credit annual subjects from the specific technology module in Industrial Chemistry: Fundamentals of Process Engineering in the 1st year, Chemical Processes and Products in the 2nd year, and Simulation and Analysis of Chemical Processes in the 3rd year. The APIs encourage students, working in groups, to cope with open problems and develop their ability to learn cooperatively and independently, to access information, to act as leaders, to communicate, and to strengthen their personal relationships. To develop these competencies, the APIs use a holistic methodology to integrate knowledge and skills based on a cooperative teaching method, and problem-based learning (PBL) which structure learning through case studies not the study of topics. The APIs are structured as follows:

- **1st year.** Students undertake a project that involves basic aspects of process engineering. The first-year student teams are led by students on the optional 4th-year course Team Leadership Practicals. Students are given training in Team Work at the beginning of the process, the groups are set up following criteria of compatibility of professional skills, ethics and equality (multicultural and gender-balanced teams). Throughout the year, the degree of fulfilment of the objectives is monitored and the extent to which students have attained the transversal competencies is evaluated at the end of the course.
- **2nd course.** The API incorporates more specialized aspects of engineering, such as Industrial Chemistry, Applied Thermodynamics and Kinetics. In this year, new teams are formed and led by a student on the course. The students, particularly those who have to take on the role of team leader, are trained in communication and leadership skills. The cross-sectional competencies are monitored and the level of achievement is evaluated at the end of the year.
- **3rd year.** The API incorporates the design of equipment such as reactors, exchangers and separators, as well as the simulation of processes. This year follows the same structure as the previous one, and new teams are once again formed with new leaders so that students can develop their social skills in different personal environments and different roles. The training given in this case focuses on conflict resolution techniques (Conflict Resolution), supplemented with greater focus on leadership skills. As in previous years, the cross-sectional competencies are monitored and the level of achievement is evaluated at the end of the year.
- **4th year:** Students do not undertake an API but are trained in project management and the cross-sectional skills it requires that have not previously been covered.

Proposals for modifying the report

Table B.1.1 Summary of the proposals for modification of the memory shows the modifications of the report approved by the ETSEQ Board in the period between the last follow-up report of the academic year 2018-19 and this accreditation report. These modifications, as well as those approved in previous years, were included in the last modification processed in March 2021 in the application of the Ministry of Education (SEDE) and favourably evaluated on 21/07/2021. The exception is modification 2019.20_GEQ_2, which was approved as a temporary measure due to the consequences of COVID, as mentioned above.

Particular mention should be made of modification 2019.20_GEQ_1, which adapts the report and brings it into line with the new model of cross-sectional competences defined by the URV. Changes are made to the maximum in-person attendance of the optional subjects to adapt to the modifications in the URV teaching regulations. Likewise, modification 2020. 21_GEQ_2 updates the mechanisms for coordinating teaching and managing mobility, and updates the courses, the teaching methodologies and the assessment systems.

Student satisfaction with the curriculum

The surveys on the satisfaction with the degree carried out on students who in the 2020-21 academic year had already enrolled in the TFG and were in the final stage of their studies (Table C4 of Annex C) indicate that they consider that the curriculum is designed in such a way that facilitates learning (8.14), and that the subjects are well coordinated so that there is no overlapping (7.29). The GEQ graduates in the academic year 2020-21 evaluated the structure of the curriculum positively with a score of 6.7 out of 10 (Table C.9 Annex C). The content of the subjects, the organization (sequence of subjects, timetable, calendar, etc.) and the coordination between the subjects in these last years were rated between 6 and 7.

Objectives-Module-Matrix GEQ

With a focus on the EUR-ACE® accreditation, it is extremely important to establish correspondences between the learning outcomes of the Subject-Specific Criteria (SSC 01) of the ASINN *Bachelor's degree programs in mechanical engineering or process and chemical engineering - more practice-oriented degree program* and those of the subjects taught in the GEQ. These correspondences are given in Table SAR1.2.2 GEQ, which can be found in the SAR Appendix.

To maintain the correspondences with the learning outcomes of the GEQ, already shown in Table SAR1.1.1 GEQ, a column has been added with the codes of the competences/learning outcomes of the GEQ. Optional subjects have not been included in this table, as the competency profile is ensured with the compulsory subjects that are taken by all students.

- As seen in Table SAR1.2.2 GEQ, the learning outcomes related to **Knowledge and understanding** (KU1 and KU2) largely correspond with those specified in decree CIN/351/2009, which defines the competences and learning outcomes required for professional practice as an "Industrial Technical Engineer" in Spain. These are classified as General (G), Basic (FB) and Common to the Industrial Branch (RI), and are distributed throughout the compulsory subjects of the study programme.
- **Engineering Analysis** in ASINN-SSC 01 has three learning outcomes; EA1 is inherent to most subjects in the programme and corresponds to A1.1, A2.4, A6.1 and B5.3 of our model of competences. EA2 corresponds to A2.2, A5.4 and A6.1, and finally, the Bachelor's Thesis and the subjects related to

simulation and computing specifically cover EA3 through our learning outcomes A3.3, A5.2 and A6.1.

- The learning outcomes of **Engineering Design** (ED1 and ED2) correspond to several of the General learning outcomes (G) of the CIN/351/2009 decree and are included in the three courses in which API projects are undertaken ("Fundamentals of Process Engineering", "Chemical Processes and Products" and "Simulation and Analysis of Chemical Processes"), together with those involved in subjects specifically devoted to design such as "Design of Heat Exchange Operations", "Chemical Kinetics and Reactor Design", "Design of Separation Operations", "Environmental Technology" and "Process Safety". Overall, ED1 and ED2 correspond to our competences A1.4, A2.1, A2.3, A5.1, A5.2 and A6.1
- Regarding **Investigations and Assessment,** the learning outcomes (IA1 and IA3) are associated mainly with the subjects involving experimental laboratories, computation and process simulation, but also with "Work Placement" and the Bachelor's Thesis. They relate to A1.2, A2.5, A2.3, A5.3, A5.4 and A6.1.
- The learning outcomes of **Engineering Practice** (EP1, EP2, EP3 and EP4) are aligned with the outcomes of the subjects involved in the API projects ("Fundamentals of Process Engineering", "Chemical Processes and Products" and "Simulation and Analysis of Chemical Processes"). As explained above, the APIs focus on open design problems where students work in structured groups to acquire cross-sectional skills while they learn and practise new technical content. During the projects, and as if they were working in a professional environment, students take on specific roles within the group, and are assigned tasks that they should complete to contribute to the common goals of the teams. The learning outcomes of Engineering Practice are also fundamental to "Project Management", "Technical Office", "Industrial Safety", "Environmental Technology" and the Work Placement and Bachelor's Thesis as well. All the correspondences between the learning outcomes of our model and those defined in ASINN's Subject Specific Criteria are given in Table SAR1.2.2 GEQ.
- Finally, **Transferable Skills** (TS1 to TS6) contain a broad set of learning outcomes that are closely related to the Cross-sectional Competences (type B in our model). Most of them are systematically dealt with throughout the three subjects that incorporate the API projects. In addition, the competences related to communication skills, autonomous learning and ethical behaviour are also included in many of the subjects of the study programme.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

Bachelor's degree

The name of the bachelor's degree is defined in Order CIN/351/2009, of 9 February.

Curriculum

The GEM curriculum consists of 240 credits, 60 of which are basic training, 141 compulsory, 27 optional and 12 for the thesis (TFG). The 12 credits of the external internships (PE) are part of the optional block. Of the 141 compulsory credits, 66 are from the industrial branch and 75 from the mechanical branch.

The curriculum is available in the teaching guide and in the curriculum section of the URV's website, which also explains any enrolment prerequisites. The prerequisites of each subject aim to increase the efficiency of the degree, and enable GEM students to go into the subjects in greater depth as they acquire more and more knowledge.

They have an incremental effect on a wide range of industrial and mechanical subjects, which students cannot do if they have not previously done other subjects.

The table of the curriculum as found in section 5 of the validation report is presented in Table SAR1.2.1 GEM of the Annex to the SAR.

One of the distinctive features of the GEM curriculum is that the Industrial and Mechanical branches both have laboratory sessions scheduled for all of the thematic areas. Thus, the subjects Mechanics and Theory of Mechanisms, Elasticity and Resistance of Materials, Thermal Engineering, Fluid Engineering, Manufacturing and Machines all have 3-credit laboratory subjects that are taught throughout the academic year in parallel to the other subjects. This structure gives the laboratory practicals considerable formal importance.

As part of Projects, the GEM curriculum also contains three 3-credit subjects: Integrated Projects (IP) in the 1st, 2nd and 3rd years. The IPs are eminently practical subjects in which students work in groups to solve problems that are appropriate to the stage of the GEM. In the IP of year 1, then, the emphasis is on product-associated concepts, and deals with aspects such as product planning, specifications, design, client needs, etc. In addition, students are trained in teamwork. All this takes place while they define and design a machine prototype to solve a challenge. It is developed during the year and tested in a final competition in which the teams of students present their machines and put their designs to the test. In the IP of year 2, the main focus is on structural engineering, so the different teams of students present their structural prototypes, which are put to the test in a final competition. Finally, in the IP of year 3, they study aspects of material selection, mechanical groups, design ergonomics, the manufacture of components and safety. The teams of students design and work on constructing a machine prototype, which they finally present to the teaching staff. The IPs oblige students to work as part of a group and encourage interpersonal relationships at work, while focusing on challenges and problems appropriate to the phase of education.

The 4th year finishes with the subject Technical Office, in which students learn about: formal aspects of engineering projects and their parts, the professional attributions of the engineer, bureaucracy, monitoring and control of the execution, the application of regulations, etc.

Proposals for modifying the report

"Table B.1.1 Summary of the proposals for modification of the memory" shows the modifications to the report that have been approved by the ETSEQ Board in the period between the last monitoring report of the academic year 2018-19 and this accreditation report. These modifications, as well as those approved in previous years, were included in the last modification processed in March 2021 in the application of the Ministry of Education (SEDE) and favourably evaluated on 21/07/2021.

Student satisfaction with the curriculum

The surveys on the satisfaction with the degree carried out on students who in the 2020-21 academic year had already enrolled in the TFG and were in the final stage of their studies (Table C4 of Annex C) show that students are reasonably satisfied (6.86) with the design of the curriculum of the degree because it facilitates progress and with the coordination between subjects, which have no overlaps. The GEM graduates in the academic year 2020-21 evaluated the structure of the curriculum positively with a score of 7.2 out of 10 (Table C.9 Annex C). The content of the subjects was rated with a 7.1, the organisation (sequence of subjects, timetable, calendar, etc.) with a 6.9 and the coordination between the content of the subjects with a 6.2.

Objectives-Module-Matrix GEM
Given the requirements of the EUR-ACE® accreditation, we give the correspondences between the learning outcomes of the Subject-Specific Criteria (SSC 01) of the ASINN *Bachelor's degree programs in mechanical engineering or process and chemical engineering* and those of the subjects taught in the GEM in Table SAR1.2.2 GEM, which can be found in the SAR Appendix. The table relates ASIIN competence codes with GEM codes so that the reader can immediately see the correspondences between them. Moreover, the last column shows the subjects which work on each competence. Optional subjects are not mentioned, as the compulsory ones ensure that all the competences are achieved by students.

The first two categories, i.e., "Knowledge and Understanding" and "Engineering Analysis", are mostly worked on in the compulsory fundamental topics of the GEM, in the General (G), Basic (FB) and Industrial Branch (RI) subjects. These are the fundamental topics students need to progress to the more specific competences characteristic of the various industrial specialisations.

The competences in the category "Engineering Design" focus on giving the student the ability to apply fundamental knowledge to engineering concepts. They are dealt with in more advanced subjects specific to the Industrial Branch (RI) and in particular in the Bachelor's Thesis. The latter are closely related to the competences in the "Investigation and assessment" category, mostly worked on in subjects that have laboratory sessions.

The "Engineering Practise" category is worked on in the Final Projects, Technical Office, Bachelor's Thesis and specific subjects of the industrial branch in mechanics.

Finally, the "Transferable Skills" competences are mostly associated to the cross-sectional competences that are worked on in Final Projects, Technical Office, Bachelor's Thesis, laboratory sessions and other specific topics on the curriculum.

1.3 All admitted students have the appropriate entry profile for the degree and the number of students is consistent with the number of places offered.

In this Substandard, the following ASIIN criteria will be analysed:
1.4 Admission requirements

Admission System for undergraduate programmes

Admission on undergraduate programmes is regulated by Royal Decree 412/2014, of June 6, which establishes the basic regulations for admission procedures to official university undergraduate degrees. The admission of new students to undergraduate degrees is regulated by the University Admission Office of the autonomous government of Catalonia, as explained below.

Catalan public universities have a general procedure for university pre-enrolment. Undergraduate pre-enrolment is a coordinated system for distributing students that guarantees equal conditions in the process of entry and admission to the first year of undergraduate studies. The University Admission Office is responsible for the pre-enrolment at all public universities in Catalonia. The pre-enrolment period is approved every year. In contrast, private universities and the UOC have their own pre-enrolment processes. The number of 1st-year places offered is approved by the Inter-University Council of Catalonia at the proposal of the universities, bearing in mind budget availability and the evolution of the number of enrolments.

Student applications are ranked in order of admission grade. The places on each of the degrees are assigned by beginning with the student with the highest grade and going down the list until all places have been assigned. For further information about the procedure, click on the following Canal Universitats link: https://universitats.gencat.cat/en/acces-universitat/index.html. The two-degree programmes being assessed here do not envisage any special conditions or entry tests.

Finally, it should be noted that the ETSEQ's IQAS has set up the process PR-ETSEQ-020 Definition of the profile of admission profile, recruitment, enrolment and induction of undergraduate students, which describes the procedure for defining the admission profile, recruitment, enrolment and induction of undergraduate students.

Recruitment actions for ETSEQ bachelor's degrees

At the institutional level, the Bureau for Communication and Marketing designs actions to publicise and promote the University's courses, in coordination with the faculties, schools and the Office for Students (OFES), which monitors the needs of potential students and keeps in touch with secondary schools. The OFES defines and carries out the tasks of recruitment and publicity, so that secondary school students are aware of what is on offer, what they need to be admitted and what the bachelor's degrees consist of: the knowledge they will acquire and the career opportunities available to them subsequently. These tasks include informative activities such as Open Days, presence at fairs and exhibitions and presentations at secondary schools.

As described in process PR-ETSEQ-020 Definició del perfil d'ingrés, captació, matriculació i acollida de l'alumnat de grau del SIGQ, the ETSEQ's management team, and in particular the person in charge of dissemination and communication, is responsible for drawing up a recruitment programme (LabExperience) specifically for the disciplines taught at the School.

Since the academic year 2012-13, the publicity and recruitment system has been based on a set of activities designed to supplement the curriculum of high school and higher training cycle students. The activities are experimental workshops in university laboratories, Girls' Day and the Inspira STEAM Program to encourage girls to take up engineering, informative lectures at the university and at secondary schools, Fòrum Trics, audiovisual material for high schools, appearances in the media, etc. The activities take place throughout the academic year and involve more than 40 members of the ETSEQ staff (teaching and administrative personnel as well as laboratory technicians). The person in charge of publicity and communication at the ETSEQ prepares an annual report on all the activities, which is submitted to the School Board at the end of the corresponding academic year (typically in July). The public information about all these activities is available on the ETSEQ's website at the following link.

As foreseen in improvement 2018.19-GEQ-1.3-M1 and 2018.19-GEM-1.3-M1, as well as renewing the accreditation of both degrees with AQU, in 2015 the ETSEQ was awarded the EUR-ACE accreditation in engineering. With this, we aim to improve the access profile of students, the prestige and visibility of the degree and the School, and the national and international employability of our graduates.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

- **New students**

The information about the profile of students being admitted to the degree is displayed in Tables B.1.2 to B.1.10 in Annex B. In terms of their suitability for the degree, the characteristics of the students who were admitted in the academic year 2020-21 can be summarized as follows:

- In recent years, 80 places have been offered on the degree programme. However, in 2019-20 this number was reduced to 75 because of the initiation of the Double Degree in Food bioprocess Engineering and Techniques. In 2020-21 the offer was again increased to 80 places on the instructions of the corresponding vice-rector (2019.20-GEQ-1.3-M1).
- In terms of demand, there were first-choice applications from 79 students, of whom 59 actually enrolled (Table B.1.2 of Annex B). A total of 16 more students for whom the degree was their second choice enrolled to reach the total of 75 new students. These values are similar to those of previous years, and show a consolidated trend for 2021-22.
- Of all the new students, 85% were admitted after doing the University Entrance Exams (PAU), while the rest came from Vocational Training and similar courses (Table B.1.3 in Annex B). The average grades for the two groups were 8.47 for the PAU group and 7.06 for the others. It should be pointed out that these grades are out of a total of 14, so adapted to scale out of 10, the average grade would be a pass. Overall, the grades have been similar from the academic year 2017-18 to the present day.
- The cut-off score for the 2020-21 academic year 2020-21 was 6.24, which means that the URV is in an intermediate position among all the other universities that teach the degree in Catalonia (Table B.1.5 of Annex B). Although the cut-off score has increased, it has also increased at other universities (especially UB, UAB and some faculties/schools of the UPC), so our relative position has not improved.
- Table B.1.8 in Annex B shows the distribution of the new student's entry grades. In recent years, the trend has been for grades to increase. In the

academic year 2020-21, 20.27% of entrants had a score of between 10 and 14, 24.31% between 8 and 10, and 20.73% between 7 and 8.

- Regarding the number of credits, 89% of new students enrolled in 60 or more ECTS credits, indicating that most of them were full time (Table B.1.7 in Annex B).
- The distribution by gender shows a clear trend towards parity, with a continuous increase in the percentage of female new students from 32% in 2017-18 to 45% in 2021-22 (Table B.1.9 in Annex B).
- Finally, the geographic origin of the family residence of new students is shown in Table B.1.10 in Annex B. In the academic year 2020-21, 90.67% of the students came from the province of Tarragona, 8.00% from the rest of Catalonia, and 1.33% from other parts of Spain. These data have remained constant over time, with small oscillations between academic years.

The analysis of the above data shows that the student entry profile is formally acceptable, but could be improved. The main problem lies in the high percentage of students who being admitted to the degree even though it is not their first choice. Generally speaking, these students have not been admitted on the degrees they really wanted to do and tend to drop out after the first year because of study difficulties and, above all, lack of interest and motivation. The second problem lies in the educational level of new students with grades below 7.00/14 in secondary school, although in recent years the trend seems to be improving. However, the success rates in the first year are low, as will be discussed in standard 6.3. In addition, the lecturers who teach first-year subjects are not very satisfied with the profile of the new students, and rate them with a score of 5.04 (Table C.10 in Annex C).

With respect to the entry profile, the ETSEQ has made several attempts to improve and/or reduce the impact of a low entry level in some disciplines on the academic career of students. These include: i) an intensive publicity/recruitment campaign for bachelor's degrees among secondary students (mentioned above); and ii) the scheduling of Course Zero (foundation course) in Mathematics, Physics and Chemistry, that is free of charge, available to all new students, and designed to reinforce basic aspects in these areas, as explained in standard 6.3.

Finally, it should be noted that our degree has a strong local involvement but is not very attractive to students from other locations where the degree is also taught, which means that the number of students entering the program depends mainly on the demographic evolution of the local area.

- **Students**

The distribution by gender of the total student body shows that in the academic year 2020-21 there were 40% women and 60% men, with the number of women gradually increasing over the last few years (Table B-1-11 of Annex B). Likewise, the overwhelming majority of students on the degree program are enrolled full time. In the academic year 2020-21, only 2 students out of 288 were enrolled part-time (Table B1.1.12). Finally, the average number of credits each student had enrolled in was 52.91 in the academic year 2020-21, a value that has remained stable over the last few years (Table B.1.1.14). Of the total number of students, 11.11% were from abroad. It should be pointed out that this group of students is of foreign origin but are resident in Spain, not students who have deliberately moved from abroad to study here (see Table B.1.10 in Annex B on the family residence of new students).

2022 Bachelor's Degree in Mechanical Engineering (GEM)

➢ New students

The information on new students can be seen in tables B.1.2 (admission indicators), B.1.3 (route of admission), B.1.4, B.1.5 and B.1.6 (admission grades).

The GEM offers 60 places every year and they are all taken (Table B.1.2 Annex B). In the academic year 2020-2021, there were a total of 271 applications, of which 66 were the students' first option. These figures are similar to those of recent academic years and are a good indicator of the motivation of our new students, which has a positive impact on the degree. In the last five academic years, around 90% of the places have been given to students who choose the degree as their first option. Table B.1.3 shows where the new students come from and that there is no significant entry of students from other faculties/schools (fewer than 2% in the academic year 2020-2021). This reinforces the fact that our students choose the GEM as their first option.

In relation to the route of admission, in the academic year 2020-2021 a total of 70% of the new students were admitted after taking the university entrance exams or similar and 30% after completing their vocational training. The number of students coming from vocational training courses was around 15% in the academic year 2017-2018 and has now increased to the current values. From table B.1.7 it can be seen that the vast majority of GEM students study full time, since in the academic year 2020-2021, 82% enrolled on 60 credits or more. This trend has remained stable in recent years and indicates that, although most students are full time, approximately 20% may be combining their studies with work. This may be due to the fact that the GEM lectures take place in the afternoon.
Table B.1.8 shows that in the academic year 2020-2021, most new student (about 50%) had grades between 6 and 8 out of 14. However, the grades have not varied in recent years, and remaining at about 5, a similar figure to all other Catalan Universities that teach Mechanical Engineering. The exceptions are the UPC in Barcelona with grades in the range 7.5-8 and the UPC in Terrassa with grades in the range 6-7. In terms of data broken down by gender, the number of women admitted on the GEM ranged from 5 to 13%, with an average of 9.4%. The majority of new students are from the province of Tarragona, as can be seen in Table B.1.10.

On the basis of the data summarized above, we can conclude that the profile of new students is acceptable. The vast majority of students choose GEM as their first option, although the grades with which they enter are moderately low, most being in the range between 6 and 8. As a university with deep roots in the region, GEM does not attract students from other provinces. Neither does it seem that we can attract women, despite the considerable effort made to recruit from schools with programmes focused on women and STEM.

➢ Students

If we look at the overall data of student enrolment in the degree program, Table B.1.11 shows that the proportion of women in the total student body is the same as the proportion among new students (only about 10%) despite the continual efforts to encourage girls to take an interest in engineering (see above).

The number of credits that each student enrols in is slightly lower than in the case of new students, and is around 45 credits (Table B.1.13), even though the data indicate that most GEM students are full time.

1.4 The degree has appropriate coordination mechanisms.

The ETSEQ has well-established and efficient mechanisms that aim to make coordination work at different levels. We discuss them below.

URV – ETSEQ coordination

The ETSEQ and the URV's governing bodies are largely coordinated by the participation of the ETSEQ's director, who applies the agreements reached by the URV to the School and defines its strategic lines.

University senate: The University Senate is the highest representative body of the university community. Among its functions are to modify the University Statute, elect the representatives of the various sectors of the university community on the Governing Council, choose the ombudsman and receive his/her annual report, express its opinion on aspects of how the University is run and receive the rector's annual report. It meets twice a year. Its composition is defined in its Statute: https://www.urv.cat/en/about/structure/governing-bodies/university-senate/.

Governing Council: The Governing Council governs the University. It is responsible for approving strategic planning; drafting the mandatory reports on the creation, modification and suppression of faculties and schools; proposing the suppression or creation of programmes leading to official university degrees; approving the introduction of doctoral programmes and the University's own undergraduate and postgraduate degrees; and proposing the University's annual budget to the Board of Trustees. It meets every four months. Its composition is defined in its Statute: https://www.urv.cat/en/about/structure/governing-bodies/governing-council/.

Academic Policy and Teaching Committee: The responsibilities of this Committee are to approve the number of students admitted on the degree programmes; to approve modifications in the agreements with affiliated centres, as long as they have no economic repercussions; to approve modifications in curricula, provided that they have no economic repercussions; to approve the academic organization of postgraduate degrees; to approve the POA and to take decisions on the co-financing of teaching equipment. It meets every four months. It is made up of two members of the Executive Council; ten members of the teaching staff; one member of the administrative and service staff; two students, and one member of the Board of Trustees.

Student and University Community Committee: The Committee is responsible for approving the subjects on the core curriculum; approving and recognizing the offer of free credits; coordinating, debating and continuously improving the system of external internships for URV students; approving the Summer University programme; setting competencies to ensure quality in teaching, and taking decisions on student grants. It meets every four months. It is made up of two members of the Executive Council; ten members of the teaching staff; one member of the administrative and service staff, and three students.

Coordination in the bachelor's degrees of the ETSEQ

In general, all the bachelor's degrees have at least the following figures and mechanisms for coordinating teaching:

Head of degree programme: Under the supervision of the dean, or the director of the faculty/school that teaches the degree, the head of the degree programme is responsible for monitoring the academic organisation of the programme. In this respect, he/she is responsible for:

a) Organising the academic side of the degree programme.
b) Coordinating the human and material resources assigned by the departments and faculties/schools.
c) Monitoring the quality and the plans for improving the degree.
d) Ensuring sufficient publicity of the course guide and the curriculum of the degrees.
e) Ensuring that the teaching is consistent with the general guidelines and the curricula of the degrees.
f) Guaranteeing that students are attended appropriately in all academic and administrative aspects.
g) Ensuring that lecturers comply with the timetables in the rooms assigned.
h) Coordinating the teaching staff.

Year coordinator: The year coordinator assists the head of the degree programme. For GEQ, GEBA, GTBA and DG, the coordinator is a key figure in the teaching system of the School. He/she is responsible for organising the integrated project. In the case of GEM, he/she must assign students to laboratory groups, ensure that there are no timetable clashes and give tutorials.

Committee for Degree Coordination (former UGPI):
This committee brings together the four year coordinators plus the head of the degree programmes in Chemical Engineering, Food Bioprocess Engineering, Food Bioprocess Techniques, and the double degree in Food Bioprocess Engineering and Techniques to determine the objectives of the advanced projects and set a schedule, including training sessions in cross-sectional competencies. It also manages any eventualities that may arise during the course. It should be noted that the fact that the Integrated Projects require the active participation of all the lecturers of a particular year creates a sense of being part of a team and makes it easier to solve the difficulties that arise during the year, generally caused by problems of scheduling activities because students have problems of overload at some times of the year.

Lecturer Coordination Committee: in the case of bachelor's degrees, the committee consists of the head of the degree programme and the year coordinators. Other lecturers may be invited if deemed appropriate. In the case of master's degrees, it consists of the head of the programme and the teaching staff. The committee is responsible for coordinating contents, timetables, teaching methodologies, competency assessment and, in general, anything that may have an impact on the teaching quality of the degree. It also collects proposals for improving the degree.

Student Coordination Committee: in the case of the degrees, the committee consists of the head of the degree programme and the year delegates. Other students may be invited as deemed appropriate in each case. In the case of master's degrees, the committee consists of the head of the programme and the students. In both cases, the aim is to detect their satisfaction with different aspects of the degree and to collect proposals for improvement. Should the head of the bachelor's or master's degree require coordination between teaching staff and students, he/she may convene both committees together, under the name of the **Study Programme Committee**.

Subject coordinator: all subjects are assigned a coordinating lecturer when the Plan for Academic Organization (hereinafter POA) is defined by the departments. The assignation is reported in the teaching guide. The subject coordinator is responsible for the academic organization of the subject; coordinating the teaching staff; entering the information about the subject into the teaching management programs of the university, ensuring the smooth running of the course, coordinating with other university members, and administering the course in terms of qualifications and documentation. He/she is ultimately responsible for the assessment of the students. In the space for the subject on the Virtual Campus, he/she must make all the formation from the Course Guide available, determine a work plan, publish the syllabus and assessment criteria, and communicate all information that may be of interest to students.

Coordination spaces on the Virtual Campus:
The Virtual Campus contains communication spaces to facilitate coordination. The spaces and participants are:
- Subject coordination: subject coordinator and teaching staff-students.
- Degree coordination for students: academic coordinator - students.
- Degree coordination for teaching staff: head of the bachelor's or master's degree - teaching staff.

These spaces were activated as a result of improvement 2015.16-ETSEQ-1.4-M1.

The latest modification made to the reports on the various degree programmes taught at the School updated the section on the coordination of reports (1.4), improvement 2018.19-ETSEQG-1.4-M1 and as specified in Table B.1.1 in the modifications 2020.21_GEM_2 i 2020.21_GEQ_2.

The External Assessment Report (EAR) resulting from the master's degree accreditation visit (23/4/2021) identified the requirement "Formalize the current informal mechanisms for teaching coordination, so that there is a written record of the actions undertaken for follow-up and improvement." This was approached as an improvement for the whole school and work began at different levels. The Quality Manual defined the mechanisms for coordinating the degree programs: committees for coordinating lecturers/students, the Study Programme Committee. Internally, work was done to define the topics to be dealt with and the periods for meetings, to generate a document with a table to collect the improvements, and to create a space in Sharepoint where those responsible can save the records of meetings (*2020.21-ETSEQ-1.4-M1*).

2020 Bachelor's Degree in Chemical Engineering (GEQ)

In the 2020-21 academic year, the head of the degree programme convened the GEQ Student Coordination Committee once (03/03/2021), and the GEQ Lecturer Coordination Committee twice (23/12/2020 and 10/03/2021). The student delegates were asked about issues related to the running of the course in the virtual environment, examinations, the APIs and overall workload, and were told how necessary it was for students to take part in tutorials and in the surveys evaluating the teaching staff and degree. The lecturer committee discussed the reduction in the percentage of face-to-face hours in the degree imposed by the office of the rector's, its influence on the APIs, and the changes in the assessment of cross-sectional competencies resulting from the new definition introduced by the URV.

The tool most commonly used for transmitting information to students is the student notice board on the URV's Virtual Campus. In the academic year 2020-21, a total of 29 announcements were sent regarding the organization of teaching, guidelines related to COVID-19 and general news. In addition, the bulk of organizational information, such as academic and exam timetables, is posted on the ETSEQ website. The 2020-21 survey by final-year students (Table C.4) shows a good level of satisfaction with the coordination in terms of the publication of information about tutors and tutorials (8.00), and the coordination between subjects to avoid overlapping (7.29). The information received on the organisation of academic activities under COVID-19 restrictions (7.29) is also well valued. The survey of recent graduates reveals a lower level of satisfaction. The coordination of the content of different subjects was rated with a 5.78, and organizational issues (sequencing of subjects, schedules and timetables) with a 7.06.

Finally, the teaching staff (Table C.10) have a high opinion of the teaching coordination of the degree (8.43), the School's response to incidents (8.15), the timetables for teaching the subjects (9.09) and the planning of the exam schedules (8.89).

2022 Bachelor's Degree in Mechanical Engineering (GEM)

In the 2020-21 academic year, the head of the degree programme convened the GEM Student Coordination Committee on 4/3/2021, a meeting attended by the student delegates of each year and where aspects of some subjects were discussed. And the GEM Lecturer Coordination Committee met on 2/7/2021, with the attendance of the coordinators of each year.

Messages are constantly sent to students on the virtual campus so that the whole student community is informed about teaching and coordination issues, as well as other events of interest. For example, during the academic year 2020-21, the head of the GEM programme sent a total of 25 messages to the GEM student coordination space. The topics ranged from planning the course, information on external internships, induction sessions, COVID information, grant opportunities for students, business events, etc. The virtual campus also has a space for lecturers to coordinate their classes to which a total of 11 messages were sent on a variety of topics during the academic year 2020-21. The head of the degree programme uses email distribution lists, addressed to course delegates and to the coordinators of the subjects of each semester. It should be pointed out that the coordination with the teaching staff and with the students by the head of the degree programme was particularly intense during the pandemic, and the system proved its effectiveness.

In Table C.9 in Annex C, recent graduates rated subject coordination, the virtual campus, and organization of the GEM with scores of 6.2, 7.9 and 6.9, respectively. In Table C.4 in Annex C, the students gave scores of 5.7 and 6.6, respectively, to the adaptation of the degree program and practical aspects of the academic year 2020-21 in response to the pandemic.

Finally, the opinion of the lecturers on the coordination between the subjects and the coordination of the degree (Table C.10) shows that they rate the coordination of the degree very highly (8.29).

1.5 The regulations are applied appropriately and have a positive impact on the outcomes of the degree.

In this Substandard, the following ASIIN criteria will be analysed:
2.1 Structure and modules
5.2 Diploma and Diploma Supplement
5.3 Relevant rules

The URV has a series of regulations governing university activity which help in the implementation of the degree programmes.

The rules and regulations applicable to the ETSEQ are available in the Regulations section of the School's website. These regulations are applied appropriately and have a positive impact on the outcomes of the degrees.

In response to the proposal for improvement 2018.19-ETSEQ-1.5-M2, the ETSEQ updated the regulations governing external internships, the bachelor's thesis and the master's thesis in their entirety and they were renamed "Guides".

The adaptation and renovation of the ETSEQ external internship guide was approved by the School Board on 21/07/2021. Subsequently, on 15/02/22, the employment status of students on external internships was revised, in response to the recommendation of the evaluation committee of the modification of the GEM and GEQ and included in the improvement (*2020.21-ETSEQ-1.5-M1*).

The new guide for the ETSEQ bachelor's degree thesis was approved by the School Board on 21/07/21 and the new guide for the master's degree thesis was approved by the School Board on 15/10/21.

Likewise, on 27/02/22 the Governing Council of the URV approved the adaptation of the ETSEQ Regulations resulting from improvement 2018.19-ETSEQ-1.5-M1. Changes were made to the ex officio members of the board: statutory teaching staff were substituted for permanent teaching staff because of the increase in the number of permanent non-statutory personnel at the URV. It was also decided that the administrative staff members of the School's departments should also be members of the Board.

Another important regulation concerning Bachelor's degree programmes is the one addressing the recognition of credits for courses or work placement. The number of credits that can be recognised for employment and work placement cannot exceed 15% of the total number of credits on the curriculum. If applicable, this percentage will also include the credits recognised from unofficial university programmes. Since GEQ and GEM are bachelor's degrees of 240 ECTS, the maximum number of ECTS that can be recognised is 36. The School must assess the experience accredited by students to determine how many credits can be awarded, preferentially for the subject External Work placement.

Diploma and Diploma Supplement

Royal Decree RD 22/2015, published on January 23, 2015, established the issuance requirements of the European Supplement to the degrees regulated in RD 822/2021 on the organisation of official university education in Spain.

The Issuance Guide of the Bachelor's Degree SET is published on the website of the Ministry of Universities of the Government of Spain, available at the following link. This Issuance Guide lists the information that is to be provided, specifies the maximum length of the text code, and provides several examples of the final overview of the European Supplement in its bilingual (Spanish and English) and trilingual versions (Spanish, Catalan and English).

In the accreditation space on the Virtual Campus, the CAE can access the samples of the graduation certificate, Diploma Supplement and transcript of records, for each programme. These documents and their contents are proof that they have been issued in accordance with current regulations.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

The head of the degree programme acts in accordance with the aforementioned enrolment and academic regulations. Essentially, he/she applies the regulations to accept or reject requests by students for enrolment extensions and modifications during the academic year, the postponement of exams for reasons covered by the regulations, the advancement of the first call of the defence of the TFG from June to February, and the recognition of credits for students of the same degree or other related degrees transferring from other universities. In this regard, in the 2020-21 academic year, a total of 378 ECTS credits out of a total of 16,228 for the degree program as a whole were recognized for various students (Table B.1.13).

2022 Bachelor's Degree in Mechanical Engineering (GEM)

During the academic year 2020-2021, the head of the degree programme dealt with numerous procedures, such as authorizations for late enrolment, authorizations for the extension of enrolment, authorizations for external internships, postponements of exams, etc. Five cases of students transferring records from other courses to the GEM and four cases of students requesting credit recognition for employment activities were dealt with. Table B.1.13 shows that 318 credits were recognized out of a total of 15,381 for the degree programme in the academic year 2020-2021.

During the academic year 2020-2021, the head of the degree programme held an academic investigation into a case of a student who had plagiarised in his TFG. This demonstrates that the mechanisms designed to ensure academic excellence work well and that cheating is dealt with according to the academic regulations.

Assessment of compliance with Standard 1:

For all of the above, we consider that we comply with Standard 1 and are progressing towards excellence.

	Progressing towards excellence (A)	Compliant (B)	Compliant with conditions (C)	Non-compliant (D)
GEQ	x			
GEM	x			

Standard 2. Relevance of the public information

"The institution adequately informs all stakeholders about the programme and the management processes that guarantee its quality."

2.1. The institution publishes accurate, complete, up-to-date and accessible information on the degree programme and how it is run.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
1.4 Admission requirements
5.1 Module descriptions
5.2 Diploma and Diploma Supplement
5.3 Relevant rules

The URV and the ETSEQ have mechanisms in place that guarantee the periodic publication of up-to-date information on degrees and how they are run. The criteria that guarantee the quality of public information have been described in process PR-ETSEQ-007 "Publication of information on degrees" of the IQAS at the ETSEQ.

The public information of the degrees is posted on the following websites:

- **Website for URV courses** Website for URV bachelor's programmes i Website for URV master's programmes, which provide general information on the degree programmes and other academic information for both new students and students who have already been registered on courses. These websites are overseen directly by the University's central services.

For the bachelor's degrees, the information is structured in the following sections: Recommended profile, Why study a bachelor's degree at the URV, Career opportunities, Curriculum, Course guide, Quality assurance. A separate block contains links related to: the School, Teaching Staff, Quality Assurance, Main Indicators, Regulations, and other aspects of interest.

For masters degrees, the sections are: Presentation, Admission, Career opportunities, Academic information (Course guide, Curriculum, Timetables, Academic year and Administrative procedures) and Teaching Staff.

It should be noted that the course guide contains all the information on the currently active subjects on the curriculum, although it also allows students to consult previous years. As well as the details of the name of the course, the course guide provides information on: competencies, learning outcomes, contents, planning, methodologies, personal attention, assessment, sources of information and recommendations. The link to the course guides of the School's bachelor's and master's degrees is: https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=null&idioma=eng

- **ETSEQ website.** The website has the following structure: The School, Courses, Research, Quality, Information for different stakeholders and External internships. In addition to the information about the degrees, in the section *Courses*, the section

Information for... is designed, among others, for students and prospective students, with links to exams and timetables, schedules, the Virtual Campus, and other services of interest. The *External Internships* block provides information for students, companies/institutions and tutors.

This new design of the ETSEQ website was the result of the improvement proposal 2018.19-ETSEQ-2.1-M1 and was published in Catalan, Spanish and English, on 15 February, 2022, after the process of adaptation to the URV web model. This action is a response to the requirement of the External Assessment Report (EAR) of the master's degree accreditation visit (23/4/2021) "To homogenize the information available through the three existing public information sources", since it was done with the objective of homogenizing and providing complete and consistent information (*2020.21-ETSEQ-2.1-M1*).

The External Assessment Report (EAR) of the master's degree accreditation visit (23/4/2021) identified the requirement: "Add information on facilities and material resources". In response, information was added to the new website in the section School - Campus, as well as in the section School – Reservations, which provides information about rooms that can be reserved and their availability.

Table B.2.1. in Annex B shows where the information about how the degrees are run is available on the website.

Periodically, the satisfaction with the information published on the various stakeholders is analyzed. Graduates (Table C.9.) are satisfied with the information on the URV website (7.06/10 and 7.42/10, at the GEQ and GEM, respectively) and, less so, with the information on the ETSEQ website (6.53/10 and 6.58/10, at the GEQ and GEM, respectively). The two websites – URV and ETSEQ – were only evaluated in the academic year 2020-21. It should be pointed out that the ETSEQ website evaluated was the old version, and it is expected that the new version will improve the users' perception. The teaching staff agree with the students about the URV's website, but have a better opinion about the ETSEQ website (Table C.10). The results are published in Annex C of the monitoring or accreditation reports (section *Internal monitoring reports*).

In our attempts to strive for continuous improvement and provide maximum transparency, the institution is engaged in the following actions:

- completing the information available on the staff teaching on the degree programmes: for the academic year 2019-20, a link has been added to the CV of the teaching and research staff (General data - IRIS public profile); information has been published on training for all categories of teaching and research staff (General data - Degrees). For the academic year 2021-22 the aim is to publish the professional experience of the teaching and research staff. With this improvement, we believe that we will be able to respond to the requirement of the External Assessment Report (EAR) of the Masters accreditation visit (23/4/2021) "*Include detailed and updated information on teaching staff in the public information*"(*2020.21-ETSEQ-2.1-M2*).
- revising the information published on the URV's website about the degrees so that there are no gender biases.
- It should be noted that the URV organizes specific training courses on this last point. Table A.4.3.10 displays the training courses on the gender perspective

in which the administrative and service staff of the ETSEQ have participated. It should also be noted that the web management and maintenance course includes a module on institutional style and improvement of the quality of the language of websites, including gender-sensitive uses. This course was attended by all the staff of the Support Unit for the Management of Faculties, Schools and Departments (ETSEQ-DEM-DEQ). The courses attended by the teaching and research staff can be found in Table A.4.3.3.

For all these reasons, the information about how the degree programmes are run and their outcomes is available for all the agents involved, both internal and external, and for the general public.

2.2. The institution published information on academic outcomes and satisfaction.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
1.4 Admission requirements
5.1 Module descriptions
5.2 Diploma and Diploma Supplement
5.3 Relevant rules

The main indicators of each bachelor's and master's degree are published on the degree's website:

GEQ:
https://www.urv.cat/man/biURV/QCPlans/FitxaPlaEstudisGrau2020_ANG.html

GEM: https://www.urv.cat/man/biURV/QCPlans/FitxaPlaEstudisGrau2022_ANG.html

This table of indicators provides the information students need to understand how the degree program is structured and its main outcomes. Every year, data is uploaded so the website always gives the most up-to-date information. Also, the section on quality publishes the main/monitoring indicators for the previous five years, in order to show how they have evolved. At the time of writing this report, the indicators for the academic year 2020-21 are available in Catalan, Spanish and English. With this new section, we consider that we have complied with the requirement of the EAR of the master's degree accreditation visit (23/4/2021) "*To post the degree outcomes on all relevant websites, and add them to the School's and Degree's website*." (*2020.21-ETSEQ-2.2-M1*).
As far as satisfaction is concerned, the EAR of the master's degree accreditation visit (23/4/2021) specified the following requirement: "*Include the satisfaction results in the information published.*" To comply with this, two improvements have been set in motion:

- At the institutional level: one improvement is to make the results of the URV surveys more visible and encourage participation. This consists of publishing the results of the surveys for each degree on a specific dashboard for all university stakeholders (*2020.21-ETSEQ-2.2-M2*).
- At the ETSEQ level: A new section, *Satisfaction and employment results*, has been added to the section Quality. It contains a table, extracted from the ETSEQ Satisfaction Survey of recent graduates, with the items of satisfaction with the degree and the percentage of students who would be happy to repeat the degree. Employment outcomes are reported in an infographic from EUC Estudis (*2020.21-ETSEQ-2.2-M3*).

What is more, all information about academic outcomes and satisfaction are available to all interested parties in the monitoring and accreditation reports on the ETSEQ's website (Quality - Internal monitoring reports.) It should be pointed out that the information considered to be most significant has been broken down by sex (Table B.6.15).

2.3. The institution publishes the IQAS that the degree is a part of and the monitoring and accreditation outcomes for the degree.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
1.4 Admission requirements
5.1 Module descriptions
5.2 Diploma and Diploma Supplement
5.3 Relevant rules

The URV announces its commitment to quality in the quality policy. It also publishes the framework in which the different IQASs are carried out and the main outcomes in the sphere of teaching quality (https://www.urv.cat/en/about/get-to-know/qualitat/docencia/).

The ETSEQ website has a specific Quality section that contains the most important documentation of the IQAS, such as the Quality Policy and Objectives, the Quality Manual and the Process Map, with access to the process files.

The Degree Quality section makes the following information available: the validation reports, the link to the information of the Registry of Universities, Faculties, Schools and Degrees (RUCT), the quality labels awarded, the external and internal evaluation reports, the monitoring indicators and, in Know the quality, the link to Estudis Universitaris de Catalunya (EUC) managed by AQU.

The Internal Monitoring Reports section contains the monitoring and accreditation reports of recent degrees, which include the plans to improve the degrees.

The quality indicators of the degrees are summarized in an infographic that is updated annually, and can be found in the section Monitoring indicators, with a history of five years for all the degrees of the center. As a novelty for the academic year 2020-21, the infographics are available in Catalan, Spanish and English.

Finally, there is the block *Tutorial Action Plan*, with the latest reports.

For all of the above, we consider that we comply with **Standard 2 and are progressing towards excellence (A).**

Progressing towards excellence (A)	Compliant (B)	Compliant with conditions (C)	Non-compliant (D)
x			

Standard 3. Efficacy of the programme's internal quality assurance system

"The HEI has a functioning internal quality assurance system that has a formal status and assures the quality and continuous enhancement of the programme in an efficient way."

In compliance with the commitment to transparency required of university institutions within the framework of the European Higher Education Area, universities must have a formally established and publicly available quality policy and internal quality assurance system (SGIQ).

The URV has defined its policy and strategy in the area of teaching quality, as well as its responsibilities in ensuring the quality of the degrees taught. Therefore, it makes its commitment to quality available to the general public in the document the URV's quality policy.

Likewise, the ETSEQ has defined the quality policy of the School, which serves as a strategic guide for all action taken.

In this context, the ETSEQ has implemented and deployed an IQAS that aims to guarantee the quality of the degrees it is responsible for teaching and their continuous improvement. In 2010, AQU Catalunya positively assessed the design of the School's IQAS as part of the AUDIT program.

The ETSEQ's IQAS documents include the **Quality Policy and Objectives**, the **Quality Manual** and the **IQAS process map**, with all the corresponding information.

As the ETSEQ's Quality Manual points out, the main bodies of governance and representation with responsibilities for quality are:

Head of the internal quality assurance system (RSIGQ)
His/her functions are described in article 18 of the Regulations Governing Teaching:

a) Guarantee the implementation, maintenance and periodic revision of the IQAS.
b) Establish, implement and maintain the processes necessary for carrying out the IQAS.
c) Collect and analyse the results, make proposals for improvement and account for the progress of the IQAS.
d) Notify the School's management of compliance with the IQAS and of all matters related to the IQAS.
e) Any other function entrusted by the dean or the director of the School.

Quality committee: The committee consists of at least all the members of the management team, the person responsible for the internal quality assurance system and representatives of the teaching staff, students, and administration and services staff approved by the School Board.
Its functions can be found in article 18 of the Regulations Governing Teaching:

a) Monitor and assess both the implementation of the internal quality assurance system and continuous improvement.
b) Inform the management of the School of Chemical Engineering and all other members about the School's quality policy and objectives.

c) Monitor the efficacy of the processes using the associated indicators.
d) Supervise the plans for improvement resulting from the monitoring and assessment of the internal quality assurance system, and implement all proposals for improvement.
e) Any other functions that the School management team should give them.
f) Approve the composition of the Internal Assessment Committee(s) (CAI) in the accreditation processes.

The ETSEQ Teaching Quality Support Officer (TSQD) has the following functions:

a) To provide technical support to all evaluation and accreditation processes of the School's degree programmes and improvement plans.
b) To monitor the whole process of documenting the development and evaluation of the various degree programmes and particularly the process of assessing student learning
c) To provide the management team with support in the process of guaranteeing the quality of degrees they are responsible for and developing quality instruments.
d) To carry out studies to document the processes related to institutional quality.
e) To support the creation, design and development of new bachelor's and master's degree programmes.
f) To support the development of the Tutorial Action Plan (PAT) in coordination with the URV's institutional methodological unit.
g) To update the information about the IQAS on the School's website.

Head of the IQAS process: His/her functions are:

a) To ensure the fulfilment of the objectives established for the process for which he/she is responsible.
b) To draft, revise and update the procedure that describes the process for which he/she is responsible.
c) To establish, define, measure, calculate and update all the indicators necessary to control and monitor the process for which they are responsible.
d) To design the formats and/or formulas necessary to control the process.
e) To decide on the evidence and records that must be collected and define how they will be kept.
f) To continually improve the process.

School Board: To guarantee the quality of teaching, services and attention to students.
Head of degree programmes (bachelor's) and coordinators of master's degrees: To monitor quality and the plans for improving the degree.

Management team: To ensure the quality of teaching by implementing and revising the IQAS using the corresponding processes.

Internal Assessment Committee (CAI):
Following the indications of "AQU's Guide for the accreditation of official bachelor's and master's degrees", ETSEQ's Quality Manual provides for the constitution of a committee responsible for drafting a self-report on the processes for accrediting degrees. The members of this committee will be representatives of the various

stakeholders at the School of Chemical Engineering such as the management team, the teaching staff, the administrative staff, students and any others who may be deemed necessary.

As well as the various bodies and officers with responsibilities for teaching quality at the School of Chemical Engineering, the University has the **Bureau of Programming and Quality (GPQ)**, which guarantees the quality of the processes in the VMMA framework (Verification, Monitoring, Modification and Accreditation) of the degrees. It provides faculties and schools with support in implementing, monitoring and assessing the internal quality assurance system. This support is provided largely by the figure of the TSQD at each faculty/school. The TSQD acts as intermediary between the GPQ and the faculty/school, and the contact between the two is constant and in both directions. Communication takes place mainly using the email address marc.vsma@urv.cat. Likewise, the GPQ and the faculties/schools share a work folder with templates, reports, labels, certificates, etc. In this way, access is guaranteed to the most recent information at all times. In addition, during the academic year various training sessions or workshops are organised.

3.1 The implemented IQAS has processes which ensure the design, approval, monitoring and accreditation of the degree programmes.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
1.3 Curriculum
6. Quality management: Quality assessment and development

The ETSEQ's IQAS has well-defined processes for designing, approving, monitoring, modifying and accrediting degrees. These processes respond to AQU Catalunya's VSMA Framework and are reviewed and updated periodically, as well as whenever there are changes in internal or external requirements. In this context of change, the various processes will have to be adapted to take into account the gender perspective, the new legislation approved in the field of universities, such as Royal Decrees 822/2021 and 640/2021, as well as the modification to the URV Statute in 2022 (*2020.21-ETSEQ-3.1-M1*).

- **Design and approval of degrees**

Both the University and the ETSEQ have mechanisms to maintain and renew their courses by developing methodologies for the design, internal approval, monitoring, evaluation and periodic improvement of the quality of the degree programmes.

The process PR-ETSEQ-002 "Degree Planning" describes the mechanisms implemented at the URV and the School to ensure that all stakeholders take part in the design and approval of training programs, and that the quality of new degree proposals is the highest possible. The mechanisms in place enable courses to be designed and approved so that the both the URV's and the School's offer can be maintained and renewed. The process stipulates that before any new degree proposal is sent for validation, it must be submitted to the governing bodies of the School and University for approval (PR-OAM-001 "Internal Approval of Degrees"). It should be noted that both the Governing Council and the School Board have a representation of all the groups of the university community.

The details of the planning of the degree, the validation process and the latest modifications made to the degrees have been dealt with in standards 1.1 and 1.2

- **Monitoring and continuous improvement of the degrees**

The process PR-ETSEQ-003 "Monitoring and improving degrees" describes the system used to periodically monitor the School's degree programmes. The purpose of this monitoring process is to detect and identify strengths and weaknesses, and to propose improvements that guarantee the quality of the programmes.

The degree monitoring process helps those responsible to evaluate and account for their results based on the analysis of indicators. This process assists in the preparation of monitoring reports that make it possible to make an overall analysis of the degree programmes and the School. The final result is the improvement plan for the School and its degree programmes, which facilitates continuous improvement and the detection of possible modifications to the report.
As a step prior to the accreditation of the School, and to optimize the process, the aim is to draft a single monitoring report for the School (every two years), which will focus on all the School's degrees and will be initiated in the academic year 2020-21 (*2020.21-ETSEQ-3.1-M2*).

As expected, the natural result of the monitoring process is the need to make changes, which are implemented in accordance with the process PR-ETSEQ-004 "Modification of qualifications". This process describes the procedure to be followed in the event that the degree monitoring process leads to a modification in the validated report. Table B1.1 shows the modifications approved internally (School Board and Governing Council).

At the institutional level, this academic year 2021-22 a new schedule has been implemented for the process of making substantial modifications to degrees. This process has been adapted to the AQU process (December and March), and the internal document used to request and approve a modification has been changed and now involves an online application.

The experience of recent years shows that the IQAS is a good tool for identifying aspects that need to be modified, and proposing and carrying out actions for continuous improvement.

➢ Accreditation of degrees

The process PR-ETSEQ-006 "Accreditation of degrees" involves an external visit to check that the degree is being run as planned by the validation and is required if the accreditation of the degree is to be renewed.

It is worth mentioning the results of previous accreditation visits to the School, especially the award of the EURACE label to four ETSEQ degrees:

Level	Degree	Result	E1	E2	E3	E4	E5	E6
Bachelor's	**Agri-food Engineering (Being phased out)**	**Accredited**	B	B	B	B	B	B
Bachelor's	**Mechanical Engineering (EUR-ACE)**	**Accredited**	B	B	A	B	B	B
Bachelor's	**Chemical Engineering (EUR-ACE)**	**Accredited**	B	B	A	B	B	B
Master's	**Chemical Engineering (EUR-ACE)**	**Accredited**	B	B	B	B	B	B
Master's	**Nanoscience, Materials and Processes: Chemical Technology at the Frontier**	**Accredited**	B	B	B	B	B	B

Level	Degree	Result	E1	E2	E3	E4	E5	E6
Master's	**Occupational Risk Prevention**	**Accredited with conditions**	B	B	B	C	B	C
Master's	**Management of Technology Companies**	**Accredited**	B	B	B	B	B	B
Master's	**Environmental Engineering and Sustainable Energy (EUR-ACE)**	**Accredited**	B	B	B	B	B	B

Legend: A – Progressing towards excellence; B - Compliant and C – Compliant with conditions

The results of the accreditation process as well as the recommendations of the External Evaluation Committee (CAE) in the accreditation reports are incorporated into the degree monitoring process, which allows for continuous improvement.

For all of the above, we can say that the IQAS processes related to the VSMA framework have allowed us to closely monitor and improve our degrees. The main evidence that these processes are working is the favourable external evaluation report for each of the degrees currently taught, as can be in the table below:

Dates of the external evaluation reports of the degrees (EUC)				
Name	**Validation**	**Monitoring** (if appropriate)	**Last modification**	**Last accreditation**
GRAUS				
Food Bioprocess Engineering (GEBA)	25/5/2017			
Agri-Food Engineering (GEA)		29/11/2012	13/3/2015	22/5/2015
Mechanical Engineering (GEM)	01/2/2010	28/11/2013	21/7/2021	30/5/2016
Chemical Engineering (GEQ)			21/7/2021	30/5/2016
Food Bioprocess Techniques (GTBA)	25/5/2017		17/1/2018	
MASTERS (coordinated by the URV)				
Chemical Engineering (MEQ)	8/7/2013		26/7/2019	23/4/2021
Occupational Risk Prevention (MPRL)		28/11/2013	29/7/2021	26/7/2019
Nanoscience, Materials and Processes: Chemical Technology at the Frontier (MNMP)	4/6/2013		20/04/2022	20/4/2022
Management of Technology Companies (MGET)	15/6/2016		20/04/2022	20/4/2022
Environmental Engineering and Sustainable Energy (MEAiSE)	12/7/2016		9/10/2019	23/4/2021
Computational Fluid Mechanics (MEFCO)	18/1/2018		17/6/2021	
Energy Conversion	13/11/2018		26/6/2019	

Dates of the external evaluation reports of the degrees (EUC)				
Name	**Validation**	**Monitoring** (if appropriate)	**Last modification**	**Last accreditation**
Systems and Technologies (MECST)				

Source: EUC reports

The implementation of the ETSEQ's IQAS covers the full life cycle of its degrees, which are aligned with legislation and comply with European quality assurance standards. The IQAS processes include the chain of responsibilities required for proper functioning; the actions to be taken to ensure the suitability of the degree programmes; the management of the associated records; and the collection of information for analysis and continuous improvement, of both the processes themselves and of the degrees.

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.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)
6. Quality management: Quality assessment and development

➢ Institutional information system (Sínia-net)

The implementation of the SIGQ has facilitated the implementation in some cases, and the maintenance and improvement in others, of a variety of instruments and procedures for collecting information on the satisfaction of stakeholders and the results for the management of the degrees.

The URV has an institutional information system, Sínia-net, which collects information and the results of degrees. Sínia-net is a web application that brings together all the information on the processes and results of the URV that may be of interest to university managers. Sínia-net not only centralizes all the information, but also displays it in the form of dynamic tables and graphs to facilitate analysis and contribute to a more objective decision-making based on data. It can be consulted by the university community on the URV intranet and it has a block of reports and queries for monitoring the quality and accreditation of URV degrees.

The Rector’s Office is currently working on various improvements to the information system, in an attempt to optimise the analysis of information and increase the efficiency of monitoring degrees:

- Improve the presentation and display of URV reports in figures, necessary for the preparation of monitoring and accreditation reports, speed up data extraction, incorporate the gender perspective in some reports, and adapt them to the indicator format of the AQU accreditation guide.
- Ensure that the data required for preparing the monitoring and accreditation reports provided by the central services (currently through calculation forms) is added to the information system.
- Create a more robust tool to manage the dashboard, which can automatically manage the IQAS indicators, and facilitate the review of processes and decision making.

➢ Satisfaction of different groups of stakeholders

Surveys are one of the main instruments for collecting information on the satisfaction of the different stakeholders. Annex C of this report contains the result of the satisfaction of the different agents involved, which are made available when the report is published in the Quality section of the ETSEQ website. In summary, table C.1 in Annex C of each degree, the surveys are presented with the name of the unit in charge, a description, the percentage of participation and the mean satisfaction, among other information (from improvement 2017.18-ETSEQ-3.2-M2).

The GPQ centralizes the organization and coordination of the URV surveys addressed to students on subjects and degrees. In coordination with the GPQ, the Human Resources Service is in charge of the teaching staff survey. The ETSEQ manages the surveys addressed to recent graduates and teaching staff. External surveys, such as those promoted by AQU Catalunya (recent graduates and employment) are also analysed.

The previous monitoring report (academic year 2018-19) proposed improvement 2018.19-ETSEQ-3.2-M1, a recommendation to include an overall assessment question in the School's surveys that did not have one. This has been done for academic tutors, teaching staff and employees (the graduate survey already had a question of this sort). The same improvement was also recommended for the URV surveys, 2018.19-URV-3.2-M1. In this case, in the academic year 2020-21, the master's degree survey included the overall assessment question (0-10). In the academic year 2021-22, the master's degree questionnaires (subject, External Internships, TFM and Degree) have been redesigned and all of them have the overall quantitative assessment question (0-10). The degree surveys include the question for individual subjects, External Internships, the TFG and the degree as a whole (students who finish the degree).

Another valuable instrument for collecting information is the Lecturer Coordination Committee, the Student Coordination Committee or, alternatively, the Degree Committee. These committees have been designed to respond to the requirement of the External Assessment Report (IAE) of the Master's degree accreditation visit (23/4/2021) "To implement measures to promote student participation in the management and improvement of the degrees and to integrate them in specific academic committees". These committees have been added to the Quality Manual, which describes the coordination mechanisms for the degree programs. We are now scheduling the topics to be discussed and the frequency of the meetings, designing a template for minutes that includes the improvements to be made, setting up a shared space for the School (Sharepoint) where the minutes can be saved, and explaining the various channels of participation: committees, delegates, governing bodies, contact form, etc., during the induction sessions (*2020.21-ETSEQ-3.2-M1*).

Also, another instrument used to collect stakeholder satisfaction is a **contact mailbox** on the School's website. The mailbox and how it works is described in the PR-ETSEQ-015 process for queries, complaints, claims, suggestions and congratulations. The latest measures to be implemented are:

- Various email addresses have been set up for specific queries.

- To ensure that students are aware of the existence of the mailbox, the heads of degree programmes have been asked to add a link to the service on the degree's virtual space.

- New students will also be informed about the service during the Induction Day (how it works, how to use it, participation rates, etc.).

Satisfaction with the response to complaints and suggestions (Table C.9) was rated 7.08 by GEQ graduates and 7.43 by GEM graduates.

The results of all these instruments for collecting information on the satisfaction of the different stakeholders are incorporated in process PR-ETSEQ-003 Degree Monitoring and Improvement.

- **Students**

The start and finish dates of the surveys addressed to students are set by the vice-rector responsible. To encourage participation and automate the whole process, access is through the URV's Virtual Campus and a specific block of surveys. From this platform, students are sent an email telling them the start date of the surveys and how to access them. Subsequently, those students who have not answered some surveys are sent a reminder when they access the Virtual Campus. At the ETSEQ, in order to encourage participation, the heads of the degree programs also post reminders on the noticeboards of the degree programmes on the Virtual Campus.

The External Assessment Report (EAR) of the master's degree accreditation visit (23/4/2021) identified the following requirement: "*Take measures to improve the rate of response to satisfaction surveys, especially among students, but also among teaching staff.*" This was understood to be an improvement for the School as a whole and work began at different levels:

ETSEQ:

- Define key subjects with many students and ask the lecturers to give students a few minutes of class time to answer the survey by mobile. This improvement was proposed in the last report 2018.19-ETSEQ-5.1-M2 but could not be implemented because of the pandemic because teaching in the second semester of the academic year 2019-20 and the whole of the academic year 2020-21 was online. It has now been retrieved as an improvement to be implemented (*2020.21-ETSEQ-3.2-M2*).
- In the improvement table of the monitoring reports (column "Source of improvement"), identify those improvements suggested by delegates, tutors, committees, qualitative (open) questions of the surveys, etc. Make sure that this information is discussed by the Student Coordination Committee or the Degree Committee. (*2020.21-ETSEQ-3.2-M3*).

Other proposals for improvement from the student surveys and the degree monitoring process:

- Define the minimum participation rate and/or sample error, agreed to by the URV, for publishing the results of the surveys in the monitoring reports (*2020.21-ETSEQ-3.2-M4*).
- In the academic year 2020-21, the following two questions were added to the survey of student satisfaction with the organisation of the master's degree: "*I am satisfied with the extent to which the gender perspective has been introduced in the degree*" and "*I am satisfied with the degree*". The GPQ (surveys) will be asked to consider adding these questions to the surveys for undergraduates so that the same information is available for bachelor's degrees (*2020.21-ETSEQ-3.2-M5*).
- Ask for the results of the surveys not to be made available to teaching staff until the exams for the subject are over and that the student surveys close before the exam period. This improvement is the result of a request made by the student representative in a meeting of the ETSEQ's Quality Committee (*2020.21-ETSEQ-3.2-M6*).

At the institutional level, there are several improvements underway that are coordinated by GPQ and HR, the technical units in charge of surveys:

- Update and simplify the questions on the institutional surveys for students:

  - The 2020-21 survey of teaching staff was reduced to three quantitative questions, plus an open-ended question and an initial control question. On the other hand, the master's degree surveys for 2021-22, have repeated the subject, external internship, final project and degree questionnaires.
- Improve student participation in surveys:
  - Pop-up messages are used on the Virtual Campus to announce and remind that the surveys are available instead of reminders by email. Also new in 2021-22 is that lecturers also have pop-ups, with information about the percentage of participation, and a reminder to give students 10 minutes of class time to respond.
- Improve the feedback given to students about the results of the institutional surveys.
  - Through the URV Virtual Campus, students can access a space on the Intranet where they can consult past satisfaction surveys of the teaching staff.
  - In the same Intranet space work is being done to include information on the results of the subject, external internship, TFG/M and degree surveys.
  - As has been mentioned in Standard 2, other improvements involve publishing dashboards with indicators of satisfaction for the URV as a whole.

Another way to measure the level of student satisfaction is through their participation in such committees as the Student Coordination Committee, the Degree Committee and the Quality Committee. It should be noted that the delegates, as student representatives, usually send their contributions directly to the heads of the degree programmes or to the teaching staff. At the same time, given the small size of the School, it is common for students to interact directly with teaching staff, academic tutors, the heads of the degree programmes, and management and convey their concerns and suggestions personally.

- **Graduates**

Every year AQU makes a survey of the satisfaction of students who have graduated in the previous 12 months. The results are available on the EUC website "Graduate satisfaction survey" but are shown on aggregate for all degrees in industrial technology at the URV, which include Electrical Engineering, Industrial Electronic and Automation Engineering, Mechanical Engineering and Chemical Engineering, and for the period 2018-2020. For this reason, for more than 10 years now, the School sends graduates a satisfaction survey (Table C.9) a few months after graduation. They are also asked about their current employment situation. The link to the survey is sent to the URV and personal email address, and a reminder is sent after a week. If there is little participation, an SMS is also sent by mobile phone. As envisaged in improvement proposal 2018.19-ETSEQ-6.4-M1, questions about the usefulness of theoretical and practical training were added.
In order to include the gender perspective in the graduate survey, since the academic year 2018-19 we have been asking respondents to give information about their gender and are now able to show the percentage of women who have participated in the survey. However, due to the low number of participants, the disaggregated results cannot be shown.
In order to find out the satisfaction of the graduates with the gender perspective, one proposal for improvement is to add the question "*I am satisfied with the extent*

to which the gender perspective has been included in the degree" (*2020.21-ETSEQ-3.2-M7*).
The External Assessment Report (EAR) of the master's degree accreditation visit (23/4/2021) identified the requirement "Improve the systematic collection of information on the job opportunities and professional situation of graduates." In line with this comment, Table C.9.1 in Annex C displays the results of those items for which we have data for individual degrees from AQU's Employment Survey. And so that all items can be compared with those from the other Catalan universities, the heads of degree programmes have consulted the AQU portal EUC Dades to be able to make their comments on standard 6.4 (*2020.21-ETSEQ-3.2-M8*). This action is supplemented with improvement proposal 2020.21-ETSEQ-2.2-M3 explained in standard 2.2, with which the employment results of the degrees will be published on the School's website.

- **Teaching staff**

To determine the satisfaction of this interest group, the teaching staff carried out a survey on their satisfaction with different aspects of the degree in the accreditation process (Table C.10).

Another way to measure the level of teaching staff satisfaction is through their participation in such committees as the Lecturer Coordination Committee, the Degree Committee, the Quality Committee and the School Board.

- **Employers**

AQU Catalunya makes a survey of the satisfaction of employers in an attempt to find out the opinion of the companies and organisations located in Catalonia about whether university degree programmes respond to their needs.

Although the results of the second edition of the survey are displayed as part of industrial technologies as a whole, they have been analysed by the School's management team in an attempt to determine whether graduates have the right competences from the employers' point of view and assess how this impacts on employment opportunities.

Another way of finding out employer satisfaction involves the School's teaching staff who, together with the professionals in the companies/institutions, tutor the students during their external internships or when they do a bachelor's degree thesis (TFG) in a company. It is worth mentioning that a significant number of TFG tutors are professionals who are involved with our courses as adjunct lecturers.

The ETSEQ also has a very close relationship with the industrial and institutional sector that employs graduates. An example of this relationship is the Advisory Council, which provides support to the School when the curricula of the degree programs are being updated and strategic issues are being determined. The business sector also collaborates with the School by granting numerous awards and prizes to bachelor's and master's students, and participating in sessions on professional opportunities and the job market organised by each of the degree programmes.

Although this interaction is not a formal way of collecting information on employer satisfaction, it does give us an overview of the perception that employers have of our graduates.

3.3 The implemented IQAS is periodically reviewed and generates an enhancement plan that is used for its continuous enhancement.

In this Substandard, the following ASIIN criteria will be analysed:
6. Quality management: Quality assessment and development

The design of the ETSEQ's Internal Quality Assurance System (IQAS) was evaluated in 2010 within the framework of the AUDIT program and was positively assessed by AQU Catalunya [Certificate no. 0086/2010]. The ETSEQ Quality Manual, which described the first version of the processes, was approved in June 2012. Subsequently, it was put into practice, and then underwent a monitoring process, which led to a series of modifications.

During the academic year 2014-15, the design of the IQAS at the URV was revised with the main objective of ensuring overall quality. All the School’s activities were included, and its structure and functioning aligned with European quality standards. The adaptation of the ETSEQ's processes to this new model was completed on 21/07/2021, when the last processes to replace the old ones were approved. The last version was approved on 19/10/2021 by the School Board.

Every year, the School reviews the Quality Policy, as is stipulated by process PR-ETSEQ-001 Drafting and revision of quality policies and objectives. The latest revision was approved by the School Board on 19/10/2021.

The IQAS is revised and updated following the process PR-ETSEQ-008 "Definition, revision and improvement of the IQAS". The objective of this process is to determine the activities for defining, reviewing and improving the School’s Internal Quality Assurance System. These reviews must make it possible to check the extent of compliance with the processes, the results of the indicators, and the suitability of the IQAS to ensure continuous improvement of the degree programmes. All the ETSEQ stakeholders are involved in IQAS-related activities, so everybody can make proposals for improvement. The IQAS monitoring process is included in the Monitoring Report, which contains a specific section on how it is evaluated and how useful it is for identifying areas for improvement. These improvements are specified in an Improvement Plan.

The previous follow-up report defined the actions below. Those that have an improvement code are those that are still being worked on:

- Define the ETSEQ’s strategic objectives (approved on 01/12/2020).
- Establish a document management System: the option chosen was Sharepoint, which has been active since the end of the academic year 2020-21.
- Implement the Dashboard: it is being worked on (*2020.21-ETSEQ-3.3-M1*).
- Set up a formal mechanism for reviewing IQAS processes. This proposal has been put forward once again as an improvement for the academic year 2022-23 (*2020.21-ETSEQ-3.3-M2*).

Based on all of the above, the ETSEQ's IQAS facilitates the design, approval, development and accreditation of degrees, and guarantees that the information, results and stakeholder satisfaction be collected for each process. These data are incorporated into the process of monitoring the degrees. The analysis of the data leads to the drafting of the improvement plan, which allows for the continuous improvement of the degrees and, if necessary, for the validation report to be modified in accordance with the established process. Furthermore, the process of defining, reviewing and improving the IQAS includes a periodic review to ensure that it is valid and, if necessary, an improvement plan can be proposed.

Therefore, we consider that **we comply with Standard 3 and are progressing towards excellence.**

Progressing towards excellence	Compliant	Compliant with conditions	Non-compliant
x			

Standard 4. Suitability of teaching staff for the training programme

"The teaching staff responsible for teaching the degree programmes of the School is sufficient and suited to the needs of the qualifications and the number of students."

Table B.4.5 is available on the accreditation space of the Virtual Campus. It provides information about the general profile and qualifications of the teaching staff, as well as their CVs.

4.1 The teaching staff meet the qualifications requirements for programme delivery in the faculty, and they have sufficient and recognised teaching, research and, where applicable, professional experience.

In this Substandard, the following ASIIN criteria will be analysed:
4.1 Staff

Public information about the teaching and research staff (PDI)

In an attempt to be as transparent as possible, the URV gives information about the staff who teach the degree programmes on the degree's website during the period of pre-enrolment.

https://www.urv.cat/html/docencia-per-centre/index-20.php

Students can consult a general profile of all lecturers with their most important professional data, the courses they have taught over the previous five years (subjects and degrees), and, if they are also involved in research, the main results and a link to their research CV (IRIS) and the platform ORCID, which shows scientific output.

Mechanisms for recognising the teaching and research activity of teaching and research staff (PDI)

Decree 405/2006, of 24 October, stipulates the additional remuneration for the statutory and non-statutory teaching staff of the public Catalan universities to be paid for teaching, research and management merits in the framework of budgetary availability. This supplement is paid as an individual, annual amount that will become consolidated as part of the salary. It is determined by the Board of Trustees of each university at the proposal of the respective Governing Council and after being given approval by AQU Catalunya.

As stipulated by Law 1/2003, of 19 February, on the universities of Catalonia (LUC), university teaching must be assessed, and the universities, in conjunction with AQU Catalunya, must develop methodologies and programmes for assessing all types of teaching. In this regard, the URV has designed and implemented a model for assessing the teaching and research staff, accredited by AQU Catalunya and updated in 2021. This assessment of teaching activity is linked to the assessment for the award of the Regional Supplement for Teaching Merits (CAMD) – which is structured in five-year stages – and the URV's Basic Teaching Supplement (CBD), which are two extremely important tools of recognition and incentive.

Assessing research merits is the responsibility of AQU Catalunya and they are assessed in periods of six years.

Another tool for encouraging and recognising teaching quality is the Prizes for Teaching Quality, awarded by the URV's Board of Trustees. Its main aim is to identify and recognise the effort made by the University's teaching staff to improve teaching quality by using innovative teaching methods. Table A.4.3.9 lists all the prizes awarded to members of the ETSEQ teaching staff.

Another URV programme is the Teaching and Research Staff's Working Hours Agreement (PdD), a tool that is key to coordinating the planning of teaching. The PdD also enables every department to flexibly regulate the working hours of its teaching and research staff and distribute the tasks they have been entrusted with, whether these be teaching related or other activities. So it is also an instrument of accountability and of recognition of the work done by the teaching and research staff. The PdD has been recognised by external institutions as an example of good practice. It was awarded the Prize for Good Practices of Internal Management by the Ministry of Public Administrations in 2006 and it is now part of the database of good university management practices TELESCOPI CUDU, the Observatory for Best Practices in University Management of the UPC's UNESCO Chair for University Management.

Criteria for assigning teaching

According to the process PR-ETSEQ-021 Managing teaching resources, the ETSEQ management team defines the criteria for assigning teaching in compliance with the Regulations Governing Teaching, approved by the URV's Governing Council, and ensures that all departments involved in teaching are informed.

These criteria include the assignation of teaching:

- in the first year

- for the compulsory external internships

- for the bachelor's and master's-degree theses

Hence, in compliance with the Regulations and these criteria for assigning teaching, the departments involved make the corresponding assignations in line with the process PR-ETSEQ-009 Implementation of the degree.

Group size

The size of the groups is defined by Article 7 Activity Groups of the Regulations Governing Teaching.

For each bachelor's- and master's-degree subject, the groups of activity are determined by the vice-rector responsible for academic policy and they are subject to the availability of lecturers in the departments to which the teaching has been assigned, taking as a basis the activity groups of the previous academic year and the following reference values:

1) Large group (lectures): 100 students per group

2) Average group (problems and seminars): 50 students per group

3) Small group (laboratory and field practicals): 20 students per group

2. In the case of the External Internship subject, 0.25 credits are allocated for each student. This allocation may be modified by ± 20%, at the proposal of the faculty/school and with the agreement of the vice-rector responsible, provided that it does not increase the School's overall teaching assignment.

3. For the subjects Bachelor's-Degree Thesis and Master's-Degree Thesis, the number of credits assigned are calculated as shown below. The formulas used can be revised, if necessary, by the Commission for Academic and Teaching Policy:

- Bachelor's-Degree Thesis: The formula applied is: Credits = (no. thesis credits/30 + 0.2) x no. students

- Master's-Degree Thesis:

  - 21 -30 credits: 1.2 credits per student
  - 11 -20 credits: 0.9 credits per student
  - 6 -10 credits: 0.6 credits per student

2020 Bachelor's Degree in Chemical Engineering (GEQ)

As shown in Table B.4.1 of Annex B, the teaching staff involved in teaching the Bachelor's Degree in Chemical Engineering in the 2020-21 academic year consists of a total of 121 members, of whom 29.75% are women and 70.25% men. In terms of professional categories (Table B.4.2 of Annex B) the teaching staff is made up of 15 university professors, 1 full professor, 23 senior lecturers (Spanish system), 14 senior lecturers (Catalan system), 2 assistant lecturers, 1 university school senior lecturer, 30 adjunct lecturers (7 of whom are doctors), 2 visiting lecturers, 28 trainee predoctoral researchers, 2 postdoctoral researchers, 1 permanent collaborator and 2 emeritus professors.

A total of 57% of the members are doctors, who teach 71.8% of all the hours, well above the minimum requirement of 50% (Table B.4.1 in Annex B).

The teaching and research experience of the teaching staff is clear from the total of 266 five-year teaching premiums and 196 six-year research premiums, with an average of 4.3 five-year teaching premiums and 3.2 six-year PDI research premiums per full-time permanent member. In fact, the percentage of teaching hours grouped in terms of teaching premiums (Table B.4.6 in Annex B) shows that 59.5% of the teaching load is taught by lecturers who have more than five years of active teaching experience. The lecturers without at least five years teaching experience are mainly adjunct lecturers and trainee teaching / research staff. A total of 53.8% of the hours are taught by lecturers with at least six years of active research, and are largely university professors and senior lecturers.

The coordinator of the degree is a graduate in Chemical Sciences, specializing in Industrial Chemistry (1988), and has a doctorate in Chemical Sciences from the University of Barcelona (1992). He has postdoctoral experience at the University of Sherbrooke (Canada, 1993) and the National Renewable Energy Laboratory (US DoE, Colorado, 1994-1995). He has more than 25 years teaching experience and 30 years of research experience in the field of Chemical Engineering.

Overall, the CVs of the teaching staff involved in the Bachelor's Degree in Chemical Engineering show extensive research activity, both in terms of the number of competitive projects they lead and the number and impact of contributions they have made in the form of publications, participation in international conferences and theses supervised.

Also note the average satisfaction of students with teachers. As can be seen in Table C.6 in Appendix C, students rated the question "Do I consider he/she is a good teacher overall?" with a score of 7.46 out of 10 (scale 0-10). This score does not differ substantially from previous courses, which is remarkable considering that with the exception of laboratory practices and examinations, almost all academic activity in the academic year 2020-21 was done online.

Overall, the teaching staff is academically prepared to respond to the requirements of the degree and has all the necessary teaching, research and professional experience.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

As shown in Table B.4.1 of Annex B, the teaching staff involved in teaching the Bachelor's Degree in Mechanical Engineering in the academic year 2020-21 consists of a total of 70 members. In terms of professional categories (Table B.4.2 of Annex B) the teaching staff is made up of 2 university professors, 9 senior lecturers (Spanish system), 2 university school senior lecturers, 9 senior lecturers (Catalan system), 1 assistant lecturer, 2 lecturers on secondment and 2 permanent collaborators. The staff is completed with 35 adjunct lecturers (of whom 2 are doctors), 7 predoctoral researchers and 1 visiting lecturer. As far as gender is concerned, 17.4% of the teaching staff are women.

A total of 40% of the teaching staff are doctors, who are responsible for 57% of all the teaching hours.

The coordinator of the degree is an industrial engineer (2003) with a PhD from the Department of Aeronautics, Imperial College London (2006). He has predoctoral and postdoctoral experience, and he has been an international visitor at centres of excellence for a total of more than 6 years. He has more than 15 years of teaching experience and 20 years of research experience in the field of mechanical engineering. The teaching experience of the teaching staff is also clear from the number of five-year teaching premiums (94 in total, with an average of 3.48 per lecturer). Research experience is demonstrated by the number of six-year research premiums (62 in total, with an average of 2.3 per lecturer). As can be seen from the CVs of the coordinator and the lecturers, their participation in research projects is noteworthy. Emphasis should also be placed on the high quality of their contributions in the form of publications of various kinds, participation in conferences and thesis direction. The participation of associate professors from industry stands out, which gives the necessary professional character to the most technological and practical subjects of the studies. It should also be pointed out that they have made quality contributions in the form of a wide range of publications, participation in international conferences and theses supervised. Also of note is the participation of adjunct lecturers from industry, which gives the more technological subjects and the work experience programmes a more professional slant.

Overall, the teaching staff is more than academically prepared to respond to the requirements of the degree and has all the necessary teaching, research and professional experience. Finally, Table C.6 in Annex C shows that the students have given an overall score of satisfaction with the teaching staff of 7.58 out of 10.

4.2. There are sufficient teaching staff in the faculty, and they have enough time to carry out their duties and attend the students.

In this Substandard, the following ASIIN criteria will be analysed:
4.2 Staff development

2020 Bachelor's Degree in Chemical Engineering (GEQ)

The number of teaching staff on the Bachelor's Degree in Chemical Engineering is sufficient to ensure that the curriculum of the degree can be taught and that all academic activity can be carried out satisfactorily:

- A total of 71.8% of the teaching of the degree is done by lecturers with a doctorate. They are responsible for the subjects and give most of the lectures. The doctors on the teaching staff are mainly on permanent contracts (university professors, senior lecturers [Spanish system], senior lecturers [Catalan system], etc. Tables B.4.1 and B.4.2 of Annex B).

- As far as the affiliation of the teaching staff is concerned, and according to the data in Table B.4.4 in Annex B, 63.6% of the degree's credits are taught by lecturers from the Department of Chemical Engineering, 22.4% by lecturers from the Department of Mechanical Engineering, both of which are part of ETSEQ, and only 14% by lecturers from other departments.

- The **ratio of full-time equivalent students to full-time equivalent teaching staff** is 12.73 (Table B.4.7 in Annex B), a value that is regarded as acceptable because it gives lecturers enough time to attend their students and also to teach their classes.

- The curriculum was designed so that the subjects on the **first year of the degree** are taught by the most experienced teachers, with the aim of making them attractive to first-year students and guaranteeing quality. This criterion has been maintained ever since the degree was first taught. Thus, in the academic year 2020-21, 75.9% of the first-year teaching hours were taught by lecturers who were also doctors, and the lecturers responsible for coordinating the subjects were always doctors (6 university professors, 4 senior lecturers [Spanish system], 6 senior lecturers [Catalan system], and 6 others) except in the subject Graphical Expression (see Table B.4.4 in Annex B).

- The degree brings in experience from the professional world thanks to the adjunct lecturers, who teach about 22% of the total hours on the degree. They contribute mainly by supervising the Bachelor's-Degree Thesis (TFG). Of all the theses done, 13 professionals from companies in the Tarragona petrochemical industry teach 83.3% of the hours under the coordination of two permanent senior lecturers (Table B.4.4 in Annex B), and they also teach specialized content on subjects in the 3rd and 4th years. Also note that 23.3% of the adjunct lecturers are doctors (Table B.4.2 of Annex B).

- Professional insight is also provided by the compulsory subject **External Internships**. In this case, the tutoring and supervision of the internships is entirely in the hands of permanent teaching staff who are doctors and have extensive teaching experience (4 university professors, 2 senior lecturers

[Spanish system] and 1 senior lecturer [Catalan system], Table B.4.4 in Annex B).

- It should also be pointed out that 13.4% of teaching is done by trainee lecturers/researchers. The teaching tasks they are assigned tend to be of support and generally involve practical and experimental methodologies

- Finally, we would like to make special mention of those lecturers who hold positions of responsibility at the URV: Dr Francesc Medina (university professor), is vice-rector for Innovation and Knowledge Transfer, and Dr Jordi Gavaldà is secretary of the URV's Board of Trustees. They are both members of the Department of Chemical Engineering.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

The academic staff with PhDs is responsible for most of the teaching (more than 57% of the credits) and the subjects, and gives practically all the lectures, with the exception of the optional subjects. They have the ranks of university professors, , senior lecturers, university-school senior lecturers and assistant lecturers. The non-PhD staff consists of collaborating lecturers, doctoral students and adjunct lecturers who mainly give practicals, laboratory sessions and optional subjects, and who are generally not responsible for coordinating the subject.

The ratio of full-time equivalent students to full-time equivalent teaching staff is 12.10 (Table B.4.7 in Annex B), a value that is regarded as acceptable if compared with the EU-27 mean of 15.3 in 2018 (source: Eurostat).

The Bachelor's-Degree Thesis is clearly professional in nature and practically all the theses are supervised by adjunct lecturers. University professors and senior lecturers take part in the coordination and the examination panels but not in the supervision. In total, 83% of the projects are supervised by adjunct lecturers from local industry (Table B.4.4 in Annex B).

Finally, of all the credits on the degree only 31 are taught by teaching staff not affiliated to the Department of Mechanical Engineering. These credits belong to the subjects Fundamentals of Mathematics and Statistics in Engineering, Fundamentals of Chemistry in Engineering and the business management subjects. So most courses are taught by staff from the Department of Mechanical Engineering, which has a sufficient number of specialists.

4.3. The institution offers support and opportunities for enhancing the quality of the lecturers' teaching and research

The URV gives its teaching staff appropriate support and opportunity to improve their teaching. In fact, the improvement of teaching quality is one of the URV's priority objectives.

As far as institutional support is concerned, the URV's **Human Resource's Service** (SRH) is responsible for managing all issues related to the people who work at the university either as an academic or in the field of administration and services.

The **Educational Resources Service** (SREd) provides teaching staff with technical and methodological support. The SREd's mission is to encourage the integration of Learning and Knowledge Technologies (LKT) into teaching practice, and give comprehensive responses that improve the teaching-learning process and make it more efficient and effective. Some of its main goals are:

- To give comprehensive to support the development of e-learning, in the context of face-to-face, blended and online courses.
- To integrate LKT to encourage the development and implementation of teaching-learning processes as part of the URV's teaching model, particularly the online teaching model.
- To ensure the quality of new teaching resources, learning activities and audiovisual productions.

Among other things it works on:

- Instructional design and teaching coordination in online teaching-learning processes.
- Design, production and assessment of e-activities and systems of e-assessment.
- Creation of digital and audiovisual resources and content.
- Communication and videoconferences for teaching.
- Use of the Moodle virtual campus and 2.0 tools.
- Educational videos.

Another resource of great importance is the Learning and Research Centre (CRAI), which integrates in one place all the university services that provide support to learning, teaching and research in terms of information and IT for learning and knowledge. The Factoria (Factory) provides teaching staff with advice and support for incorporating these technologies into their academic activities. And the Espai d'Aprenentatge de Llengües (Self-access Language Centre) (EAL) gives teaching staff and the whole university community support in terms of language learning in the classroom or online (English, Catalan and Spanish).

The URV teaching staff are generally highly satisfied with the CRAI, as can be seen from the score of above 8.8 out of 10 in the last survey (see Table A.5.2.1. Data on the Learning and Research Centre [CRAI] on Sescelades Campus, General Satisfaction of CRAI users, 2018-19/2017-18).

The Servei Lingüístic (Language Service) gives support and advice to teaching staff and the rest of the university community for learning and perfecting languages, which are increasingly necessary in teaching, research, the labour market and university relations (Catalan, Spanish, English, French and Italian). The Language Service also provides consultancy on other language issues (language and terminological queries, and the correction and translation of texts). It is also responsible for language normalisation and promotes the use of Catalan within the University.

- **Training and innovation for improving teaching**

The URV teaching staff also has the support of the Institut de Ciències de l'Educació (Institute of Education Sciences) (ICE), the body entrusted with providing activities to improve teacher training and innovation. The Institute takes active part in developing university policies on innovation and improving the quality of teaching, particularly via teacher training but also through other fields such as innovation and educational research. The ICE organizes and gives support to funding calls for teaching innovation projects and teaching innovation groups, and it helps disseminate good practices in this area. It also manages the URV's Training Plan for the Teaching and Research Staff (PROFID), which is structured as three different training plans: General Training Plan, Specific Training Plan and the DANG Plan (teaching in English). Annex A, Table A.4.3.1, shows the general information about the PROFID.

The **General Training Plan** provides annual, lifelong training activities for teaching staff, such as courses, workshops, working seminars, etc. with the aim of providing general training that focuses on common topics or points of general interest for university lecturers, establishing a culture of lifelong learning among university teaching staff and improving the quality of teaching, research and management.

The **Specific Training Plan** responds to the specific demands of departments and faculties and schools. In this regard, the aim is to Provide help and resources to respond to the needs of every collective, while establishing communication links between the ICE and the various faculties, schools and departments of the university.

The DANG Plan for teaching in English gives support to those lecturers who teach their subjects in English as part of programmes that are partially or wholly taught in English at the URV or who wish to start teaching in English in the near future. In particular, it aims to:

- Remove language barriers.
- Set up international double degrees.
- Increase the international visibility of the URV.
- Ensure the quality of the language in the courses given in English.

The general aim of the **teaching innovation** programme is to give support to lecturers and encourage them to improve quality and teaching innovation by setting up groups and networks of lecturers who work on teaching innovation and research and, in particular, on improving learning strategies and processes, assessment and the adaptation of degrees to higher education.

The URV's Board of Trustees and the Institute of Education Sciences fund educational projects with the **Ajuts Pont** (Bridging Grants) which aim to give order and visibility to the transfer of knowledge between the university community and the rest of the educational system in the form of joint innovation projects. The general objectives of this call are:

- To encourage URV lecturers to work jointly with teachers from infant, primary and secondary education.
- To give rise to educational projects that improve teaching.
- To disseminate projects and good practices in the educational community.

The tables in Annex A show the training and teaching innovation projects involving URV lecturers: Table A.4.3.2 Teaching innovation projects involving ETSEQ lecturers, Table A.4.3.3. Attendance on PROFID courses by ETSEQ lecturers, Table A.4.3.4. List of ETSEQ lecturers with the DANG Plan certificate and Table A.4.3.9. Bridging grants for educational projects. As can be seen in Table A.4.3.1 General URV PROFID data, in the academic year 2019-20 there was an increase in Technology courses for adapting teaching to the online format.

➢ Mobility for teaching staff

The International Center programmes, publicises and manages the international mobility of students, administrative staff and teaching staff on Erasmus, MOU, Study abroad and freemover programmes. The aims of the International Center are to increase the international visibility of the URV, encourage the internationalisation of our university community and, finally, attract highly qualified international students and staff. The International Center functions as a centralised unit that manages the documentation and information of all the processes involved in the internationalisation of the URV. It gives support to all students, teaching staff and administrative staff who spend some time abroad, and it is a one-stop shop for all international visiting students and staff during their stay at the URV.

Table A.4.3.6 List of ETSEQ lectures who have been on outgoing mobility programmes shows all lecturers who have engaged in mobility in recent years.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

➢ Teaching support staff

The Bachelor's Degree in Chemical Engineering has four full-time specialists at its disposal who are responsible for managing and maintaining all materials and assisting lecturers with the laboratory-practical and computation-laboratory components of their subjects.

➢ Satisfaction of teaching staff

The satisfaction of the staff teaching the Bachelor's Degree in Chemical Engineering with matters of institutional support was assessed by means of a survey, the results of which are listed in Table C.10 in Annex C. The teaching staff were very positive in their assessment of the curriculum, the academic management and the coordination of the degree, as well as the teaching conditions, the infrastructure and the resources at their disposal. Most of the items evaluated were rated higher than 8.0 points out of 10.0. The following items were particularly well rated:

- The match between the subjects taught and the teaching profile of the lecturers (9.30/10).
- The timetables (9.09/10) and the examination schedules (8.89/10).
- The coordination of the teaching of the degree (8.43/10).
- The assistance provided by the technical staff of the teaching laboratories (8.86/10), the virtual campus (8.68/10) and the resources available at the Learning and Research Centre (CRAI) (8.92/10).

The aspects that were rated worst were the following:

- In terms of students: their admission profile (5.04/10), their work and effort (6.31/10,0), the learning outcomes achieved (7.7/10) the level of the graduates (7.40/10).
- In terms of infrastructure: the general state of the classrooms (7.88/10) and the technology available in the classrooms (7.77/10).
- In general terms: satisfaction with the courses provided by ICE (6.98/10) and the information and functionality of the ETSEQ (7.46/10) and URV websites (7.60/10)

2022 Bachelor's Degree in Mechanical Engineering (GEM)

➢ **Teaching support staff**

The Bachelor's Degree in Mechanical Engineering has three full-time members and one part-time member of the administration and services staff, who assist lecturers in their teaching duties, and particularly in preparing and maintaining the practical sessions in the laboratory.

➢ **Satisfaction of teaching staff**

The degree of lecturer satisfaction with the degree is summarized in Table C.10 in Annex C. The information shows that lecturer satisfaction with the degree is high and most of the items were given scores of 8 out of 10. The overall ratings were the following:

- Overall satisfaction with the curriculum: 8.21
- Overall satisfaction with their teaching work in this degree: 8.42
- Overall satisfaction with the teaching resources at their disposal: 8.37

The aspects that are rated worst by teachers are:

- The teaching hours of the subject(s): 7.65
- The examination schedule for the subject(s): 7.99
- The student admission profile: 6.37

Assessment of compliance with standard 4:

For all of the above, we consider that **we comply with Standard 4 and are progressing towards excellence.**

	Progressing towards excellence	Compliant	Compliant with conditions	Non-compliant
GEQ	x			
GEM	x			

Standard 5 Effeciency of learning support systems

"The institution provides students with sufficient and efficient learning guidance and resources."

5.1. The academic guidance services give sufficient support to the learning process and the careers guidance helps graduates find work.

In this Substandard, the following ASIIN criteria will be analysed:
1.4 Admission requirements
2.4 Support and assistance

The URV has various services that provide students with guidance on academic, professional and mobility issues. These services are available to students from the moment they complete their pre-registration/admission process and ensure that students are constantly monitored throughout their time at the University until they graduate. These services are described in different processes of the School's IQAS, which defines the responsibilities, the activities that have to be carried out and the mechanisms of monitoring and continuous improvement, as well as cross-sectional processes, when the processes are managed by a service.

➢ **Academic guidance and Tutorial Action Plan**

The IQAS process "PR-ETSEQ-013 Student Guidance" stipulates how the academic guidance is defined, revised, updated and improved.

The School uses the Tutorial Action Plan (PAT) to define how to monitor and guide students so that they adapt to the university; to accompany students from the academic point of view in their daily duties; to help students solve all those problems related to their studies and university life, and mature personally and professionally.

In bachelor's degrees, the PAT is organised around the figure of the lecturer-tutor (all students are assigned a tutor) and the academic guidance sessions that are scheduled every academic year (information about external internships, mobility, optional subjects, registration requirements, etc.). Information about participation in group guidance activities can be found in Table 6 of the PAT report.

The technological support provided by the Virtual Campus has been incorporated into the Tutorial Action Plan of all bachelor's degrees from the beginning and into the master's degrees that have requested it.

The various spaces on the Virtual Campus that give support to academic guidance are:

- Noticeboard of the bachelor's or master's degree for the person responsible for the programme to communicate with students.
- Academic Tutorial 20XXXX, the section for each tutor where they record the tutorials they have done.

- Common tutorial spaces for the whole of ETSEQ, where tutors can find resources useful for tutorials.
- PAT reports for ETSEQ, a space where the teaching quality support officer can find reports on the number of students on each degree, which can be included in the PAT Report.

The PAT can be rated by using the PAT Assessment Report, a document available in the web section Quality, where various indicators about the activities can be rated. At present, the report is written every other year, like the monitoring reports of the degrees accredited. The proposals of improvement presented in this standard come from the last PAT report, and it is for this reason that the codes are the same. The data in the PAT Report are from the last four years. The report discusses the results of the last year from the main sections of the last PAT Report 2019-21:

In the Bachelor's Degree in Chemical Engineering, the tutor is changed every year so that he/she is the same as the tutor for the Integrated Project (API) or the bachelor's degree thesis. If students are registered for more than one project, the tutor will be the one for the highest academic year. If they are not registered on any project, the tutor will be the head of the degree programme. Those students who have registered on outgoing mobility subjects will be assigned the School's mobility coordinator as tutor. In these degrees, the student-tutor ratio cannot be more than25 students per tutor.

In the Bachelor's Degree in Mechanical Engineering, as was stipulated in the proposal for improvement 2018.19 ETSEQG-5.1-M3, as from the academic year 2020-21, the tutor is assigned by the coordinator of the academic year for which students are registered on most subjects. This has meant that the ratio per tutor has increased to 78 students per tutor but, despite being a high figure, it is made up for by proximity.

Connected to the PAT is the URV's *Protocol to Respond to the Potential Dropout of 1st-Year Bachelor's Degree Students* First year students require special attention, so they need to be given tutorials in order to reduce dropout rates. Since the academic year 2018-19, and in response to improvement 2015.16-ETSEQ-5.1-M1, the analysis of the implementation of the protocol has been added to the PAT Report (section 5.7) and it was decided that one improvement would be to increase the tutoring of these students (2018. 19-ETSEQG-5.1-M5). However, although this was done, the percentage of students at risk of dropping out has increased in the last two years (from 21% to 34%). Over all the bachelor's degrees, 57% of tutorials were done with students at risk of dropping out. The reasons given by students who have dropped out and whom we have been able to contact are that they do not like the degree or that the academic level, academic demands and/or pace are too high.
Details of student participation in tutorials can be found in Table 10. In the academic year 2020-21, the participation of students on the Bachelor's Degree in Chemical Engineering was 45.5% and the participation of students on the Bachelor's Degree in Mechanical Engineering was 27.7%. The average participation for all the degree programmes taught at the School was 35.7%. An analysis of the increase in participation of Mechanical Engineering students between 2018-19 (4.4%) and 2020-21 (27.7%) suggests that improvement 2018.19-ETSEQG-5.1-M3, which assigned course coordinators as tutors, has led to more tutorials. To improve the impact of tutorials, improvement 2018.19-ETSEQ-5.1-M1 proposed creating a work instruction

that would act as a guide to facilitate the process for teaching staff. We believe that this measure has been successful, since the participation in the academic year 2018-19 has gone from 20.7% for all degree programmes to 35.7%.

For technical reasons, improvement 2018.19-ETSEQG-5.1-M4, which proposed that the head of the bachelor's degree programme (and year coordinators) could introduce individual tutorials, has not been implemented. In the satisfaction survey, the tutors have asked for the improvement to be made. The management team agree with the request and have restated the improvement (2020.21-ETSEQG-5.1-M1).

As far as the number and type of tutorials is concerned, Table 11 of the PAT Report shows that the Bachelor's Degree in Mechanical Engineering tended to use group tutorials whereas the Bachelor's Degree in Chemical Engineering tended to use individual tutorials.

Table 12 shows that 88% of all bachelor's-degree tutorials were online, which reflects the fact that most of the teaching was also online.

The topics discussed in the tutorials vary according to the bachelor's degree, as can be observed in Table 13. In general, however, the topics that were dealt with most were "Planning", "Others", "Monitoring Competences", "Educational Needs" and "External Internships". The fact that "Others" is one of the most common indicates that the topics do not respond to real needs and should be redefined. To this end, an improvement could be to ask the Programming and Quality Office to revise the catalogue of topics and adjust it to the real needs of tutors (*2020.21-ETSEQ-5.1-M1*).

It is difficult to draw conclusions about student satisfaction with the tutorials (see table 14) because participation in the surveys was very low. The improvement proposed in the last report (2018.19-ETSEQ-5.1-M2), which consisted of defining key subjects with a large number of students enrolled and asking them to respond to surveys on their mobiles in the classroom, could not be implemented since teaching in the second semester of the academic year 2019-20 and the whole of 2020-21 was online and students were not physically present in the classrooms. Therefore, the improvement will be proposed again for the next academic year, codified in Standard 3 (*2020.21-ETSEQ-3.2-M2*).

The results in Table 14 and the comments to the open questions about the PAT indicate that most students know who their tutor is. Therefore, improvement 2015.16-ETSEQ-5.1-M2 and M3, which added the name of the tutor and the degree to the title "Academic Tutorial 202XXX" of the virtual campus, and improvement 2018. 19-ETSEQG-5.1-M1, which sent a reminder from the PAT Coordinator about tutorial times and dates to both tutors and students, have had an impact.

The satisfaction of tutors is assessed by a survey at the end of the two-year period. The information about results can be seen in Table 16, even though the opinions are very similar to other years. It should be noted that 100% say that they are aware of the content of the ETSEQ's PAT tutorial programme and that for the first time student participation is above 50%. In accordance with improvement 2018.19-ETSEQ-5.1-M3, a question on overall satisfaction with tutorials was added, which this year was 59%.

With regard to improvement 2018.19-ETSEQG-5.1-M2, the heads of the respective degree programmes reviewed and updated the list of guidance activities defined in the PAT.

One technical proposal for improvement (2018.19-ETSEQ-5.1-M5) was that the tutors should be able to extract all the recorded information as an Excel document not a PDF. We were provided with an Excel document of information for the academic year 2020-21 but it did not include all the information normally presented in a PAT report. Therefore, this improvement is proposed again (*2020.21-ETSEQ-5.1-M2*).

Improvement 2018.19-ETSEQ-5. 1-M6 aimed to find out to what extent students really needed guidance, facilitate the management of guidance activities and generate evidence of the tutorials given automatically. To this end, a proposal was made to enable students to request a tutorial (along similar lines to appointments tool for psychological care) which would generate a follow-up file after the tutorial had been accepted and completed that would be available to the tutor. This improvement was not implemented and is proposed once again for the coming years (*2020.21-ETSEQ-5.1-M3*).

In accordance with improvement 2018.19-ETSEQ-5.1-M4, this report has been drafted taking the gender perspective into account.

In response to the open survey questions, tutors have suggested that the assignation of first-year students should be brought forward to the month of July. For the Bachelor's Degree in Chemical Engineering, the head of the degree programme has been temporarily assigned and while the groups for the integrated project are being made, he/she will be able to act as tutor (*2020.21-ETSEQ-5.1-M4*).

➢ **Careers Guidance Service**

In terms of careers guidance, the URV has the Careers Service and Alumni, the main aim of which is to put students and graduates in contact with employers.

The services they offer are:

- Alumni URV, a free service that works to keep former students in touch with one another. It provides services and advantages for its members, and it organises activities for professional and personal development.
- The University Job Fair is organised on an annual basis, and is an indispensable meeting point for the university community and the socioeconomic sector of the region the aim of which is to help URV students and alumni to find work.
- Job Bank. The URV provides its students and alumni with a platform for managing their curriculums and consulting professional job opportunities. Employers are allowed to announce the jobs they have available to URV candidates at no cost.
- The Careers Guidance Service was created in 2012 with the aim of enabling students to take decisions about their transition from university to employment, to adapt their abilities and expectations to the demands of the professional world or to redirect their professional career at subsequent moments. Since the 2013-14 academic year, workshops and individual sessions have been provided that are free for all students. Since the 2018-19 academic year, a 6-hour employability module has been integrated into the

curriculum in the 3rd year project subjects. As for master's degree students, from the 2021-22 academic year they have access to a professional development space on the URV's virtual campus. The main objective is to create a space for exchange and communication with master's students and at the same time provide useful tools, resources and strategies for finding work.

As can be seen in Table A.5.1.1 of Annex A, the School's students have participated in a variety of group career guidance activities, and Table A.5.1.2 shows the history of attendance at individual career guidance sessions.
The results on the satisfaction of URV students with professional guidance (Table C.0.1) show a satisfaction with individual guidance of 3.77/4; and the satisfaction with the employability workshops was between 3.27 and 3.45/4.

In terms of graduate satisfaction with professional guidance, we believe that it would be an improvement to find out how satisfied they are with other activities such as the Job Fair and Alumni URV (*2020.21-ETSEQ-5.1-M5*).

On the other hand, in order to find out how satisfied students in the final years were with the career's guidance received and with other activities such as the Job Fair, it is proposed as an improvement to ask the unit responsible for the GPQ surveys to add these questions to some of the surveys (*2020.21-ETSEQ-5.1-M6*).

- **Psychological guidance service**

The URV provides all its students with a Psychological Guidance Service. The Unit of Psychological Consultancy and Support to Students (UASPE) is a free service that gives confidential advice to URV students so that they can adapt to university life, become emotionally stable, improve their academic performance or discuss the possibilities of initiating a course of treatment. When tutors detect that students may need this service, they tell them about it so that they can use it if they so wish. Anybody who wishes to use the service can request an appointment with the therapist.

- **Student mobility**

The general procedure for managing student mobility is described in the processes PR-ICENTER-001 Administration of incoming students and PR-ICENTER-002 Administration of outgoing students.

Mobility at the Universitat Rovira i Virgili is managed by the International Center (I-Center) and is internally organised in three areas with different functions: Welcome, Strategy and Mobility, with the following objectives:

- To increase the international visibility of the URV.
- To foster the internationalisation of the university community.
- To support the URV's internationalisation processes.
- To advise students, teaching staff and administrative staff who engage in international visits.
- To be a one-stop shop for international students and visiting staff while they are in Tarragona.

For master's degree students there is a comprehensive welcome plan, designed particularly for international students. The plan has three phases (before arrival, on arrival and during the stay) and the respective processes are the responsibility of the URV's Students' Office (OFES) and the International Center (I-Centre).

There is a Mobility regulation and every faculty and school has a mobility coordinator.

The URV has been awarded the Erasmus University Charter by the General Directorate of Education and Culture of the European Commission. This document enables universities to take part as coordinators or members in European projects and programmes. By means of these programmes, the institutions can engage in mobility of teaching staff, researchers, students and administrative staff by entering into bilateral collaboration agreements with other universities that have also been awarded the Charter.

The ETSEQ takes active part in various programmes to promote student exchanges with other universities in Spain, in the framework of the Sicue-Seneca programme, and in the European Community, as part of the Erasmus programme. The School is also constantly and actively seeking exchange agreements with universities from outside the European Union, such as the United States and Latin America.

The list of agreements is changing constantly so to find out which programmes are active (Erasmus Studies, Erasmus International Studies; ISEP Students, MOU Studies and SICUE) for every degree, consult the URV portal MoveOn (https://urv.moveonfr.com/publisher/1/spa#).

The students who wish to visit another university or foreign institution need to get in touch with their mobility coordinator, master's degree coordinator or head of the undergraduate programme. The viability of these exchanges will be studied in all cases. To promote mobility, all students are regularly informed of mobility calls.

The ETSEQ has a long tradition of both incoming and outgoing mobility agreements (Tables A.5.1.3 i A.5.1.4), but was affected by the COVID health emergency in the academic years 2019-20 and 2020-21.

The level of internationalisation of the School's degrees can also be seen in the number of subjects taught in English, as well as the fact that the bachelor's degree thesis can be written and defended in English.

As far as master's degrees are concerned, the extent of internationalisation can be seen in the School's offer of courses because five of the seven master's degrees are taught wholly in English. This has an impact on the number of international students, which is increasing every year.

As far as student satisfaction with outgoing mobility is concerned, in Table C.0.2 it can be seen that the overall rating is 8.53/10.

When student mobility is for reasons of external work experience, students are selected and assigned by the I-Center. There are different models of mobility work experience agreements depending on whether the work experience is part of a mobility call or not:

- Work experience as part of a mobility call. Students must first make their application and be assigned a mobility place.

    - For the Erasmus Traineeship programme, we use the learning agreement for traineeships: https://www.urv.cat/ca/vida-campus/serveis/mobilitat/traineeships-erasmus-tram2021/
    - For the MOU Traineeship programme, we use the learning agreement for traineeships: https://www.urv.cat/ca/vida-campus/serveis/mobilitat/traineeships-mou-tram2021/
- Work experience that is not party of a mobility call. Students have not applied for a place on a mobility programme but, just the same, they can spend a period of time abroad doing work experience if their faculty/school authorises them to do so (curricular or extra-curricular work experience).
    - IC5 model: https://www.urv.cat/ca/vida-campus/serveis/mobilitat/practiques-no-convo/

➢ **Student rights and non-discriminatory treatment**

The URV has established a variety of mechanisms to guarantee the rights of students and non-discriminatory treatment. In the first place, the University Students Statute establishes the rights and duties of students, and describes the legal framework in which they can be represented. It also discusses the issue of personal attention as a key element in the overall education of university students; it regulates mobility, guidance, tutorials and external work experience; it describes the scheduling of teaching and assessment; it encourages peaceful coexistence and shared responsibility at university; it stresses the importance of physical and sporting activity, and a grounding in values as components of overall student education; and it creates the State University Student Council as a body for deliberation, consultation and participation, and to represent students' interests to the Ministry of Education.

This legal framework has been carried into effect by the following polices:

- Protocol to prevent and respond to male violence and LGTBI violence that affects URV students
- Guide for students with handicaps or other disorders
- III URV Equality Plan

The URV's Students' Council is the highest body for consultation, deliberation, representation and coordination of students. It aims to ensure that students' rights and duties are respected, it provides coordination, it encourages students to take part in all areas of university life and it seeks to give students an academic and human education of the highest quality.

The University has also created the Ombuds Office which strives to defend the rights of the members of the university community against the University's bodies of governance, representation or administration. The ombuds officer can act ex officio or in response to a complaint when a right has been infringed. The officer's activity is not subject to instructions by any academic authority or governing body.

➢ **Student representation in the university community**

In order to increase student representation and participation in the governing bodies of the university community, the Office of the Vice-Rector for Students and Employment has created the figure of academic year or group delegate for bachelor's degrees (although the School has also encouraged master's degrees to take the same measures) The creation of this figure was approved by the URV's Governing Council on 23 October 2019 and has its own regulation. At the ETSEQ it was identified as improvement 2018.19-ETSEQ-5.1-M7, and has been in existence since the academic year 2019-20.

The existence of a delegate fosters regular communication between students, teachers and governing bodies, and contributes to student representation as groups or classes. The aim is to provide a channel of permanent communication between students, teaching staff and schools/faculties. This activity of student representation is recognised with 1 ECTS credit as part of the optional subject "Recognised University Activities" on the bachelor's degree curricula.

Another channel of student participation is the School Board, thanks to the representation established in the ETSEQ Regulations (12%).

Other mechanisms by which students can express their concerns are satisfaction surveys, which always contain open questions; direct interaction with the people in charge of degrees; the students' Coordination Commission (see section 1.4 for further detail); the participation of bachelor's- and master's-degree students in the Quality Commission; the suggestions box, etc.

It should also be pointed out that the URV's Academic Regulations describe, among other things, the mechanisms at the students' disposal for revising the grades they have been awarded. Likewise, the website Administrative Procedures describes the various procedures and applications.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

The survey of recent graduates from the academic year 2020-21 (Table C.9) shows good evaluations of student support services (registration and other procedures, etc.) with a rating of 7.11, and also of response to complaints and suggestions (7.08).

As far as careers guidance is concerned, satisfaction was low (4.56), along the same lines as previous years. On the other hand, and also in line with previous years, satisfaction with the preparation for professional activity was higher (6.53). Despite the low satisfaction with careers guidance, it should be remembered that the careers Guidance Service has been teaching a 6-hour employability module on the GEQ since the academic year 2018-19, as part of the to the subject leading to the 3rd-year project (Simulation and Analysis of Chemical Processes), and that every year the Job Fair is held at the Campus Sescelades, where students have the opportunity to get in touch with companies from a variety of sectors. What is more, 24 students on the Bachelor's Degree in Chemical Engineering attended individual interviews to receive careers guidance (Table A.5.1.1 in Annex A).

Finally, we would also like to mention that during the exceptional situation caused by COVID-19 in the academic year 2020-21 (Table C-4), students nearing the end of their studies and preparing their bachelor's-degree thesis positively valued both the guidance received from tutors (7.50) and the support from administrative and service staff (8.80).

2022 Bachelor's Degree in Mechanical Engineering (GEM)

The employability module on the Bachelor's Degree in Mechanical Engineering is part of the 3rd-year subject "Integrating Project III". As part of this same subject, students also participate in careers guidance seminars run by professionals.

For the academic year 2020-21, graduates rated student support services (enrolment information, academic procedures, grants, etc.) with 6.4 out of 10 (Table C.9). The score they gave academic guidance was 5.5. Of the professional guidance actions, it is given a particularly low score of 3.75. We believe that this is because the two employability modules were launched in the academic year 2018-19, and were attended by few students due to a problem with publicity (see table A.5 .1.1). In 2019-20 the course was not held because of COVID, and the students who attended in 2020-21 have not yet graduated. We hope that the score improves when these students do the graduate survey.

5.2. The material resources available are sufficient for the number of students and the nature of the degree.

In this Substandard, the following ASIIN criteria will be analysed:
4.3 Funds and equipment

➢ **Learning and Research Centre (CRAI)**

The URV's CRAI is a dynamic environment that brings together all the university services that give support to learning, teaching and research in terms of IT and LKT.

Since 2013, the URV's CRAI has had its quality management system certified by the Standard ISO 9001: 2008 for the period 2013-2015, and ISO 9001: 2015 for the period 2016-2019. This is the proof of the commitment to guiding users and continuous improvement. The Service Charter lists the services provided and the guarantees given to users.

According to the Ranking of Spanish University Libraries drawn up by the SECABA-Lab of the University of Granada, the URV's CRAI is the eighth most efficient system of university libraries in Spain and the second in Catalonia.

The CRAI on the Sescelades Campus has a surface area of almost 5,000 m^2 distributed in four floors, with comfortable areas designed for study, training, team work, computer work, and reading and rest areas. On average, it is used by 1,300 people every day and it also has uninterrupted access to online services and resources from the CRAI website. In the last survey carried out with students in 2019, the general satisfaction with the CRAI was given a score of 8.17 out of 10.

The CRAI gives students access to the bibliography recommended by the teaching staff and guarantees that there will be a sufficient number of copies to cater for demand.

Services
The services provided by the CRAI are the following:
• **Library**. The library gives access to all the information and documentation resources necessary for learning, teaching, research and the acquisition of information-related competencies.
- Consultation of bibliographical catalogues and free access to collections of books, journals and audiovisual material.
- Digital library: electronic journals, databases and electronic books contracted by the CRAI can be consulted at any time from anywhere.
- URV document loan, consortium loan of the Catalan universities, interlibrary loan and access to documents for other libraries outside the URV.

• **Information point.** This centralised service gives information about services, organisation, URV activities and general functioning, and the services provided by the CRAI.
• **Factory.** This service provides technical support so that the new technologies can be incorporated into learning and teaching. In conjunction with the Service of Educational Resources it provides individual consultancy and loans of audiovisual

material (video and photo cameras, tripods, recorders, etc.) and specific software for editing videos and images.

• **Self-access Language Centre (EAL).** In conjunction with the Language Service, the EAL provides printed and digital resources for learning English, Catalan and Spanish. Among the free services on offer are level tests, individual consultancy, language tandems and various levels of free English conversation groups.

• **The CRAI computer room**. The web application VirtLabs makes it possible for all members of the university community to assess the programs and applications they need for their academic activities. Access 24 hours a day, 7 days a week from anywhere.

• **User training**. Users are given training courses so that they understand how to use the library's resources as well as guides and tutorials, designed so that users will acquire the informational competencies they need.

• **Variety of spaces and equipment**:

- Rooms for silence and study, individual work and group work. Some tables are screened off from others to facilitate individual work and work in small groups.
- Meeting space and rest area with satellite TV.
- Internet connection and Wi-Fi.
- Videoconferencing equipment.

• **Reprography service.** Self-service photocopiers which can also print out documents.

Table A.5.2.1 in Annex A shows the general data for the Sescelades CRAI for 2020. Satisfaction with the CRAI has been rated by bachelor's-degree graduates as above 7.5/10 (Table C9 in Annex C).

For the first time this academic year the information about student satisfaction with the CRAI is available (Table C.8.1). For, GEQ the score was 8/10, for GEM it was 7.94/10 and for GEBA it was 8.83/10.

➢ Use of online teaching resources

The URV's virtual campus is based on the Moodle platform. For each subject, an online classroom is generated which can be accessed by teachers and students. However, there is no one-to-one correspondence between subjects and classrooms because virtual classrooms can be joined, divided or duplicated as the heads of the subject see fit. Within each classroom, teachers and students have a series of functionalities so that they can publish content, carry out a variety of activities and use different communication tools including web conferencing and the personalised publication of grades.

To encourage teaching staff to use the platform and turn it into a resource at the service of the quality of teaching-learning processes, the teaching staff has:

• Up-to-date documentation about the platform with videos explaining its main functionalities

• SPOC (SmallPrivative Online Course) training courses: First steps with Moodle, Moodle I and Moodle II.

• Workshops and courses, on campus or online, on advanced functionalities

• The URV Moodle Community: Learning community to which all URV professors belong and that enables them to share concerns, doubts, solutions and proposals.
• The Moodle Support Helpdesk that uses e-mail or telephone to solve methodological and technological queries about how to use the platform directly with the interested parties.
• The documentation, videos and the Moodle Support Helpdesk are also available to students.

Information about the online classes available, the use made of Moodle by teaching staff and students and other aspects can be found in Table A.5.2.2.

➢ **Teaching spaces**

The ETSEQ is located on the Sescelades Campus in Tarragona (Avinguda Països Catalans, 26, 43007). It shares a building with the School of Engineering (ETSE) and it has sufficient space and equipment for all the courses on offer. The maximum number of students that can be in the building at any one time is 2,522 (935 students from the School of Chemical Engineering and 1,587 from the School of Engineering).

According to current regulations, and bearing in mind the surface area, the furniture and specific equipment, the building can hold 3,173 students at any one time. The criterion of universal accessibility is respected at all times and everyone has full accessibility to all spaces and IT resources.

The ETSEQ also has a series of classrooms, the characteristics of which can be seen in Table A.5.2.3 in Annex A.

Students on degree course also use laboratories and equipment belonging to the departments, which are responsible for managing them.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

The satisfaction of GEQ students with the campus facilities in the 2020-21 academic year was 6.08 points and the satisfaction with the materials was 6.43, lower than in previous years, but probably influenced by the lack of classroom activity, which was limited to laboratory practicals and exams. On the other hand, the virtual campus (Moodle) was given a score of 7.31, maintaining the positive values of previous years (Table C.5 Annex C). Satisfaction with the facilities and equipment of the CRAI has a good overall score of 8.00 (Table C.8.1 in Annex C). The recent graduates from the same academic year gave scores of 7.83 for the campus facilities, 8.06 for the Virtual Training Environment, and 8.39 for the CRAI (Table C.9 in Annex C). Generally speaking, then, students are reasonably satisfied with the facilities and the associated infrastructure.

In addition to the ETSEQ's general resources already mentioned (classrooms, laboratories, Virtual Campus, CRAI, etc.), the GEQ students can also use Virtlabs (virtlabs.urv.cat), a web-based application service, to run semi-online software on their personal computers. Virtlabs gives students access to a variety of professional programs that they use in different subjects throughout their studies, such as chemical process simulators (Aspen Plus, Aspen Hysys, SuperPro), multi-purpose simulation (Comsol), computer-aided design (Autocad), life cycle analysis (Gabi), and programming languages (Matlab, Scilab, R, Python). In order to implement improvement 2018.19-ETSEQ-5.2-M1, which aimed to solve the connectivity problems in some of the programs, a series of meetings were held with the University's managers of the Virtlabs service in 2020 and 2021 to notify them of the problems and request solutions. This academic year, it seems that the Virtlabs service has improved quite considerably and fewer incidents are being reported. At the end of the academic year, we intend to further analyse the service. However, it is worth mentioning that Virtlabs partially installs and fully executes the software on the user's personal computer. For those cases in which students have incompatible personal computers or computers that do not meet the hardware requirements of the software to be run, the School used the application Remotelab (https://remotelab. urv.cat), which allows students to connect remotely via browser to the computers in the school's computer rooms and remotely run the program when the rooms are not being used for teaching purposes.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

According to the data in Table C.9 in Annex C, the satisfaction of the graduates with the facilities where the degree is taught (classrooms, laboratories, etc.) has been given a score of 6.9 out of 10. The score given for the virtual campus was 7.9. And the CRAI was rated as 8.2 for the academic year 2020-21.

On the other hand, as far as the use of computer resources is concerned, although the ETSEQ has the VirtLabs environment (virtlabs.urv.cat), which enables software to be used remotely, the Bachelor's Degree in Mechanical Engineering makes only occasional use of it in some subjects that require highly specific software. For some years now we have been encouraging the use of free software so that students can freely install it in their computers. During practicals or problem-solving sessions, students can borrow laptops with the software already installed.

In this respect, for purposes of computer-aided design, the licensed software PTC Creo has recently been changed for Autodesk Inventor, which can be used without restriction and free of charge for academic purposes. Students can install all Autodesk software (Inventor, AutoCAD, Fusion, NASTRAN, etc.) free of charge and without restriction as long as they have a URV email address. This considerably simplifies the issue of managing licences. In the subjects of Graphic Expression, Machines and Mechanisms and their laboratory sessions (dynamic simulation, structural simulation, etc.), all software needs are covered either by Scilab (opensource software) or MATLAB from Mathworks, for which a Campus license is available.

Assessment of compliance with standard 5:

For all of the above, we consider that **we comply with Standard 5 and are progressing towards excellence.**

	Progressing towards excellence	Compliant	Compliant with conditions	Non-compliant
GEQ	x			
GEM	x			

Standard 6. Quality of the outcomes of the study programmes

"The training and assessment activities are consistent with the training profile of the degree. The outcomes of these processes are appropriate both in terms of academic achievements, which correspond to the MECES (Spanish Framework for Higher Education Qualification) level of the degree, and in terms of academic, satisfaction and employment indicators."

6.1. The learking outcomes match the educational goals set and the MECES level of the degree.

In this Substandard, the following ASIIN criteria will be analysed:
2.1 Structure and modules
2.3 Teaching methodology
3. Exams: System, concept and organisation

Evidence of the implementation of the degree programme

The External Assessment Committee (CAE) has at its disposal a space in the URV's Virtual Campus of the URV where there is evidence of standards 1, 4, 5 and 6. The link is https://campusvirtual.urv.cat/, and you will be able to access only if the URV provides you with a username and password. From here you can access the sections on **teaching coordination** (section 1.4) such as:

- ✓ Coordination space for GEQ – Teaching staff
- ✓ Coordination space for GEQ - Students (Noticeboard)

- ✓ Coordination space for GEM – Teaching staff
- ✓ Coordination space for GEM – Students (Noticeboard)

The members of the CAE will be able to access a folder with the following information relevant to Standard 4:

1. Table with the **profiles of the teaching staff on the bachelor's degree** (table B.4.5)
2. CVs of the teaching staff

They will also be able to access the space on the URV's Virtual Campus for PAT coordination (standard 5):

Coordination space for the Tutorial Action Plan (PAT)

The CAE will find the following information about the implementation of the degree programme in terms of sections 6.1 and 6.2 of the Standard

1. The **Course guide**: for information on competences, learning outcomes, content, courses and the assessment System, among other things.
2. The subject space on the URV's Virtual Campus: for the document with the information about the assessment System (Work Plan) and the material the lecturer provides the students
3. **Student outcomes:** for all the grades awarded for all the assessment activities throughout the course. An example is given for each grade: fail 0-4.9; pass 5-6.9; good, 7-8.9 and excellent 9-10. For oral activities, the document used for the presentation and/or the assessment rubric. The grading table will also be made available for all examinations and with the final grades of all students. For the subject Bachelor's Degree Thesis, there is also a table with a list of all the theses defended during the academic year 2020-21 (standard 6.1)

Also available are:
- Validation reports, module descriptions and self-assessment reports.
- The documents constituting the internal assessment committees (CAI), the agreement approving the constitution of the internal assessment committees and the approval of the SAR for the School Board.
- Other information such as the Diploma and Diploma Supplement, Regulations and Videos.

Choice of subjects for accreditation

AQU Catalunya's Accreditation Guide of the official bachelor's and master's degree programmes stipulates that for bachelor's degrees to be accredited, evidence must be provided (from the last full academic year) on:

- Four compulsory subjects
- Bachelor's degree thesis
- Compulsory external internships

As far as the compulsory subjects were concerned, AQU Catalunya sent ETSEQ a proposal of six subjects, of which the head of the degree programme chose four.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)							
ENGLISH	CODE	CATALAN	YEAR	PERIOD	TYPE	ECTS	COORDINATOR 20-21
PHYSICAL CHEMISTRY	20204004	FISICOQUÍMICA	1	2nd semester	Basic Course	6	GIAMBERINI, MARTA BONET AVALOS, JOSÉ
CHEMICAL KINETICS AND REACTOR DESIGN	20204124	CINÈTICA QUÍMICA I DISSENY DE REACTORS	2	AN	Compulsory	9	STÜBER, FRANK ERICH
MATHEMATICS II	20204006	MATEMÀTIQUES II	2	1st semester	Basic Course	6	FERNÁNDEZ SABATER, ALBERTO

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)							
ENGLISH	**CODE**	**CATALAN**	**YEAR**	**PERIOD**	**TYPE**	**ECTS**	**COORDINATOR 20-21**
SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	20204118	SIMULACIÓ I ANÀLISI DE PROCESSOS QUÍMICS	3	AN	Compulsory	9	HERRERO SABARTÉS, JUAN
WORK PLACEMENT	20204501	PRÀCTIQUES EXTERNES	4	2nd semester CU	Optional work placement	12	FERRANDO COGOLLOS, MARIA MONTSERRAT
BACHELOR'S THESIS	20204301	TREBALL DE FI DE GRAU	4	2nd semester	Course project	12	GAVALDÀ CASADO, JORDI

The subjects selected for the accreditation of the Bachelor's Degree in Chemical Engineering were chosen to cover the key competences of the degree and be representative of different academic years on the degree. Therefore, of the four subjects, two provide basic training (first and second year), and two are compulsory (second and third year). Following the guidelines of the AQU, the subjects of the final thesis and external internships were also selected.

Explanation of the subjects selected for the accreditation:

- **20204004 PHYSICAL CHEMISTRY**

This 1st course subject has 6 ECTS credits and is taught during the second semester. Within this subject we address the fundamentals of chemical physics that are relevant to Chemical Engineering. The students arrive to the subject having studied Física (Physics), where the general concepts of classical mechanics and electrodynamics are reviewed. They are also following the annual subject Matemàtiques I (Mathematics I), where the fundamentals of differential calculus, such as ordinary differential equations and differential calculus in multidimensional spaces, are given.

The subject then focuses on the principles of classical Thermodynamics, with special emphasis on the relationship between the experimental facts and the First and Second Laws. We build up an intuitive knowledge about what can be calculated from energy conservation, as well as what is possible and impossible regarding the irreversible nature of the processes and the change in the entropy. Once this intuitive notion of the physical behaviour of thermodynamic systems has been established, the internal structure of the modern theory of thermodynamics is addressed. We explain the First and Second laws in terms of the so-called Fundamental equation (Gibbs equation), which states the existence of a function (the entropy S or, alternatively, the internal energy U) that contains all thermodynamic information. The Legendre transformations are then introduced, and the minimum principle is determined for the domain of validity of each relevant thermodynamic potential, especially the Gibbs free energy G. Other properties such as the Euler form, the Gibbs-Duhem equation, and the link between thermodynamic potentials and equations of state are also introduced. With these principles, we address different systems that are of interest in the context of Chemical Engineering: i) the ideal gas, ii) the conditions for phase equilibria for single-component systems, iii) chemical reactions in the gas phase, under ideal gas conditions, and iv) ideal solutions, together with an analysis of dilute solutions and the colligative properties stemming from them.

Students are provided with detailed material by the lecturers for all the topics dealt with and have access to numerous exercises, of which the most important are worked on and solved. In these sessions, students are encouraged to take part by being asked questions on procedure or how procedure is related to theory. The material is accessible on the URV Virtual Campus, where the exercises and the solutions (including the calculation details) are provided for individual study. During the pandemic, the sessions were recorded and posted on the URV Virtual Campus so that they could be consulted at any time. Questions are answered on the Forum, so that all students can benefit from the answers. More personal questions can be sent via email, although this channel is not encouraged.

Student competency is assessed by a combination of short questions (homework) and mid-year exams. The assessment is organised as follows:

- Homework. Students are asked to do 4 to 6 short tests and deliverable exercises. These count for 10% of the final grade but only if the average (Q) of the two partial exam marks is Q>=4. These tests and exercises tend to be done as homework on the URV's Virtual Campus, so that students can quickly get feedback on their performance.
- 1st mid-year exam (45%): exam carried out in person on university premises. Generally speaking, it consists of 3-4 exercises related to the contents of the course and takes 2 hours. Within each exercise there is a scale of difficulty that discriminates grades ranging from pass to excellent. In general, to prepare the exam we first determine which level of basic competence needs to be attained and place the pass at this level.
- 2nd mid-year exam (45%): this exam addresses the topics introduced since the first mid-year exam. The structure and duration are the same as the first exam.

Those students who do not pass the examination first time do have a second opportunity. The resit is formally conceived as a combination of the 1st and 2nd mid-year exams. However, it covers the whole course and takes 3 hours. The total weight is 90%, to which the homework of 10% is added if students get a mark of at least 4.

- **20204124 CHEMICAL KINETICS AND REACTOR DESIGN**

This 9 ECTS-credit subject is a compulsory core course that is taught annually in the 2nd year. It discusses the fundamental concepts of chemical kinetics, and describes the balances of matter and energy in reactive systems in the form of the so-called design equations for chemical reactors. The course focuses on solving design equations so that (ideal) chemical reactors can be designed and optimized for situations involving simple or multiple reactions. The course introduces the notion of the reactor being the central unit of a production plant since it determines much of the design of the whole chemical process. Therefore, the course is designed as the integration and practical application of knowledge acquired in the subjects of Chemistry, Mathematics, Thermodynamics, Transport Phenomena and Fundamentals of Process Engineering.

The subject first studies both the kinetic mechanisms and the formalization of chemical reactions in a homogeneous medium, and the determination of the key parameters (kinetic constant, reaction orders, activation energy) in the kinetic laws from experimental rate data using integral or differential analysis. Next, batch and continuous ideal reactors (perfectly mixed and plug flow, with no limitations of matter and heat transfer) are designed for isothermal situations. These are then extended to multiple simultaneous reactions and subsequently generalized to non-isothermal operation. The last part of the subject briefly introduces heterogeneous (real) reactors, which are generally characterized by complex chemical reactions on catalytic solid surfaces, deviations from the ideal hydrodynamic regime, and heat and mass transfer between phases and/or within the pores of the catalyst, which usually limit the intrinsic rate of reaction and the performance of the reactor.

It should be noted that this subject, together with the other important subjects in the second year, is part of the integrated design project of the second year (API-2). The topic of the API-2 in the academic year 2020/21 was the design of a chemical plant to produce phenol and acetone by the cumene route. The design of the reaction zone included the optimization of serial non-isothermal CSTR and PFR reactors with recirculation, taking into account that the performance required in the reactors is strongly linked to the performance that can be achieved in the separation zone of the plant, and vice versa. The objective is to convey to students the complexity of the design of a chemical reactor, which can be regarded as the heart of a chemical plant, and enable them to determine the mechanism that constitutes the limiting phase of the global kinetics of reactions, whether homogeneous or heterogeneous, to obtain the parameters that can produce significant changes in the overall reaction rate, and to analyse and design the most suitable (ideal) reactor to achieve a specific product based on the reagents and the physical and chemical nature of the process.

The students acquire an understanding of the subject by studying of the material and examples available on the URV Virtual Campus. This study is combined with face-to-face teaching and supported by both individual work (for example, solving exercises) and team participation in the design project of a chemical plant in the second year (see above). The conceptual doubts and questions that arise after studying the material of the topics are mostly resolved via email. The students are required to carry out the continuous assessment and learning activities described in the Work Plan.

The assessment system involves a variety of methodologies and contains the following items:
First Semester:

- Two multiple choice tests are done during the academic year for a total of 90 min with a total weight of 15%. The tests are optional.
- A 2-hour mid-semester exam with a weight of 15%. For the students who did not take the online tests, the mid-semester exam accounts for 20% of the final grade.
- A final exam of 3 hours with a weight of 20%, or 30% for those students who did not take the online tests

Second semester:

- A 2-hour midterm exam with a weight of 20%.
- A final exam of 3 hours with a weight of 30%.

To pass the course by continuous assessment, students are required to achieve a minimum final grade of 3/10 in each semester and an average mark of the first and second semesters higher than 5/10.

- **20204006 MATHEMATICS II**

This is a basic course of 6 ECTS credits that is taught during the first semester of the second year. The two main aims of the subject are for students to acquire the statistical techniques required to analyse data correctly and efficiently, and to learn how to use some fundamental mathematical tools for solving engineering problems.

The main part of the subject is devoted to statistics, which includes a topic about descriptive statistics, and five additional topics about inferential statistics: probability distribution models, confidence interval estimation, hypothesis testing, analysis of variance, and regression models. The rest of the subject contains four additional topics introducing mathematical techniques that are essential for solving engineering problems: calculation of maxima and minima, ordinary differential equations, partial differential equations, and differential geometry.

In this subject, students attend a total of four class hours every week. Two of these hours are lectures in which the lecturer explains the theoretical content of each topic. A third hour is used to illustrate how to solve practical problems using numerical tools. Finally, during the fourth hour of the week, students have to solve practical computer-based exercises and submit them for grading. The grades obtained in these exercises are part of the continuous evaluation of the subject.

There are two examination sessions (calls) for the subject. The first call (continuous evaluation) consists of two mid-year exams and ten computer laboratory sessions. The laboratory exercises are optional, and their contribution to the final grade is only considered when the mean grade is higher than that of the two partial exams. In this case, the weights of the grade for the exercises and the two partial exams are 20%, 40% and 40%, respectively. If the laboratory sessions are not taken into account, each exam has a weight of 50%. For the second call, the final grade for the laboratory sessions can optionally be taken into account and, again, this grade is only considered when it is higher than the grade of the final exam. In this case, the weights of the grades of the exercises and the final exam are 20% and 80%, respectively. If the laboratory sessions are not taken into account, the exam has a weight of 100%.

- **20204118 SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES**

SAPQ is a compulsory 9 ECTS-credit subject taught during the 3rd year of the Chemical Engineering Degree (GEQ). The subject encompasses three distinct but closely connected parts: (i) Introduction to optimization (theory and engineering practice); (ii) Introduction to chemical process simulation (using first-class commercial simulation software); (iii) Teamwork project for the design of a chemical process plant (integrated design project, API).

Part (i) is assigned to the Theory+Problems part (credits) of the subject and it consists of a series of classroom lectures. Students are encouraged to bring their laptops to lectures so that they can work by themselves on solving application problems after an optimization mathematical model is introduced. Problems requiring numerical tools are solved using the GAMS software. This part of the subject is evaluated by means of two mid-year exams, one at the end of each semester, each of which has a weight of 2/15 of the final SAPQ grade.

The main purpose of part (ii) is to provide students with the knowledge and skills they need to use the process simulation software (Aspen Plus and Aspen Hysys) in part (iii), the Integrated Design Project (API). Practical sessions are held in the computer laboratories on campus although students can work on their own after the sessions using either *Virtlabs* or *Remotelabs* to access (from home) the software (Aspen/Hysys) that is running on local servers within the URV Intranet/VPN. The degree of technical knowledge and skills developed by SAPQ students on the use of the process simulation software is evaluated through Simulation Practice, which also has a weight of 2/15 of the final SAPQ grade. The items that are evaluated are a specialized report on the API tasks involving process simulation software (Aspen) and the Aspen files themselves (because, of course, it is important to check whether the files run and they actually produce the results given in the report). Students will upload both items (the specialized report file and the Aspen source files) onto the SAPQ Virtual Campus site.

Part (iii) is based on teamwork. The API teams consist of 7 or 8 members, one of whom also acts as the project leader. In addition, each API team is assigned a tutor (lecturer). The team's tutor will provide technical support on the main topics of the process design project, at a general/systemic level. For more specific topics, API teams can seek the support of consultants, lecturers of the different 3rd year subjects that are also a part of the API (consultants are also assigned some teaching duties, i.e., credits, in SAPQ). Team tutors will also take care that the team keeps working as planned, and that there are no severe departures from schedule or potentially harmful conflicts between team members. Each API team will produce and deliver a team charter (project charter & planning) document at the beginning of each semester, a project progress report at the end of the first semester and a final project report at the end of the second semester. Consultant lecturers will revise and evaluate these reports and the resulting mean grade from reports will have a weight of 3/10 in the final SAPQ grade. Moreover, at the end of the second semester, once the APIs are completed, teams will defend their work in a public poster session during which each team member will be interviewed at least once by either a consultant or tutor (other than the team's own tutor). Each API team will then be given a mark for the poster visual and technical quality (as assessed by the interviewing professors) and a team-averaged mark for the individual interviews. The defence mark will have a relative weight of 3/20 in the total SAPQ grade.

The purpose of the SAPQ-API is not just the integrated application of technical knowledge and the development of engineering skills but, as is also the case of the API's in the other years, to provide a framework for the development of teamwork abilities and competencies of the ETSEQ students. Students work in teams and their performance is continuously monitored and evaluated. The team tutor monitors teamwork (mainly based on the observations during team meetings held throughout the semester) and specifically evaluates the team leader. The main tool for assessing the development of competencies in team members is an ETSEQ-wide survey system which is continuously running through a specialized software working in a server (named Audax), which generates and stores electronic surveys (a new set of surveys for each team is generated weakly and every team member gets the corresponding notification via the official URV e-mail account). Then, all team members can access their accounts on the server to answer one survey for every teammate and a separate survey for the team leader. At the end of each semester, the API coordinator (the person responsible for SAPQ) will download a statistics file for each team from Audax. The Audax system can also generate individual and team reports on competency development, a copy of which is given to each team member at the end of the academic year. The Audax statistics for each team are processed by the API coordinator and an individual Audax mark is obtained for every SAPQ student. The relative weight of the Audax mark in the SAPQ total grade is 3/20.

The following table summarizes the items that are part of the SAPQ evaluation process.

Item	Short description	Weight
1	First mid-year exam (theory & problems)	8/60
2	Second mid-year exam (theory & problems)	8/60
3	Simulation Practice	8/60
4	API reports	18/60
5	API defence	9/60
6	Audax mark	9/60

Additional comments on the grading system:

- Some constraints apply: students must achieve an average mark of at least 4.5/10 for items 1, 2 and 3 and a mark of at least 4.5/10 for the weighted average of items 4, 5 and 6.
- The Audax mark is based on the survey statistics but at the end of the day it is the API coordinator, in agreement with the team tutor, who grades the team members' item 6. Teams who do not take the survey seriously might receive a penalty in their Audax marks and the mark itself, item 6, might be modified by lecturers or even suppressed if it does not agree with the observed trends.
- The marks for items 4 and 5 are individually modulated taking into account the results of an internal team survey taken by each team member at the end of the second semester. An individual factor (IF) is then applied to each team member in such a way that the team's average mark (on items 4 and 5) remains unchanged. Again, even though the students' opinions on their team mates

technical performance (as expressed in the IF surveys) are commonly taken into account it is the SAPQ professors who determine the IFs.

- **20204501 WORK PLACEMENT (PE)**

The external work placement (internship) is a 12 ECTS-credit subject that is taken in the 2nd semester of the 4th year. Students must have completed at least 50% of the ECTS credits required to complete the bachelor's degree program before they can enrol in this subject. It is an activity of a formative nature that allows the students to apply and to complement the knowledge acquired during their academic training. It facilitates the acquisition of practical skills and promotes the entrepreneurial abilities, which prepares the students for professional practice and improves their employability.

Students have two supervisors during the internship. The first is a professional from the company or research centre where the internship is done, while the second is a lecturer from ETSEQ. The latter acts as supporting tutor and ensures the academic quality of the internship. The academic tutor, in conjunction with the company supervisor and the student, determines whether the tasks proposed for the internship fulfil the requirements established for the work placements, and adapts the proposal to fulfil those requirements, if needed. The tasks are then reflected in the **training project,** which will record the follow-up actions as described in the student guide.

The student's performance is subject to two assessments:

- **Academic tutor**. The ETSEQ tutor's assessment is based on the quality and content of the written report submitted by the student at the end of the internship (**student report)**, as well as on the level of complexity of the tasks performed during the placement and the professional environment in which the student has worked. It accounts for 60% of the grade of the subject.
- **Industry supervisor report**. It assesses the level of performance of the student during the internship on 10 competencies: technical training, productivity, initiative, creativity, responsibility, cooperation, communication, knowledge of the tasks, quality of the work and knowledge of languages. It accounts for 40% of the grade for the subject.

- **20204301 BACHELOR'S THESIS (TFG)**

The Bachelor's Thesis project is a 12 ECTS-credit compulsory subject that is taken during the second semester of the 4th year of the degree. The objective is that the students carry out a technical design project similar to those usually developed by engineers during their professional activity. The projects may involve the design, calculation, assembly, operation and maintenance of equipment or process plants, or the implementation of studies related to those topics that focus on technical, economic or other areas of process engineering. The projects must synthesize and integrate the competences acquired during the bachelor's degree programme.

Organization

A senior lecturer is responsible for and coordinates the TFG. The coordinator establishes the objectives, deadlines and evaluation criteria of the course, prepares a set of guidelines for the students, validates the TFG proposals, distributes the projects among the students, and organizes the activities of the adjunct lecturers who participate in the course. The latter are experienced professionals from the main chemical and petrochemical companies in the Tarragona complex, currently working as plant managers or high-ranking engineers. They are employed by the URV's Department of Chemical Engineering to supervise, among other projects, the Bachelor's Thesis in the degree in Chemical Engineering. The supervisor of the TFG is responsible for guiding the student, defining the scope and technical objectives of the project and offering guidance in technical matters during the TFG. The supervisor monitors the work carried out through regular interviews (two sessions per week are typically expected) and ensures that the tasks of the project are on schedule. Throughout the project, students are requested to submit parts of their work so the supervisor can assess the progress of the project and take corrective action when necessary. In the final stages of the project, the supervisor also gives guidance on the written report and the presentation and defence of the thesis. Finally, the coordinator of the TFG is the direct interlocutor of the students for solving any academic or personal problems that may arise, including those related to interactions between students and supervisors.

All the information concerning the assignment of the projects and supervisors, deadlines, guidelines for the TFG, and evaluation criteria can be found in a written guide of the TFG, which is available to the students on the URV's Virtual Campus once they have enrolled. Also, a mandatory introductory seminar is given at the beginning of the term to explain the general contents of the subject, the requirements of the projects, the evaluation criteria and other major guidelines, and to address doubts and other issues the students may have before starting their work.

Assignment of the TFG and supervisor

There are two types of TFG:

1. **TFGs proposed by adjunct lecturers**: before the course starts, the supervisors propose several TFGs, which are validated by the coordinator. The proposals are always related to their areas of expertise (refining, polymers, commodity and fine chemicals, water treatment, etc.), and usually based on the process plants where they work. However, it is explicitly stated in the guidelines of the TFG that the theses cannot contain any information that may be deemed as confidential by their companies, and it is the responsibility of each supervisor to guarantee that this requirement is fulfilled. These projects are distributed among the students as explained below.

2. **TFGs proposed by the students with the support of a company**: students are encouraged to propose their own TFGs based on their interests and the experiences they have during their work placement. In this case, students must submit a description of the project they are proposing that includes information about the company, and the name and contact information of the engineer or manager who supports the proposal. The coordinator of the TFG reviews the proposal and decides if it fulfills the academic requirements of a TFG. If it is accepted, the person from the company supporting the proposal will act as the student's supervisor and will be responsible for providing all the information and

technical assistance required. Even so, a tutor from the pool of assistant lecturers on staff will be assigned to the student to monitor the project and give academic guidance to the student and the company supervisor. Theses that may be considered confidential by the companies are not accepted, and it is the explicit responsibility of the company supervisor to guarantee that this requirement is fulfilled before the project can be submitted and defended by the student. Even so, special care is taken when assigning the tutor to avoid any potential conflict of interest due to the professional activity of the supervisor and the tutor in companies competing in the same business sector. These projects are assigned directly to the student making the proposal once it has been accepted by the coordinator.

TFGs may be done individually or in a group of 2 or 3 students. The theses proposed by the students with a sponsoring company are always individual. The theses proposed by adjunct lecturers may be for individuals or groups. The group theses evolve from combining individual theses that are complementary and based on the same process or plant. They may have some parts in common, but they must always contain enough specific objectives and tasks for each student to work on individually. These theses are assigned as follows:

- Once the course starts, the coordinator publishes the proposals available on the URV Virtual Campus and informs the students. Each proposal indicates the name of the supervisor and if it is an individual or group (2/3 students) project.
- The students have a few days to study the proposals and form groups freely with their classmates if they prefer the group theses.
- Subsequently, the students must submit a document via the URV Virtual Campus containing their personal data (phone and email addresses) and up to five of the proposed theses, ranked in order of preference. In group theses, a single document with the information of all the members of the group is submitted.
- The coordinator collects the expressions of interest and distributes the theses among the students/groups trying to assign a thesis with the highest preference possible, but also balancing the distribution of students among the supervisors.
- The final distribution is published on the URV Virtual Campus. In addition, an e-mail message is sent to the student/group and the supervisor of the TFG informing them of the assignation. The contact information of the student or group members and the supervisor is given in the message, and they can start work from that point on.

Project submission and evaluation

Students can submit their TFG in January, June or September, depending on the dates defined by the official regulations of the URV. Once the TFG is complete, and depending on the course schedule, students must submit a written report electronically in PDF format through the URV Virtual Campus. The submitted report must include the approval of the supervisor in a signed document called "vist-i-plau", where she/he “recommends” or “does not recommend” the submission of the thesis for evaluation. In the latter case, a brief explanation of the shortcomings of the thesis must be attached. In the same document, the supervisor, or the company tutor in external projects, must explicitly attest that the report does not include any

confidential information. Without this document, the defence of the TFG is not allowed.
The dates and places of the thesis presentation and defence, and the composition of the evaluation panel are published in the URV Virtual Campus in advance. Students are assessed on four aspects of their work: the supervisor assesses the quality of the work done throughout the project and the written report (10% of the final grade), the evaluation committee assesses the written report (50% of the final grade), the presentation of the thesis (20%) and the subsequent Q&A session (20%).
Finally, if the assessment of the thesis is positive, the students are asked to authorize the inclusion of their Bachelor's Thesis report in the URV Institutional Repository.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)							
ENGLISH	CODE	CATALAN	YEAR	PERIOD	TYPE	ECTS	COORDINATOR 20-21
FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	20224009	FONAMENTS QUÍMICS DE L'ENGINYERIA	1	1st semester	Basic Course	6	GIAMBERINI, MARTA
NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	20224003	MÈTODES NUMÈRICS I PROGRAMACIÓ ALGORÍTMICA	1	2nd semester	Basic Course	6	CITO, SALVATORE
THERMAL ENGINEERING, I	20224108	ENGINYERIA TÈRMICA I	2	1st semester	Compulsory	6	BRUNO ARGILAGUET, JUAN CARLOS
HYDRAULICS LABORATORY	20224115	LABORATORI D'HIDRÀULICA	3	2nd semester single exam	Compulsory	3	SALUEÑA PÉREZ, CLARA
BACHELOR'S THESIS	20224301	TREBALL DE FI DE GRAU	4	2nd semester	Course project	12	DE LA FLOR LOPEZ, SILVIA

The subjects for the accreditation of the Bachelor's Degree in Mechanical Engineering were chosen to cover the key competences of the degree and be representative of the four years of the programme. Therefore, of the four subjects, two provide basic training (first year) and two are compulsory (second and third year). Following the guidelines of the AQU, the subjects of the final thesis and external internships were also selected.

- **20224009 FUNDAMENTALS OF CHEMISTRY IN ENGINEERING**

This is a 6 ECTS-credit subject taught in the first semester of the first year of the Bachelor's Degree in Mechanical Engineering.

Its aim is to introduce the fundamentals of chemistry to Mechanical Engineering students, so that they can understand concepts such as corrosion and the origin of the non-covalent interactions that determine the properties of a material.

The contents of the subject are as follows:

1) Atomic structure: historical evolution and the currently accepted model; the electronic structure of the hydrogen atom and the Aufbau of multi-electron atoms.

2) The periodic table and the variation of atomic properties.

3) Inside materials: metallic, ionic and molecular compounds; the covalent bond; covalent networks; Lewis structures; molecular geometry; intermolecular forces and their impact on some properties.

4) Chemical reactions: the formalism for chemical reactions and chemical compounds; red-ox reactions; methods for balancing a chemical reaction.

5) Stoichiometry: concept of mole; molecular formulas; concept of concentration and ways to express it; limiting reagent; yield of a reaction; combustion analysis.

6) Gases: Boyle's law; Charles's law: The law of ideal gases. Ideal gas mixtures.

7) Chemical equilibrium: general concept of equilibrium and its specific application to acid-base equilibrium.

8) Electrochemistry: Galvanic cells; battery potential; stack notation; standard potentials; Nernst equation; electrolytic cells; Faraday's law; corrosion; batteries in practice.

9) Chemical kinetics: reaction rate; factors affecting reaction rate.

The subject is organized in three hours per week of theory, when concepts are explained with the aid of examples and, if possible, in relation to current applications (for example, batteries for topic 8, welding for topic 3, the properties of alloys for topic 2, etc.). These theoretical concepts are applied to problem solving two hours per week: during the first hour, students are taught about problem solving, while in the second they have to solve problems themselves under the guidance of the professor. These problem sessions are also very useful for clearing up doubts; in addition, they can get in touch with the lecturer through the Virtual Campus and ask for further, more individual assessment.

Students are assessed in the following way:

-First test, generally including theoretical questions and numerical calculations on selected topics 1- 4, around week 8 of the semester. It has a weight of 50% in the final grade.

-Second test, generally including theoretical questions and numerical calculations on selected topics 5- 9, in week 16. It has a weight of 50% in the final grade, but students must get at least a 3 to be able to pass the subject by calculating the average of the two tests. Since the second part of the subject is more complex, the aim of this rule is to ensure an ongoing commitment from the students.

- **20224003 NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING**

This is a 6 ECTS-credit subject taught in the second semester of the first year of the Bachelor's Degree in Mechanical Engineering.

This course is divided into two main parts. In the first the fundamentals of programming are discussed and in the second a set of basic programming tools are presented and implemented in the MATLAB environment to model problems that need to be solved by equations or systems of linear and nonlinear algebraic equations, graphical representation, interpolation of functions and derivation or numerical integration.

The pedagogical approach used in this course is based on the fundamental premise that mechanical engineering students should be given an in-depth and early introduction to numerical methods. The underlying principles are the following:

Problem Oriented Laboratories. Engineering students learn best when they are motivated by problem solving situations, which is especially true in mathematics and computer science. For this reason, we present the numerical methods from the perspective of problem solving and via a platform that facilitates continuous improvement of the problem solution (Matlab Grader).

Pedagogy oriented to group learning. Students work in teams to solve problems to make the course as practical and engaging as possible.

Clear box method. Although we place special emphasis on problem solving, we believe that it would be self-limiting for the student to approach numerical algorithms as a "black box". Therefore, a sufficient theoretical margin is provided to allow the student to understand the basic concepts behind the methods. We particularly emphasize theory related to error analysis, method limitations, and method alternatives.

Full use of personal computers. As the development and massification of personal computers increase, laptop or desktop computers are available to almost all students. Therefore, this course emphasizes visualization and interactive calculations both on the computer and in remote online clusters.

Training students. Of course, students are introduced to problem solving with computer packages like MATLAB. However, they are also taught how to develop simple and well-structured programs to increase their basic skills in such environments.

Evaluation. The platform used to assess students, Matlab Grader, an online platform in which instructors propose coding problems/challenges and students solve and develop their codes and submit them using the same platform. Before submission, they have the chance to assess their code through a semiautomatic correction system previously defined by the instructor. In every laboratory session the students are required to develop a code to solve a programming challenge defined by the instructor. Each of these solutions are evaluated by the instructor and the final outcome of this work has a 20% weight in the final grade. In the middle and at the end of the course the students are called to pass an intermediate and final examination. Both exams are done with Matlab Grader. The first examination has a weight of 35% in the final grade and the second examination has a weight of 45%. Students who do not pass this examination the first time have a second opportunity, also on Matlab Grader.

- **20224108 THERMAL ENGINEERING I**

This is a 6 ECTS-credit subject taught in the first semester of the second year of the Bachelor's Degree in Mechanical Engineering.

In this course, the student acquires knowledge on the fundamentals of the thermodynamic properties of fluids, mass and energy balances and applied thermodynamics. The course is divided into two main parts. The first deals with the fundamentals of thermodynamics and the application of the first and second law to closed and open thermodynamic systems. The second deals with the description, operation and analysis of technologies for converting heat into mechanical power systems (fuels, steam and gas turbine power plants, alternative engines). The course content is completed during the second semester with the subject Thermal Engineering II, which introduces the fundamentals of heat transfer and heat exchangers. Students attend lectures, and are asked to solve practical problems in the classroom. The lab training is done in the third year in the subject Heat Engines Lab. The students interested in a more in-depth knowledge of engines can take optional course in the fourth year.

The continuous evaluation of this course consists of: two exams, one for each part of the course (70% of the grade); three short problems selected by the teacher and solved outside classroom time by each student (15%) and, finally, an open design problem submitted at the end of the course in which students show not only their technical ability but also their presentation skills in a short report (15%).

- **20224115 HYDRAULICS LABORATORY**

This is a 3 ECTS-credit subject taught in the second semester of the third year of the Bachelor's Degree in Mechanical Engineering.

The subject deals with practical situations and basic equipment for the measurement of pressure and fluid flow, fluid transport and material properties, head losses, turbomachinery (pumps, turbines, fans), characterization of forces on surfaces, pneumatic concepts, and operation of simulators widely used in fluid engineering (EPANET, FluidSim). It also requires critical analysis and treatment of experimental data, calculation of data errors and regressions, searching for data in the bibliography, and the comparison of the results with theoretical reference models. It implements the concepts taught in the subjects Fluid Mechanics Engineering (1st semester) and Hydraulics (2nd semester).

The goal is to train students to be able to handle fluids in manageable operating regimes in the laboratory. This should help them to experience how fluids behave in practical, easily generalizable situations.
The knowledge of the subject is acquired almost exclusively through practice. Initially, students attend two 3-hour seminars, which provide workshop-type training

with guided practice through Excel: 1) characterization and calculation of measurement errors, and 2) calculation of linear regressions to extract coefficients or variables of interest. These two seminars are followed by assessment activities on Moodle.

Then, over the course of 10 weeks, students attend the laboratory sessions, in groups. To access the lab, the group must have previously passed (on average) an individual test of 6 questions, based on the practical guide and the accompanying video.

To prepare the practical’s report, the student must apply the concepts they have learned in the laboratory, follow the form provided with each practical guide to answer the questions, prepare the data as they did in the introductory seminar, and draw conclusions about the experiment. Conceptual questions that arise during the preparation of the reports are resolved in the Moodle questions forum. Within one week of the laboratory session, students submit their corresponding group report.

Teachers correct and grade reports within one week - ten days maximum, to ensure contingent feedback that allows for student progressive modelling and learning.

Attendance at the laboratory sessions is mandatory (student must have done all the practicals in order to pass) but none of the assessment activities are, and neither is the final exam. All activities are weighted in Moodle's "Gradebook":

- 10% Two Moodle cloze-type activities from a random question bank, for the introductory seminars on data processing (5% each).
- 10% Ten laboratory tests with six multiple choice questions from a random question bank, to ensure that the student knows the experimental procedures before accessing the lab (1% each).
- 40% Ten group reports on the practicals (4% each).
- 40% A final written exam on the contents of the course, which assesses students’ ability to reproduce on the computer some calculations and data treatment from the practicals and, if appropriate, draw conclusions about the validity of the results.

- **20224301 BACHELOR'S THESIS**

Brief description of the subject

In this 12 ECTS-credit subject students undertake a technical project in the field of mechanical engineering under the supervision of an expert in the field. The final aim is for students to implement the skills they have acquired during their studies and ensure that they acquire the competencies associated with their degree.

Mechanism to control and monitor TFG

All the information regarding this subject can be found in a complete and exhaustive TFG guide. Students must read it very carefully before doing their TFG.

Each year a TFG coordinator is chosen. This coordinator will manage all the documentation and deadlines and will be the direct interlocutor of the students in the event of problems.

The supervisor (director) of the TFG is responsible for guiding the student throughout the TFG. Initially, he/she will define the objectives and will guide the student regarding the methods to be used, the primary bibliography to be considered, and other technical aspects. During the TFG, he/she will continuously monitor the work carried out through regular personal interviews and give students the main work guidelines. The supervisor helps students overcome any problems that may arise and ensure that they respect the schedule. In the final part, he/she will also supervise the writing of the report and the preparation of the oral presentation.

Assignment of the supervisor

Two different kinds of TFG can be undertaken: under the supervision of a URV lecturer (an expert in a field of mechanical engineering) or a company employee (if students are working at a company). In the latter case, students will also have a URV lecturer (a tutor) to guide them in their academic tasks.

Students undertaking a TFG under the supervision of a URV lecturer: The supervisors will propose the technical areas in which they are experts and in which they can supervise theses. In some cases, the supervisor can propose a specific topic.

In order of preference, the students will choose up to five directors with whom they wish to carry out the thesis. The coordinator will apply specific criteria to assign a director to each student. Once the supervisor has been assigned, the students will decide on the topic of their TFG (after consultation with the supervisor).

Students doing their thesis in a company: In this case, they will be assigned an internal tutor from the URV, and to the company must provide a thesis supervisor.

In both cases, students will have to: choose a supervisor, register the project, submit it with the supervisor's approval and defend it orally.

Register

Once the student has a supervisor, he/she should determine the title of the project and the primary content in the form of a schematic table of contents. This information must be agreed on with the supervisor and approved by the members of the panel and the coordinator.

Submission

Once the TFG has been completed under the constant supervision of the director, it shall be submitted in accordance with the established guidelines (mainly based on UNE regulations). These guidelines include all aspects of content, organisation and presentation.

The submission must also be approved by the supervisor (supervisor or supervisor&tutor). This approval is a signed document called "vist-i-plau". Without this document, the TFG cannot be submitted.

All the information mentioned above is published on Moodle.

Assessment

Students can submit their TFG in January, June or September, depending on the dates specified by the official regulations.

Once the TFG has been submitted by Moodle, the coordinator, in agreement with the panel members, accepts the submission if the TFG meets the basic standards defined in the guidelines of the presentation. If this is not the case, the TFG will not be accepted and returned to the student. If the basic guidelines are met, the TFG will be accepted for an oral presentation.

In the oral presentation, the student must present all the work done to the panel members, who will assess the technical quality of the work (written part and oral presentation). The panel can also ask for the tutor's opinion.

6.2. The courses, teaching methodology and assessment system are appropriate and sufficient to ensure that the expected learning outcomes are attained.

In this Substandard, the following ASIIN criteria will be analysed:
2.4 Support and assistance
3. Exams: System, concept and organisation
6. Quality management: Quality assessment and development

Clarifications about the satisfaction surveys

Annex C shows the results of the surveys that evaluate student satisfaction. The URV undertakes various surveys depending on whether students are at the beginning of their programme (Table C.2), in the middle (Table C.3) or at the end (Table C.4). There are also surveys for External Internships (Table C.7) and the Bachelor's Degree Thesis (Table C.8) with specific questions for these subjects. Satisfaction with the teaching staff and the subjects (C.5 and C.5.1) and with the teaching performance (C.6 and C.6.1), among others, are also analysed.

Regarding the satisfaction of recent graduates, AQU annually surveys graduates during the academic year following graduation. The results are available on the EUC website "Graduate Satisfaction Survey", but these are shown jointly for all URV Industrial Technology degrees, which include the degrees in Electrical Engineering, Industrial Electronics and Automation Engineering, Mechanical Engineering and Chemical Engineering, and grouped to encompass the 2018, 2019 and 2020 academic years. For this reason, we have given priority to the analysis of the results of our own survey of recent graduates explained in the paragraph below.

For more than 10 years now, we have given graduates a satisfaction survey (Table C.9) a few months after graduating. They are also asked about their current employment situation. The link to the survey is sent to their URV and personal emails and a reminder is sent a week later. If there is little participation, an SMS is also sent to their mobile phones. As suggested by improvement proposal 2018.19-ETSEQ-6.4-M1, questions about the usefulness of theoretical and practical training have been added.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

Section 1. Courses, teaching methodology and the assessment system

Subjects

As has been explained in detail in section 1.2 of the standard, the educational method of the GEQ is structured as a series of integrated projects that are done in the first three years of the degree course via a major subject in each academic year (Fundamentals of Process Engineering in the 1st year, Chemical Processes and Products in the 2nd year, and Simulation and Analysis of Chemical Processes in the

3rd year). Over the whole degree programme, the students spend about 6.2% of their total work time on these projects and as part of these major subjects (methodology M25 in Table B.6.1 in Annex B). The other subjects use a wide range of teaching methodologies. Our analysis of the hours of face-to-face work, which with an average attendance at on-site activities of 40. 0% works out at 2,400 hours for the whole degree, we note that 42% are theoretical sessions (M2), 25% are problem solving, case studies and practical exercises (M4, M7, M15, M19 and M21), and 15% are practicals in experimental and computer laboratories (M8, M9, M20), while the remaining 18% are distributed in a wide variety of activities such as introductory sessions (M1), personal attention to students (M47), or the integrated projects mentioned above (M25), among others.

Regarding assessment methodologies, it should be noted that of the total of 84 tests carried out (Table B.6.1 of Annex B), 42% are practical and applied (P5), 33% are objective short-answer or multiple-choice tests (P2 and P3), and 18% combine the two types (P4). Thus, students are assessed mainly through activities focused on determining their ability to apply knowledge and solve problems.

In the academic year 2020-21, students gave a satisfactory evaluation of the teaching and assessment activities of all the subjects on the degree program (Table C.5 of Annex C). Thus, we believe that the syllabuses of the subjects are well coordinated (7.44), that the activities are appropriately organized in terms of study time (7.46), that what is done in the subjects helps students to learn (7.34) and that the assessment also contributes to the learning process (6.88). The ratings are similar to those obtained in previous years, quite remarkable if we bear in mind that with the exception of the experimental laboratories, the academic year 2020-21 was taught entirely online because of Covid-19.

The following four subjects were specifically selected for the accreditation of the degree programme:

<u>Physical Chemistry:</u>

This course uses a conventional methodological format that mainly combines lectures by the teacher (M2) and various types of exercises and problems in the classroom (M7). Student satisfaction with the course was 7.20 (Table C.5.1 of Annex C). The contribution to learning of what was worked on during the subject (7.67) was practically the mean value of the degree, while the coordination between the lecturers teaching the syllabus (8,00), the organization of the activities in terms of study time (7.40), and the way the subject was assessed (7.07) were all above the average values. The evaluation of the teaching staff (Table C.6.1 of Annex C) in terms of the clarity with which they explain the contents (8.21), the degree of compliance with the teaching guide (8.43) and general teaching quality (8.71) were well above the average for the degree, quite remarkable given that it is a first-year course with only a moderate level of academic success.

<u>Chemical Kinetics and Reactor Design:</u>

This course uses a conventional methodological format that mainly combines lectures by the teacher (M2) and various types of exercises and problems in the classroom

(M7). Student satisfaction with the course was 6,54 (Table C.5.1 of Annex C). Other indicators such as the coordination between the lecturers teaching the syllabus (6.46) the organization of the activities in terms of study time (5.69), the contribution to learning of what was worked on during the subject (6.38) and the way the subject was assessed (5.23) were all below the average values. The evaluation of the teaching staff (Table C.6.1 of Annex C) in terms of the clarity with which they explain the contents (6.15), the degree of compliance with the teaching guide (6.80) and general teaching quality (6.30) were well above the average for the degree.

Mathematics II:

This course uses a conventional methodological format that mainly combines lectures by the teacher (M2) and various types of exercises and problems in the classroom (M7), and practical sessions in computer laboratories (M8). Overall student satisfaction with the subject was 7.43 (Table C.5.1 of Annex C). The organization of the activities in terms of study time (7.43) and the contribution to learning of what was worked on during the subject (6.71) were both below the average values for the degree while the coordination between the lecturers teaching the syllabus (8,00), and the way the subject was assessed (7.00) were above the average values. The evaluation of the teaching staff (Table C.6.1 of Annex C) in terms of the clarity with which they explain the contents was 7.00, and the degree of compliance with the teaching guide (8.00) and general teaching quality (8.29) were above the average for the degree.

Simulation and Analysis of Chemical Processes:

This is the major subject of the 3rd-year integrated project (API-3). It combines lectures by the teacher (M2) and various types of exercises and problems in the classroom (M7) to teach the content of the subject with group work for the integrated project (M25). Overall student satisfaction with the subject was 8.40 (Table C.5.1 of Annex C). Indicators such as the coordination between the lecturers teaching the syllabus (9.00), the organization of the activities in terms of study time (7.60), and the contribution to learning of what was worked on during the subject (7.80) and the way the subject was assessed (8.60) were all clearly above the average values and, in general, was one of the compulsory subjects with the highest ratings. The evaluation of the teaching staff (Table C.6.1 of Annex C) in terms of the clarity with which they explain the contents (8.25), the degree of compliance with the teaching guide (8.06) and general teaching quality (8.25) were also well above the average for the degree.

External internships (PE)

During the academic year 2020-21, there were a total of 35 curricular internships. Details of the participating companies and the number of students they hosted are available in Table B.6.4 (Annex B). In addition, there were 17 extracurricular internships, many of which were a continuation of the curricular internships.

Student satisfaction with the external internships in the academic year 2020-21 (Table C.7 of Annex C) was excellent with an overall score of 9.21, much higher than in previous years. Unfortunately, the participation in the survey was only 6% (2 people), so the result cannot be regarded as significant and we shall not go into any great detail about the items on the survey.

Bachelor's Degree Thesis (TFG)

The characteristics, the process of assigning theses and supervisors, and the assessment criteria of the TFG at the GEQ have been explained in detail above. The list of the TFGs defended in the academic year 2020-21, the qualifications obtained (Table B.6.6 of Annex B), and the name of the supervisors and the companies can be found on the URV Virtual Campus.

Student satisfaction with the TFG in the academic year 2020-21 (Table C.8 of Annex C) was high with an average evaluation of the items assessed of 8.16, higher than in previous years. The items with the lowest scores were the clarity of the information on practical aspects of the subject (6.75) and the amount of work involved (7.00), although the scores were not so low as to be a cause for concern. On the other hand, the follow-up by the supervisors (8.25), the procedure for assigning the TFGs (8.38), the contribution of the TFG to the competencies of the degree (8.88) and the contribution of the subject to student learning (9.25) were all given excellent scores.

Section 2. Graduate satisfaction

The data from the own survey of recent graduates from the academic year 2020-21 (Table C.9 of Annex C) with a participation of 36.73% indicate an overall level of satisfaction with the degree program of 7.50 in terms of the structure of the study programme and the level of the degree, the content of the subjects in terms of technical level and topicality (7.44), the teaching methodologies (7.11) and the assessment systems used (7.11). In terms of the personal impact on the students, the learning acquired, and the supervision and evaluation of the External Internships were rated with a 5.87, the lowest score in this section, while the very same aspects were the most highly valued part of the Bachelor's Degree Thesis with a 7.88. The development of personal skills during the study programme was also given a high score (7.38). It should also be mentioned that 94.4% of recent graduates would choose the same degree if they had to go back and start again, and that 88.8% would return to the ETSEQ. As for what our graduates have gone on to do after completing their bachelor's degree, 88% decided to register on a master's degree, which probably has a considerable impact on the fact that the percentage of graduates in employment according to this survey is 52.7%, far below the figures shown in the AQU study (94.1%) (Table C.9.1). This difference can be attributed to the moment when the recent graduates are consulted; during the six months after the end of their degree in the case of Table C.9 and in the 4 years after in the case of the AQU survey (Table C.9.1).

The satisfaction of recent graduates is also evaluated annually by AQU. The latest data published is a combination of all the graduates from the academic years 2017-18, 2018-29 and 2019-20. Unfortunately, the participation in the AQU survey of our graduates in this three-year period (20 out of 151) was not enough to consider the results sufficiently significant, which is why this information has not been made public (just as the data from the UAB, UdG or UdL has not been made public either).

2022 Bachelor's Degree in Mechanical Engineering (GEM)

Section 1. Courses, teaching methodology and the assessment system

Subjects

The GEM applies a wide range of teaching methodologies including lectures, problem-solving, seminars, laboratory activities, group activities, personal attention, etc. The degree is designed in such a way that on-site activity is 40% throughout the degree. However, the percentage of on-site activity is higher in the first year of the degree, with a whole block of subjects requiring an attendance of 43% (Graphical Expression, and Computer-aided Design I and II, Numerical Methods and Algorithmic Programming, Fundamentals of Physics in Engineering I and II) and another block requiring 50% (Fundamentals of Mathematics in Engineering I and II, Fundamentals of Chemistry in Engineering, Business Administration and Production Organization). The aim of this higher rate of attendance in person in the first year is for students to better adapt to university life. The teaching methodologies (see table B.6.1 in Annex B) used in the first year are mostly introductory courses, lectures, seminars, problem solving in the classroom, case studies and assignments.

The rest of the degree subjects require students to be on campus 40% of the time. The only exceptions are the subject of Statistical Methods of Engineering (33%), the Integrated Projects I, II and III from the 1st, 2nd and 3rd year, respectively, and the optional subjects, which require attendance in person 35% of the time. In both laboratory subjects and integrated projects, the emphasis is on group work and problem-solving and case studies using computer tools.

Of all the credits on the GEM, 16.7% are for practicals in the laboratories, shared between subjects that combine theory and practical work, subjects that are exclusively in the laboratory and the integrated projects. This is a fundamental feature of the programme and is extremely important to ensure that future engineers fully understand the theoretical concepts presented. Along the same lines, it should be pointed out that of all the methodologies at the GEM during the academic year 2020/2021, 31.1% were of a practical nature or associated with the solving of practical problems and cases (see table B.6.1 in annex B). Likewise, 29% of the types of assessment during the 2020/2021 academic year were also of a practical nature.

These methodologies ensure that students achieve the learning outcomes stipulated for the degree, and that they do so with acceptable levels of overall satisfaction. Satisfaction with the external internships and the TFG was given scores of 6.4 and 6.9, respectively (tables C.7 and C.8 Annex C). Student satisfaction with the teaching staff in all subjects was 7.3 (table C.6 Annex C), despite the fact that in the last two years there have been far-reaching changes in teaching methodology and in the normal running of the programme due to the COVID-19 pandemic. Below we briefly discuss student satisfaction with the subjects selected for the accreditation process (table C.5.1 Annex C):

Fundamentals of Chemistry in Engineering

Overall, students rated their satisfaction with this subject with an 8.5, which is high bearing in mind that it is a basic, first-year subject. Of particular note is score given to the teaching staff and the assessment system (in both cases 7.7).

Numerical Methods and Algorithmic Programming

The subject is rated with a 5.6. This figure is below 6 because although the teaching staff is rated highly with an 8.5, the students penalize gave very low scores to the equipment in the classrooms and laboratories.

Thermal Engineering, I

This 2nd-year subject was given an overall score of 5.9. In general, the dispersion of scores around this value is low and all the aspects in the surveys were rated at around 6.

Hydraulics Laboratory

This subject was given an overall score of 7.5 by the students. Worthy of particular mention is the score given to the teaching staff, the activities and the assessment process (9).

Bachelor's Degree Thesis

In table C.8 in Annex C, students rate their satisfaction with the TFG with a 6.9, like previous years, for which there were very similar evaluations. Worthy of particular mention is that students rate the fact that the TFG helps them to consolidate skills acquired during the degree with an 8.7. The scores for the process of assigning supervisors (7.3) and the assessment system (6.3) are positively valued, although the students seem to have the feeling that the amount of work required is high. This latter item is rated with a relatively low 5. 1, and in previous courses oscillated between 4.4 and 7. This is because of the number of students who do not submit their TFG on time in the first call, which was 44% in the 2020-2021 academic year and which has not fallen below 25% in the last 5 years (table B.6.5 Annex B).

External Internships

Table B.6.4 in Annex B shows the companies in which students have carried out their internships during the academic year 2020-2021. It should be pointed out that there are a wide variety of companies working in the field of Mechanical Engineering and that many students chose to do an internship (a total of 40) despite the difficulties caused by the COVID-19 pandemic.

Table C.7 in Annex C shows that the level of student satisfaction was 6.4, like previous years, for which there were very similar evaluations. The students rated very positively (with a 10) the opportunity that the internships give them to come into contact with the world of employment and apply the knowledge they have acquired during the degree to their professional duties. This high score clearly indicates that during the internship students work directly in their field of study. They also value very positively (7.5) the way in which they were assessed.

Section 2. Graduate satisfaction

Once they have graduated, students give very positive scores to the structure of the curriculum (7.2), the content of subjects (7.1), the organisation of the bachelor's degree (6.9), the teaching staff (6.75), the assessment systems (6.7), the virtual campus (7.9), the mobility visits (7.25) and the learning resources (8.2).

Also worthy of mention is that 83.3% of GEM graduates in the academic year 2020-2021 would choose the same degree again and 75% would choose the same university (Table C.9 Annex C). This indicates the overall level of satisfaction of recent graduates, which is much higher than the 57% reported by AQU for the Catalan system. It should also be noted that 83% were working at the time the survey was carried out, and 75% were working in jobs for which the degree in question was required.

From the data available, we can conclude that the satisfaction of GEM graduates is high.

6.3. The values for the academic indicators are acceptabnle for the characteristics of the degree.

In this Substandard, the following ASIIN criteria will be analysed:
1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

In order to improve the academic results of 1st-year students, since 2014-15 the faculties and schools of the Sescelades Campus teach what is known as Subject Zero (a foundation course) to all incoming students in the subjects of Mathematics, Physics and Chemistry. In this course, students who wish to do so have the opportunity to reinforce the basic aspects of these subjects, so that they can better cope during the degree.

The objective of this subject is for students to attain a minimum understanding. The course is offered both to students who have taken these subjects during their upper secondary education or vocational training cycles, and those who have not.

The subject is taught free of charge after the induction sessions in the month of September and in the two weeks before the beginning of the academic year.

We would like to point out that this report contains a table in Annex B that gives the main indicators and figures disaggregated by gender (table B.6.15).

2020 Bachelor's Degree in Chemical Engineering (GEQ)

The academic outcomes of the degree, both in terms of the distribution of grades in the different subjects (Table B.6.7 of Annex B) and the success and performance rates (Table B.6.8 of Annex B), reveal a situation that has remained almost stable throughout recent academic years, although with some fluctuations.

In general, academic performance is lower in the subjects taught in the 1st year than in subjects taught in subsequent years. This is very clear in the basic training subjects Physics, Chemistry I, and Mathematics I, where in the academic year 2020-21, the respective success rates were 27.69%, 54.79% and 68.29%, and the performance rates were 27.27%, 50.00% and 43.43%. Physics and Chemistry I are taught in the 1st semester of the academic year and the performance rates are practically the same as the success rates, which means that all the students followed the subjects until the end. On the other hand, Mathematics I is an annual subject, and the performance rate is much lower than the success rate because a significant number of students drop out during the 2nd semester of the first year. The same effect is observed in the other annual subject, Fundamentals of Process Engineering, for which the success and performance rates were 43.18% and 33.93%, and also in other basic subjects in the second semester with a strong conceptual component such as Physical Chemistry (66.07% and 40.22%) and Computation in Process Engineering (78.38% and 61.70%). It is evident that in the academic year 2020-21 these poor results may be partly due to the fact that teaching was online because of Covid-19. However, the values of the indicators from previous years (Table B.6.8 of Annex B) show that this is a situation that has remained stable for some time. Likewise, the poor results in Chemistry I, Mathematics I, and (particularly) Physics show that the aforementioned Subject Zero initiative, although much appreciated by students, is insufficient to resolve the deficiencies that a significant cohort of new students have in these subjects. Therefore, since Physics is the subject with the lowest success rates, we propose as an improvement for the academic year 2022-23 to teach it also in the 2nd semester of the first year of the degree (2020.21-GEQ-6.3-M1) so that the 1st-year students who do not manage to pass in the 1st semester can take it again immediately in the 2nd, thus increasing their chances of passing it during the first year. The course will be scheduled so that it will not overlap with other 2nd-semester subjects, making it easier for students to avoid problems of timetable incompatibility. Neither will it coincide with the subjects timetabled on other academic years so that students who are mostly taking 2nd- or 3rd-year subjects and who have not yet passed Physics will have more options of doing so.

In contrast to the situation in the 1st year, in the other years the indicators improved substantially. Thus, for the degree programme as a whole, the success and performance rates were 79.57% and 71.30%, respectively (Table B.6.9 in Annex B), which contrast with a success rate of 65.78% and a performance of 51.80% in the first year (Table B.6.10 in Annex B). Nevertheless, the success and performance rates of the degree program in the 2020-21 academic year were about 10 percentage points lower than in previous years, partly due to the drop in the first year, but also very probably due to the effect of online teaching. This decrease is more noticeable in some 2nd-year subjects such as Thermodynamics, Chemical Kinetics and Reactor Design, or Chemical Processes and Products, but less noticeable in 3rd- and 4th-year subjects (Table B.6.8 in Annex B), which have more mature students.

The dropout rate in the degree programme as a whole is high, but it occurs essentially in the first year. In the academic year 2020-21, the dropout rate in the first year was 25.35% (Table B.6.9 in Annex B), a total of 18 students. In the same year, a total of 28 students dropped out of the degree programme (Table B.6.11 in Annex B), so 1st-year students accounted for 64.3% of the total number. However, of the 28 students who dropped out, 22 did so with less than 60 ECTS credits passed (78.6%), and only 1 student dropped out with a number of ECTS credits passed between 60 and 120. In summary, students mainly drop out of the degree in the first year, in the same academic year as they enrolled, and those who drop out in the second year often fail to pass first-year subjects despite repeating them. In order to reduce 1st-year dropouts, since the academic year 2018-19 the ETSEQ has applied the protocol against potential 1st-year dropouts explained in standard 5.1.

In the last modification of the degree (Evaluation Report on the modification of 21/07/2021), the rates set in the Royal Decree were updated. The graduation rate went from 60% to 55%, the dropout rate from 20% to 30% (previously, improvement 2015.16-GEQ-6.3-M1 had increased it from 7% to 20%), and the efficiency rate remained at 85%.

In terms of the efficiency rate, the degree (Tables B.6.12 and B.6.14 in Annex B) is almost 86.42%, slightly above the 85% set as a reference in the teaching report and practically constant since the academic year 2017-18. However, the average length of study has improved steadily (Table B.6.12 in Annex B), from 5.06 years in 2017-18 to 4.63 years in 2020-21, while the average number of graduates has remained at around 50 per year. The graduation rate was 44.44% (Table B.6.14 in Annex B), lower than the value of 55% predicted in the degree report. Likewise, the dropout rate was 34.57%, above the 30% predicted in the report but better than the average of the previous three years (37.41%).

It is also interesting to analyse the results of the degree in terms of the gender of the students (Tables B.6.10.1 and B.6.15 in Annex B), where some improvement can be seen. Thus, in 2020-21, women represented 42.3% of the new students in the first year, clearly above the 33.3% in 2017-18. In the degree program as a whole, in the academic year 2020-21, women made up 40% of the student body, compared to only 36% in 2017-18. Regarding other indicators, in 2020-21, the dropout rate for women in the first year was slightly higher (26.67% compared to 24.39% for men) and the success rate was lower (61.64% vs. 69.16%), but in the degree programme as a whole (Table B.6.15 in Annex B) the dropout rate was lower (24.32% vs. 43.18%) and the graduation rate higher (48.65% vs. 40.94%). These indicators show that the degree is slowly advancing towards gender parity in all academic aspects. Undoubtedly, the increase in the number of women in the new student body has been boosted by teaching and recruitment activities in recent years now, such as Girls Day.

Finally, it is worth analysing the indicators for the External Internships and the Bachelor's Degree Thesis. As far as the External Internships are concerned, the academic performance was very good, with 31.4% of students being awarded a grade of B and 65.7% an A. One student was awarded a distinction. These results are better than those of previous years, when typically, there were fewer As than Bs, and there were 6% Cs. This can be explained by the fact that in the academic year 2020-21 internships were optional because of the exceptional situation caused by the COVID-19 pandemic (see section 6.2). This meant that companies were more restricted when taking on students for internships and chose only those with the best skills, who logically tended to get better results and were able to extend their stays by engaging in additional extracurricular internships. With regard to the thesis, the academic performance was also very good. In the academic year 2020-21, 54 students registered for the subject (Table B.6.5 in Annex B). Of these, 2 did not submit their thesis, 11 were awarded a passing grade, 37 a B, 3 an A, and there was 1 distinction. This distribution of grades is equivalent to that obtained in the previous four years. It should be pointed out that two of these theses were written with the support of a company. Most of the projects were in the petrochemical field (46 out of 54) and were based on processes and facilities existing in the companies in the Tarragona industrial belt.

In general, therefore, the academic indicators for students who complete their studies are appropriate for a degree in the field of engineering. As points for improvement, attention needs to be paid to the profile of students admitted to the programme because it has a clear impact on dropout rates and performance in the first year, and has a negative impact on graduation rates and degree efficiency.

2022 Bachelor's Degree in Mechanical Engineering (GEM)

For the Bachelor's Degree in Mechanical Engineering, the performance rate (% credits passed / credits enrolled) for the academic year 2020-21 was 66.7%, slightly lower than previous years (around 76%) (see Table B.6.9). Likewise, the success rate (%

credits passed / credits submitted) was 78.6%, also lower than the value of 85% of previous years. If only the first year is taken into account (Table B.6.10), the figures are slightly lower, with a success rate of 70% and a performance rate of 60%. The 1st-year rates are also lower than those of the three previous years, with a clear drop in the last year in particular, which we associate with the effects of the COVID-19 pandemic. These data clearly correlate with the 1st-year dropout rate, which in 2020-2021 was 20% and in 2019-2020 18%. The pre-pandemic values were considerably lower (8-13%).

In the last modification of the degree (Report of 21/07/2021), the dropout rate was revised from 15 to 20%, the result of improvement 2015.16-GEM-6.3-M1. The graduation rate remained at 50% and the efficiency rate remained at 85%.

As far as the Royal Decree rates are concerned (Table B.6.14), this is the first year that the dropout rate has been below the 20% reference rate set in the report. However, the pandemic has not yet had an effect on the degree's efficiency rate of 86.6%, which has remained at around 85% in recent years, as figures in the report.

If we look at each subject in detail, the success and performance rates for the academic year 2020-21 (Table B.6.8 of Annex B) generally remain at around the average values already mentioned above, without large deviations. Some exceptions are the 1st-year subjects, which show clearly lower rates, such as Graphical Expression and Computer-Aided Design I with success and performance rates of 50% and 41%, respectively, Graphical Expression and Computer-Aided Design II with rates of 70% and 42%, and Fundamentals of Mathematics in Engineering II with rates of 32% and 28%. The rates of these three subjects between the 2017-18 and 2019-20 academic year are within the normal range and within the average values that we have mentioned above. Therefore, the drop in the academic year 2020-21 can be clearly attributed to the effects of the COVID-19 pandemic and the difficulties it generated, especially in 1st-year subjects. This trend is also clear in terms of grades (Table B.6.7 in Annex B) with higher numbers of 1st-year students not turning up for exams.

We should point out that in recent years the performance rate for external internships has always been higher than 97.5% and the success rate has been 100%, and in the academic year 2020-21 A grades were awarded to 60% of students while all others were awarded a B. In the case of the final thesis, while the success rate has consistently been around 95% in recent courses, the performance rate is much lower, standing at 50% in 2020-21 and between 50% and 70% in previous years. This clearly indicates that students choose not to sit the examination in the first call, probably because of the high self-demand imposed on the TFG. The grades awarded in the 2020-21 academic year reveal that 45.5% of students opted not to submit their thesis and 2.6% did not pass. On the other hand, 24% were awarded a C or a B, 8% an A and 1.3% a distinction.

If we look at the values broken down by gender (Table B.6.10.1), it is evident that most of the students admitted on the Bachelor's Degree in Mechanical Engineering are men, with a ratio of approximately 1 to 10 in recent years. In percentage terms, the dropout rate is very similar with the exception of the academic year 2018-19 in which the rate of women who dropped out was twice that of men. On the other hand, both the performance rate and the success rate are close to the overall average reported, but higher for women. This figure was particularly high in the 2020-21 academic year with a 95% success rate for women compared to 67% for men, and an 88% performance rate for women compared to 56% for men.

Finally, it can be concluded that despite the difficulties encountered in recent years due to the COVID-19 pandemic, the data show that the GEM academic indicators are evolving quite satisfactorily.

6.4. The indicators of graduate employment are acceptable for the characteristics of the degree.

To be able to monitor graduates, the Universitat Rovira i Virgili provides faculties and schools the support of two structures: the Employment Observatory and the Student Office. Under the responsibility of the Office of the Vice-Rector for Students and Employability, the Observatory has the objective of monitoring the employment of graduates and the evolution of the demand from companies. The reports drafted serve as material for those responsible for decision making to reflect on. The Student Office is the joint responsibility of the Office of the Vice-Rector for University and Society and the Vice-Rector for Teaching, Students and the University Community. In coordination with the faculties and schools, it aims to develop materials and activities that allow students to learn about the current state of job opportunities and the strategies that can maximize the potential for success.

In terms of graduate employment, AQU conducts a survey every three years. The results available from the last survey are from 2020, in which the graduates of the 2015-16 academic year were surveyed. Table C.9.1 also shows some indicators from the 2017 survey.

To compare the satisfaction of students on the same degree at other universities, we used the data published at EUC Data - Employment.

2020 Bachelor's Degree in Chemical Engineering (GEQ)

Because the sample from the GEQ is not big enough to provide public information, the results available on the EUC website (Graduate Employment Data) are shown jointly for the degrees in Electrical Engineering, Industrial and Automatic Electronic Engineering, Mechanical Engineering and Chemical Engineering. For this reason, we have chosen to comment on those items that AQU has provided for individual degrees (see Table C.9.1 in Annex C). There are also some indicators of the 2017 survey. According to the results of the GEQ graduate employment surveys for 2017 and 2020, the employment rate was 89.5% and 94.1%. As for the fit rate, about 60-65% had jobs that matched their specific degrees, and 35-40% had jobs that required graduates. We should also point out that more than 80% of respondents would decide to study at the same faculty/school and university if they had to start again.

The employment data from the Survey for recent ETSEQ graduates for the academic year 2019-20 (Table C.9 in Annex C) show an employment rate of 38.89% and a fit rate of 53.84%. It is worth mentioning that our survey is carried out about 6 months after the end of the degree, while the AQU do their Employment survey about four years after graduation. The data seem to indicate that the employability and fit of the first jobs is limited in the first few months after graduates complete their studies, but that it improves relatively quickly. Our recent graduate survey also shows data for the academic year 2020-21, conducted in February 2022 (Table C.9 in Appendix C). The employment rate was 44.44% and the fit rate was 55.55%, similar to the 2019-20 academic year. On the other hand, it is interesting to note that in recent years most graduates state that at the end of their degree they decide to continue their training by pursuing a master's degree (88.88% of respondents in the academic year 2020-21). As a result, some people combine part-time work with their studies, delaying their entry into the world of work, thus reducing employment and fit rates among recent graduates.

To compare the URV's Bachelor's Degree in Chemical Engineering with the same degree taught at other universities in the Catalan system for the academic year 2019-20, we have used the data published at EUC Dades – Inserció laboral. The comparison is made with the degrees in chemical engineering at the University of Barcelona (UB), the Universitat Autònoma de Barcelona (UAB) and the Universitat Politècnica de Catalunya (UPC). In terms of employment status, 94.1% of ETSEQ graduates stated that they were employed, a figure similar to the 95.2% at the UB, slightly above the 92.4% at the UPC and better than the 87.5% of the UAB. In terms of professional duties, 64.7% of our graduates had duties that were specific to the degree, once again similar to the 61.9% at the UB and better than the 56.5% at the UAB and 57.6% at the UPC. Finally, of our graduates, 82.4% would do the degree again and 100% would again choose the ETSEQ, positive data compared to the 81.0% / 81.0% of the UB, 70.8% / 91.7% of the UAB and 71.2% / 92.4% of the UPC. To sum up, the published data indicate that the rates of employment among our graduates are some of the best of all the universities in the Catalan system.

2022 Degree in Mechanical Engineering (GEM)

The AQU's Graduate Employment Survey shows data for the URV's Bachelor's Degree in Mechanical Engineering and the same degree taught at other universities. A summary is also presented in Table C.9.1 in Annex C. According to the results of the survey of GEM graduates in 2020, the employment rate was 95%. In terms of the fit rate, about 65% were performing duties specific to the degree they had studied, and 30% were working in jobs that required graduates in general.

The employment data are very similar to those reported by the UPC, UdG and UdL, but it is worth noting that 80% of URV GEM graduates say they would repeat their degree and 94.7% say they would do it again at the URV, compared to 66% and 84% at the UPC, for example. It is also noteworthy that the URV's GEM has the highest percentage (85%) of students with incomes of over €2000 a month compared to 59% at the UdL, which shows that local companies value professionals who have graduated from the GEM. The URV once again has the highest percentage of overall graduate satisfaction with the jobs they have found (8.4/10) and the highest retention rate (90%) of graduates in the province (i.e. most URV graduates do not have to leave the province in which they have studied to find a job). All these data clearly indicate that the level of satisfaction of URV GEM graduates is very high.

Global Assessment of Standard 6: Quality of programme (learning) outcomes

For all of the above, we consider that **we comply with Standard 6 and are progressing towards excellence.**

	Progressing towards excellence	Compliant	Compliant with conditions	Non-compliant
GEQ	x			
GEM	x			

7. Continuous improvement process

7.1 Monitoring of the previous Improvement Plan

Table 7.1 Monitoring of the previous improvement plan for GEM and GEQ and ETSEQ 2018-19

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-GEQ-1.1-M1	GEQ	E1.1	Performance contract	Need to adapt to modifications of the model of cross-sectional and core competencies of the URV (Governing Council 16/07/2015)	Eliminate core competencies and adapt to the new version of cross-sectional competencies	Modify the competencies in the Report and Docnet	High	RE	No	2020-21	Yes	Report modified in sections: 2, 3, 5.1.2, 5.5	Request for modification 2020-21 (1) Entered in SEDE	100%
2018.19	2018.19-GEM-1.1-M1	GEM	E1.1	Performance contract	Need to adapt to modifications of the model of cross-sectional and core competencies of the URV (Governing Council 16/07/2015)	Eliminate core competencies and adapt to the new version of cross-sectional competencies	Modify the competencies in the Report and Docnet	High	RE	No	2020-21	Yes	Report modified in sections: 2, 3, 5.1.2, 5.5	Request for modification 2020-21 (1) Entered in SEDE	100%
2018.19	2018.19-GEM-1.3-M1	GEM	E1.3	Performance contract (ETSEQ)	Improve students' admission profile (cut-	Obtain/renew EUR-ACE international quality labels	Ask the vice-rector whether there is a	High	Director RE	Yes	2021-22	No	Labels	EUR-ACE accreditation planned for 2021-22	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
					off scores) Prestige / visibility with respect to other national and international universities. Improve national and international employability of graduates.		desire to renew the label								
2018.19	2018.19-GEQ-1.3-M1	GEQ	E1.3	Performance contract (ETSEQ)	Improve students' admission profile (cut-off scores) Prestige / visibility with respect to other national and international universities. Improve national and international employability of graduates.	Obtain/renew EUR-ACE international quality labels	Ask the vice-rector whether there is a desire to renew the label	High	Director RE	Yes	2021-22	No	Labels	EUR-ACE accreditation planned for 2021-22	100%
2018.19	2018.19-	ETSEQ	E1.4	IST 2018-19	Section 5.1.3 Mechanisms	Update and homogenise	Apply for a report	Medium	TSQD	No	2020-21	Yes	Report modified	Section modified in	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
	ETSEQ G-1.4-M1	bachelor's degrees			of teaching coordination available to degrees, in the validation reports, should contain the same information in all degrees and must be updated with new commissions.	section 5.1.3 of all bachelor's reports at ETSEQ	modification and enter it in SEDE							the modified GEQ and GEM reports, evaluated favourably on 21/7/2021	
2018.19	2018.19-ETSEQ-1.5-M1	ETSEQ	E1.5	IST / IA 2018-19	The URV Regulations must adapt to the modifications made by the URV's Governing Council	Revision and adaptation to the new changes	Change ex officio members of the Board by replacing statutory teaching staff with permanent teaching staff to adapt to the current reality. Administrative staff should be part of the Board.	High	Director and Secretary of ETSEQ	No	2019-20	No	New regulations approved and published	Modified by the Governing Council on 20/02/2020	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQ-1.5-M2	ETSEQ	E1.5	IST / IA 2018-19	The regulations governing External Internships, TFGs, TFMs at ETSEQ are not adapted to the change in name proposed by the General Secretary of the URV	Revision and adaptation to the new changes	Replace regulations with guides, add the two TFG/N calls and update the new degrees	Medium	Director and Secretary of ETSEQ	No	2019-20	No	New guides approved and published	Regulations governing External Internships approved by the School Board: 21/07/21 Regulations governing TFGs approved by the School Board: 16/03/21 Regulations governing TFMs approved by the School Board: 19/10/21	100%
2018.19	2018.19-ETSEQ-2.1-M1	ETSEQ	E2.1	IST / IA 2018-19	The School's website is old	Adapt the School's website to the URV model	Define the requirements of the new website and make the change	Medium	Deputy director	Yes	2020-21	No	New website activated	ETSEQ website published on 15/2/2022	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQ-3.2-M1	ETSEQ	E3.2	IST / IA 2018-19	Some ETSEQ surveys do not have a question assessing overall satisfaction	Add the question to those surveys that do not have it	Add the question to the ETSEQ surveys	Medium	TSQD	No	2019-20	No	Incorporation of the question	Added to the School's surveys: academic tutors, teaching staff and employers. It was already in the graduates survey.	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQ-3.3-M1	ETSEQ	E3.3	Performance contract	Make progress with the implementation of the IQAS and obtain the certification	Obtain the certification for implementing the IQAS	Define the strategic goals of ETSEQ. Set up a document management system. Implement the Dashboard. Establish a formal mechanism for reviewing IQAS processes.	High	RSIGQ and TSQD	No	2020-21	No	IQAS certification awarded	ETSEQ's strategic goals: approved 01/12/2020. Set up a document management system: Sharepoint activated at end of 2020-21 Implement the Dashboard: Pending 2021-22 Establish a formal mechanism for reviewing IQAS processes: to be implemented in 2021-22	80%
2018.19	2018.19-ETSEQ-5.1-M1	ETSEQ	E5.1	PAT report	New tutors have problems entering tutorials in e-tutorials	Write instructions explaining how to enter the tutorials	Send the instructions to tutors.	Medium	TSQD	No	2019-20	No	Instructions written and sent	Instruction written and sent to tutors at the beginning of the year.	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQ-5.1-M2	ETSEQ	E5.1	PAT report	Lack of participation in student satisfaction surveys	Increase participation in the surveys.	Define key subjects with many students and ask them to answer the survey by mobile.	Medium	RE / CM	No	2019-20	No	% participation in the surveys	Not done. The second semester of 2019-20 and all 2020-21 were online. Proposed again in 2020-21.	0%
2018.19	2018.19-ETSEQ-5.1-M3	ETSEQ	E5.1	PAT report	No question on the tutors survey to evaluate the overall satisfaction with tutorials	Add an item to the tutors survey summarising their satisfaction.	Add an item to the tutors survey summarising their satisfaction.	Medium	TSQD	No	2020-21	No	Addition of the question	Added to the tutors satisfaction survey for 2019-20	100%
2018.19	2018.19-ETSEQ-5.1-M4	ETSEQ	E5.1	PAT report	Some PAT documents present biases in terms of the gender perspective	Ensure that PAT documents are written from the gender perspective.	Review existing documentation and take care to generate new documents that respect the gender perspective	Medium	CPAT	No	2020-21	No	Gender-sensitive documents	Written from the gender-sensitive point of view	100%
2018.19	2018.19-ETSEQ-5.1-M5	ETSEQ	E5.1	PAT report	Generation of e-tutorial data	Speed up extraction of data from e-tutorials and subsequent processing	Ask the SREd for the data extracted to be presented as an Excel and not as pdf.	High	SREd / GQP	Yes	2020-21	No	Data in an Excel document	SREd has generated an Excel with information- from some tables. Proposed again in 2020-21.	50%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQ-5.1-M6	ETSEQ	E5.1	PAT report	We do not know how many students actively ask for tutorials.	Set up an option for students to request tutorials (of the type used to get an appointment with a URV psychologist)	Send the request to SREd and GPQ	Medium	SREd / GQP	Yes	2020-21	No	Activation of the option	Request made but not implemented Proposed again in 2020-21.	0%
2018.19	2018.19-ETSEQ-5.1-M7	ETSEQ	E5.1	Performance contract	Lack of student participation in representative bodies of the URV and the School	Foster the figure of delegate	Define mechanisms for choosing delegates and implement them	Medium	RE / CM	No	2019-20	No	List of delegates published in the degree's Moodle space	There have been delegates since the academic year 2019-20	100%
2018.19	2018.19-ETSEQG-5.1-M1	ETSEQ bachelor's degrees	E5.1	PAT report	Some students don't know that they have been assigned a tutor for tutorials	Inform about the PAT and the tutors assigned to students	Remind the tutors that they should do tutorials and students that they can request a tutorial at the same time.	Medium	CPAT / TSQD	No	2019-20	NO	% of students who have had a tutorial	The total of 25% participation in the bachelor's degrees in 19-20 increased to 36% in 20-21.	100%
2018.19	2018.19-ETSEQG-5.1-M2	ETSEQ bachelor's degrees	E5.1	Inf. PAT	There are new group guidance activities and new tòpics to be discussed with individuals	Update the gudance activities defined in the PAT year by year for each degree.	Review and updating by heads of degree programme	Medium	RE / CPAT	No	2019-20	NO	New document on guidance activities for degrees	Done	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQG-5.1-M3	GRAUS ETSEQ	E5.1	PAT report	Many tutorials are not recorded	Reconsider the role and system for assigning tutors	GEQ-GEBA-GTBA-DG: Give greater weight to year coordinators and heads of studies. GEM: Change system for assigning tutors, such that year coordinators act as tutors.	High	CPAT / TSQD	No	2020-21	No	% of students who have taken part in tutorials	Since 20-21 GEM assigns year coordinators as tutors. Participation by undergraduates has increased from 25% (19-20) to 36% (20-21)	100%
2018.19	2018.19-ETSEQG-5.1-M4	GRAUS ETSEQ	E5.1	PAT report	Many tutorials done by the heads of degree programmes (or others) are not recorded.	The heads of degree programmes (and, for example, year coordinators) should be able to enter individual tutorials.	Consider the possibility that individual tutorials can be recorded on the group form (which includeds all undergraduates and the head of the programme).	Medium	SREd / GQP	SI	2020-21	NO	% students who have taken part in tutorials	Has not been used for computer purposes	0%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
2018.19	2018.19-ETSEQG-5.1-M5	GRAUS ETSEQ	E5.1	Inf. PAT	% of dropout in the 1st year is high	Continue implementing the protocol to prevent students from dropping out	Increase tutorial actions with these students. For purposes of analysis, we shall not include students who have earned some credits (even as few as 12 ECTS) and we shall add to the information about those who drop out, their admission qualifications (vocational training, courses, entrance exams, etc.)	High	RE	No	2019-20	No	lower % of dropout	The drop-out rate has not been reduced	0%
2018.19	2018.19-ETSEQ-5.2-M1	ETSEQ	E5.2	IA 2018-19	There are connectivity problems in VirtLabs	Improve remote access	Contact with the Computer and IT Service to solve the connection and licence problems	Medium	Deputy-Director of SRI	Yes	2019-20	No	Student satisfaction	The management has met with the people in charge of the Service and the number of incidents have been	100%

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence	Monitoring 2020-21	% compliance 2020-21
														reduced.	
2018.19	2018.19-ETSEQ-6.4-M1	ETSEQ	E6.4	IA 2018-19	The AQU rubric values the usefulness of theoretical and practical education but our graduate survey does not mention this issue.	Add a question for each item to facilitate assessment	Decide on the questions and add them to the survey	Medium	TSQD	No	2019-20	No	New question on the graduate survey	The items were added even though they are no longer part of the AQU rubric.	100%

Legend: API: Integrated projects; CdG: Governing Council; CM: Master's Degree Coordinator; CPAD: Coordinator of the Tutorial Action Plan; CQ: Quality Committee; St.: Standard; GPQ: Bureau for Programming and Quality; GR: Rector's Bureau; IA: Accreditation report; PAT: Tutorial Action Plan; IST: Monitoring Report of the Degree; RE: Head of Degree Programme; RSIGQ: Head of Internal Quality Assurance System; SEDE: Spanish Ministry's application for validating and modifying degree programmes; SGA: Academic Management Service; IQAS: Internal Quality Assurance System; SREd: Educational Resources Service; SRI: Computer Service; TFG/M: Bachelor's/Master's Degree Thesis; TSQD: Specialist to Support Teaching Quality; USGCD: Faculty/Schooland Department Management Support Unit (ETSEQ-DEQ-DEM).

7.2 New Improvement Plan

Table 7.2 Table of the new improvement plan for GEM, GEQ and ETSEQ 2020-21

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
2020.21	2020.21-GEQ-1.2-M1	GEQ	E1.2	2020-21 monitoring	With the improvement in the health situation, it is decided to revert improvement 2019.20-GEQ-1.2-M1 which changed the External Internships from compulsory to optional	Make the subject External Internships compulsory once again	Have the change approved by the School Board and inform the students	High	RE	No	2022-23	No	External Internships announced as compulsory in the Course Guide
2020.21	2020.21-ETSEQ-1.4-M1	ETSEQ	E1.4	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Formalise current informal teaching coordination mechanisms so that there is a written record of all activities and they can be monitored and improved	Describe the mechanisms for coordinating degrees in the Quality Manual (3.5): Lecturer Coordination Committee, and the Degree Committee	Determine which topics to discuss and periods to meet. Define a template for taking minutes that contains a table for improvement. Set up a space in Sharepoint to save the	High	Management	No	2020-21	No	Committees described in the Quality Manual

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
							minutes.						
2020.21	2020.21-ETSEQ-1.5-M1	ETSEQ/GEQ/GEM	E1.5	Evaluation reports of the GEQ-GEM application for modification (21/07/2021)	Establish a criterion for recognising work experience with 6 ECTS credits per year worked full time	Revise the Regulations Governing External Internships that give this information	Change the phrasing of article 10	Medium	Director and Secretary of ETSEQ	No	2021-22	No	New External Internships guide approved
2020.21	2020.21-ETSEQ-2.1-M1	ETSEQ	E2.1	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Ensure that the same information is given by the three public sources of information	Set up the new website with no repetitions and with the aim of giving complete and consistent information	Set up a website as a single source of information that can be accessed through links	Medium	Director and Deputy-director	No	2021-22	No	New website published
2020.21	2020.21-ETSEQ-2.1-M2	ETSEQ	E2.1	Requirement of the External Evaluation Report for master's	Include detailed and up-to-date information about the teaching staff	Publish the professional experience of the teaching staff	Agree on how the teaching staff have to enter this information and where	Medium	GPQ and SRI	Yes	2022-23	No	New section in the information published on the teaching staff

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
				degree accreditation (23/4/2021)	in the information published								
2020.21	2020.21-ETSEQ-2.2-M1	ETSEQ	E2.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Make the outcomes of the degrees available on all relevant websites, and add them to the School's and the Degree's website	Create a new sub-section in the section Quality on the ETSEQ's website for the monitoring indicators	Decide where to locate it on the quality website and the format	Medium	TSQD	No	2021-22	No	Public indicators
2020.21	2020.21-ETSEQ-2.2-M2	ETSEQ	E2.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Include the results of the satisfaction surveys in the information published	Set up a dashboard with the results of the various surveys available for each degree	Decide on the structure, information and location of the dashboard	Medium	GPQ and SRI	Yes	2022-23	No	Dashboard of satisfaction
2020.21	2020.21-ETSEQ-2.2-M3	ETSEQ	E2.2	Requirement of the External Evaluation Report for master's degree accreditation	Include the results of the satisfaction surveys in the information published	Create a new sub-section in the section Quality on the ETSEQ's website for the satisfaction results	Decide where to locate it on the quality website and the format	Medium	TSQD	No	2021-22	No	Published results of satisfaction

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
				(23/4/2021)									
2020.21	2020.21-ETSEQ-3.1-M1	ETSEQ	E3.1	2020-21 monitoring	There have been changes in the regulations governing universities and the URV Statute	Adapt the processes to legislative changes	Make the adaptation to the changes in legislation during the review of the IQAS processes	Medium	TSQD / RSIGQ	No	2022-23	No	New processes approved
2020.21	2020.21-ETSEQ-3.1-M2	ETSEQ	E3.1	2020-21 monitoring	El seguiment de les titulacions es fa de graus i màsters per separat	Passar d'un seguiment de titulacions a un de centre	Elaborar l'informe de seguiment de centre que incorpori totes les titulacions	Mitja	TSQD / RSIGQ	No	2021-22	NO	Informe de seguiment de centre aprovat
2020.21	2020.21-ETSEQ-3.2-M1	ETSEQ	E3.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Take measures to encourage students to take part in managing and improving the degrees and join academic committees.	Describe the mechanisms for coordinating degrees in the Quality Manual (3.5): Student Coordination Committee and Degree Committee	Determine which topics to discuss and periods to meet. Define a template for taking minutes that contains a table for improvement. Set up a space in Sharepoint to save the minutes. Explain the	High	Management	No	2020-21	No	Committees described in the Quality Manual

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
							various channels for participation in the induction sessions: committees, delegates, governing bodies, etc.						
2020.21	2020.21-ETSEQ-3.2-M2	ETSEQ	E3.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Take measures to improve the rate of response to the satisfaction surveys, particularly among students but also among teaching staff.	Increase participation in the surveys	Define key subjects with many students and ask them to answer the survey by mobile.	Medium	RE / CM	No	2021-22	No	Improve participation in surveys
2020.21	2020.21-ETSEQ-3.2-M3	ETSEQ	E3.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Take measures to improve the rate of response to the satisfaction surveys, particularly among	Indicate in the table of improvements in the monitoring reports (column "Source of improvement") those	Give students feedback in the Student Coordination Committee or the Degree Committee.	Medium	RE / CM	No	2021-22	No	Improve participation in surveys

Year	Code	Scope	St.	Source of improvement	Oportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
					students but also among teaching staff.	improvements suggested by delegates, tutors, committees, etc							
2020.21	2020.21 - ETSEQ-3.2-M4	ETSEQ	E3.2	2020-21 monitoring	Publish all surveys in the monitoring reports even though they have a low participation rate	Define the minimum participation rate and/or sample error for publishing the results of the surveys in the monitoring reports.	Ask the GPQ to set a common value for the whole of the URV	Medium	GPQ survey	Yes	2022-23	No	Monitoring reports
2020.21	2020.21 - ETSEQ-3.2-M5	ETSEQ	E3.2	2020-21 monitoring	Ask the same questions in the bachelor's and master's degree surveys	Add the following questions from the master's survey: "I am satisfied with the extent of the introduction to the gender perspective in the degree" and "I am satisfied with the degree".	Send the request to the GPQ for consideration	Medium	GPQ survey	Yes	2022-23	No	URV student satisfaction surveys

Year	Code	Scope	St.	Source of improvement	Oportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
2020.21	2020.21 - ETSEQ-3.2-M6	ETSEQ	E3.2	CQ meeting (improvement in master's students)	The teaching staff can see the results of the surveys while they are still open to students	The teaching staff should only have access to the participation rate, not the partial results.	Send the request to the GPQ for consideration	Medium	GPQ survey	Yes	2022-23	No	Improve participation in surveys
2020.21	2020.21 - ETSEQ-3.2-M7	ETSEQ	E3.2	2020-21 monitoring	Master's students are asked about their satisfaction with the gender perspective but graduates are not	Include a new question in the graduate survey	Add the question "I am satisfied with the extent of the introduction to the gender perspective in the degree"	Medium	TSQD survey	No	2021-22	No	New question on graduate surveys
2020.21	2020.21 - ETSEQ-3.2-M8	ETSEQ	E3.2	Requirement of the External Evaluation Report for master's degree accreditation (23/4/2021)	Improve the systematic collection of information about the employment and professional situation of graduates.	Include the information about the employment of graduates provided by AQU.	Add the results of those items for which we have data available for each degree.	Medium	TSQD	No	2021-22	No	New table in monitoring reports
2020.21	2020.21 - ETSEQ-3.3-M1	ETSEQ	E3.3	2020-21 monitoring	The dashboard is under construction	Implement the dashboard	Implement the dashboard	High	TSQD / RSIGQ	No	2021-22	No	ETSEQ dashboard

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
2020.21	2020.21-ETSEQ-3.3-M2	ETSEQ	E3.3	2020-21 monitoring	There is no formal mechanism for reviewing IQAS processes	Establish a formal review mechanism	Establish a formal review mechanism	Medium	TSQD / RSIGQ	No	2022-23	No	IQAS review report
2020.21	2020.21-ETSEQ-5.1-M1	ETSEQ	E5.1	PAT report	One of the most commonly used topics is "Others". This suggests that more topics should be made available to tutors	Add the topics that tutors deem to be relevant in the students' monitoring file	Send the request to SREd and GPQ	Medium	SREd / GPQ	Yes	2022-23	No	New topics in the monitoring file
2020.21	2020.21-ETSEQ-5.1-M2	ETSEQ	E5.1	PAT report	Generating data from e-tutorials	Speed up extraction of data from e-tutorials and subsequent processing	Ask the SREd for the data extracted to be presented as an Excel and not as pdf.	High	SREd / GPQ	Yes	2021-22	No	Data for the PAT report in Excel
2020.21	2020.21-ETSEQ-5.1-M3	ETSEQ	E5.1	PAT report	We do not know how many students actively request tutorials.	Set up an option for students to request tutorials (of the type used to get an appointment with a URV psychologist)	Send the request to GPQ	Medium	GPQ	Yes	2022-23	No	Activation of the option

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
2020.21	2020.21-ETSEQ-5.1-M4	ETSEQ	E5.1	PAT report	The assignation is made as from the month of September for GEM students and master's degrees, and for other bachelor's degrees, at the beginning of October, once the API teams have been set up.	Bring the assignation of new students forward so that they can register for the tutorials at the beginning of the year as soon as the July registration is over	Assign the 1st-year coordinator to the GEM, the head of the programme to the other degrees and the coordinator to the master's degrees. For GEQ-GEBA the assignation will be changed to October as soon as the API groups have been set up.	Medium	TSQD	No	2022-23	No	Increase in the rate of participation
2020.21	2020.21-ETSEQ-5.1-M5	ETSEQ	E5.1	2020-21 monitoring	The ETSEQ survey contains no question on satisfaction with the Job Fair or with Alumni URV.	Add these two items to the graduate survey.	Redactar una pregunta de satisfacció amb la Fira d'ocupació i una altra amb Alumni URV	Medium	TSQD Enq.	No	2021-22	No	New questions on the surveys
2020.21	2020.21-ETSEQ-5.1-M6	ETSEQ	E5.1	2020-21 monitoring	The student surveys contain no questions on satisfaction with career guidance or	Add a question on satisfaction with career guidance and the Job Fair.	Make the request to the person in the GPQ responsible for surveys	Medium	GPQ Enq.	Yes	2022-23	No	New questions on the surveys

Year	Code	Scope	St.	Source of improvement	Opportunity for improvement	Proposal for improvement	Actions	Priority	Person in charge	Ask URV?	Deadline	Change report	Indicator / Evidence
					with activities such as the Job Fair.								
2020.21	2020.21-ETSEQG-5.1-M1	GRAUS ETSEQ	E5.1	PAT report	Many tutorials done by the heads of the degree programme (or other figures or tutors) are not recorded.	Make it possible for heads of programmes (and others, like year coordinators) to enter individual tutorials.	Consider the possibility that individual tutorials can be recorded on the group file (which contains all undergraduates and the head of the programme).	Medium	SREd / GPQ	Yes	2022-23	No	% of students who have taken part in tutorials
2020.21	2020.21-GEQ-6.3-M1	GEQ	E6.3	2020-21 monitoring	Low pass rate of the subject Physics (1st year, 1st semester)	Teach the sjubject again in the 2nd semester of the 1st year	Ask for authorisation by the vice-rector and inform SGA so that it can be announced	High	RE and Director	Yes	2022-23	No	Pass rate above 40%

Legend: API: Integrated projects; CdG: Governing Council; CM: Master's Degree Coordinator; CPAD: Coordinator of the Tutorial Action Plan; CQ: Quality Committee; St.: Standard; GPQ: Bureau for Programming and Quality; GR: Rector's Bureau; IA: Accreditation report; PAT: Tutorial Action Plan; IST: Monitoring Report of the Degree; RE: Head of Degree Programme; RSIGQ: Head of Internal Quality Assurance System; SEDE: Spanish Ministry's application for validating and modifying degree programmes; SGA: Academic Management Service; IQAS: Internal Quality Assurance System; SREd: Educational Resources Service; SRI: Computer Service; TFG/M: Bachelor's/Master's Degree Thesis; TSQD: Specialist to Support Teaching Quality; USGCD: Faculty/Schooland Department Management Support Unit (ETSEQ-DEQ-DEM).

8. Evidences

Evidence	Language	Link
Standard 1 - Quality of the training programme		
Order CIN/351/2009. establishing the requirements for the verification of official university degrees that enable exercising of the profession of Industrial Technical Engineer.	Spanish	https://www.boe.es/boe/dias/2009/02/20/pdfs/BOE-A-2009-2893.pdf
GEQ Proposal for official bachelor's degree program	Spanish	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Mem%C3%B2ries%20verificaci%C3%B3/2021.06.15%20Memoria_GEQ_modif_vnetand.pdf
GEM Proposal for official bachelor's degree program	Spanish	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Mem%C3%B2ries%20verificaci%C3%B3/2021.06.15%20Mem%C3%B2ria%20modif%20comp%20GEM_valeg_vneta_sdades.pdf
GEQ Proposal evaluation Report (By ANECA)	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informes%20de%20verificaci%C3%B3/2010.02.01InformeVerificacioGEQ.02.01informeverificaciogeq.pdf
GEM Proposal evaluation Report (By ANECA)	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informes%20de%20verificaci%C3%B3/2010.02.01InformeVerificaci%C3%B3URVGEM.02.01informeverificaci%C3%B3urvgem.pdf
GEQ Modifications of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9817#
GEM Modifications of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9810#
GEQ Acreditation of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9817#
GEM Acreditation of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9810#
GEQ Final report for obtaining the seal EUR-ACE	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informe%20segell/GEQ_Informe_Final_del_Sello_2501676.pdf
GEM Final report for obtaining the seal EUR-ACE	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informe%20segell/GEM_Informe_Final_del_Sello_2501675.pdf
ENAEE Database of EUR-ACE Labelled Programmes (GEQ)	English	https://enaee.eeed.eu/node/3979
ENAEE Database of EUR-ACE Labelled Programmes (GEM)	English	https://enaee.eeed.eu/node/3977
GEQ Register of Universities, Centers and Degrees (RUCT)	Spanish	https://www.educacion.gob.es/ruct/estudiocentro.action;jsessionid=91AA878AD6B0D46D11E16126E687C835?codigoCiclo=SC&codigoEstudio=2501676&actual=estudios
GEM Register of Universities, Centers and Degrees (RUCT)	Spanish	https://www.educacion.gob.es/ruct/estudiocentro.action;jsessionid=91AA878AD6B0D46D11E16126E687C835?codigoCiclo=SC&codigoEstudio=2501675&actual=estudios
Programme GEQ	Catalan / Spanish / English	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2020&consulta=assignatures&idioma=eng
Programme GEM	Catalan / Spanish / English	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2022&consulta=assignatures&idioma=eng

Evidence	Language	Link
GEQ Student guides (Module descriptions + learning outcomes)	Catalan / Spanish / English *Available in the subject's language of instruction	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2020&idioma=eng
GEM Student guides (Module descriptions + learning outcomes)	Catalan / Spanish / English	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2022&idioma=eng
Virtual Campus	Catalan	https://campusvirtual.urv.cat/local/alternatelogin/index.php?lang=en
Work plan	Catalan	https://campusvirtual.urv.cat/local/alternatelogin/index.php?lang=en
Process map of the IQAS of ETSEQ (It includes processes only available in Catalan) PR-ETSEQ-003 Monitoring and Periodic Review of Programmes PR-ETSEQ-002 Programme planning	Catalan / Spanish / English	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
Study and examination regulation	Catalan / Spanish / English	https://www.urv.cat/media/upload/arxius/normatives/propia/activitat_universitaria/docencia_estudi/2021-22_NA_GM_ang.pdf
Admission regulations	Catalan / Spanish / English	https://www.urv.cat/media/upload/arxius/normatives/propia/activitat_universitaria/docencia_estudi/2021-22_nmatricula_grau_master_ang.pdf
Regulations working practice intervals and the recognition of externally acquired credit (27/07/2020)	Catalan / Spanish / English	https://www.urv.cat/media/upload/arxius/normatives/propia/activitat_universitaria/docencia_estudi/Norm_pract_externes_ANG.pdf
Regulations about (outgoing) mobility (25/02/2016)	Catalan / English	https://www.urv.cat/media/upload/arxius/normatives/propia/activitat_universitaria/docencia_estudi/norm_mobilitat_ang.pdf
Other students regulations	Catalan	https://www.urv.cat/ca/universitat/normatives/activitat/
Regulations for internal and external cooperations (Law 26/2010, on the legal and procedural regiom of the public administrations of Catalonia. Chapter II. Collaboration agreements)	Catalan	https://www.parlament.cat/document/nom/TL127.pdf
Regulations for internal and external cooperations (Law 40/2015, on the Legal Regime of the Public Sector. CHAPTER VI Collaboration agreements)	Spanish	https://www.boe.es/buscar/act.php?id=BOE-A-2015-10566
Staff regulations	Catalan	https://www.urv.cat/ca/universitat/normatives/activitat/
Quality assurance regulation	Catalan	https://www.urv.cat/media/upload/arxius/normatives/estatut/EURV.2012/eurv_tvuite.pdf
ETSEQ's regulation (27/02/2020)	Catalan	https://www.urv.cat/media/upload/arxius/normatives/propia/estructura/regalments%20centres/Reglament_ETSEQ.pdf
Evidence of participation of the stakeholders	Catalan	https://campusvirtual.urv.cat/
Objectives-Module-Matrix	English	SAR
Sample graduation certificate for each programme	Spanish	https://campusvirtual.urv.cat/
Sample Diploma Supplement for each programme	Catalan / Spanish / English	https://campusvirtual.urv.cat/
Sample transcript of records for each programme	Catalan / Spanish / English	https://campusvirtual.urv.cat/

Evidence	Language	Link
Standard 2 - Relevance of the public information		
URV website	Catalan / Spanish / English	https://www.urv.cat/en/
GEQ website	Catalan / Spanish / English	https://www.urv.cat/en/studies/bachelor/courses/graudenginyeriaquimica/
GEM website	Catalan / Spanish / English	https://www.urv.cat/en/studies/bachelor/courses/graudmecanica/
ETSEQ website	Catalan / Spanish / English	https://www.etseq.urv.cat/en/
GEQ Student guides (Programme + Module descriptions + learning outcomes)	Catalan / Spanish / English	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2020&idioma=eng
GEM Student guides (Programme + Module descriptions + learning outcomes)	Catalan / Spanish / English	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2022&idioma=eng
GEQ Indicators	Catalan / Spanish / English	http://www.etseq.urv.cat/en/quality/indicators/
GEM Indicators	Catalan / Spanish / English	http://www.etseq.urv.cat/en/quality/indicators/
PR-ETSEQ-007 Publication of information on the Programmes	Catalan	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
Standard 3 - Efficacy of the programme's internal quality assurance system		
Quality Policy	Catalan	https://www.etseq.urv.cat/en/quality/
Quality Manual	Catalan	https://www.etseq.urv.cat/en/quality/
Quality URV web page	Catalan / Spanish / English	https://www.urv.cat/en/about/get-to-know/quality/
Quality ETSEQ web page	Catalan / Spanish / English	https://www.etseq.urv.cat/en/quality/
GEQ Proposal evaluation Report (By ANECA)	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informes%20de%20verificaci%C3%B3/2010.02.01InformeVerificacioGEQ.02.01informeverificaciogeq.pdf
GEM Proposal evaluation Report (By ANECA)	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informes%20de%20verificaci%C3%B3/2010.02.01InformeVerificaci%C3%B3URVGEM.02.01informeverificaci%C3%B3urvgem.pdf
GEQ Modifications of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9817#
GEM Modifications of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9810#
Monitoring Degree Report (it includes the plans for improvement)	Catalan	https://www.etseq.urv.cat/en/quality/internal-monitoring-reports/
Self-Assessment reports (it includes the plans for improvement)	Catalan	https://www.etseq.urv.cat/en/quality/internal-monitoring-reports/
GEQ Accreditation of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9817#

Evidence	Language	Link
GEM Accreditation of Proposal evaluation Reports (By AQU Catalunya)	Spanish	https://estudis.aqu.cat/informes/Web/Titulacio/Detall?titulacioId=9810
GEQ Final report for obtaining the seal EUR-ACE	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informe%20segell/GEQ_Informe_Final_del_Sello_2501676.pdf
GEM Final report for obtaining the seal EUR-ACE	Spanish	http://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Qualitat%20titulacions/Informe%20segell/GEM_Informe_Final_del_Sello_2501675.pdf
PR-ETSEQ-001 Drafting and review of the Quality Policy and Objectives	Catalan	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
PR-ETSEQ-003 Monitoring and Periodic Review of Programmes		
PR-ETSEQ-006 Acreditation of Programmes		
PR-ETSEQ-008 Definition, review and improvement of the SIGQ		
PR-ETSEQ-015 Inquiries, complaents, claims, suggestions and congratulations		
Questionnaires, surveys and evaluations (satisfaction among interest groups)	English	Annex C SAR
Standard 4 - Suitability of teaching staff for the training programme		
Curriculum and research activity of the teaching staff	English	https://campusvirtual.urv.cat/
Profile of the teaching staff (Table B.4.5)	English	https://campusvirtual.urv.cat/
Sufficient amount of teaching resources	Catalan	https://campusvirtual.urv.cat/
Student numbers (Table B.4.7)	English	Annex B SAR
Teaching staff's training plan reports	Catalan	https://www.ice.urv.cat/moduls/formacio/index.php?file=llistaMemories
Didactical training opportunities	Catalan	https://www.ice.urv.cat/moduls/formacio/index.php?file=cursosProfid
Measures that support the teaching staff in its use	Catalan	Annex A SAR
Support activities to improve the quality of teaching (Training Plan, teaching innovation programme, mobility)	English	Annex A SAR
Development opportunities, e.g. research semesters, visiting professorships, seminars, conferences, workshops	English	Annex A SAR
PR-SRH-034 Maintenance of staff and teaching planning	Catalan	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
Selection, hiring and welcome of Staff		
Management of Staff's training		
Assessment and Promotion of Staff		
Teaching assessment handbooks	Catalan	https://www.urv.cat/media/upload/arxius/normatives/propia/comunitat%20universitaria/pdi/manual_aval_pdi.pdf
Standard 5 - Effectiveness of learning support systems		
Tutorial Action Plan reports	Catalan	https://www.etseq.urv.cat/en/quality/tutorial-action-plan-pat/

Evidence	Language	Link
Careers Guidance Service	Catalan / Spanish	https://www.urv.cat/ca/vida-campus/serveis/ocupacio-urv/estudiants/orientacio-professional/
Counselling	Catalan / Spanish / English	https://www.urv.cat/en/campus-life/services/counselling/
University Ombuds Office	Catalan / Spanish / English	https://www.urv.cat/en/about/structure/governing-bodies/ombuds/
Work placement agreements	Catalan / Spanish / English	https://www.etseq.urv.cat/en/external-internships/information-for-students/
Mobility work experience agreements	Catalan / Spanish	https://www.urv.cat/ca/vida-campus/serveis/mobilitat/traineeships-erasmus-tram2021/
Equipment and facilities, e.g. laboratory handbooks, inventory lists, financial plans	Catalan	http://www.olc-sescelades.urv.cat/ca/
PR-ETSEQ-013 Student guidance PR-OUU-001 Professional guidance PR-SRM-001 Incidents of building management PR-ETSEQ-017 Management of material resources and services (school) PR-SRITIC-001 IT incidents	Catalan	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
Standard 6 - Quality of programme (learning) outcomes		
Student progression statistics	English	Annex B SAR (Tables B.6)
Exam schedules and Timetable	Catalan	https://www.etseq.urv.cat/en/information-for/
PR-ETSEQ-009 Development of Training Programmes PR-ETSEQ-020 Definition of the profile for entry, recruitment, enrolment and induction of bachelor's degree students PR-ICENTER-001 Outgoing mobility PR-ICENTER-002 Incoming mobility PR-ETSEQ-10 Management of the External Interships PR-ETSEQ-003 Monitoring and Periodic Review of Programmes	Catalan	https://www.etseq.urv.cat/media/upload/domain_2165/arxius/Qualitat/Garantia%20de%20la%20qualitat/Map%20Process%20ETSEQ%20ANG.pdf
List of final projects	Catalan	https://campusvirtual.urv.cat/
Meaningful selection of exams/transcripts/projects and other work of students from modules and from final papers/ final projects.	Catalan / Spanish *Available in the subject's language of instruction	https://campusvirtual.urv.cat/

9. Tables Subject-Specific Criteria

Table SAR1.1.1 Correlation of the learning outcomes of the Bachelor's Degree in Chemical Engineering (GEQ) and the learning outcomes from the relevant Subject-Specific Criteria (SSC 01)

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
1. Knowledge and understanding	
Graduates of more practice-oriented Bachelor's degree programmes have in particular:	
KU1 Gained extensive technical knowledge as to engineering, mathematics and natural science with a view to mechanical engineering / process engineering / chemical engineering, enabling them to carry out scientifically substantiated work and act responsibly in their professional activities.	A1.1 Consistently apply knowledge of basic, scientific and technological subjects pertaining to engineering
	A3.1 Ability to solve a wide range of mathematical problems in engineering. Ability to apply the knowledge of linear algebra, geometry, differential geometry, differential and integral calculus, differential equations and partial differential equations, numerical methods, numerical algorithmics, statistics and optimisation (FB1)
	A3.2 Comprehension and dexterity in the application of the fundamental and general laws of mechanics, thermodynamics, fields, waves,electromagnetism and their application to solve engineering problems (FB2)
	A3.3 Basic knowledge of the use and programming of computers, operating systems, databases and software for engineering applications (FB3)
	A3.4 Ability to understand the basics of general chemistry, organic and inorganic chemistry, and their applications in engineering (FB4)
	A3.5 Ability for spatial vision and graphical representation techniques using both traditional methods of metric and descriptive geometry and computer-aided design (FB5)
	A4.1 Knowledge of applied thermodynamics and heat transfer. Fundamental laws and their application to engineering problems (RI1)
	A4.2 Knowledge of the fundamental principles of fluid mechanics and their application to engineering problems. Design of piping networks, channels and fluid systems (RI2)
	A4.3 Knowledge of materials science, technology and chemistry fundamentals. Understanding of the relationships between microstructure, synthesis properties of the materials (RI3)
	A4.4 Knowledge and use of the fundamentals of circuit theory and electric machines (RI4)
	A4.5 Knowledge of the fundamentals of electronics (RI5)
	A4.6 Knowledge of the fundamentals of automation technology and control methods (RI6)
	A4.7 Knowledge of the theoretical principles of mechanisms and machines (RI7)

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
	A4.8 Knowledge and use of the principles of the strength of materials (RI8)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	B4.4 Knowledge in basic and technological subjects that enables them to learn new methods and theories and gives them the versatility to adapt to new situations. (G3)
KU2 Gained an understanding of the multi-disciplinary context of Engineering Sciences.	A1.3 Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	A2.3 Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
	B3.1 Ability to work in a multilingual and multidisciplinary environment. (G10)
2. Engineering Analysis	
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:	
EA1 Identify, formulate and solve problems peculiar to mechanical engineering / process engineering / chemical engineering based on the application of established scientific methods.	A1.1 Consistently apply knowledge of basic, scientific and technological subjects pertaining to engineering
	Knowledge and ability to mandatory standards and legislation to practise professionally as a qualified "enginyer tècnic industrial, especialitat en Química Industrial" (G11)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
	Ability to solve problems with initiative, decision-making, creativity and critical reasoning, and to communicate and transmit knowledge, skills and abilities in the field of Iindustrial Ttechnical Eengineering, specialiseding in Iindustrial Cchemistry. (G4)
EA2 Analyse and assess products, processes and methods used in their discipline based on scientific facts.	Knowledge to perform measurements, calculations, valuations, assessments, appraisals, studies, reports, work plans and analogous tasks (G5)
	A5.4 Capacity to design, manage and operate procedures (QI4)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
EA3 Choose suitable methods of analysing, modelling, simulating and optimising and apply them with a high degree of competence.	A3.3 Basic knowledge of the use and programming of computers, operating systems, databases and software for engineering applications (FB3)
	A5.2 Ability to analyse, design, simulate and optimise processes and products (QI2)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
3. Engineering Design	
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:	
ED1 The ability to conceive designs for machinery, devices, EDP programmes or processes correspondent to the status of their knowledge and to develop them according to specified requirements.	A1.4 Ability to apply the principles and methods of quality control (G8)
	A2.1 Ability to deal with specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A5.1 Knowledge of material and energy balances, biotechnology, mass transfer, separation operations, chemical reaction engineering, reactor design and valorisation and transformation of raw materials and energy resources (QI1)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
ED2 A practically orientated understanding of design methods and the ability to apply them in a competent manner.	Ability to deal with specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A5.2 Ability to analyse, design, simulate and optimise processes and products (QI2)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
4. Investigations and Assessment	
Graduates of Bachelor's degree programmes are in particular qualified to:	

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
IA1 Carry out literature research in accordance with the status of their knowledge and understanding and to use data bases and other sources of information for their work.	Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
	B1.5 Use ICT to efficiently manage information and knowledge
IA2 Plan and carry out suitable experiments correspondent to the status of their knowledge and understanding, to interpret the data and draw suitable conclusions.	A1.2 Design, execute and analyse experiments related to engineering
	A5.3 Ability to design and manage applied experimental procedures, especially to determine thermodynamic and transport properties and to model phenomena and systems in the field of chemical engineering, fluid flow systems, heat transfer, mass transfer operations, kinetics of chemical reactions and reactors (QI3)
	A5.4 Capacity to design, manage and operate procedures (QI4)
5. Engineering Practice	
Graduates of more practice-oriented Bachelor's degree programmes are in particular able to:	
EP1 Able to transfer new findings in engineering and natural sciences to industrial and commercial production under consideration of economic, ecologic and safety requirements as well as sustainability and environmental compatibility.	Ability to manage specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A2.4 Knowledge and ability to mandatory standards and legislation to practise professionally as a qualified "enginyer tècnic industrial, especialitat en Química Industrial" (G11)
	Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
EP2 Able to plan, control and monitor processes and to develop and operate systems and equipment.	A1.4 Ability to apply the principles and methods of quality control (G8)
	Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
	A4.6 Knowledge of the fundamentals of automation technology and control methods (RI6)
	A4.9 Basic knowledge of production and manufacturing systems (RI9)
	A4.12 Knowledge and ability to organise and manage projects; understanding of the organisational structure and the functions of a project office (RI12)
	A5.2 Ability to analyse, design, simulate and optimise processes and products (QI2)
	A5.4 Capacity to design, manage and operate procedures (QI4)
EP3 Able to independently consolidate the knowledge gained.	A6.1 Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
	Learn independently and with initiative.
EP4 Aware of the non-technical effects of engineering activities.	A1.3 Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	A2.1 Ability to deal with specifications, regulations and mandatory standards (G6)
	Ability to write, sign off and develop industrial engineering projects, in the field of industrial chemistry for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	Individually elaborate an original project in the field of industrial engineering, to be presented and defended in front of an examination panel. The project must focus on professional practice and apply and integrate the set of skills acquired along the degree (TFG1)
	Apply ethical principles and social responsibility as a citizen and as a professional (CT7)
6. Transferable Skills	
Graduates of Bachelor's degree programmes are able to:	
TS1 Function effectively as an individual and as a member of a team, including where relevant coordination of the team.	B1.3 Work effectively and resist adversity
	Ability to organise and plan in the company and other institutions and organisations (G9)
	B2.2 Ability to manage the activities of engineering projects related to the profession of Industrial Technical Engineering, specialised in Industrial Chemistry. (G2)
	B2.3 Influence and guide others to improve performance. (b)
	B2.4 Promote a suitable environment for the development of individuals. (b)

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
	B2.5 Provide guidelines for defining and achieving objectives. (b)
	B2.6 Establish and maintain productive relationships with team members and "clients" by gaining their trust and respect. (b)
	B3.2 Contribute effectively to achieving the team's objectives through cooperation, participation and commitment to the shared vision and goal.
	B3.3 Work as a team in a collaborative way, with shared responsibility and initiative.
	B3.4 Resolve conflicts in a constructive way.
	B5.1 Work independently with responsibility, initiative and innovative thinking.
	B5.2 Take on entrepreneurial positions.
TS2 Use diverse methods to communicate effectively with the engineering community and with society at large.	B1.1 Communicate information clearly and accurately to diverse audiences
	B1.5 Use ICT to efficiently manage information and knowledge
	B2.7 Relate with internal or external "clients" to identify their needs. (a)
TS3 Demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context, and commit to professional ethics, responsibilities and norms of engineering practice.	A1.3 Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	Ability to deal with specifications, regulations and mandatory standards (G6)
	Knowledge and ability to mandatory standards and legislation to practise professionally as a qualified "enginyer tècnic industrial, especialitat en Química Industrial" (G11)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	B6.1 Show ethical behaviour towards members of the university community and society in general.
	B6.2 Apply ethical principles and social responsibility as a citizen and as a professional.
TS4 Demonstrate awareness of project management and bussines practices, such as risk and change management, and understand their limitations.	A3.6 Adequate knowledge of the concept of company and its institutional and legal framework. Business organisation and management skills (FB6)
	A4.11 Applied knowledge of business organisation (RI11)
	A4.12 Knowledge and ability to organise and manage projects; understanding of the organisational structure and the functions of a project office (RI12)
	B1.2 Adapt to a changing environment
	B2.1 Ability to organise and plan in the company and other institutions and organisations (G9)
	B2.2 Ability to manage the activities of engineering projects related to the profession of Industrial Technical Engineering, specialised in Industrial Chemistry. (G2)
TS5 Recognise the need for, and have the ability to engage in independent, life-long learning.	B1.2 Adapt to a changing environment
	B4.1 Learn effective ways to assimilate knowledge and behaviour.

ASIIN - SSC 01	Intended Learning Outcomes of the GEQ
	B4.2 Identify the learning process and academic and professional preferences
	B4.3 Learn independently and with initiative.
	B4.4 Knowledge in basic and technological subjects that enables them to learn new methods and theories and gives them the versatility to adapt to new situations. (G3)
TS6 Work and communicate in national and international contexts.	B1.1 Communicate information clearly and accurately to diverse audiences
	B3.1 Ability to work in a multilingual and multidisciplinary environment. (G10)

Table SAR1.1.1 Correlation of the learning outcomes of the Bachelor's Degree in Mechanical Engineering (GEM) and the learning outcomes from the relevant Subject-Specific Criteria (SSC 01)

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
1. Knowledge and understanding	
Graduates of more practice-oriented Bachelor's degree programmes have in particular:	
KU1 Gained extensive technical knowledge as to engineering, mathematics and natural science with a view to mechanical engineering / process engineering / chemical engineering, enabling them to carry out scientifically substantiated work and act responsibly in their professional activities.	A1.1 Consistently apply knowledge of basic scientific and technological subjects pertaining to engineering
	A3.1 Ability to solve a wide range of mathematical problems in engineering. Ability to apply the knowledge of linear algebra, geometry, differential geometry, differential and integral calculus, differential equations and partial differential equations, numerical methods, numerical algorithms, statistics and optimisation (FB1)
	A3.2 Comprehension and dexterity in the application of the fundamentals and the general laws of mechanics, thermodynamics, fields, waves, electromagnetism and their application to solve engineering problems (FB2)
	A3.3 Basic knowledge of the use and programming of computers, operating systems, databases and software for engineering applications (FB3)
	A3.4 Ability to understand the basics of general chemistry, organic and inorganic chemistry, and their applications in engineering (FB4)
	A3.5 Ability for spatial vision and graphical representation techniques, using both traditional methods of metric and descriptive geometry and computer-aided design (FB5)
	A4.1 Knowledge of applied thermodynamics and heat transfer. Fundamental laws and their application to engineering problems (RI1)
	A4.2 Knowledge of the fundamental principles of fluid mechanics and their application to engineering problems. Calculation of piping networks, channels and fluid systems (RI2)
	A4.3 Knowledge of materials science, technology and chemistry fundamentals. Understanding the relationship between their microstructure, their synthesis, their processing and their properties (RI3)
	A4.4 Knowledge and use of the fundamentals of circuit theory and electric machines (RI4)
	A4.5 Knowledge of the fundamentals of electronics (RI5)
	A4.6 Knowledge of the fundamentals of automation technology and control methods (RI6)
	A4.7 Knowledge of the principles of the mechanism and machine theory (RI7)
	A4.8 Knowledge and use of the principles of strength of materials (RI8)

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
	A4.9 Basic knowledge of production and manufacturing systems (RI9)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	B4.4 Knowledge in basic and technological subjects that enables the acquisition of new methods and theories and provides the versatility needed to adapt to new situations. (G3)
KU2 Gained an understanding of the multi-disciplinary context of Engineering Sciences.	A1.3 Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
	B3.1 Ability to work in a multilingual and multidisciplinary environment (G10).
2. Engineering Analysis	
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:	
EA1 Identify, formulate and solve problems peculiar to mechanical engineering / process engineering / chemical engineering based on the application of established scientific methods.	A1.1 Consistently apply knowledge of basic scientific and technological subjects pertaining to engineering
	A2.4 Knowledge and ability to apply the mandatory standards and legislation to practise professionally as a qualified "ingeniero técnico industrial, especialidad mecánica" (G11)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
	B5.3 Ability to solve problems with initiative, decision-making, creativity and critical reasoning, and to communicate and transmit knowledge, skills and abilities in the field of Industrial Technical Engineering, specialised in Mechanics. (G4)
	A1.10 Design, optimise and analyse production processes

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
EA2 Analyse and assess products, processes and methods used in their discipline based on scientific facts.	A2.2 Knowledge to perform measurements, calculations, assessments, appraisals, surveys, studies, reports, work plans and analogous work (G5)
EA3 Choose suitable methods of analysing, modelling, simulating and optimising and apply them with a high degree of competence.	A2.5 Use computational tools to efficiently perform professional tasks
	A3.3 Basic knowledge of the use and programming of computers, operating systems, databases and software for engineering applications (FB3)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
3. Engineering Design	
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:	
ED1 The ability to conceive designs for machinery, devices, EDP programmes or processes correspondent to the status of their knowledge and to develop them according to specified requirements.	A1.4 Ability to apply the principles and methods of quality control (G8)
	A2.1 Ability to manage specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A5.2 Knowledge of and ability to calculate, design and test machines (M2)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
ED2 A practically orientated understanding of design methods and the ability to apply them in a competent manner.	A2.1 Ability to manage specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A5.1 Knowledge of and ability to apply graphic engineering techniques (M1)
	A5.3 Applied knowledge of thermal engineering (M3)

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
	A5.4 Knowledge of and ability to apply the fundamentals of elasticity and strength of materials to the behaviour of real solids (M4)
	A5.5 Knowledge of and ability for the calculation and design of structures and industrial constructions (M5)
	A5.6 Applied knowledge of the fundamentals of fluid mechanics systems and machinery (M6)
	A5.7 Knowledge of and ability for the application of materials engineering (M7)
	A5.8 Applied knowledge of manufacturing processes and systems, metrology and quality control (M8)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
4. Investigations and Assessment	
Graduates of Bachelor's degree programmes are in particular qualified to:	
IA1 Carry out literature research in accordance with the status of their knowledge and understanding and to use data bases and other sources of information for their work.	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
	B1.5 Use ICT to efficiently manage information and knowledge
IA2 Plan and carry out suitable experiments correspondent to the status of their knowledge and understanding, to interpret the data and draw suitable conclusions.	A1.2 Design, execute and analyse experiments related to engineering
	A1.7 Design, plan and interpret machine and mechanical assembly tests
5. Engineering Practice	
Graduates of more practice-oriented Bachelor's degree programmes are in particular able to:	
EP1 Able to transfer new findings in engineering and	A2.1 Ability to manage specifications, regulations and mandatory standards (G6)

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
natural sciences to industrial and commercial production under consideration of economic, ecologic and safety requirements as well as sustainability and environmental compatibility.	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A2.4 Knowledge and ability to apply the mandatory standards and legislation to practise professionally as a qualified "ingeniero técnico industrial, especialidad mecánica" (G11)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
EP2 Able to plan, control and monitor processes and to develop and operate systems and equipment.	A1.4 Ability to apply the principles and methods of quality control (G8)
	A1.5 Project and manage the maintenance of different industrial energy supply and HVAC
	A1.8 Project and manage the maintenance of fluid distribution systems, oleo-hydraulic and pneumatic systems
	A1.9 Project thermal machinery and heat exchange systems
	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A4.12 Knowledge and ability to organise and manage projects: understanding the organisational structure and functions of a project office (RI12)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
EP3 Able to independently consolidate the knowledge gained.	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
	B4.3 Learn independently and with initiative.
EP4 Aware of the non-technical effects of engineering activities.	Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	A2.1 Ability to manage specifications, regulations and mandatory standards (G6)
	A2.3 Ability to write, sign off and develop industrial engineering projects in the field of mechanical engineering for the construction, refurbishment, repair, conservation, demolition, manufacture, installation, assembly and operation of structures, mechanical equipment, energy facilities, electrical and electronic systems, industrial facilities and plants, and manufacturing and automation processes (G1)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	A6.1 Elaborate individually an original project in the field of Industrial engineering, to be presented and defended in front of an examination panel. The project integrates the competences and skills acquired in the degree. (TFG1)
	B6.2 Apply ethical principles and social responsibility as a citizen and as a professional
6. Transferable Skills	
Graduates of Bachelor's degree programmes are able to:	
TS1 Function effectively as an individual and as a member of a team, including where relevant coordination of the team.	B1.2 Adapt to a changing environment.
	B1.3 Work effectively and resist adversity.
	B2.1 Ability to organise and plan in the company and in other institutions and organisations. (G9)
	B2.3 Influence and guide others to improve performance.
	B2.4 Foster a suitable environment for the development of individuals.
	B2.5 Provide guidelines for defining and achieving objectives.
	B2.6 Motivate and transmit enthusiasm to others.
	B3.2 Contribute effectively to achieving the team's objectives through cooperation, participation and commitment to the shared vision and goal.
	B3.3 Work autonomously and as part of a team with responsibility and initiative.
	B3.4 Resolve conflicts in a constructive way.
	B5.1 Work independently with responsibility, initiative and innovative thinking.
	B5.2 Take on entrepreneurial positions.
	B6.1 Show ethical behaviour towards members of the university community and society in general.
	B1.1 Communicate information clearly and accurately to diverse audiences

ASIIN - SSC 01	Intended Learning Outcomes of the GEM
TS2 Use diverse methods to communicate effectively with the engineering community and with society at large.	B1.5 Use ICT to efficiently manage information and knowledge.
TS3 Demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context, and commit to professional ethics, responsibilities and norms of engineering practice.	A1.3 Ability to analyse and assess the social and environmental impact of technical solutions (G7)
	A2.1 Ability to manage specifications, regulations and mandatory standards (G6)
	A2.4 Knowledge and ability to apply the mandatory standards and legislation to practise professionally as a qualified "ingeniero técnico industrial, especialidad mecánica" (G11)
	A3.6 Adequate knowledge of the concept of company and its institutional and legal framework. Business organisation and management skills. (FB6)
	A4.10 Basic knowledge and application of environmental technologies and the principles of sustainability (RI10)
	B6.1 Show ethical behaviour towards members of the university community and society in general.
	B6.2 Apply ethical principles and social responsibility as a citizen and as a professional
TS4 Demonstrate an awareness of project management and business practices, such as risk and change management, and understand their limitations.	A4.11 Applied knowledge of business organisation (RI11)
	A4.12 Knowledge and ability to organise and manage projects: understanding the organisational structure and functions of a project office (RI12)
	B1.2 Adapt to a changing environment.
	B2.1 Ability to organise and plan in the company and in other institutions and organisations. (G9)
	B2.2 Ability to manage the activities of engineering projects related to the profession of Industrial Technical Engineering, specialised in Mechanics. (G2)
TS5 Recognise the need for, and have the ability to engage in independent, life-long learning.	B1.2 Adapt to a changing environment.
	B4.1 Learn effective ways to assimilate knowledge and behaviour.
	B4.2 Identify the learning process and academic and professional preferences
	B4.3 Learn independently and with initiative.
	B4.4 Knowledge in basic and technological subjects that enables them to learn new methods and theories and gives them the versatility to adapt to new situations. (G3)
TS6 work and communicate in national and international contexts.	B1.1 Communicate information clearly and accurately to diverse audiences
	B1.4 Use information in a foreign language (preferably English) effectively.
	B3.1 Ability to work in a multilingual and multidisciplinary environment (G10).

Table SAR1.2.1 Summary of the Bachelor's Degree in Chemical Engineering (GEQ) curriculum with the modules, topics and subjects, and the schedule for each semester

First year		Total credits: 60 ECTS					
Major		**Subject**					
	ECTS		**ECTS**	**Type**	**Period**	**Credits**	
						1st	**2nd**
Graphical Expression	6	•Graphical Expression	6	BC	1st	6	
Physics	12	•Physics •Physical Chemistry	6 6	BC	1st 2nd	6	 6
Computing	6	•Computing in Process Engineering	6	BC	2nd		6
Mathematics	9	•Mathematics I	9	BC	Annual	6	3
Process and Product Engineering	9	•Fundamentals of Process Engineering (AI 1-4)	9	COMP	Annual	6	3
Fluid Mechanics	6	•Fluid Mechanics Engineering	6	COMP	2nd		6
Chemistry	12	•Chemistry I •Chemistry II	6 6	BC BC	1st 2nd	6	 6

Second year		Total credits: 60 ECTS					
Major		**Subject**					
	ECTS		**ECTS**	**Type**	**Period**	**Credits**	
						1st	**2nd**
Mathematics	12	• Mathematics II • Mathematics III	6 6	BC	1st 2nd	6	 6
Business	6	• Economy and Industrial Organization	6	BC	2nd		6
Electrotechnics and Electronics	6	• Electrotechnics	6	COMP	2nd		6
Transport Phenomena	6	• Transport Phenomena	6	COMP	1st	6	
Process and Product Engineering	9	• Chemical Processes and Products (AI-2)	9	COMP	Annual	4,5	4,5
Chemical Engineering Laboratory	6	• Transport Phenomena and Fluid Mechanics Laboratory • Chemical Thermodynamics and Kinetics Laboratory	3 3	COMP COMP	Annual Annual	1,5 1,5	1,5 1,5
Chemical Kinetics and Reactor Design	9	• Chemical Kinetics and Reactor Design	9	COMP	Annual	4,5	4,5
Thermodynamics	6	• Thermodynamics	6	COMP	1st	6	

Third year		**Total credits: 60 ECTS**					
Major		**Subject**					
	ECTS		**ECTS**	**Type**	**Period**	**Credits**	
						1st	**2nd**
Automation and Control	6	• Control and Instrumentation	6	COMP	1st	6	
Biotechnology	3	• Biotechnology	3	COMP	2nd		3
Process and Product Engineering	9	• Simulation and Analysis of Chemical Processes (AI-3)	9	COMP	Annual	3	6
Unit Operations Laboratory	6	• Unit Operations Laboratory	6	COMP	Annual	3	3
Materials	6	• Materials Science • Resistance of Materials	3 3	COMP COMP	1st 2nd	3	 3
Heat Exchange Operations	5	• Design of Heat Exchange Operations	5	COMP	2nd		5
Separation Operations	9	• Design of Separation Operations	9	COMP	Annual	5	4
Thermodynamics	4	• Technical Thermodynamics	4	COMP	1st	4	
Projects	3	• Project Management	3	COMP	2nd		3
Industrial Safety	3	• Industrial Safety	3	COMP	1st	3	
Environment	6	• Environmental Technology	6	COMP	Annual	3	3

Fourth year		**Total credits: 60 ECTS**					
Major		**Subject**					
	ECTS		**ECTS**	**Type**	**Period**	**Credits**	
						1st	**2nd**
Mechanical Design	6	• Design of Equipment and Chemical Plants	6	COMP	1st	6	
Electrotechnics and Electronics	3	• Electronics	3	COMP	1st	3	
Mechanical Design	3	• Machines and Mechanisms	3	COMP	2nd	3	
Projects	6	• Technical Office	6	COMP	1st	6	
Optional subjects	18	• Team Leadership Practices • Optional 1 • Optional 2 • Optional 3 • Optional 4 • Optional 5 • Optional 6	9 6 6 6 3 3 3	OP OP OP OP OP OP OP	Annual 1st 1st 1st 2nd 2nd 2nd	6 6 6 6	3 3 3 3
Work Placement	12	• Work Placement	12	COMP	2nd		12
Bachelor's Thesis	12	• Bachelor's Thesis	12	COMP	2nd		12

Legend: BC: Basic Course, COMP: Compulsory, OP: Optional

Table SAR1.2.1 Summary of the Bachelor's Degree in Mechanical Engineering (GEM) curriculum with the modules, topics and subjects, and the schedule for each semester

First Year		Total credits: 60 ECTS			
Major		**Subject**			
	ECTS		**ECTS**	**Type**	**Period**
Physics	12	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II	6 6	BC BC	1st 2nd
Graphical Expression	12	Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II	6 6	BC BC	1st 2nd
Mathematics	12	Fundamentals of Mathematics in Engineering I Fundamentals of Mathematics in Engineering II	6 6	BC BC	1st 2nd
Chemistry	6	Fundamentals of Chemistry in Engineering	6	BC	1st
Business	6	Business Administration and Organization of Production	6	BC	1st
Computing	6	Numerical Methods and Algorithmic Programming	6	BC	2nd
Projects	6	Final Project I	6	COMP	2nd

Second Year		Total credits: 60 ECTS			
Major		**Subject**			
	ECTS		**ECTS**	**Type**	**Period**
Mathematics	6	Statistical Methods in Engineering	6	BC	1st
Mechanics and Theory of Mechanisms	15	Mechanics and Theory of Mechanisms I Mechanics and Theory of Mechanisms II Machines and Mechanisms Laboratory	6 6 3	COMP COMP COMP	1st 2nd 2nd
Elasticity and Strength of Materials	15	Elasticity and Strength of Materials I Elasticity and Strength of Materials II Elasticity and Strength of Materials Laboratory	6 6 3	COMP COMP COMP	1st 2nd 2nd
Thermal Engineering	12	Thermal Engineering, I Thermal Engineering II	6 6	COMP COMP	1st 2nd
Science of Materials	6	Science and Technology of Materials	6	COMP	1st
Projects	6	Final Project II	6	COMP	2nd

Third year		Total credits: 60 ECTS			
Major		**Subject**			
	ECTS		**ECTS**	**Type**	**Period**
Fluids engineering	15	Engineering Fluid Mechanics Hydraulics Hydraulics Laboratory	6 6 3	COMP COMP COMP	1st 2nd 2nd
Thermal Engineering	6	Industrial Heating and Cooling Thermal Machines Laboratory	3 3	COMP COMP	1st 1st
Manufacturing	6	Mechanical Technology Mechanical Technology Laboratory	3 3	COMP COMP	1st 1st
Structures and construction	6	Theory and Design of Structures	6	COMP	1st
Electrotechnics	6	Fundamentals of Electrical Technology	6	COMP	1st
Electronics and automation	6	Fundamentals of Electronic and Automatic Technology	6	COMP	2nd
Machines	6	Machine Design	6	COMP	2nd
Projects	6	Final Project III	6	COMP	2nd
Business	3	Operations Management	3	COMP	2nd

Fourth year		Total credits: 60 ECTS			
Major		**Subject**			
	ECTS		**ECTS**	**Type**	**Period**
Projects	6	Technical Office	6	COMP	1st
Structures and construction	3	Industrial Construction	3	COMP	1st
Machines	9	Dynamics of Mechanical Systems Machine Testing Laboratory	6 3	COMP COMP	1st 1st
English	3	Technical English	3	COMP	2nd
Optional subjects	27	Work Placement Optional subjects	12 15	OP OP	1st 2nd
Bachelor's Thesis	12	Bachelor's Thesis	12	COMP	2nd

Legend: BC: Basic Course, COMP: Compulsory, OP: Optional.

Table SAR1.2.2 Objectives-Module-Matrix for the Bachelor's Degree in Chemical Engineering (GEQ)

ASIIN - SSC 01		Corresponding Modules GEQ
1. Knowledge and understanding		
Graduates of more practice-oriented Bachelor's degree programmes have in particular:		
KU1 Gained extensive technical knowledge as to engineering, mathematics and natural science with a view to mechanical engineering / process engineering / chemical engineering, enabling them to carry out scientifically substantiated work and act responsibly in their professional activities.	A1.1	Control and Instrumentation Biotechnology Chemical Kinetics and Reactor Design Machines and Mechanisms Design of Equipment and Chemical Plants Electrotechnics Electronics Economy and Industrial Organization Graphical Expression Transport Phenomena Physics Physical Chemistry Computing in Process Engineering Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Mathematics I Mathematics II Mathematics III Materials Science Resistance of Materials Fluid Mechanics Engineering Environmental Technology Design of Heat Exchange Operations Design of Separation Operations Technical Office Chemistry I Chemistry II Industrial Safety Thermodynamics Technical Thermodynamics Work Placement Bachelor's Thesis
	A3.1	Mathematics I Mathematics II Mathematics III
	A3.2	Physics Physical Chemistry
	A3.3	Computing in Process Engineering
	A3.4	Chemical Thermodynamics and Kinetics Laboratory Chemistry I Chemistry II
	A3.5	Graphical Expression
	A4.1	Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Design of Heat Exchange Operations Thermodynamics Technical Thermodynamics
	A4.2	Transport Phenomena and Fluid Mechanics Laboratory Unit Operations Laboratory Fluid Mechanics Engineering

ASIIN - SSC 01		Corresponding Modules GEQ
	A4.3	Materials Science
	A4.4	Electrotechnics
	A4.5	Electronics
	A4.6	Control and Instrumentation
	A4.7	Machines and Mechanisms
	A4.8	Design of Equipment and Chemical Plants Resistance of Materials
	A4.10	Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology
	B4.4	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
KU2 Gained an understanding of the multi-disciplinary context of Engineering Sciences.	A1.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A6.1	Bachelor's Thesis
	B3.1	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
2. Engineering Analysis		
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:		

ASIIN - SSC 01		Corresponding Modules GEQ
EA1 Identify, formulate and solve problems peculiar to mechanical engineering / process engineering / chemical engineering based on the application of established scientific methods.	A1.1	Control and Instrumentation Biotechnology Chemical Kinetics and Reactor Design Machines and Mechanisms Design of Equipment and Chemical Plants Electrotechnics Electronics Economy and Industrial Organization Graphical Expression Transport Phenomena Physics Physical Chemistry Computing in Process Engineering Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Mathematics I Mathematics II Mathematics III Materials Science Resistance of Materials Fluid Mechanics Engineering Environmental Technology Design of Heat Exchange Operations Design of Separation Operations Technical Office Chemistry I Chemistry II Industrial Safety Thermodynamics Technical Thermodynamics Work Placement Bachelor's Thesis
	A2.4	Technical Office Bachelor's Thesis
	A6.1	Bachelor's Thesis
	B5.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
EA2 Analyse and assess products, processes and methods used in their discipline based on scientific facts.	A2.2	Technical Office
	A5.4	Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Project Management Technical Office Work Placement Bacherlor's Thesis
	A6.1	Bachelor's Thesis
EA3 Choose suitable methods of analysing, modelling, simulating and optimising	A3.3	Computing in Process Engineering
	A5.2	Control and Instrumentation Simulation and Analysis of Chemical Processes Unit Operations Laboratory

ASIIN - SSC 01		Corresponding Modules GEQ
and apply them with a high degree of competence.	A6.1	Bachelor's Thesis
3. Engineering Design		
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:		
ED1 The ability to conceive designs for machinery, devices, EDP programmes or processes correspondent to the status of their knowledge and to develop them according to specified requirements.	A1.4	Simulation and Analysis of Chemical Processes Project Management
	A2.1	Graphical Expression Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology Design of Heat Exchange Operations Technical Office Industrial Safety
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A5.1	Biotechnology Chemical Kinetics and Reactor Design Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Unit Operations Laboratory Design of Separation Operations
	A6.1	Bachelor's Thesis
ED2 A practically orientated understanding of design methods and the ability to apply them in a competent manner.	A2.1	Graphical Expression Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology Design of Heat Exchange Operations Technical Office Industrial Safety
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A5.2	Control and Instrumentation Simulation and Analysis of Chemical Processes Unit Operations Laboratory
	A6.1	Bachelor's Thesis
4. Investigations and Assessment		
Graduates of Bachelor's degree programmes are in particular qualified to:		
IA1 Carry out literature research in accordance with the status of their knowledge and understanding and to use data bases and other sources of information for their work.	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A6.1	Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEQ
	B1.5	Computing in Process Engineering Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
IA2 Plan and carry out suitable experiments correspondent to the status of their knowledge and understanding, to interpret the data and draw suitable conclusions.	A1.2	Control and Instrumentation Electrotechnics Physics Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Resistance of Materials Chemistry I Chemistry II
	A5.3	Chemical Kinetics and Reactor Design Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory
	A5.4	Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Project Management Technical Office Work Placement Bachelor's Thesis
5. Engineering Practice		
Graduates of more practice-oriented Bachelor's degree programmes are in particular able to:		
EP1 Able to transfer new findings in engineering and natural sciences to industrial and commercial production under consideration of economic, ecologic and safety requirements as well as sustainability and environmental compatibility.	A2.1	Graphical Expression Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology Design of Heat Exchange Operations Technical Office Industrial Safety
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A2.4	Technical Office Bachelor's Thesis
	A4.10	Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology
	A6.1	Bachelor's Thesis
EP2 Able to plan, control and monitor processes and to develop and operate systems and equipment.	A1.4	Simulation and Analysis of Chemical Processes Project Management
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEQ
	A4.6	Control and Instrumentation
	A4.9	Design of Equipment and Chemical Plants Simulation and Analysis of Chemical Processes Technical Office
	A4.12	Project Management Technical Office Bachelor's Thesis
	A5.2	Control and Instrumentation Simulation and Analysis of Chemical Processes Unit Operations Laboratory
	A5.4	Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Project Management Technical Office Work Placement Bachelor's Thesis
EP3 Able to independently consolidate the knowledge gained.	A6.1	Bachelor's Thesis
	B4.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
EP4 Aware of the non-technical effects of engineering activities.	A1.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology
	A2.1	Graphical Expression Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology Design of Heat Exchange Operations Technical Office Industrial Safety
	A2.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Project Management Technical Office Bachelor's Thesis
	A4.10	Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology
	A6.1	Bachelor's Thesis
	B6.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology Industrial Safety Work Placement Bachelor's Thesis
6. Transferable Skills		

ASIIN - SSC 01		Corresponding Modules GEQ
Graduates of Bachelor's degree programmes are able to:		
TS1 Function effectively as an individual and as a member of a team, including where relevant coordination of the team.	B1.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.1	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.2	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.3	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.4	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.5	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.6	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B3.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B3.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B3.4	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B5.1	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
	B5.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEQ
TS2 Use diverse methods to communicate effectively with the engineering community and with society at large.	B1.1	Control and Instrumentation Electrotechnics Electronics Physics Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Resistance of Materials Environmental Technology Project Management Technical Office Chemistry I Chemistry II Work Placement Bachelor's Thesis
	B1.5	Computing in Process Engineering Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
	B2.7	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
TS3 Demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context, and commit to professional ethics, responsibilities and norms of engineering practice.	A1.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology
	A2.1	Graphical Expression Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Environmental Technology Design of Heat Exchange Operations Technical Office Industrial Safety
	A2.4	Technical Office Bachelor's Thesis
	A4.10	Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology
	B6.1	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEQ
	B6.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Environmental Technology Industrial Safety Work Placement Bachelor's Thesis
TS4 Demonstrate awareness of project management and bussines practices, such as risk and change management, and understand their limitations.	A3.6	Economy and Industrial Organization
	A4.11	Economy and Industrial Organization Project Management Technical Office
	A4.12	Project Management Technical Office Bachelor's Thesis
	B1.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.1	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B2.2	Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
TS5 Recognise the need for, and have the ability to engage in independent, life-long learning.	B1.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis
	B4.1	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
	B4.2	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
	B4.3	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis

ASIIN - SSC 01		**Corresponding Modules GEQ**
	B4.4	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Work Placement Bachelor's Thesis
TS6 Work and communicate in national and international contexts.	B1.1	Control and Instrumentation Electrotechnics Electronics Physics Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Transport Phenomena and Fluid Mechanics Laboratory Chemical Thermodynamics and Kinetics Laboratory Unit Operations Laboratory Resistance of Materials Environmental Technology Project Management Technical Office Chemistry I Chemistry II Work Placement Bachelor's Thesis
	B3.1	Fundamentals of Process Engineering Chemical Processes and Products Simulation and Analysis of Chemical Processes Work Placement Bachelor's Thesis

Table SAR1.2.2 Objectives-Module-Matrix for the Bachelor's Degree in Mechanical Engineering (GEM)

ASIIN - SSC 01		Corresponding Modules GEM
1. Knowledge and understanding		
Graduates of more practice-oriented Bachelor's degree programmes have in particular:		
KU1 Gained extensive technical knowledge as to engineering, mathematics and natural science with a view to mechanical engineering / process engineering / chemical engineering, enabling them to carry out scientifically substantiated work and act responsibly in their professional activities.	A1.1	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Statistical Methods in Engineering Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Numerical Methods and Algorithmic Programming Fundamentals of Chemistry in Engineering Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II Business Administration and Organization of Production Operations Management Mechanics and Theory of Mechanisms I Mechanics and Theory of Mechanisms II Machines and Mechanisms Laboratory Thermal Engineering I Thermal Engineering II Industrial Heating and Cooling Thermal Machines Laboratory Engineering Fluid Mechanics Hydraulics Hydraulics Laboratory Science and Technology of Materials Fundamentals of Electrical Technology Fundamentals of Electronic and Automatic Technology Machine Design Dynamics of Mechanical Systems Machine Testing Laboratory Elasticity and Strength of Materials I Elasticity and Strength of Materials II Elasticity and Strength of Materials Laboratory Mechanical Technology Mechanical Technology Laboratory Final Project I Final Project II Final Project III Technical Office Theory and Design of Structures Industrial Construction Bahelor's Thesis
	A3.1	Fundamentals of Mathematics in Engineering I Fundamentals of Mathematics in Engineering II Statistical Methods in Engineering
	A3.2	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II
	A3.3	Numerical Methods and Algorithmic Programming Dynamics of Mechanical Systems Machine Testing Laboratory
	A3.4	Fundamentals of Chemistry in Engineering
	A3.5	Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II
	A4.1	Thermal Engineering I Thermal Engineering II
	A4.2	Engineering Fluid Mechanics Hydraulics

ASIIN - SSC 01		Corresponding Modules GEM
	A4.3	Science and Technology of Materials Mechanical Technology
	A4.4	Fundamentals of Electrical Technology
	A4.5	Fundamentals of Electronic and Automatic Technology
	A4.6	Fundamentals of Electronic and Automatic Technology Dynamics of Mechanical Systems
	A4.7	Mechanics and Theory of Mechanisms I Mechanics and Theory of Mechanisms II Machines and Mechanisms Laboratory
	A4.8	Elasticity and Strength of Materials I Elasticity and Strength of Materials II Elasticity and Strength of Materials Laboratory
	A4.9	Mechanical Technology Mechanical Technology Laboratory
	A4.10	Science and Technology of Materials Mechanical Technology Technical Office
	B4.4	Statistical Methods in Engineering Operations Management Bachelor's Thesis
KU2 Gained an understanding of the multi-disciplinary context of Engineering Sciences.	A1.3	Industrial Heating and Cooling Mechanical Technology Final Project III Technical Office Industrial Construction
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A6.1	Bachelor's Thesis
	B3.1	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Final Project II
2. Engineering Analysis		
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:		

ASIIN - SSC 01		Corresponding Modules GEM
EA1 Identify, formulate and solve problems peculiar to mechanical engineering / process engineering / chemical engineering based on the application of established scientific methods.	A1.1	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Statistical Methods in Engineering Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Numerical Methods and Algorithmic Programming Fundamentals of Chemistry in Engineering Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II Business Administration and Organization of Production Operations Management Mechanics and Theory of Mechanisms I Mechanics and Theory of Mechanisms II Machines and Mechanisms Laboratory Thermal Engineering I Thermal Engineering II Industrial Heating and Cooling Thermal Machines Laboratory Engineering Fluid Mechanics Hydraulics Hydraulics Laboratory Science and Technology of Materials Fundamentals of Electrical Technology Fundamentals of Electronic and Automatic Technology Machine Design Dynamics of Mechanical Systems Machine Testing Laboratory Elasticity and Strength of Materials I Elasticity and Strength of Materials II Elasticity and Strength of Materials Laboratory Mechanical Technology Mechanical Technology Laboratory Final Project I Final Project II Final Project III Technical Office Theory and Design of Structures Industrial Construction Bahelor's Thesis
	A2.4	Technical Office Bachelor's Thesis
	A6.1	Bachelor's Thesis
	B5.3	Machines and Mechanisms Laboratory Machine Testing Laboratory Elasticity and Strength of Materials Laboratory Mechanical Technology Laboratory Bachelor's Thesis
EA2 Analyse and assess products, processes and methods used in their discipline based on scientific facts.	A1.10	Operations Management Mechanical Technology Final Project I
	A2.2	Technical Office Industrial Construction Bachelor's Thesis
EA3 Choose suitable methods of analysing, modelling, simulating and optimising and	A2.5	Dynamics of Mechanical Systems Final Project I Theory and Design of Structures Industrial Construction

ASIIN - SSC 01		Corresponding Modules GEM
apply them with a high degree of competence.	A3.3	Numerical Methods and Algorithmic Programming Dynamics of Mechanical Systems Machine Testing Laboratory
	A6.1	Bachelor's Thesis
3. Engineering Design		
Graduates of more practice-oriented Bachelor's degree programmes are particularly qualified to:		
ED1 The ability to conceive designs for machinery, devices, EDP programmes or processes correspondent to the status of their knowledge and to develop them according to specified requirements.	A1.4	Industrial Heating and Cooling Thermal Machines Laboratory Science and Technology of Materials Mechanical Technology
	A2.1	Machine Design Elasticity and Strength of Materials II Technical Office Theory and Design of Structures Industrial Construction
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A5.2	Machine Design Dynamics of Mechanical Systems Machine Testing Laboratory
	A6.1	Bachelor's Thesis
ED2 A practically orientated understanding of design methods and the ability to apply them in a competent manner.	A2.1	Machine Design Elasticity and Strength of Materials II Technical Office Theory and Design of Structures Industrial Construction
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A5.1	Machine Design Final Project I Industrial Construction
	A5.3	Industrial Heating and Cooling Thermal Machines Laboratory
	A5.4	Elasticity and Strength of Materials II Elasticity and Strength of Materials Laboratory
	A5.5	Theory and Design of Structures Industrial Construction
	A5.6	Hydraulics Hydraulics Laboratory
	A5.7	Machine Design Mechanical Technology Laboratory Final Project III
	A5.8	Mechanical Technology Mechanical Technology Laboratory
	A6.1	Bachelor's Thesis
4. Investigations and Assessment		
Graduates of Bachelor's degree programmes are in particular qualified to:		
IA1 Carry out literature research in accordance with the status of their knowledge and understanding and to use data bases and other sources of information for their work.	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A6.1	Bachelor's Thesis
	B1.5	Numerical Methods and Algorithmic Programming Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II Business Administration and Organization of Production Final Project II Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEM
IA2 Plan and carry out suitable experiments correspondent to the status of their knowledge and understanding, to interpret the data and draw suitable conclusions.	A1.2	Statistical Methods in Engineering Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Machines and Mechanisms Laboratory Thermal Machines Laboratory Hydraulics Laboratory Machine Testing Laboratory Elasticity and Strength of Materials Laboratory Mechanical Technology Laboratory Final Project I
	A1.7	Dynamics of Mechanical Systems Machine Testing Laboratory
5. Engineering Practice		
Graduates of more practice-oriented Bachelor's degree programmes are in particular able to:		
EP1 Able to transfer new findings in engineering and natural sciences to industrial and commercial production under consideration of economic, ecologic and safety requirements as well as sustainability and environmental compatibility.	A2.1	Machine Design Elasticity and Strength of Materials II Technical Office Theory and Design of Structures Industrial Construction
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A2.4	Technical Office Bachelor's Thesis
	A4.10	Science and Technology of Materials Mechanical Technology Technical Office
	A6.1	Bachelor's Thesis
EP2 Able to plan, control and monitor processes and to develop and operate systems and equipment.	A1.4	Industrial Heating and Cooling Thermal Machines Laboratory Science and Technology of Materials Mechanical Technology
	A1.5	Machine Design Final Project II Theory and Design of Structures
	A1.8	Hydraulics Technical Office
	A1.9	Thermal Engineering II Industrial Heating and Cooling Final Project III
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A4.12	Technical Office Bachelor's Thesis
	A6.1	Bachelor's Thesis
	A6.1	Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEM
EP3 Able to independently consolidate the knowledge gained.	B4.3	Final Project III
EP4 Aware of the non-technical effects of engineering activities.	A1.3	Industrial Heating and Cooling Mechanical Technology Final Project III Technical Office Industrial Construction
	A2.1	Machine Design Elasticity and Strength of Materials II Technical Office Theory and Design of Structures Industrial Construction
	A2.3	Technical Office Industrial Construction Bachelor's Thesis
	A4.10	Science and Technology of Materials Mechanical Technology Technical Office
	A6.1	Bachelor's Thesis
	B6.2	Final Project I Final Project III Technical Office Bachelor's Thesis
6. Transferable Skills		
Graduates of Bachelor's degree programmes are able to:		
TS1 Function effectively as an individual and as a member of a team, including where relevant coordination of the team.	B1.2	Final Project II Bahelor's Thesis
	B1.3	Final Project I Bachelor's Thesis
	B2.1	Technical Office Bachelor's Thesis
	B2.3	Final Project II
	B2.4	Final Project III
	B2.5	Final Project II
	B2.6	Final Project III
	B3.2	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Final Project I
	B3.3	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Machines and Mechanisms Laboratory Thermal Machines Laboratory Hydraulics Laboratory Machine Testing Laboratory Elasticity and Strength of Materials Laboratory Mechanical Technology Laboratory Final Project I Final Project II Final Project III
	B3.4	Final Project II Final Project III Technical English
	B5.1	Final Project III
	B5.2	Final Project III
	B6.1	Technical Office Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEM
TS2 Use diverse methods to communicate effectively with the engineering community and with society at large.	B1.1	Machines and Mechanisms Laboratory Thermal Machines Laboratory Hydraulics Laboratory Machine Testing Laboratory Elasticity and Strength of Materials Laboratory Mechanical Technology Laboratory Final Project III Bachelor's Thesis
	B1.5	Numerical Methods and Algorithmic Programming Graphical Expression and Computer-Aided Design I Graphical Expression and Computer-Aided Design II Business Administration and Organization of Production Final Project II Bachelor's Thesis
TS3 Demonstrate awareness of the health, safety and legal issues and responsibilities of engineering practice, the impact of engineering solutions in a societal and environmental context, and commit to professional ethics, responsibilities and norms of engineering practice.	A1.3	Industrial Heating and Cooling Mechanical Technology Final Project III Technical Office Industrial Construction
	A2.1	Machine Design Elasticity and Strength of Materials II Technical Office Theory and Design of Structures Industrial Construction
	A2.4	Technical Office Bachelor's Thesis
	A3.6	Business Administration and Organization of Production
	A4.10	Science and Technology of Materials Mechanical Technology Technical Office
	B6.1	Technical Office Bachelor's Thesis
	B6.2	Final Project I Final Project III Technical Office Bachelor's Thesis
TS4 Demonstrate an awareness of project management and business practices, such as risk and change management, and understand their limitations.	A4.11	Operations Management Technical Office
	A4.12	Technical Office Bachelor's Thesis
	B1.2	Final Project II Bahelor's Thesis
	B2.1	Technical Office Bachelor's Thesis
	B2.2	Technical Office Bachelor's Thesis
TS5 Recognise the need for, and have the ability to engage in independent, life-long learning.	B1.2	Final Project II Bahelor's Thesis
	B4.1	Statistical Methods in Engineering Operations Management Final Project II
	B4.2	Final Project III Bachelor's Thesis
	B4.3	Final Project III
	B4.4	Statistical Methods in Engineering Operations Management Bachelor's Thesis

ASIIN - SSC 01		Corresponding Modules GEM
TS6 work and communicate in national and international contexts.	B1.1	Machines and Mechanisms Laboratory Thermal Machines Laboratory Hydraulics Laboratory Machine Testing Laboratory Elasticity and Strength of Materials Laboratory Mechanical Technology Laboratory Final Project III Bachelor's Thesis
	B1.4	Technical English
	B3.1	Fundamentals of Physics in Engineering I Fundamentals of Physics in Engineering II Final Project II

Legend: COMP: Compulsory, OPT: Optative, Q: Quarter

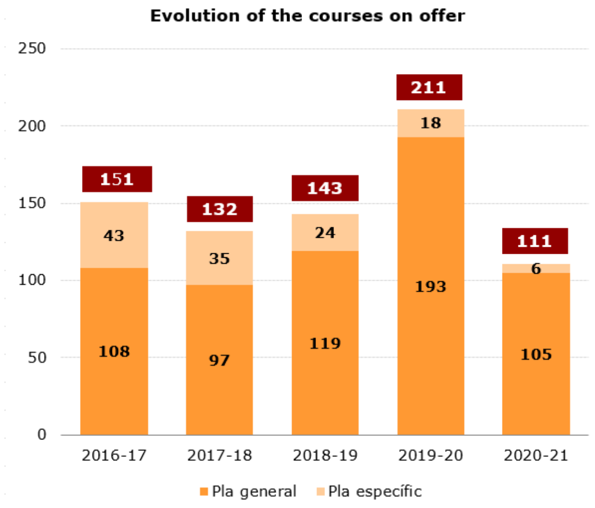
ANNEX A: GENERAL INFORMATION ABOUT ETSEQ 2020-21

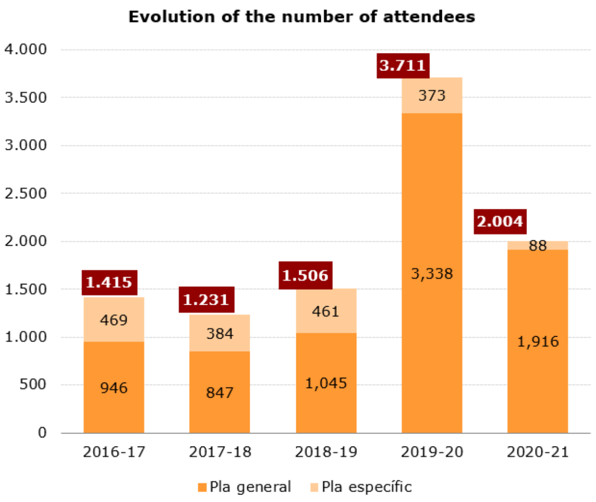
➢ Standard 4: Adaptation of the teaching staff to the training programme

4.3. The institution provides teaching staff with support and the chance to improve the quality of their teaching and research

➢ **Training and innovation to improve teaching**

Table A.4.3.1 URV PROFID general information





Traducctions: Pla general > General plan, and Pla específic > Specific plan

Source: Institute of Education Sciences

AREAS COVERED BY TRAINING COURSES (PROFID) Detail of the general and specific curriculum			
Areas	**No. Activities**		
	2018-19	**2019-20**	**2020-21**
Administration			1
Learning Resource Centre	28	36	26
Teaching	10	13	11
Management	3	5	2
Communication abilities	3	2	2
Languages	15	10	6
Institutional	7	13	17
Teaching innovation methodologies	15	5	3
Risk prevention	4	1	1
Research and transfer	19	20	15
Technology	15	106	27
Total	**119**	**211**	**111**

Source: Institute of Education Sciences

RESULTS OF SATISFACTION SURVEYS (PROFID) 2020-21

Data not available for the academic year 2020-21

Table A.4.3.2 Teaching innovation projects by ETSEQ lecturers. Academic year 2019-20

Project name	Start	End	Duration	Role	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Pilot project for a rubric that includes the gender perspective and the prevention of gender violence in URV subjects	January 20	May 2021	1 any	Member							1						
Analysis and dissemination of gamification in mechanical engineering subjects	January 20	May 2021	1 any	Coordinator			1										
				Member			1										
				Member			1										
				Member			1						1				
Physics 2.0 in the laboratory: Learning by Watching	January 20	May 2021	1 any	Coordinator	1	1	1	1	1	1						1	
				Member	1	1		1	1	1						1	
				Member	1	1		1	1	1						1	
Teaching Innovation Group of the Faculty of Legal Sciences	January 20	Nov 2021	2 anys	Member										1	1		
				Member		1											
New strategies for teaching and assessing cross-curricular competences CT3, CT4 and CT5 on the bachelor degrees of the Faculty of Chemistry	January 20	Nov 2021	2 anys	Member									1				
				Member	1	1		1	1	1							
				Member									1				
Analysis of the quality of competences, learning outcomes and means of assessment on URV master's degrees (ACCAMEM Project)	January 20	Nov 2021	2 anys	Member	1	1		1	1	1							
				Member	1	1		1	1	1							

Source: ICE (Institute of Education Sciences). Teaching innovation 2019-20 and the Docnet Teaching Staff Report 2019-20 dated 13.09.2021. In the academic year 2020-21 there was no call.

Table A.4.3.3. Attendance by ETSEQ teaching staff on PROFID courses. Academic year 2020-21

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Employment contracts based on framework agreements	3	9/6/2021	9/6/2021	1	1		2	1								
Infographics as a teaching and communication resource	1	27/1/2021	27/1/2021	1			1	1	1							
Online information resources in communication and journalism	1.5	9/2/2021	9/2/2021										1			

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
Online information resources in psychology	1.5	9/3/2021	9/3/2021											1		
Online information resources in economics and business	1.5	21/10/2020	21/10/2020	1	1	1	1	1	1							
Online information resources in economics and business	1.5	2/11/2020	2/11/2020										1			
Online information resources in science and technology	1.5	27/10/2020	27/10/2020			1										
Online information resources in science and technology	1.5	23/3/2021	23/3/2021	2	1		1	1	1			1		1		
Mendeley reference manager software (basic desktop version)	1.5	19/11/2020	19/11/2020										1			
Mendeley reference manager software (basic desktop version)	1.5	15/4/2021	15/4/2021		1	1	1	1						1		1
Mendeley reference manager software (basic desktop version)	1.5	2/6/2021	2/6/2021	1	1		1	1	1							
Open-access publishing: policies, grants, tools and visibility in the Institutional Repository	1.5	20/10/2020	20/10/2020	2	1	2	2	2	1		1					1
Open-access publishing: policies, grants, tools and visibility in the Institutional Repository	1.5	18/11/2020	18/11/2020	1	1		1	1								
Open-access publishing: policies, grants, tools and visibility in the Institutional Repository	1.5	19/1/2021	19/1/2021							1						
Open-access publishing: policies, grants, tools and visibility in the Institutional Repository	1.5	9/3/2021	9/3/2021	1			1	1								
Open-access publishing: policies, grants, tools and visibility in the Institutional Repository	1.5	1/6/2021	1/6/2021	1	1	2	1	1	1							
Strategies for optimising the costs of open-access publishing	1.5	22/10/2020	22/10/2020	1	1		1	1	1							

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
Strategies for optimising the costs of open-access publishing	1.5	23/3/2021	23/3/2021	1			1	1								
Research data. FAIR principles. Design of the data management plan	1.5	25/11/2020	25/11/2020									1				
Research data. FAIR principles. Design of the data management plan	1.5	16/2/2021	16/2/2021			1										
Research data. FAIR principles. Design of the data management plan	1.5	12/5/2021	12/5/2021		1		1			1		1		1		
Researcher identifiers and profiles: ORCID, Scopus Author ID, Publons (WoS) i Google Scholar	1.5	18/11/2020	18/11/2020	1	1	1	1	1	1							
Researcher identifiers and profiles: ORCID, Scopus Author ID, Publons (WoS) i Google Scholar	1.5	20/1/2021	20/1/2021	2	3	1	3	2	2	1	1	2				
Online information resources in language and literature	1.5	22/10/2020	22/10/2020	1	1		1	1	1							
Open-access publishing with MDPI The future of periodical publications	1.5	21/10/2020	21/10/2020	1		1	1	1			1					1
Design of an academic poster	10	15/3/2021	16/4/2021	2	2		2	2	2						1	
COIL fundamentals, design and development: tools for implementation in the classroom	12	18/11/2020	9/12/2020	2	3		3	3	2					1		
The flipped classroom as an alternative to discontinuous attendance	4	9/2/2021	11/2/2021		1	1								2		
Keys and strategies to online assessment	1	10/2/2021	10/2/2021	2	3		3	3	2					1		
Student motivation and guidance: strategies to encourage interaction	1	12/2/2021	12/2/2021	2	3	1	3	4	1			2		2		1
Guidelines for designing spaces and activities for active online learning	1	17/2/2021	17/2/2021	1	3		3	2	2		1	2		1		

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
Introducing games in the classroom	1	19/2/2021	19/2/2021	1	2		2	2	1			1		1		
How to manage work teams and conflict resolution	10	8/6/2021	17/6/2021			1										
Empathy and assertiveness: the art of being able to deal with emotions and setting limits	10	31/5/2021	4/6/2021	1	1	1	1	1	1		1	2				
Efficient communication in digital learning environments	8	15/6/2021	17/6/2021							1						
Oral Catalan Tutorials for teaching and research staff	10	1/3/2021	31/5/2021									1				
Advanced Conversation Course	20	9/11/2020	1/2/2021								1			1		
Advanced Conversation Course	20	19/3/2021	28/5/2021	1	1		1	1	1							
Advanced Conversation Course	20	15/3/2021	31/5/2021		1	1	1		1		1					
Advanced Conversation Course	20	18/3/2021	27/5/2021													
Advanced Conversation Course	20	19/3/2021	28/5/2021	1	1		1	1	1							
Advanced Conversation Course	20	9/11/2020	1/2/2021							1			1	1		
Advanced Conversation Course	20	9/11/2020	4/5/2021	1	1		1	1	1							
Upper-Intermediate Conversation Course	20	10/11/0020	2/2/2021			1	1									
Writing scientific articles in English	8	9/3/2021	18/3/2021	1	1		1	1	1							
Writing scientific articles in English	8	6/4/2021	15/4/2021		1	1	1	1								
Making effective presentations in English	10	7/4/2021	23/4/2021	1	1			1	1				1			
Making effective presentations in English	10	24/5/2021	7/6/2021											1		
The university and its environment: teaching strategies for social engagement	3	22/2/2021	1/3/2021									1				

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
Gender perspective and male violences	8	28/10/2020	30/10/2020	2	5	5	2	2	2					2	1	1
Gender perspective and male violences	8	1/12/2020	3/12/2020	1	2	1	1	1	1	1			1	1	1	
Why and how to introduce the gender perspective into the engineerings	2.5	11/11/2020	11/11/2020	5	5	2	6	5	3			2			1	
Teaching tools in economics and business with the gender perspective	2.5	12/11/2020	12/11/2020		1								1			
Detection and response in cases of violence against women at the URV	4.15	13/11/2020	13/11/2020	1	1	2	1	1				2		1		
Detection and response in cases of violence against women at the URV	4.15	20/11/2020	20/11/2020	1	2	2	2	1				1				
Urbanism, gender and feminism.	2.5	16/11/2020	16/11/2020		1											
How to carry out research from the gender perspective and without gender biases	3.5	17/11/2020	17/11/2020			1								1		
How to incorporate the gender perspective in teaching the humanities	2.5	2/12/2020	2/12/2020		1					1			1	1		
Proposal for improving the URV's PAT (Tutorial Action Plan): sharing experiences	2	1/12/2020	1/12/2020	1	2	1	2	2	1					1		
The URV's 8th Social Project Market	1	12/5/2021	12/5/2021		1									1		
Web-Houdini Editing	9	5/5/2021	13/5/2021	1	2	1	1	2			1	2				
What does internationalising my university involve?	1	8/6/2021	8/6/2021		1	1	1	1				1		1		1
Tutoring and supervising the bachelor's and master's degree thesis	4	8/4/2021	14/4/2021	1	2	1	2	2	1		1		1	1		1
Watch your health in times of COVID	1	2/11/2020	2/11/2020	4	5	4	6	5	2		1	1		2		1
Workshop: Protecting research results	4	12/5/2021	19/5/2021			1										
Knowledge and innovation transfer	4	28/4/2021	5/5/2021			1										

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
The doctoral thesis: Design and development by articles	2	9/4/2021	14/4/2021	1	1			1	1							
Doctoral Thesis by compendium of publications	2	18/3/2021	24/3/2021			1										
Good practices in doctoral supervision	18	2/11/2020	30/11/2020	2	4	1	2	3	2		1	2	1	1	1	
Key aspects of writing high-impact scientific articles	10	27/4/2021	5/5/2021	2	2		2	2	2		1	1				
Repte Experimenta (Experimental Challenge): awakening the passion for science in secondary education by applying the scientific method	10	15/9/2020	14/5/2021	1	2		1	1	1		1	2		1		
Monitoring good practices in doctoral supervision	4	30/6/2021	30/6/2021			1						1				
Who, when and how to have scientific research assessed by an ethical committee	3	5/5/2021	5/5/2021							1			1			
How to successfully organise an online debate: Use and function of the Moodle forum	5	19/10/2020	22/11/2020		2		2	1					1	1		
Moodle 1. The URV Online Campus: basic course	5	1/2/2021	8/3/2021											1		
Moodle 2. The URV Online Campus: advanced course	10	19/4/2021	21/5/2021										1			
Gamification and learning	10	1/3/2021	30/3/2021			1				1			1	1		
MONITORING STUDENTS IN THE ONLINE CLASSROOM	1	23/10/2020	23/10/2020	1	1	1	1	1	1							
Groups of students and tasks in the online classroom	1	16/10/2020	16/10/2020	1	1		1	1	1			1	1			
Questionnaires and other assessment strategies	1	13/11/2020	13/11/2020	2	2		2	2	2						1	
Questionnaires and other assessment strategies	1	5/5/2021	5/5/2021									1				
The gradebook in the online classroom	1	11/11/2020	11/11/2020	1	1		1	1	1							
The gradebook in the online classroom	1	12/5/2021	12/5/2021		1	2	1						1			
Peer assessment with the Moodle tool "Workshops"	1	18/11/2020	18/11/2020	2	2		2	2	2			1				

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
Advanced qualification in the Virtual Campus: rubrics and evaluation guides	1	25/11/2020	25/11/2020	1	1		1	1	1							
Digital accessibility. Editing accessible texts	1	20/11/2020	20/11/2020	11	1		1	1	1							
Ideas for teaching a hybrid course	1	21/10/2020	21/10/2020	4	4	1	5	4	3			1			1	
Videoconferencing with Microsoft Teams and managing recordings with MS Stream	1	14/10/2020	14/10/2020	1	2	1	2	2	1				1	1		
Videoconferencing with Microsoft Teams and managing recordings with MS Stream	1	28/10/2020	28/10/2020		1		1		1		1		1			
Video as a teaching resource	1	9/10/2020	9/10/2020	2	2	1	2	2	2	1						
Effective communication in hybrid teaching	1	27/11/2020	27/11/2020	1	1		1	1	1							
Preventing and detecting plagiarism at the URV: Resources at the CRAI	1	2/12/2020	2/12/2020	1	1		1	1	1							
Sharing experiences of adapting to online and hybrid teaching	1	4/12/2020	4/12/2020	1	1		1	1	1							
Numerical, calculated and cloze questions in Moodle questionnaires	1	11/12/2020	11/12/2020	1	1	1	1	1	1	1					1	
Everything ready in the online classroom? Let's start the new academic year	1	16/9/2020	16/9/2020	4	5		6	5	4	1	1	2	1	2	1	
Everything ready in the online classroom? Let's start the new academic year	1	25/9/2020	25/9/2020	2	3	2	2	2	2			1				
Use of the graphics tablet for online and hybrid teaching	1	22/9/2020	22/9/2020	5	6	2	6	6	4	1		3		1	1	
Use of the graphics tablet for online and hybrid teaching	1	7/10/2020	7/10/2020	1			1	1			1			1		
Use of classrooms for broadcasting classes and	1	16/2/2021	16/2/2021	1	2		2	1	2		1					

NAME ACTIVITY	HOURS	START	FINISH	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
				20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
news: channels and recordings																
Editing video with Shortcut and other tools	10	1/2/2021	8/3/2021			1					1			1		
Sample of experiences of oral exams done by videoconference	1	19/5/2021	19/5/2021	2	3	1	3	2	2							
How to teach in English	10	14/1/2021	15/1/2021											1		
Teaching and evaluating the cross-disciplinary competence CT3 for undergraduates: problem solving.	2	10/11/2020	10/11/2020									1				
Teaching and evaluating the cross-disciplinary competence CT4 for undergraduates: working autonomously.	2	17/11/2020	17/11/2020									1				
Professionalisation and supervision of the bachelor's degree thesis	3	4/2/2021	4/2/2021								1			1		
Situation of the LGBTQI community at the university and strategies to protect them	6	23/3/2021	25/3/2021							1			1			
CREIX: Experiences of Creativity and Innovation in Networking for cross-disciplinary competence CT3	2	8/7/2021	8/7/2021	1	2	1	2	2	1			1	1	1		

Source: ICE (Institute of Education Sciences). Teaching innovation 2020-21 and the Docnet Teaching Staff Report 2020-21 dated 11.02.2022

Table A.4.3.3. Attendance by ETSEQ teaching staff on PROFID courses. Academic year 2019-20

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA	GEQ	GEM	GEBA	GTBA	DG	MPRL	MEQ	MNMP	MGET	MEAiSE	MEFCO	MECST
			20000	2020	2022	2023	2024	2090	2060	2069	2070	2072	2073	2074	2075
ETSEQ master's accreditation 2019-20		2	3	8		5	5	5	1	3	10	3	4		
Tutorial Action Plan Course 2019-20		2	1	1		1	1	1							
Using Collaborative On-line International Learning (COIL)		1.5	2	2	3	2	2	2					1		

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
to open students' minds, and demonstrating scientifically (BEVI) that it works!															
The Power and Potential of Collaborative Online International Learning: Why and How to Develop, Implement, and Evaluate COIL-Based Courses and Programs		3	2	2	2	2	2	2					1		
Seminar and Workshop Series on Recent Developments in Economics		28										1			
How to teach in English		10	1	3	1	2	1	1			1	1	2		1
Specialised EBSCO databases in Psychology		2							1						
Moodle 101. Introduction to the URV's Virtual Campus		5	3	1	2	3	3	2	1			1	1	1	
Advanced Conversation Course 1		20			1										
Advanced Conversation Course 2		20	1	1		1	1	1							
Use and functioning of the Moodle forum as an assessable learning activity		5	1			1	1	1						1	1
Advanced course on videoconferencing withAdobe Connect		2	1	2		1	1	1		1	1		1		
Upper-Intermediate Conversation Course 1		20		1	1	1	1								
Introduction to creating and adapting easy-to-read teaching materials fàcil		15	1	1		1	1	1							
Monitoring students in URV virtual classrooms		2	1			1	1	1						1	
Open-access publishing: MDPI workshop (Multidisciplinary Digital Publishing Institute)		2		1		1	1	1			1	1	2		
Refresher course for academic tutors of the Faculty of Chemistry		3	5	8		8	6	5			6		1		1
Leadership and directive competences		15		1	1										

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
How to get published by Springer: workshop for authors		2	1	3	3	2	2						1		1
Sexual violences at the university: recognising, accompanying and rethinking response strategies (Edition 1)		10		1	1	1									
Introducing the gender perspective into university teaching on bachelor's degrees at the Faculty of Medicine and Health Sciences as a strategy for eradicating violence against women	Gènere	4		1											
Management of research data: data management plan		3									1				
Management of mobility with the program MoveOn (assignations)		2										1			
Improve the visibility of your scientific output: : open access and institutional repository		3									2				
Course on academic and career guidance for students with functional diversity		12	2	2		2	2	2							
Introducing the gender perspective into university teaching on bachelor's degrees at the Faculty of Education Sciences and Psychology	Gender	4		1											
Designing an academic poster		3	1			1	1								
Introducing the gender perspective into university teaching on bachelor's degrees at the Faculty of Nursing as a strategy for eradicating violence against women	Gender	4		1											
Preventing and detecting plagiarism at the URV: CRAI resources for prevention and Urkund as a tool for detection		2	1			1	1								
Writing scientific articles in English		12	3	3		3	3	3		1				1	

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Visual Thinking: teaching through images		4	1	1	1	1	1	1							
The researcher's digital identity: use of ORCID, Google Scholar and other academic identifiers		3									1				
Student tutorials: how can we improve them?		3			1										
Infographics as a teaching and communication resource		3							1						
Empathy and assertivity: the art of responding to emotions and setting limits		10	1	2	1	1	1	1	1	1			1		
Moodle 1. Basic course on the URV's virtual campus		5	3	4	2	3	3	4		1	2		1		
Mobile learning: using mobile devices for teaching and learning		10										1			
The keys to good teaching: successful experiences		3									1				
How to manage intercultural communication in the classroom		6			2								1		
Seminar and Workshop Series on Recent Developments in Economics		28										4	1		1
Management of research data: data management plan		3		1	1										
Neuroscience for teachers		3		1	1	1			1						
Workshop: Creative thinking in the classroom		4	1	1		1	1	1		1			1		
Monitoring students in URV virtual classrooms		2		1	2	1	1								1
SciVal: the tool that will analyse and position your research		3		1											
Workshop for ETSEQ tutors: new approaches to tutorials		2	6	13	5	10	11	8	1	2	7	1	3	1	
Manage your bibliography with Mendeley (basic-intermediate)		3		1		1	1						1		
Moodle 2. Advanced course on the URV's virtual campus		5	1	1	2	1	1	1		1	1	1			
Advanced Conversation Course 3		20			1						1				

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Advanced Conversation Course 4		20	2	1		2	2	1							
SCIVAL: Search of candidates for RDI funding programmes		3			1										
Forums and tasks on the virtual campus	COVID	1	1	1		2	2	1	1			1			
Questionnaires on the virtual campus	COVID	1	3	3		4	4	2	2		1	1	1		
Forums and tasks on the virtual campus	COVID	1									1				
Creating video screenshots and adding audio to a PowerPoint	COVID	1	3	4	1	6	5	2	2	1	2	1	3		
Videoconferencing with Microsoft Teams	COVID	1	4	10	2	9	8	5	2	3	3	4	5	1	
Creating video screenshots with post-editing	COVID	1	1	3	3	3	2	2	1	1	3	1	1		
Videoconferencing with Microsoft Teams	COVID	1	1	1	2	1	1				1				
Forums and tasks on the virtual campus	COVID	1			1						2				
Questionnaires on the virtual campus	COVID	1	1	1	1	1	1	1			1				
Creating video screenshots and adding audio to a PowerPoint	COVID	1	1	2		1	1	1		1	1		2	1	
Creating video screenshots with post-editing	COVID	1	1	3	1	2	2	1		2			4	1	
Videoconferencing with Microsoft Teams	COVID	1	2	1		2	1	1				1			
Forums and tasks on the virtual campus	COVID	1	4	4		5	3	4		2		1	2		
Videoconferencing with Microsoft Teams	COVID	1	4	2	1	4	3	2	1	1	3	2			
Questionnaires on the virtual campus	COVID	1	1	1		1	1	1							
Creating video screenshots and adding audio to a PowerPoint	COVID	1	3	4	1	4	3	3		2			2		
Videoconferencing with Microsoft Teams	COVID	1		1	1	1					1				
Creating video screenshots with post-editing	COVID	1			1										

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Questionnaires on the virtual campus	COVID	1	3	2		4	2	2	1	2		1	1		
Videoconferencing with Microsoft Teams	COVID	1	1	1	1	1	1	1	1	1		1	1		
Forums and tasks on the virtual campus	COVID	1										1			
Creating video screenshots with post-editing	COVID	1	1	1		1	1	1							
"LOCKED DOWN YES, STRESSED OUT NO"	COVID	1	1	1	1	2	2	1			2	2			
Videoconferencing with Microsoft Teams	COVID	1	2	6	1	4	3	4	1	1	2	1	3		
Creating video screenshots and adding audio to a PowerPoint	COVID	1	1	1		1	1	1							
Monitoring students in the virtual classroom	COVID	1	3	4	2	6	5	3	1	1	1	4	3		
Questionnaires on the virtual campus	COVID	1	1	3	1	1	1	1							
Videoconferencing with Microsoft Teams	COVID	1	1	1		2	1	1							1
How to turn mobiles into teaching resources	COVID	1	1	3	1	4	3	1			1		1		
The Office of Social Engagement and social learning		1		1		1	1								
Groups of students and group tasks in virtual classrooms	COVID	1				1	1								
Creating video screenshots with post-editing	COVID	1			2										
Monitoring students in URV virtual classrooms	COVID	1	1	1		1	1	1			1				
Efficient communication in digital learning environments	COVID	8													
Workshop on problem-based learning		8		1	1								1		
Videoconferencing with Microsoft Teams	COVID	1	1	2	1	2	2	1					1		
Key aspects of writing high-impact scientific papers		10	1	1	1	1	1	1							
Groups of students and group tasks in virtual classrooms	COVID	1	1	1		1	1	1				1			
Questionnaires and other assessment strategies	COVID	1	1	3	1	2	1	1					1		

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Creating video screenshots and adding audio to a PowerPoint	COVID	1							1			1	1		
Questionnaires and other assessment strategies	COVID	1	1	2		2	1	2		1			1	1	
From the classroom to online teaching. Practical issues for designing a subject	COVID	1	1	1		2	2		1				1		
Introduction to the R program		10	2	4	3	4	4	1		1	1		1		
Videoconferencing with Microsoft Teams	COVID	1	1	1	1	1	1	1			1				
Questionnaires and other assessment strategies	COVID	1	1	1	1	1	1	1			1				
Groups of students and group tasks in virtual classrooms	COVID	1	1		1	1	1		2			1	1		
Monitoring students in URV virtual classrooms	COVID	1	1			1	1		1						
Questionnaires and other assessment strategies	COVID	1	1	2	2	3	3	1	1		1	2	3	1	
Creating video screenshots with post-editing	COVID	1	1	1	1	2	2	1							
Questionnaires and other assessment strategies	COVID	1	1	2	2	3	3	1	1		1		1		
The art of displaying information and motivational strategies		8	1	1	1	1	1	1		1			1		
Videoconferencing with Microsoft Teams	COVID	1	2	2	1	3	3	2							
Meetings in times of lockdown (Independent learning)	COVID	1	2	3	2	2	2	2	1		1	1	3		
The doctoral thesis: design and development by articles		2									1				
Initiation to Design thinking to generate innovative ideas		4			1				1		1	1	1		
Questionnaires and other assessment strategies	COVID	1		1	1	1	1						1		
Grades and the virtual classroom	COVID	1	2	2		4	4	2	1			1	2		
Questionnaires and other assessment strategies	COVID	1			1					1	1			1	
Creating video screenshots with post-editing	COVID	1		1	3	1	1			1	1				
Grades and the virtual classroom	COVID	1		1	4	1	1			1	1				

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Numerical, calculated and cloze questions on Moodle	COVID	1		3	4	2	2			1	1		2		
Demythyfying online assessment: rubrics and tools	COVID	1		1		1	1						1		
Strategies for optimising open-access output		1		1	2						1	1	1		
Videoconferencing with Microsoft Teams	COVID	1		1	2					1	1			1	
Creating video screenshots and adding audio to a PowerPoint	COVID	1			2	1	1			1	1				
Communicative strategies for online teaching: discourse, language use and image	COVID	1		1		1	1				1		1		
Grades and the virtual classroom	COVID	1	2	3	1	5	4	2		1	1		2	1	
Monitoring students in URV virtual classrooms	COVID	1			1	1	1								
Data privacy in distance learning and assessment	COVID	1	1	1	1	1	1	1		2	1		1		
The URV's virtual teaching model. Example of a Moodle classroom for an online subject	COVID	1		1		1	1		1			2	2		
Questionnaires and other assessment strategies	COVID	1	1	1		1	1	1		1		1	1		
Accessibility. Introduction to design of teaching materials accessible to people with disabilities (6th edition)		10			1				1			1	1		
Moodle 2. Advanced course on the URV's virtual campus		5	1		2	1	1								
Creating video screenshots and adding audio to a PowerPoint	COVID	1	1	1		1	1	1		1			1		
Co-assessment with the Moodle tool "Workshop"	COVID	1	1	1	2	3	3					2	1		
The URV's virtual teaching model. Example of a Moodle classroom for an online subject	COVID	1							1						
Strategies for optimising open-access output		1,5			1									1	

ACTIVITY	COVID / Gender	HOURS	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
Course on prevention of and response to sexual, identity or gender violence at the University	Gènere	2,5	1	3	1	2	2	2			1	1	2		
Manage your bibliography with Mendeley (basic)		1,5	1	1		1	1	1							
Communication for equality and against violence against women		4	5	7	3	6	6	4	1		3	1	2		
Programming new degrees at the URV: Drafting the proposal and online teaching model at the URV		5										1		1	
Designing and programming distance subjects. Advanced Moodlet	COVID	10		1											
Overall total			**14**	**24**	**8**	**18**	**18**	**14**	**2**	**0**	**8**	**6**	**8**	**2**	**0**

Source: ICE (Institute of Education Sciences). Teaching innovation 2019-20 and the Docnet Teaching Staff Report 2019-20 dated 13.09.2021

Table A.4.3.4. ETSEQ lecturers with the Pla DANG certificate

PLAN DANG_CERTIFICATS ETSEQ													
ACADEMIC YEAR	**GEA**	**GEM**	**GEQ**	**GEBA**	**GTBA**	**MEAiSE**	**MEQ**	**MGET**	**MNMP**	**MPRL**	**MEFCO**	**MECST**	**TOTAL**
2016-17	2	2	3			4	1		2			-	14
2017-18		1	10	3		7	5	2	7			-	35
2018-19			2	1	1	2	1	1			1	-	9
2019-20		1	1			1		1				1	5
2020-21													0
TOTAL	**2**	**4**	**16**	**4**	**1**	**14**	**7**	**4**	**9**	**0**	**1**	**1**	**63**

Source: ICE (Institute of Education Sciences). Pla DANG (Plan for Teaching in English) 2016-21 dated 12.01.2022

Table A.4.3.5. Lecturers' mobility ETSEQ OUT. Academic years 2015-21

LECTURERS' MOBILITY (Outgoing)														
ACADEMIC YEAR	**Type of OUT programme**	**Country**	**University**	**GEBA**	**GEM**	**GEQ**	**GTBA**	**MEAiSE**	**MEQ**	**MGET**	**MNMP**	**MPRL**	**MEFCO**	**TOTAL***
2015-16	Erasmus - STA	Poland	Uniwersytet Mikolaja Kopernika w Toruniu	1		1	1							**5**
	Erasmus - STA	Poland	Uniwersytet Im. Adama Mickiewicza						1		1			
2016-17	Erasmus - STA	Italy	Università degli Studi di Napoli Federico II		1									**1**
2018-19	Erasmus - STT	Germany	Hochschule Offenburg - Hochschule für Technik, Wirtschaft und Medien		1									**2**
	Erasmus International - STT	South Africa	Nelson Mandela University		1									
2019-20	Erasmus - STA	Italy	Università del Salento						1	1				**2**
	I-Global	Argentina	Universidad Nacional de La Plata							1				

Source: Teaching and research staff mobility by 04.02.2022. During the academic year 2020-21 there was no outgoing mobility of teaching and research staff.
* The total shows the number of people who have been on molbility programmes, as staff can teach on more than one degree. The degree columns show the different places where they teach.

Table A.4.3.6. Lecturers' mobility ETSEQ IN. Academic years 2017-21

Type of incoming programme	**Country**	**University**	**TEACHING AND RESEARCH STAFF**			
			2017-18	**2018-19**	**2019-20**	**2020-21**
Erasmus International - STA	Vietnam	Hue University	1			
	Egypt	Cairo University		2		
Total Erasmus International - STA			**1**	**2**		
I-Global	Brazil	Universidade Federal Fluminense (UFF)	1			
Total I-Global			**1**			
Total ETSEQ			**2**	**2**	**0**	**0**

Source: Teaching and research staff mobility on 04.02.2022. In the 2020-21 academic year, there were no incoming teaching and research staff.

Table A.4.3.7. ETSEQ seminars 2017-21

Year	**Speaker**	**Institution**	**Date of seminar**	**Title**
2020-21	Joan Grimalt Obrador	Institute of Environmental Assessment and Water Research	23/10/2020	How can we measure time with the periodic table?

Year	Speaker	Institution	Date of seminar	Title
	Vladimir Baulin	DQiF, URV	6/11/2020	Theory behind mechano-bactericidal mechanism of nanostructured surfaces
	Josep Bonet	DEQ, Universitat Rovira i Virgili	13/11/2020	Generalised Energy-Conserving Dissipative Particle Dynamics: a coarse-grained method to tackle simulations of complex fluids
	Ignacio Pagonabarraga	CECAM, Ecóle Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland	27/11/2020	Active matter and active materials: Emerging behavior in intrinsically out of equilibrium systems
	Łukasz Marciniak	Institute of Low Temperature and Structure Research, Polish Academy of Science, Wroclaw, Poland	4/12/2020	Luminescent thermal imaging using lanthanide and transition metal ion-doped nanocrystals
	Fèlix Llovell Ferret	DEQ, Universitat Rovira i Virgili	11/12/2020	Thermophysical characterization of greenhouse gas capture and separation processes through the use of the molecular-based SAFT equation
	Montse Marquès	Laboratory of Toxicology and Environmental Health – TecnATox, URV	18/12/2020	May endocrine-disrupting chemicals be an unknown factor for the development of gestational diabetes?
	Eduard Llobet	DEEEA, Universitat Rovira i Virgili	22/1/2021	Gas Sensing Using Carbon Nanomaterials
	Jaume Folch López	Department of Biochemistry and Biotechnology, URV	29/1/2021	Stories of Memory Loss
	Felix Ritort	Condensed Matter Physics Department, University of Barcelona	5/2/2021	Manipulating molecules one at a time: a new research frontier in science
	Anna Grazia Mignani	National Expert at the European Research Council Executive Agency of the European Commission	19/2/2021	Fingerprinting food by optical spectroscopy –photonic tasting
	Xavier Correig Blanchar	DEEEA, Universitat Rovira i Virgili	26/2/2021	Metabolomics, a tool for cancer diagnosis and research
	Alexandre Fabregat	DEM, URV	12/3/2021	Using Accurate Numerical Simulations to Understand How Virus-Laden Aerosols Produced by a Cough Disperse in the Ambient Atmosphere Enabling the Transmission of Airborne Diseases Like COVID-19
	Xavier Querol	IDAEA, Barcelona	19/3/2021	Air quality: Scientific challenges and measures to abate urban pollution
	Yuval Elani	Department of Chemical Engineering, Imperial College London, UK	23/4/2021	An engineering toolkit for the construction of artificial cells
	Mònica Bulló Bonet	Department of Biochemistry & Biotechnology, School of Medicine and Health Science , URV	7/5/2021	Mediterranean diet and cardiometabolic risk factors: a potential role for gut microbiota
	Hans Westerhoff	School of Chemical Engineering and Analytical Science, the University of Manchester	14/5/2021	What's Life II? Where engineering meets biology and purpose meets its cause

Year	Speaker	Institution	Date of seminar	Title
		Department of Molecular Cell Physiology, AIMMS, Free University Amsterdam Synthetic Systems Biology and Nuclear Organization, SILS, University of Amsterdam		
2019-20	Alberto Fernández de las Nieves	School of Physics, Georgia Tech (USA), Department of Condensed Matter Physics, University of Barcelona (Spain), ICREA - Institució Catalana de Recerca i Estudis Avançats, Barcelona (Spain)	8/11/2019	Toroidal drops and their instabilities
	Beatriz Prieto Simón	DEEEA, Universitat Rovira i Virgili	29/11/2019	Next generation of diagnostic tools: from microneedles to nanochannel arrays
	Ethel Eljarrat	Institute of Environmental Assessment and Water Research- CSIC,Barcelona	13/12/2019	Plastic pollution: Impact on marine environment
	Assumpció Anton	IRTA. Integral Organic Waste Management Programme	24/1/2020	Environmental Footprints of the Food Sector: Challenging on Quantification Methods
	Rafael Luque	Universidad de Córdoba	31/1/2020	Benign-by-design catalytic materials and processes for a more sustainable future
	Alberto Puga Vaca	DEQ, Universitat Rovira i Virgili	21/2/2020	CO_2 capture and utilisation in future energy scenarios
	Enric Aguilar	Geography Department, URV	22/5/2020	Climate Science: from data to service

Source: DEQ Teaching Support on 30 March 2020 and 18 January 2022

Table A.4.3.8. Bridging grants for educational projects

Project name	Bridging grants 2020-21												
	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
URV Inspira			1						1				
URV Inspira		1		1	1						1		
URV Inspira	1	1	1	1	1	1							
URV Inspira	1	1		1	1								
URV Inspira	1			1	1				1				
Experimenta Challenge		1		1									
Experimenta Challenge	1	1		1	1	1							
Experimenta Challenge			1					1	1				

Bridging grants 2020-21													
Project name	**GEBA/GTBA 20000**	**GEQ 2020**	**GEM 2022**	**GEBA 2023**	**GTBA 2024**	**DG 2090**	**MPRL 2060**	**MEQ 2069**	**MNMP 2070**	**MGET 2072**	**MEAiSE 2073**	**MEFCO 2074**	**MECST 2075**
Experimenta Challenge									1				
Experimenta Challenge		1						1	1		1		
Overall total	**4**	**6**	**3**	**6**	**5**	**2**	**0**	**2**	**5**	**0**	**2**	**0**	**0**

Source: ICE PROFID on 13.01.2022
http://wwwa.urv.cat/ogovern/consellsocial/ajuts.html#Pont

Table A.4.3.9. Board of Trustees Prizes for Teaching Quality

Board of Trustees Prizes for Teaching Quañlity																	
Year	**Project name**	**Type**	**Name**	**School**	**GEBA/GTBA 20000**	**GEQ 2020**	**GEM 2022**	**GEBA 2023**	**GTBA 2024**	**DG 2090**	**MPRL 2060**	**MEQ 2069**	**MNMP 2070**	**MGET 2072**	**MEAiSE 2073**	**MEFCO 2074**	**MECST 2075**
2001*	The global Chemical Engineer	Group	ETSEQ teaching staff	ETSEQ	1	1	1	1	1	1	1	1	1	1	1	1	1
2006*	"DOW-ETSEQ course: A teaching experience shared by the URV and Dow"	Group	Director of ETSEQ	ETSEQ	1	1	1	1	1	1	1	1	1	1	1	1	1
2009	"Problem solving: the competence"	Individual	Azael Fabregat	ETSEQ	1	1		1	1	1					1		
2010	"Adapting statistics subjects to virtual, independent learning environments: from classical instructions to guidance."	Group	**Josep Maria Mateo** **Carles Barberà Escoí** Ferran Borrell Micota Jordi Cuesta Andrea Albert Fernández Sabater Mariano Moreno Cabello Carme Olivé Farré Mercè Pérez de Viñaspre Muñiz Dolors Puigjaner Riba Francesc Puigjaner Riba Agustí Solanas Gómez	ETSEQ	1	1		1	1	1							

Board of Trustees Prizes for Teaching Quañlity																	
Year	**Project name**	**Type**	**Name**	**School**	**GEBA/GTBA 20000**	**GEQ 2020**	**GEM 2022**	**GEBA 2023**	**GTBA 2024**	**DG 2090**	**MPRL 2060**	**MEQ 2069**	**MNMP 2070**	**MGET 2072**	**MEAiSE 2073**	**MEFCO 2074**	**MECST 2075**
2015	"Laboratories 2.0: improving learning outcomes using TAC tools in the laboratories of the Bachelor's Degree in Mechanical Engineering"	Group	**Silvia De la Flor** **Albert Fabregat** **Jaume Saltó** **M. José Simon**	ETSEQ		1	1		1				1				
2016	"Career and academic guidance at ETSE: technological innovation for employability and the region"	Group	**Teresa Torres** Domènec Puig Maria Ferré Àngel Cid Antoni Martínez Xavier Vilanova Victòria Fabregat	ETSE FCJ	1	1		1	1	1							
2017	"Excellence in doctoral training at the URV by professionalising doctoral supervision"	Group	**Joan Josep Carvajal** Martí Maria Ercilia García Álvarez Mar Reguero de la Poza Maria José Rodríguez Cuesta Mireia Valverde Aparicio	EPD									1				
2018	"Teaching with added value"	Individual	Albert Fabregat Sanjuan	ETSEQ			1										
	"Community gardens at the URV: environmental education for social innovation"	Group	Ángeles Galiana Saura Maria Marqués Banqué Susana Borràs Pentinat Antonio Pérez-Portabella López Maoz Eliakim Rosa Tamarit Sumalla **Clara Salueña Pérez** **Carles Barberà Escoi** Núria Ruiz Morillas	**ETSEQ** FEE	1	1	1	1	1	1						1	

Board of Trustees Prizes for Teaching Quañlity																	
Year	Project name	Type	Name	School	GEBA/GTBA 20000	GEQ 2020	GEM 2022	GEBA 2023	GTBA 2024	DG 2090	MPRL 2060	MEQ 2069	MNMP 2070	MGET 2072	MEAiSE 2073	MEFCO 2074	MECST 2075
2020	"Inserlab. Career guidance for social and employment opportunities"	Group	Angel Belzunegui Eraso Neus Cárdenas Morell Jordi Andreu Corbaton Jorge de Andrés-Sánchez Montserrat Domènech Auqué **Laureano Jiménez Esteller** Tàrek Lutfi i Gilabert Jordi Navarro Lliberato Cristina Rey Reñones Yolanda Ruíz Santos Aurora Sáez Rodríguez **María José Simón Olmos** **Teresa Torres Coronas**		1	1	1	1	1	1		1	1		1		

Source: Website of the Board of Trustees on 20 January 2022. http://wwwa.urv.cat/ogovern/consellsocial/ajuts.html#PCSQD
* For the years 2001 and 2006 awarded the Jaume Vicens Vives Prize of the Catalan Government for university teaching quality (https://universitatsirecerca.gencat.cat/ca/01_departament_recerca_i_universitats/premis_i_reconeixements/distincions_jaume_vicens_vives/)

Table A.4.3.10. Participation of administration and service staff in gender-perspectives courses

COURSE	HOURS	START	END	USGCD STAFF
QUALITY OF COMMUNICATION AT THE. ASPECTS OF WRITING	10	13/02/2020	27/02/2020	1
PREVENTION AND DETECTION OF GENDER VIOLENCE AT THE UNIVERSITY AND RESPONSE	25	11/03/2020	18/12/2020	2

Source: Administration and service staff training on 13 September 2021

➢ Standard 5: Efficiency of learning support systems

5.1. Academic guidance services provide appropriate support to the learning process and career guidance facilitates job opportunities.

➢ ACADEMIC AND CAREER GUIDANCE

Table A.5.1.1. Number of attendees in group guidance activities

		Group guidance activities for bachelor's degrees						
		GEQ	**GTBA**	**GEBA**	**GEBA/GTBA**	**GEM**	**DG GEQ GTBA**	**ETSEQ**
Induction day	**2017-18**	73		3	N/A	51		**127**
	2018-19	58		N/A	9	48		**115**
	2019-20	57			11	49	10	**127**
	2020-21	26			4	24	6	**60**
Information session for 2nd- and 3rd-year students (GEA-GEQ* / GEM)	**2017-18**	40		N/A	N/A	1		**41**
	2018-19	60				14		**74**
	2019-20							**0**
	2020-21	16	0	5	8	17	4	**50**
Information session for 2nd-year students (GEBA-GTBA)	**2018-19**				11			**11**
	2019-20				N/A			**0**
	2020-21				N/A			**0**
Information session about ETSEQ master's degrees	**2017-18**	15						**15**
	2018-19	15						**15**
	2019-20	9						**9**
	2020-21	5						**5**
Information session about MEQ	**2020-21**	17						**17**
Information session about MEAiSE	**2020-21**	11						**11**
	2017-18	10		N/A	N/A	4		**14**

		Group guidance activities for bachelor's degrees						
		GEQ	**GTBA**	**GEBA**	**GEBA/GTBA**	**GEM**	**DG GEQ GTBA**	**ETSEQ**
Career guidance sessions (job seeking)	**2018-19**	16		5	N/A	2		**23**
	2019-20	0	3	8	N/A	0		**11**
	2020-21	0	2	4	N/A	27		**33**
Career guidance sessions (Interview)	**2017-18**	10		N/A	N/A	4		**14**
	2018-19	22		5	N/A	2		**29**
	2019-20	0	2	9	N/A	0		**11**
	2020-21	24	2	4	N/A	35		**65**

	Curs	Group guidance activities for master's degrees							
		MEQ	**MEAiSE**	**MGET**	**MNMP**	**MEFCO**	**MPRL**	**MECST**	**ETSEQ**
WELCOME DAY	**2017-18**	22	10	5	16				**53**
	2018-19	16	8	8	13				**45**
	2019-20	17	13	8	17				**55**
	2020-21	N/A	N/A	N/A	N/A				**0**
Welcome sessions	**2017-18**	23		8					**31**
	2018-19	18		10					**28**
	2019-20	16	20	10	9	14	40		**109**
	2020-21	21	12	15	9	13		15	**85**
Career guidance sessions	**2017-18**	14	6	2				10	**32**
	2018-19		3	1	2				**6**
	2019-20	3	6	1	7			3	**20**
	2020-21	2	2	3	3				**10**

Source: Number of OOU attendees at workshops on 13.09.2021

Table A.5.1.2. Number of attendees in individual career guidance sessions

	Degree	Attendees at the individual career guidance sessions				
		2016-17	2017-18	2018-19	2019-20	2020-21
BACHELOR' S DEGREES	BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	2	3			1
	BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	1	3	4	4	
	BACHELOR'S DEGREE IN AGRONOMIC ENGINEERINING (2010)					1
	BACHELOR'S DEGREE IN FOOD BIOPROCESS ENGINEERINING (2017)					
	BACHELOR'S DEGREE IN FOOD BIOPROCESS ENGINEERINING (2017)					
	Subtotal	**3**	**6**	**4**	**4**	**2**
MASTER' S DEGREES	MASTER'S DEGREE IN ENVIRONMENTAL ENGINEERING AND SUSTAINABLE ENERGY (2016)					1
	CHEMICAL ENGINEERING (2013)		1		1	
	NANOSCIENCE, MATERIALS AND PROCESSES: CHEMICAL TECHNOLOGY AT THE FRONTIER (2013)					
	OCCUPATIONAL RISK PREVENTION (2009)					
	MANAGEMENT OF TECHNOLOGY COMPANIES (2017)					
	COMPUTATIONAL FLUID MECHANICS (2018)					
	Subtotal	**0**	**1**	**0**	**1**	**1**
	Overall total	**3**	**7**	**4**	**5**	**3**

Source: Number of OOU attendees at workshops on 2020-21 on 20.01.2022

➢ STUDENT MOBILITY

Table A.5.1.3 Number of OUT mobility students

Degree	Type of programme	Country	University / Company	OUT mobility students			
				2017-18	2018-19	2019-20	2020-21
GEQ	Erasmus - Studies	Germany	Technische Universität Berlin				
			Karlsruher Institut für Technologie				
			Hochschule Offenburg - Hochschule für Technik, Wirtschaft und Medien	2	3	2	1
			Hochschule für Technik Stuttgart				
			Universität Karlsruhe				
			Technische Universität Darmstadt				
		Belgium	Katholieke Universiteit Leuven				
		Berlín	Technische Universität			1	
		France	Institut National Polytechnique de Toulouse				
			Ecole Nationale Supérieure de Chimie de Paris		1		
			Université de Technologie de Compiegne		0		
		Italy	Università degli Studi de Palermo		0		
			Politecnico di Milano		1	2	
			Politecnico di Torino	1	0	3	2
			Università degli studi di Sassari				1
		United Kingdom	University of the West of Scotland		2		
		Norway	Norges Teknisk-Naturvitenskapelige Universitet	2		1	
		Czech Republic	Vysoká Skola Chemicko-Technologická V Praze	1	2	2	
		Poland	Uniwersytet Im. Adama Mickiewicza	2			1
			Politechnika Poznanska	4	4		
		Finland	Lappeenranta University of Technology	2	2		
			Lappeenrannan Tecknillinen Ylipisto			1	
		Portugal	Universidade de Aveiro		1		
			Instituto Politécnico de Bragança	1			

Degree	Type of programme	Country	University / Company	OUT mobility students 2017-18	2018-19	2019-20	2020-21
			Universidad de Lisboa				1
		Lithuania	Kauno Technologijos Universitetas		1		
		Scotland	University of Paisley	2	0		
	Total Erasmus - Studies			**17**	**17**	**12**	**6**
	MOU - Studies	Brazil	Universidade de Sao Paulo				
		Indonesia	Universitas Katolik Parahyangan	1			
		EEUU	University of Illinois				
			University of Colorado Boulder	1			
			Universitat de Estats Units d'Amèrica	1			
			State University of New York at Buffalo	1			
	Total MOU - Studies			**4**			
	Erasmus - Placements	Finland	Kemira Espoo				
		Holand	Dow Benelux B.V.		1		
			JBP Logistics B.V.				
		Germany	BASF Chemical				
	Total Erasmus - Placements				**1**		
	Bilateral agreements	EEUU	External internships in companies				2
		Belgium	Erasmus internships				1
	Total Bilateral Agreements						**3**
	Total			**21**	**18**	**12**	**9**
GEM	Erasmus - Studies	Italy	Politecnico di Torino	2	1	1	
			Politecnico di Milano		2	2	
			Università Degli Studi Di Perugia				
			Università degli studi di Palermo			1	1
			Università degli studi di Napoli Federico II			1	
			Università degli sudi di modena e Reggio Emilia	1			1

Degree	Type of programme	Country	University / Company	OUT mobility students			
				2017-18	2018-19	2019-20	2020-21
		France	Université de Technologie de Compiegne		1		
			Ecole des Métiers de l'Environnement				
		Poland	Politechnika Lodzka			1	1
			Politechnika Poznanska			3	1
		Germany	Techniche Universität Darmstadt	1	1		
			Hochschule Offenburg - Hochschule für Technik, Wirtschaft und Medien		1	3	2
		Scotland	University of Paisley	1		2	
		United Kingdom	University of the West of Scotland		2		
	Total Erasmus - Studies			**5**	**8**	**14**	**6**
	MOU - Studies	Chile	Pontificia Universidad Católica de Chile	1			
		Argentina	Universidad de la Plata		1		
		EEUU	University of Illinois				
	Total MOU - Studies			**1**	**1**		
	Erasmus - Placements	United Kingdom	Internships in Companies in the United Kingdom	1			
		France	Tenneco Inc.				
	Total Erasmus - Placements			**1**			
	MOU - Placements	EEUU	Page County Secondary Road Department, Iowa				
	Total MOU - Placements						
	ISEP Students	EEUU	ISEP - INTERNATIONAL STUDENT EXCHANGE PROGRAM		2		
	Total MOU - Placements				**2**		
	Total			**7**	**11**	**14**	**6**
GEA	Erasmus - Studies	Italy	Politecnico di Torino				
		Germany	Hochschule Regensburg				
		France	Université de Montpellier		1		
	Total Erasmus - Studies				**1**		

Degree	Type of programme	Country	University / Company	OUT mobility students			
				2017-18	2018-19	2019-20	2020-21
	MOU - Studies	EEUU	University of the United States of America	1			
	Total MOU - Studies			**1**			
	Erasmus - Placements	France	External internships in France companies	1		1	
	Total Erasmus - Placements			**1**		**1**	
	Total			**2**	**1**	**1**	
GEBA	Erasmus - Studies	Italy	Politecnico di Torino			1	
	Total Erasmus - Studies					**1**	
	Total					**1**	
MEQ	Erasmus - Placements	Germany	BASF Chemical				
		United Kingdom	Aston University	1			
		Holand	Dow Benelux B.V.		1		
		Belgium	P&G Belgium B.V.B.A.		2		
			Agfa-Gevaert N.V.				
			Dow Silicones Belgium sprl		1		
			Pràctiques en Empreses de Belgium	2		3	
	Total Erasmus - Placements			**3**	**4**	**3**	
	MOU-Studies	EEUU	University of Colorado Boulder				
		Indonesia	Universitas Katolik Parahyangan	1			
	Total MOU-Studies			**1**			
	I-NETWORKS	Indonesia	Universitas Katolik Parahyangan (UNPAR)		1		
		Japan	Hiroshima University		1		
	Total I-NETWORKS				**2**		
	OTHER PROGRAMMES	Indonesia	Universitas Katolik Parahyangan (UNPAR)		1	2	
		Belgium	Own programmes				1
	Total Other Programmes				**1**	**2**	**1**

Degree	Type of programme	Country	University / Company	OUT mobility students			
				2017-18	2018-19	2019-20	2020-21
	Erasmus internships	Belgium	Internships in Companies in Belgium		1	2	1
	Total Erasmus internships				**1**	**2**	**1**
	Total			**4**	**8**	**7**	**2**
MNMP	Erasmus-Placement	Italy	Politecnico di Torino		1		
	Total Erasmus - Placements				**1**		
	MOU - Placement	EEUU	Northeastern University	1	1		
			University California				
			University of Massachussetts	1			
			Wentworth Institute of Technology	1			
			Boston College	1			
	Total MOU - Placements			**4**	**1**		
	Total			**4**	**2**		
MEAiSE	Erasmus-Studies	Poland	Politechnika Wroclawska	1			
	Total Erasmus - Studies			**1**			
	Erasmus-Placement	Germany	Adidas	1			
			Karlsruher Institut für Technologie		1		
		France	Université de Bordeaux				
			Pràctiques en Empreses de France			1	
		Italy	Politecnico di Torino				
		Holand	TNO		1		
			Dow Benelux B.V.		1		
			Schunk Xycarb Technology		1		
			Wetsus		1		
		Belgium	Pràctiques en Empreses de Belgium			2	
		Norway	HØgskolen i Agder			1	

Degree	Type of programme	Country	University / Company	OUT mobility students			
				2017-18	2018-19	2019-20	2020-21
		Luxembourg	Pràctiques en Empreses de Luxembourg			1	
		Slovenia	Korona		1		
	Total Erasmus - Placements			**1**	**6**	**5**	
	I-NETWORKS	Indonesia	Universitas Katolik Parahyangan (UNPAR)	1	3		
	Total I-NETWORKS			**1**	**3**		
	MOU-Placement	EEUU	Northeastern University		1		
	Total MOU - Placements				**1**		
	OTHER PROGRAMMES	Indonesia	Universitas Katolik Parahyangan (UNPAR)		1	2	
	Total Other Programmes				**1**		
	Total			**3**	**10**	**5**	
Total ETSEQ				**41**	**50**	**40**	**17**

In the academic year 2019-20 there was no outgoing mobility for students on the following degree courses: MECST, MEFCO i GTBA

In the academic year 2020-21 there was no outgoing mobility for students on the following degree courses: GEA, GEBA, GTBA, MNMP, MECST, MEFCO i MEAiSE

Source: URV in figures/Degree quality/Bachelor's degree/Mobility OUT 2020-21 on 21.12.2021

Table A.5.1.4 Number of IN mobility students

Type of programme	Country	University	Mobility students IN			
			2017-18	2018-19	2019-20	2020-21
Erasmus - Studies	Turkey	Ege Üniversitesi	2	3	2	
		Hacettepe Üniversitesi				
		Kocaeli University	1	2		
		Mersin Universitesi		1		
		Suleyman Demirel Universitesi				
	Italy	Università Degli Studi di Napoli Federico II	1	2		
		Università degli Studi di Palermo	2			
		Università Degli Studi di Perugia				
		Università degli Studi di Palermo			2	
		Università degli Studi del Piemonte Orientale 'Amedeo Avogadro'			1	
		Politecnico di Milano	1			
		Politecnica di Torino	4	4	2	
	France	Université de Nantes	1			
		Institut National Polytechnique of Toulouse				1

Type of programme	Country	University	Mobility students IN			
			2017-18	2018-19	2019-20	2020-21
		Institut National Polytechnique of Lorraine				
		École des Métiers de l'Environnement			2	
		Ecole Nationale Supérieure de Chimie de Montpellier	1			
		Université de Pau et des Pays de l'Adour	2			
		Université de Technologie de Compiègne				
		Université de la Réunion	2			
		Sorbonne Université				1
		Université de Lorraine	5	5	5	2
	Poland	Politechnika Lodzka	2		2	
		Politechnika Wroclawska	2	1		
		Politechnika Poznanska		5		1
		Poznan University of Technology				
		Uniwersytet Mikolaya Kopernika Wtoruniu				
		Wroclaw University of Technology				
	Austria	Universität für Bonden Kultur Wien				
	Lithuania	Kauno Technologijos Universitetas	1			
		Vilniaus Kolegija		1	1	
	Colombia	Universidad Tecnologica de Bolivar				
	Brazil	Universidade Comunitária Regional de Chapecó - UNOCHAPECÓ	1			
	Germany	Technische Universität Berlin	1			1
		Bergische Universität Wuppertal	1	2	1	
		Justus-Liebig-Universit	1			
		Technische Universität Darmstadt		1		2
		Universität Karlsruhe				
	Mexico	Universidad Autónoma de Nuevo León	1			
	Czech Republic	Vysoká Skola Chemicko-Technologická v Praze			1	1
	Països Baixos	Universiteit Twente			1	
Total Erasmus - Studies			**32**	**27**	**20**	**9**
Erasmus - Placements	France	Université de Pau et des Pays de l'Adour	3	4		
		Ecole Nationale Supérieure de Chimie de Montpellier	1			
		Université de Nantes		1		
	Italy	Università degli Studi di Firenze	1			
	Germany	Westfälische Wilhelms-Universität Münster	1			
	Turkey	Istanbul Universitesi			1	
	Tunisia	Université de Tunis el Manar		1		
Total Erasmus - Palcements			**6**	**6**	**1**	**0**
Erasmus International - Studies	Egypt	Cairo University	3	4		

Type of programme	Country	University	Mobility students IN			
			2017-18	2018-19	2019-20	2020-21
Total Erasmus International - Studies			**3**	**4**		
I-GLOBAL	France	Université de Pau et des Pays de l'Adour	1			
		Université de Nantes		3		
Total I-GLOBAL			**1**	**3**		
MOU - Placement	Colombia	Universidad Industrial de Santander	2			
	Philippines	University of the Philippines Diliman	1			
	Brazil	Universidade de São Paulo			1	
Total MOU - Placement			**3**		**1**	**0**
MOU - Studies	Colombia	Universidad Industrial de Santander	1			
	Mexico	Universidad Nacional Autónoma de México	1	2	1	
		Universidad Autónoma de Nuevo León		1		
	Brazil	Universidade Comunitária Regional de Chapecó - UNOCHAPECÓ		1	1	
		Universidade Federal de Itajubá (UNIFEI)				3
	Rep. South Africa	University of the Western Cape			1	
	Philippines	University of the Philippines Diliman		3	1	
Total MOU - Studies			**2**	**7**	**4**	**3**
SICUE	Spain	Universidad de la Rioja				
Total SICUE						**0**
EU4EU Placement	Italy	Università degli Studi della Tuscia				1
		Università degli Studi di Napoli Federico II				1
Total EU4EU Placement						**2**
		Total ETSEQ	**47**	**47**	**26**	**14**

Source: URV in figures/Degree quality/Bachelor's degree/Mobility OUT 2020-21 on 02.02.2022

5.2. The material resources available are sufficient for the number of students and the nature of the course.

Table A.5.2.1. Figures for the Learning and Research Centre (CRAI) on Campus Sescelades

Data on: 31/12/2020	URV campuses		
	Sescelades campus CRAI		Sum/Mean
	Pre-pandemic	Pandemic	
Satisfaction of CRAI users (3, 4)	**Students / PDI**		**Students / PDI**
General user satisfaction with the CRAI (2018-19 / 2017-18)	8.17 / 8.85		**8.06 / 8.84**
General user satisfaction with CRAI staff (2018-19 / 2017-18)	8.25 / 9.07		**8.27 / 9.27**
General user satisfaction with CRAI facilities and equipment (2018-19 / 2017-18)	7.65 / 8.89		**7.57 / 8.77**
General user satisfaction with CRAI documents (2018-19 / 2017-18)	8.16 / 8.62		**8.07 / 8.59**
General user satisfaction with CRAI services (2018-19 / 2017-18)	7.98 / 8.95		**8.00 / 8.83**
User satisfaction with CRAI courses on informational competence (2018-19 / 2017-18)	7.84 / 8.78		**7.83 / 8.86**
Assessment of the usefulness of English conversation groups by participants (2018-19 / 2017-18)	8.21 / 9.14		**8.12 / 8.84**
Satisfaction with the services provided by the Factory (2018-19 / 2017-18)	8.16 / 9.03		**8.09 / 8.85**
Teaching staff satisfaction with PROFID courses (2018-19 / 2017-18)	nd / 9.01		**nd / 8.99**
Use of the CRAI (19)			
In person			
Days open per year	48	124	**52 / 106**
Hours open per year	624	1.022	**643 / 915**
Number of user accesses to the CRAI per year (8)	59.845	3.811	**168.007**
Mean number of daily accesses to the CRAI	1,247	31	**2,713**
Number of accesses of each potential user from the campus per year (5)	9	1	**12 / 6**
Online			
Number of web pages visited (16)			**627,960**
Number of online queries			**1,705**
Number of downloads of self-access material (guides and tutorials)			**108,656**
Ús dels recursos digitals docents en obert (17)			**295**

Data on: 31/12/2020	URV campuses		
	Sescelades campus CRAI		Sum/Mean
	Pre-pandemic	Pandemic	
Total number of entries in the Institutional Repository			**14,109**
Number of pages consulted at the Institutional Repository			**99,211**
Number of open access entries Number of electronic periodicals at the Institutional Repository			**11,082**
Collection (2)			
Total number of copies in the catalogue (13)	148,727		**783,717**
Number of articles on paper (copies) (13)	131,120		**680,198**
Number of paper periodicals purchased	67		**378**
Number of electronic periodicals			**150,803**
Digital library			
Documents downloaded from subscribed electronic periodicals			**565.592**
Documents downloaded subscribed electronic studies			**134.390**
Documents downloaded from subscribed databases			**1.095.936**
Services			
Loan (6)			
Number of documents loaned by the URV per year	15.585		**50.211**
Number of URV documents loaned per potential user of the campus and year (5)	2.36		**3.22**
Number of documents loaned by the URV to the URV university community per year			**48.234**
Number of documents requested by the URV from libraries that belong to the CSUC per year (7)			**3,105**
Number of documents requested by the URV from other libraries through the interlibrary loan system per year			**1,385**
Number of URV documents loaned to consortium users per year			**1,537**
Number of group work rooms loaned per year	1,755		**5,443**
Number of group work rooms loaned per potential student and year (5)	0.32		**0.46**
Number of laptops loaned per year	1,380		**4,087**

Data on: 31/12/2020	**URV campuses**		**Sum/Mean**
	Sescelades campus CRAI		
	Pre-pandemic	**Pandemic**	
Number of laptops loaned per potential campus student and year (5)	0.25		**0.32**
Number of loans of other equipment	1,161		**3,055**
Training support measures ***(8, 15)***			
Number of attendees per academic year on the courses organized by the CRAI for the competence CT2/C3 (management of information and knowledge using IT tools)	71	285	**2,427**
Number of attendees on the courses organized by the CRAI for the competence CT2/C3 per potential undergraduate	0.02	0.07	**0.16**
Number of support sessions organised by the CRAI in the competence CT2/C3 for undergraduates (management of information and knowledge using IT tools)	3	8	**61**
Number of attendees per academic year on the courses on specific resources for master's and doctoral students	17	16	**239**
Number of sessions per academic year on the courses on specific resources for master's and doctoral students	1	1	**17**
Number of attendees on the PROFID course provided by CRAI staff (9)	27	51	**694**
Number of PROFID training sessions provided by CRAI staff (9)	2	5	**140**
Number of participants in English conversation groups			**639 / 169**
Number of English conversation group sessions			**169 / 61**
Number of attendees on the training courses in the competence CT2/C2 (management of information and knowledge using IT tools) taught by the Factory			**17**
Number of training courses sessions in the competence CT2/C2 (management of information and knowledge using IT tools) organised by the Factory			**1**
Number of queries attended by the Factory per year			**706**
Number of independent uses made of the Factory per year			**7**
Number of attendees per academic year at the induction sessions for new students		809	**2,336**

Data on: 31/12/2020	**URV campuses**		
	Sescelades campus CRAI		**Sum/Mean**
	Pre-pandemic	**Pandemic**	
Number of sessions per academic year at the induction sessions for new students		7	**39**
Support provided for learning, teaching and research			
Number of support measures for learning and teaching			**362**
Number of support measures for research			**344**
Dissemination and promotion of the CRAI (14)			
Number of people attending the Open Day			**1,042**
Number of sessions at the Open Day			**53**
Number of people attending the guided tours per academic year	532		**866**
Number of guided tours offered per academic year	25		**45**
Number of news ítems posted on the CRAI website			**161**
Number of exhibitions at the various campus CRAIs	6		**28**
Number of CRAI activities (lectures, etc.)	10		**119**
CRAI spaces and facilities			
Spaces			
Floor space (m^2) (10)	3,995		**12,361**
Floor space (m^2) per potential campus user (5)	0.60		**0.98**
Floor space (m^2) per daily access	3.20	129.99	**21.01**
Different seat types			
Total number of seats (18)	1,057	199	**3,191 / 628**
Total number of seats per potential campus student (5)	0.19	0.04	**0.32 / 0.07**
Equipment			
Numbver of computers available to users	192	76	**624 / 206**
Number of laptops available for loan	40		**195**
Number of laptops available for loan per potential campus student (5)	0.01		**0.03**
Number of group study spaces	12		**41**
Number of seats in group study spaces	83		**282**
Social networks			
CRAI twitter followers			**1,560**
Number of CRAI twitter tweets			**723**

Data on: 31/12/2020	**URV campuses**		
	Sescelades campus CRAI		**Sum/Mean**
	Pre-pandemic	**Pandemic**	
Number of CRAI twitter retweets			**nd**
Number of potential students (undergraduates). Number of students enrolled 2020-21	4,357		**11,779**
Number of potential students (master's degree and doctorate). Number of students enrolled 2020-21 (11)	1,113		**3,132**
Number of teaching and research staff (as of 31 December 2020)	798		**2,271**
Number of administrative staff (as of 31 December 2020) (12)	337		**745**

(1) The Bellissens Campus CRAI includes the European Documentation Centre. Some of the figures for the CRAI at the Faculty of Medicine and Health Sciences include the Teaching Unit Library at the Sant Joan University Hospital (Reus) and the Joan XXIII University Hospital (Tarragona). We cannot provide some of the ratios because we do not know exactly how many users make use of each of the three spaces.

(2) The category Others includes figures for the Marta Mata Garriga Foundation, Vinseum, the Catalan Institute of Classical Archaeology, the Catalunya-La Pedrera Periodicals Room, the Quer-Alt Foundation and Poblet Monastery. We have included the whole of the collection of the Teaching Unit Library of the Joan XXIII University Hospital (Tarragona) because although it does not all belong to the URV, it is accesible in its entirety.

(3) This includes the figures for the student survey and also the figures for the teaching and research staff survey. The student survey was carried out in the academic year 2018-19 and the teaching and research staff survey in the academic year 2017-18. Both surveys were scored on a scale of 1 to 10. The participation rate was 12.1% for students and 23.5% for teaching and research staff.

(4) The figures for the satisfaction survey of users of the CRAI at the Faculty of Medicine and Health Sciences include those for Teaching Unit Library at the Sant Joan University Hospital (Reus) and the Joan XXIII University Hospital (Tarragona).

(5) The calculations for the CRAI of each campus do not include the number of doctoral students because of the difficulty of assigning them to a campus.

(6) This includes the number of loans and renewals of loans.

(7) CSUC: Consortium of University Services of Catalonia. This loan has no cost for the user.

(8) This course was taught online after the onset of the pandemic.

(9) The category Others includes all courses taught by the CRAI's sections of support and coordination, external trainers, the Self-Access Centre and the Factory.

(10) Data provided by the Material Resources Service. It includes the floor space occupied by the central services in the category Others.

(11) The category Others includes 1,296 students from all the URV's doctoral programmes during the academic year 2020-21.

(12) The category Others includes 67 members of the administrative and services staff who work in the Rector's offices.

(13) The figures for the Teaching Unit Library of the Sant Joan University Hospital (Reus) are included in those for the Medicine and Health Sciences CRAI. The category Others includes the data for the CRAI's sections of support and coordination, the Rector's offices, the Marta Mata Garriga Foundation, Vinseum, ICAC, the Catalunya-La Pedrera Periodicals Room, the Quer-Alt Foundation, the Joan XXIII Hospital and Poblet Monastery. Also, the overall data for digital journals (16,193), electronic books (30,849) and databases are for those that can be accessed from the catalogue (281).

(14) The figures for guided tours include those organised for upper-secondary students.

(15) The figures are for face-to-face and online sessions.

(16) The figures include the Libguide guides and tutorials accessed through the web.

Data on: 31/12/2020	URV campuses		
	Sescelades campus CRAI		Sum/Mean
	Pre-pandemic	Pandemic	
(17) Data available since July 2020. It gives the number of clicks on the link available in the Libguides.			
(18) The figures are for the number of seats in the pre-lockdown period and in the period of reduced capacity.			
(19) It should be borne in mind that the Campus Catalunya CRAI and the Medicine and Health Sciences CRAI open for more hours and provide all university community users more services so the figures are higher.			
N/A: Not available			
Drawn up by:	**Reviewed by:**		Aproved by:
Head of Organisation and Improvement/Head of Information Resources Management/Head of User Services Management/Coordinator/Head of Campus CRAI	Cap de Secció d'Organització i Millora		Cap del CRAI

Source: CRAI on 13.09.2021

➢ **Use of online teaching resources**

Table A.5.2.2 Use of the URV Online Campus

ETSEQ ACADEMIC YEAR 2020-21									
DEGREE	VIRTUAL CLASSROOMS			LECTURER/S			STUDENTS		
	Totals	Active	% Active	Totals	Active	% Active	Totals	Active	% Active
BACHELOR'S DEGREES									
Double Degree in Chemical Engineering and Food Bioprocess Techniques (2019)	23	23	100,00%	74	31	41,89%	21	20	95,24%
Bachelor's Degree in Agri-Food Engineering2010)	10	1	10,00%	11	6	54,55%	3	2	66,67%
Bachelor's Degree in Food Bioprocess Engineering (2017)	47	41	87,23%	111	42	37,84%	18	16	88,89%
Bachelor's Degree in Mechanical Engineering (2010)	52	50	96,15%	71	34	47,89%	308	239	77,60%
Bachelor's Degree in Chemical Engineering (2010)	53	50	94,34%	134	58	43,28%	287	247	86,06%
Bachelor's Degree in Food Bioprocess Techniques (2018)	35	26	74,29%	99	34	34,34%	7	4	57,14%
Bachelor's Degree in Food Bioprocess Engineering / Techniques (2018)	21	21	100,00%	80	27	33,75%	40	33	82,50%
MASTER'S DEGREES									
Environmental Engineering and Sustainable Energy (2016)	25	25	100,00%	39	16	41,03%	32	19	59,38%
Chemical Engineering (2013)	32	15	46,88%	35	12	34,29%	44	30	68,18%
Management of Technology Companies (2017)	19	18	94,74%	23	9	39,13%	21	16	76,19%
Nanoscience, Materials and Processes: Cutting-Edge Chemical Technology (2013)	16	13	81,25%	40	11	27,50%	13	11	84,62%
Occupational Risk Prevention (2009)	10	10	100,00%	14	6	42,86%	48	42	87,50%
Energy Conversion Systems and Technologies (2019)	15	14	93,33%	11	6	54,55%	28	19	67,86%
TOTAL School (including licentiate degrees and other degrees being phased out)	**222**	**216**	**97,30%**	**272**	**126**	**46,32%**	**865**	**673**	**77,80%**

Virtual classrooms: virtual classrooms that have been set up for degree classes
Lecturers: different users with the role of lecturer in the spaces of the degree as a whole
Students: different users with the role of student in the spaces of the degree as a whole
Active virtual classrooms: virtual classrooms that have been set up for degree classes, opened and accessed by lecturers and students
Active lecturers: mean number of different weekly users who access as lecturers
Active students: mean number of different weekly users who access as students
* The fact that teaching is shared means that the same classroom is shared by students from different degree courses. This may distort the figures for each degree so the 'active' percentages should be regarded as approximations.
* This report has not taken the subject Citizenship into account, because it is taught on numerous degree courses so the data is not valid.
Source: SREd on 28 February 2022. The Master's Degree in Agricultural Engineering (2019) and the Master's Degree in Computational Fluid Mechanics use the virtual campuses of the other participating universities.

Table A.5.2.3 Description of the ETSEQ lecture rooms

ETSEQ LECTURE ROOMS																
LECTURE ROOMS	Capacity	Floor space	Mobility	Heating/Air Conditioning	Desktop PC	Beamer & screen	Control panel (ON/OFF keypad for beamer and VGA/HDMI connection)	Possibility of connecting laptop to beamer	Connection to Internet	Sound of desktop PC to loudspeakers	Sound of laptop PC to loudspeakers	Microphone	Electronic whiteboard	Video conferencing equipment	DVD player	Observations
Conference room ETSE/ETSEQ	96	165.9m2	Chairs with tablet	Heating / Air Conditioning	Yes	Yes	No	VGA+HDMI	Wifi/cable	Yes	Yes	Yes	No	Yes	Yes	1
102	96	137.8 m2	Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
103	72	137.7 m2	Double tables and chairs	Heating	Yes	Yes	Yes	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
104	87	137.7 m2	Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
107	66	92.7 m2	Double tables and chairs	Heating	No	Yes	Yes	VGA+HDMI	Cable/Wifi	No	Yes	No	No	No	No	
109	70	92.8 m2	34 double tables and 2 single tables	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
111	40	70.1 m2	Double tables and chairs	Heating	Yes	Yes	Yes	VGA	Cable/Wifi	Yes	Yes	Yes	No	Yes	No	3
112	50	69.4 m2	Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
113	70	94.10 m2	Double tables and chairs	Heating /Ceiling fans	Yes	Yes	Yes	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
114	50	70.10 m2	Double tables and chairs	Heating	Yes	Yes	Yes	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2

ETSEQ LECTURE ROOMS																	
LECTURE ROOMS	**Capacity**	**Floor space**	**Mobility**	**Heating/Air Conditioning**	**Desktop PC**	**Beamer & screen**	**Control panel (ON/OFF keypad for beamer and VGA/HDMI connection)**	**Possibility of connecting laptop to beamer**	**Connection to Internet**	**Sound of desktop PC to loudspeakers**	**Sound of laptop PC to loudspeakers**	**Microphone**	**Electronic whiteboard**	**Video conferencing equipment**	**DVD player**	**Observations**
115	50	68.7 m2	Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	No	No	2
116	28		Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	No	No	No	No	4
117	75	93.6 m2	Double tables and chairs	Heating /Ceiling fans	Yes	Yes	Yes	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	Yes	No	3
118	70	89.6 m2	Double tables and chairs	Heating	Yes	Yes	Yes	VGA+HDMI	Cable/Wifi	Yes	Yes	Yes	No	Yes	No	2
L304	28	194 m2	Double tables and chairs	Heating	Yes	Yes	No	VGA+HDMI	Cable/Wifi	Yes	Yes	No	No	No	No	4

OBSERVATIONS

(1) The room is equipped with 2 conference cameras, six table microphones, 2 handheld microphones and 1 lapel microphone. The screen can be moved.
(2) The lecture room has a lapel microphone locked in a cupboard (get the key from the porter's lodge)
(3) The camera and the wireless microphone for video conferences are locked in a cupboard (get the key from the porter's lodge)
(4) Laboratory managed by the DEQ

Source: OLC Sescelades database on 25 March 2020

ANNEX B: ETSEQ BACHELOR'S DEGREES

Standard 1: Quality of the educational programme

Table B.1.1 Summary of the proposals for modifying the validation report 2020-21

Degree	Section of the Report	IST section	Motivation	Change	Code	Academic year Request	Academic year Implementation	Approval by Faculty/School Board
GEQ	1.3	1.3	The demographic increase in the number of potential students means that the number of places on URV bachelor degrees must also increase. The Office of the Vice-Rector decided to increase the number of places despite the arguments against this measure made by the ETSEQ management team. This decision by the Office of the Vice-Rector was presented to the CPAD on 28/04/2020 and approved by the Governing Council on 07/05/20.	Increase in the number of places on the Bachelor's Degree in Chemical Engineering from 75 to 80	2019.20_GEQ_1	2019-20	2020-21	10/6/2020

GEQ	1; 5	1.2	The health situation caused by the COVID-19 pandemic and its economic consequences prompted most chemical companies to suspend their work experience programmes for students during the 2019-20 academic year. However, it seems that most of these companies will not restart these programmes next academic year 2020-21 or, if they do, they will be considerably reduced. This situation means that at present there are about 35 students from the academic year 2019-20 who have not been able to complete their internships. About 50 students who will be registering for this subject next year need to be added to this number, so there should be a total of 85 for the academic year 2020-2021. It would be practically impossible to find places for this number of students even in a situation of complete normality so keeping internships as a compulsory component of the course over the next few years would only increase the number of students who cannot finish their degree, with the obvious negative consequences this entails. Given this situation, and bearing in mind that the subject's competences are taught on other subjects on the curriculum, it is essential that the internship be converted into an optional subject, and offer fewer internships that can be catered for in these exceptional circumstances and the near future.	Section 1.2, 5.1 and 5.5: Changes in the distribution of credits as a result of changing the subject External Internships from compulsory to optional: 18 to 30 optional and 12 to 0 external internships Section 5.5: Activation of the optional subject Gender, Science and Social Change of 3 ECTS credits	2019.20_GEQ_2GEQ	2019-20	2020-21	22/7/2020

Degree	Section of the Report	IST section	Motivation	Change	Code	Academic year Request	Academic year Implementation	Approval by Faculty/School Board
GEM	1; 2; 3; 5		Section 1: updating of information Section 2, 3 and 5: adaptation to the new model of URV's cross-sectional competences respecting the ETSEQ model. Section 5. Optional topic: Changes in face-to-face teaching of optional subjects in accordance with article 6.3 of the Regulations Governing Teaching: *Given the restrictions on teaching staff, as from the academic year 2020-21 face-to face teaching cannot be more than 35% for each of the optional subjects on the bachelor's and master's degree. (...)”	Section 1 Modification of the ECTS credits per academic year and type of enrolment Modification of the link to the Regulations Governing Continuing Attendance Section 2 Modification of the text about cross-curricular competences for adaptation to the URV's new model Section 3 Change in the text about the cross-curricular competences and the suppression of core competences. Section 5 5.1.2 Section on the Core Curriculum: Deletion of the text and the table 5.5 Topics: - Change in the coding of the cross-curricular competences and the suppression of core competences. - Changes in the learning outcomes linked to the new cross-curricular competencies. Optional topics - Changes in course times to adapt to the reduction in on-site teaching.	2020-21_GEM_1	2020-21	2021-22	1/12/2020

GEQ	1; 2; 3; 5		Section 1: updating of information Section 2, 3 and 5: adaptation to the new model of URV's cross-sectional competences respecting the ETSEQ model. Section 5. Optional topics: Changes in face-to-fae teaching of optional subjects in accordance with article 6.3 of the Regulations Governing Teaching: *Given the restrictions on teaching staff, as from the academic year 2020-21 face-to face teaching cannot be more than 35% for each of the optional subjects on the bachelor's and master's degree. (...)"	Section 1 Modification of the ECTS credits per academic year and type of enrolment Modification of the link to the Regulations Governing Continuing Attendance Section 2 Modification of the text about cross-curricular competences for adaptation to the URV's new model Section 3 Change in the text about the cross-curricular competences and the suppression of core competences. Section 5 Changes in the table 5.1.2 of the curriculum that display the previous modifications 5.1.2 Section on the Core Curriculum: Deletion of the text and the table 5.5 Topics: - Change in the coding of the cross-curricular competences and the suppression of core competences. - Changes in the learning outcomes linked to the new cross-curricular competencies. Optional topics - Changes in course times to adapt to the reduction in on-site teaching. - Delete the subject Bioprocess Engineering, which used to be taught on the main degree (GEA).	2020-21_GEQ_1	2020-21	2021-22	1/12/2020

Degree	Section of the Report	IST section	Motivation	Change	Code	Academic year Request	Academic year Implementation	Approval by Faculty/School Board
GEQ	5.1	1.2	Inform about all the changes made to the Ministry's application on 31/03/2021. Some had previously been approved.	5.1: The mechanisms for coordinating teaching and managing mobility have been adapted. 5.2., 5.3. and 5.4: Courses, Teaching methodologies and Assessment systems have been brought up to date.	2020-21_GEQ_2	2020-21	2021-22	7/6/2021
GEM	5.1	1.2	Inform about all the changes made to the Ministry's application on 31/03/2021. Some had previously been approved.	5.1: The mechanisms for coordinating teaching and managing mobility have been adapted. 5.2., 5.3. and 5.4: Courses, Teaching methodologies and Assessment systems have been brought up to date.	2020-21_GEM_2	2020-21	2021-22	7/6/2021

Modifications made to the Ministry of Education's application (SEDE) after the last changes processed in March 2021 and approved on 21/7/20212 (except for the modification 2019.20_GEQ_2, which was approved as a temporary measure).

- **NEW STUDENTS**

Table B.1.2 Indicators of the admissions process

Pla		2017-18	2018-19	2019-20	2020-21	2021-22
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Places offered (01)	80	80	75	80	80
	New students (04)	74	82	75	75	75
	Ratio of new students (including transfers) / places offered (04)	0.93	1.03	1.00	0.94	0.94
	Number of 1st preference admissions (21)	64	71	68	59	61
	% 1st preference access (21)	86.49%	86.59%	90.67%	78.67%	81.33%
	Demand as 1st option (01)	79	75	89	79	94
	Ratio of 1st-option demand to offer (01)	0.99	0.94	1.19	0.99	1.18
	Demand >3rd option (01)	77	81	108	146	144
	Total demand (01)	226	228	310	328	346
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Places offered (01)	60	60	60	60	60
	New students (04)	62	63	64	65	64
	Ratio of new students (including transfers) / places offered (04)	1.03	1.05	1.07	1.08	1.07
	Number of 1st preference admissions (21)	59	60	59	62	57
	% 1st preference access (21)	95.16%	95.24%	92.19%	95.38%	89.06%
	Demand as 1st option (01)	65	65	65	71	66

Pla		2017-18	2018-19	2019-20	2020-21	2021-22
	Ratio of 1st-option demand to offer (01)	1.08	1.08	1.08	1.18	1.10
	Demand >3rd option (01)	62	81	97	113	94
	Total demand (01)	194	233	253	272	271

Source: URV in figures. Reports ACRG01, ACRG04 and ACRG21. On 27 October 2021.

Table B.1.3 Percentage of new students enrolled by route of admission

Curriculum	Type of admission	2017-18		2018-19		2019-20		2020-21		2021-22	
		Admissions	% route	Admissions	% route	Admissions	% route	Admissions	% route	Admissions	% route
2020- BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (2010)	Holders of diplomas, degrees or similar (2)	1	1.35%	2	2.44%	1	1.33%				
	Students with homologated foreign qualifications			1	1.22%						
	Vocational students (FP2, CFGS or similar) who have started a university course (8)	1	1.35%	1	1.22%	1	1.33%	1	1.33%	4	5.26%
	Students who have passed the entrance examination or similar who have started a university course (7)	14	18.92%	9	10.98%	6	8.00%	1	1.33%		
	Students who hold the qualifications FP2, MP3 or CFGS or similar (4)	7	9.46%	5	6.10%	7	9.33%	9	12.00%	10	13.16%
	Students who have passed the university entrance examination (PAU) or similar (0)	49	66.22%	64	78.05%	60	80.00%	63	84.00%	61	80.26%
	Transferred students	2	2.70%					1	1.33%	1	1.32%
	Total	**74**	**100.00%**	**82**	**100.00%**	**75**	**100.00%**	**75**	**100.00%**	**76**	**100.00%**
2022- BACHELOR’S DEGREE IN MECHANICAL ENGINEERING (2010)	Transferred students	1	1.61%	1	1.59%	1	1.56%				
	Students who have passed the entrance examination or similar who have started a university course (7)	9	14.52%	1	1.59%	3	4.69%	8	12.31%	1	1.56%
	Students who hold the qualifications 'FP2, MP3 or CFGS or similar (4)	9	14.52%	10	15.87%	15	23.44%	20	30.77%	20	31.25%
	Students who have passed the university entrance examination (PAU) or similar (0)	41	66.13%	48	76.19%	44	68.75%	37	56.92%	42	65.63%
	Vocational students (FP2, CFGS or similar) who have started a university course (8)	2	3.23%	2	3.17%						
	Holders of diplomas, degrees or similar (2)			1	1.59%						
	Students with homologated foreign qualifications					1	1.56%				
	Students over 25 years old (9)									1	1.56%
	Total	**62**	**100.00%**	**63**	**100.00%**	**64**	**100.00%**	**65**	**100.00%**	**64**	**100.00%**

Source: URV in figures. ACRG08C – Routes of admission. On 25 October 2021.

Caption: <u>ADMISSION VIA PRE-ENROLLMENT:</u> (0) University entrance examination (PAU) or similar - (2) Holders of diplomas, degrees or similar – (4) Students who hold the qualifications FP2, MP3 or CFGS or similar (– (7) Students who have passed the entrance examination or similar who have started a university course – (8) Vocational students (FP2, CFGS or similar) who have started a university course – (9) Students over 25 years old – (11) Students over 45 years old.

ROUTE OF ADMISSION: Transferred students and students with homologated foreign qualifications

Table B.1.4 Average admission grade of students enrolled

Curriculum	Type of admission	Admission mark (average)				
		2017-18	2018-19	2019-20	2020-21	2021-22
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Students who have passed the university entrance examination (PAU) or similar	8.57	8.95	8.73	8.47	8.95
	Transferred students	5.85				
	Holders of diplomas, degrees or similar	5.00	5.00	5.82		
	Students who hold the qualifications FP2, MP3 or CFGS or similar	6.41	6.67	7.10	7.06	7.02
	Students who have passed the entrance examination or similar who have started a university course	7.66	7.03	7.55	6.19	
	Vocational students (FP2, CFGS or similar) who have started a university course	7.85	8.04	7.39	7.37	7.46
2022- BACHELOR'S DEGREE IN FOOD BIOPROCESS ENGINEERING (2010)	Students who have passed the university entrance examination (PAU) or similar	9.02	8.72	8.05	8.44	8.19
	Holders of diplomas, degrees or similar		6.28			
	Students with homologated foreign qualifications			7.24		
	Students who hold the qualifications FP2, MP3 or CFGS or similar	6.65	6.85	6.76	6.65	7.01
	Students who have passed the entrance examination or similar who have started a university course	8.45	5.02	9.20	7.91	8.95
	Vocational students (FP2, CFGS or similar) who have started a university course	7.32	7.75			
	Students over 25 years old					5.5

Source: URV in figures. ACRG05– Average admission grade (per admission route). On 25 October 2021.

Table B.1.5 June cut-off mark per university

Cut-off marks 1st assignation via PAU-CFGS. June (beginning of the process)							
Curriculum	Name of study centre	Initials	2017	2018	2019	2020	2021
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING	Textile Technology and Design Engineering / Electrical Engineering / Industrial & Automated Electronics / Mechanical Engineering / Chemical Engineering (Group) (Terrassa)	UPC	6.020	6.186	6.200	6.380	7.096
	Electrical Engineering / Industrial & Automated Electronics / Mechanical Engineering (group) (Vilanova i la Geltrú)	UPC	5.000	5.000	5.000	5.000	5.000
	Industrial & Automated Electronics / Mechanical Engineering "EU Salesiana de Sarrià" (simultaneous) (Barcelona)	UAB	5.000	5.000	5.000	5.000	5.000
	Industrial Organisation Engineering / Enginyeria Industrial & Automated Electronics / Mechanical Engineering "Tecnocampus" (group) (Mataró)	UPF	-	5.000	5.000	5.000	5.000

Cut-off marks 1st assignation via PAU-CFGS. June (beginning of the process)							
Curriculum	**Name of study centre**	**Initials**	**2017**	**2018**	**2019**	**2020**	**2021**
	Industrial & Automated Electronics / Mechanical Engineering / Chemical Engineering (Group) (Manresa)	UPC	5.000	5.000	5.000	5.000	5.244
	Mechanical Engineering (Girona)	UdG	5.000	5.000	5.000	5.000	5.000
	Mechanical Engineering (Lleida)	UdL	5.000	5.000	5.000	5.000	5.000
	Mechanical Engineering (Sant Adrià del Besòs)	UPC	7.688	7.778	7.766	7.908	7.988
	Mechanical Engineering (Tarragona)	**URV**	**5.480**	**5.000**	**5.000**	**5.000**	**5.000**
	Mechanical Engineering "EU Salesiana de Sarrià" (Barcelona)	UAB	5.000	5.000	5.000	5.000	5.000
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING	Textile Technology and Design Engineering / Electrical Engineering / Industrial & Automated Electronics / Mechanical Engineering / Chemical Engineering (Group) (Terrassa)	UPC	6.020	6.186	6.200	6.380	7.096
	Industrial & Automated Electronics / Mechanical Engineering / Chemical Engineering (group) (Manresa)	UPC	5.000	5.000	5.000	5.000	5.244
	Industrial Organisation Engineering / Chemical Engineering (Group) (Igualada)	UdL	-	5.000	5.000	5.000	5.000
	Chemical Engineering (Barcelona)	UB	8.994	9.482	8.348	9.618	10.458
	Chemical Engineering (Cerdanyola del Vallès)	UAB	6.584	6.384	7.640	8.372	9.292
	Chemical Engineering (Girona)	UdG	5.000	5.000	5.000	5.000	5.000
	Chemical Engineering (Sant Adrià del Besòs)	UPC	5.000	5.026	5.000	6.488	8.378
	Chemical Engineering (Tarragona)	**URV**	**5.000**	**5.560**	**5.720**	**6.240**	**6.002**

Source: Comparative table of the 1st assignation cut-off mark. PAU-CFGS ROUTE

Table B.1.6 Cut-off mark

Degree	Cut-off mark				
	2017-18	2018-19	2019-20	2020-21	2021-22
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	5.00	5.56	5.72	6.24	6.00
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	5.48	5.00	5.00	5.00	5.00

Source: URV in figures. ACRG23 Cut-off marks for bachelor's degree programmes 1st assignation PAU/CFGS 2021 (Beginning of the process). On 04 November 2021.

Table B.1.7 Percentage of new students enrolled in terms of number of credits

Curriculum	Credits enrolled in	No. of students									
		2017-18		2018-19		2019-20		2020-21		2021-22	
		St.	%	St.	%	St.	%	St.	%	St.	%
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Credit range enrolled in [>0 i <30]	4	5%	4	5%	4	5%	1	1%	4	5%
	Credit range enrolled in [=>30 i <60]	8	11%	10	12%	5	7%	7	9%	8	11%
	Credit range enrolled in [=>60 i <90]	61	84%	68	83%	65	88%	67	89%	64	84%
	Credit range enrolled in [=>90 i <120]										
	Total	**73**	**100%**	**82**	**100%**	**74**	**100%**	**75**	**100%**	**76**	**100%**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Credit range enrolled in [>0 i <30]	2	3%			2	3%	2	3%		
	Credit range enrolled in [=>30 i <60]	7	11%	4	6%	8	13%	10	15%	13	20%
	Credit range enrolled in [=>60 i <90]	52	85%	59	94%	54	84%	53	82%	51	80%
	Total	**61**	**100%**	**63**	**100%**	**64**	**100%**	**65**	**100%**	**64**	**100%**

Source: URV in figure. ACRG22 New students and number of ordinary credits. On 28 October 2021

Table B.1.8 Percentage of new students in terms of admission grade

Curriculum	Admission grade	New students									
		2017-18		2018-19		2019-20		2020-21		2021-22	
		Total	%	Total	%	Total	%	Total	%	Total	%
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	[5.6)	15	20.55%	9	11.11%	3	4.00%	4	5.41%	3	4.00%
	[6.7)	15	20.55%	16	19.75%	13	17.33%	22	29.73%	13	17.33%
	[7.8)	9	12.33%	9	11.11%	19	25.33%	15	20.27%	15	20.00%
	[8.9)	9	12.33%	14	17.28%	14	18.67%	11	14.86%	15	20.00%
	[9.10]	12	16.44%	11	13.58%	14	18.67%	7	9.46%	11	14.67%
	(10.14]	13	17.81%	22	27.16%	12	16.00%	15	20.27%	18	24.00%
	Total	**73**	**100.00%**	**81**	**100.00%**	**75**	**100.00%**	**74**	**100.00%**	**75**	**100.00%**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	[5.6)			5	8.06%	15	23.81%	13	20.00%	7	10.94%
	[6.7)	13	21.31%	9	14.52%	8	12.70%	13	20.00%	20	31.25%
	[7.8)	18	29.51%	17	27.42%	12	19.05%	16	24.62%	15	23.44%
	[8.9)	10	16.39%	12	19.35%	11	17.46%	6	9.23%	6	9.38%
	[9.10]	2	3.28%	5	8.06%	9	14.29%	2	3.08%	6	9.38%
	(10.14]	18	29.51%	14	22.58%	8	12.70%	15	23.08%	10	15.63%
	Total	**61**	**100.00%**	**62**	**100.00%**	**63**	**100.00%**	**65**	**100.00%**	**64**	**100.00%**

Source: URV in figures. ACRG08A New students in terms of admission grade on 25 October 2021

Table B.1.9 New students: age and gender

Curriculum	Age group	No. of students														
		2017-18			2018-19			2019-20			2020-21			2021-22		
		FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	<=18	14	25	39	22	36	58	16	36	52	21	30	51	26	23	49
	19	5	12	17	2	2	4	6	3	9	6	3	9	2	8	10
	20	3	4	7	3	5	8	2	1	3	2	5	7	1	1	2
	21		1	1		2	2	3	2	5	1			2	2	4
	22		2	2	1	1	2		1	1	1	2	3		1	1
	23		1	1	1		1	1		1				1	1	2
	24							1		1				1	4	5
	25		1	1	1	3	4					1	1			
	26					1	1									
	27					1	1								2	2
	28															
	29													1		1
	[30-34]	1	2	3	1		1	1	1	2		2	2			
	[35-39]											1	1			
	>=40	1	2	3					1	1						
	Subtotal	**24**	**50**		**31**	**51**		**30**	**45**		**31**	**44**		**34**	**42**	
	%Gender	**32%**	**68%**		**38%**	**62%**		**40%**	**60%**		**41%**	**59%**		**45%**	**55%**	
	TOTAL			**74**			**82**			**75**			**75**			**76**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	<=18	2	38	40	3	41	44	4	33	37	5	27	32	6	30	36
	19	1	2	3		2	2		9	9	2	6	8	1	5	6
	20	2	5	7		1	1	1	3	4		7	7	1	6	7
	21		2	2		6	6		5	5		7	7		13	13
	22		3	3		3	3	1		1		5	5			
	23		1	1		2	2		3	3	1	1	2		1	1
	24		2	2		1	1		1	1		1	1			
	25		1	1		2	2									
	26		1	1								2	2			
	28		1	1		1	1		1	1						
	[30-34]		1	1								1	1			
	[35-39]								1	1						
	>=40					1	1		2	2					1	1
	Subtotal	**5**	**57**		**3**	**60**		**6**	**58**		**8**	**57**		**8**	**56**	
	%Gender	**8%**	**92%**		**5%**	**95%**		**9%**	**91%**		**12%**	**88%**		**13%**	**88%**	
	TOTAL			**62**			**63**			**64**			**65**			**64**

Source: URV in figures. ACRG08C Number of students in terms of admission route. On 25 October 2021

Table B.1.10 New students: province and region

Curriculum	Family province	Family region	No. of students admitted 2017-18	2018-19	2019-20	2020-21	2021-22
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Barcelona	Alt Penedès	1			1	1
		Baix Llobregat		1			2
		Barcelonès		1	1	1	2
		Berguedà		1			
		Garraf			1		2
		Moianès					1
		Osona		1			
		Vallès Occidental					1
		Total	**1**	**4**	**2**	**2**	**9**
	Castellón	Sense Definir				1	1
		Total				**1**	**1**
	Girona	Selva		1			
		Total		**1**			
	Huesca	Sense Definir					1
		Total					1
	Balearic islands	Sense Definir					
		Total					
	Lleida	Garrigues		1		1	1
		Noguera		1			
		Pla d'Urgell	1			1	2
		Segarra			1		1
		Segrià	2	1	4	1	1
		Urgell				1	
		Total	**3**	**3**	**5**	**4**	**5**
	Madrid	Undefined		1			
		Total		**1**			
	Navarre	Undefined					
		Total					
	Undefined	Undefined				1	
		Total				**1**	
	Tarragona	Alt Camp	3	1	2	6	4
		Baix Camp	21	23	17	17	20
		Baix Ebre	2	3	3	7	1
		Baix Penedès	2	3	2	3	
		Conca de Barberà			1		1
		Montsià	4	2	1	1	1
		Priorat		2		1	
		Ribera d'Ebre		1			3
		Segrià				1	

Curriculum	Family province	Family region	No. of students admitted 2017-18	2018-19	2019-20	2020-21	2021-22
		Tarragonès	37	38	42	30	28
		Terra Alta	1				1
		Total	**70**	**73**	**68**	**66**	**59**
	Valencia	Undefined				1	
		Total				1	
	Total		**74**	**82**	**75**	**75**	**75**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Barcelona	Alt Penedès				1	
		Anoia	1				
		Barcelonès					1
		Total	**1**			**1**	**1**
	Cantabria	Undefined					1
		Total					**1**
	Castellón	Undefined					2
		Total					**2**
	Unknown	Undefined				2	
		Total				**2**	
	Guipúzcoa	Undefined					1
		Total					**1**
	Huesca	Undefined					2
		Total					**2**
	Balearic Islands	Undefined					1
		Total					**1**
	Lleida	Pallars Sobirà					1
		Pla d'Urgell	1		1	1	
		Urgell	1		1		
		Total	**2**		**2**	**1**	**1**
	Undefined	Undefined		1		1	
		Total		**1**		**1**	
	Tarragona	Alt Camp	3	4	4	3	4
		Baix Camp	19	27	27	20	12
		Baix Ebre	6	5	7	4	3
		Baix Penedès	1		1	1	
		Conca de Barberà	1	1	1		1
		Montsià	1	1	1	3	2
		Priorat				1	
		Ribera d'Ebre	1	2	1	1	1
		Tarragonès	23	22	20	24	27
		Terra Alta	4			2	5
		Total	**59**	**62**	**62**	**59**	**55**
	Valencia	Undefined				1	
		Total				**1**	

Curriculum	Family province	Family region	No. of students admitted				
			2017-18	2018-19	2019-20	2020-21	2021-22
	Total		**62**	**63**	**64**	**65**	**64**

Source: URV in figures. ACRG08C Number of students in terms of admission route. On 25 October 2021

- **STUDENTS**

Table B.1.11 Number of students enrolled: age and gender

Curriculum	Age group	Students enrolled per degree											
		2017-18			2018-19			2019-20			2020-21		
		FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	<=18	14	25	39	22	36	58	16	36	52	21	30	51
	19	22	33	55	14	25	39	21	34	55	21	38	59
	20	23	25	48	23	34	57	14	25	39	21	38	59
	21	12	35	47	21	25	46	26	30	56	14	25	39
	22	11	17	28	8	19	27	16	15	31	17	18	35
	23	6	9	15	7	8	15	4	8	12	7	7	14
	24	5	10	15	6	3	9	6	6	12	3	2	5
	25	1	6	7	2	8	10	2	1	3	3	3	6
	26		7	7	1	2	3	1	7	8	2	1	3
	27	2	4	6		4	4	1	2	3	1	5	6
	28		1	1	2	2	4		1	1	1		1
	29	1	1	2		1	1		1	1			
	[30-34]	1	4	5	1	4	5	3	4	7	1	2	3
	[35-39]	2		2	1	2	3	1	2	3	1	3	4
	>=40	2	3	5	1	1	2	1	2	3	1	2	3
	TOTAL	**102**	**180**	**282**	**109**	**174**		**112**	**174**		**114**	**174**	
	%Gender	**36%**	**64%**		**39%**	**61%**		**39%**	**61%**		**40%**	**60%**	
	TOTAL						**283**			**286**			**288**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	<=18	2	37	39	3	41	44	4	33	37	5	27	32
	19	5	38	43	2	39	41	2	46	48	6	33	39
	20	6	43	49	5	36	41	3	40	43	2	51	53
	21	4	28	32	6	48	54	5	41	46	2	46	48
	22		30	30	4	22	26	6	37	43	4	31	35
	23	5	25	30		22	22	2	12	14	6	28	34
	24	2	16	18	3	19	22		14	14	2	11	13
	25		17	17	1	14	15	3	12	15		5	5
	26		11	11		14	14	1	11	12	2	11	13
	27		12	12		7	7		13	13		9	9
	28		9	9		8	8		4	4		8	8
	29		2	2		7	7		5	5		2	2

Curriculum	Age group	Students enrolled per degree											
		2017-18			2018-19			2019-20			2020-21		
		FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total	FEMALE	MALE	Total
	[30-34]	1	14	15		10	10		10	10		15	15
	[35-39]		3	3		2	2		3	3			
	>=40		2	2		3	3		4	4		4	4
	Subtotal	**25**	**287**		**24**	**292**		**26**	**285**		**29**	**281**	
	%Gender	**8%**	**92%**		**8%**	**92%**		**8%**	**92%**		**9%**	**91%**	
	TOTAL			**312**			**316**			**311**			**310**

Source: URV in figures. ACRG03 Number of students enrolled. On 28 October 2021

Table B.1.12 Number of students enrolled: full time or part time

Curriculum	Type of enrollment (FT/PT)	Students enrolled per degree			
					2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Full time	269	270	272	285
	Part time	13	13	14	2
	Total	**282**	**283**	**286**	**288**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Full time	292	299	294	295
	Part time	21	18	18	15
	Total	**313**	**317**	**312**	**310**

Source: URV in figures. ACRG03 Number of students enrolled. On 25 October 2021

Table B.1.13 Number of ordinary credits enrolled and credits recognised

Pla		2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Ordinary credits enrolled	15239	15750	15988	16228
	Credits recognised	841	598	585	378
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Ordinary credits enrolled	14847	15528	15741	15381
	Credits recognised	348	168	537	318

Source: URV in figures. ACRG07 Academic outcomes. On 25 October 2021

Table B.1.14 Mean number of credits per student and foreign students

Pla		2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Students enrolled on the degree	282	283	286	288
	Foreign students (%)	13.12%	14.13%	14.69%	11.11%
	Average credits enrolled per student	52.14	53.07	52.62	52.91
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Students enrolled on the degree	313	317	312	310
	Foreign students (%)	4.79%	5.68%	7.05%	7.74%
	Average credits enrolled per student	44.26	46.16	46.12	45.22

Source: URV in figures. ACRG03 Number of students enrolled. On 28 October 2021

Table B.2.1. Location of public information on development and indicators of degree programmes

DIMENSION	CONTENT	LINK
COURSES	• Description of the degree • Admission to the degree • Correspondence between upper vocational training cycles (CFGS) and URV degree programmes • Recommended profile • Objectives • Competences • Bachelor's degree thesis • Career opportunities • External internships	GEQ: http://www.urv.cat/ca/estudis/graus/oferta/plans/enginyeria-arquitectura/eng-quimica-grau/ GEM: http://www.urv.cat/ca/estudis/graus/oferta/plans/enginyeria-arquitectura/eng-mecanica-grau/
ADMISSION	• General information • Pre-enrolment schedule • Cut-off marks	http://www.urv.cat/ca/estudis/graus/admissio/acces/
ENROLLMENT	• Deadlines • Documentation • Formalisation • Prices • Recognition	https://www.urv.cat/en/studies/bachelor/admission/registration/ http://www.urv.cat/ca/estudis/graus/admissio/reconeixements/
GUIDANCE AND INDUCTION	• Schedule • Programme	http://www.urv.cat/ca/estudis/graus/admissio/orientacio/ http://www.urv.cat/ca/estudis/graus/admissio/acollida/
GRANTS AND BURSARIES	• Grants and bursaries	https://www.urv.cat/en/studies/bachelor/financial-information/
EXTERNAL INTERNSHIPS	• External internships	https://www.urv.cat/ca/vida-campus/serveis/ocupacio-urv/estudiants/practiques-estudiants/ https://www.etseq.urv.cat/en/about/etseq-regulations/
BACHELOR'S DEGREE THESIS	Regulations Bachelor's degree thesis	http://www.urv.cat/universitat/normatives/activitat.html#docencia https://www.etseq.urv.cat/en/about/etseq-regulations/
ACADEMIC GUIDANCE	• Faculty/School's tutorial action plan (PAT) • Annual PAT report	https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&apartat=pat&idioma=eng https://www.etseq.urv.cat/en/quality/tutorial-action-plan-pat/
CAREER GUIDANCE	• Individual guidance • Workshops • Publications: guide	https://www.urv.cat/ca/vida-campus/serveis/ocupacio-urv/estudiants/orientacio-professional/
JOB BANK	Job bank	https://www.urv.cat/ca/vida-campus/serveis/ocupacio-urv/

DIMENSION	CONTENT	LINK
ACCOMMODATION OFFICE	Accommodation	https://www.urv.cat/en/campus-life/services/accommodation-office/
MOBILITY	• Mobility programmes • Other options for foreign visits • Grants	https://www.urv.cat/en/campus-life/services/mobility/
ADMINISTRATIVE PROCESSES	Accreditations Transcript transfer / recognition of credits Adaptations Certificates Etc.	http://www.urv.cat/ca/estudis/graus/tramits/
CRAI (Learning and Research Centre)	Contact and timetables Library The Factory Self-Access Centres (language learning) Loans Teaching support Computer resources and IT	https://www.crai.urv.cat/en/
PUBLIC INFORMATION ON INDICATORS	• Rates and indicators	https://www.etseq.urv.cat/en/quality/indicators/l
PUBLIC INFORMATION ON THE INTERNAL QUALITY ASSURANCE SYSTEM (SIGQ)	• Quality policy • Quality manual • Validation report • Monitoring reports/degree accreditation	https://www.etseq.urv.cat/en/quality/
OPERATIONAL PLANNING OF THE ACADEMIC YEAR Course guide Work plan	• Curriculum: ➢ Recommended pathway ➢ Recommended part-time pathway ➢ Adaptations	GEQ: http://www.urv.cat/ca/estudis/graus/oferta/plans/enginyeria-arquitectura/eng-quimica-grau/ GEM: http://www.urv.cat/ca/estudis/graus/oferta/plans/enginyeria-arquitectura/eng-mecanica-grau/
	COURSE GUIDE • Faculty/school data • Faculty/school services (Secretaria) • Academic schedule • Degrees: ➢ Subjects: - General information (Lecturers; Timetables and exam dates; Pre-requisites, etc.) - Competences (of the subject) - Planning - Assessment	GEQ: https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2020&idioma=eng GEM: https://moodle.urv.cat/docnet/guia_docent/index.php?centre=20&ensenyament=2022&idioma=eng

<table>
<tr><th>DIMENSION</th><th>CONTENT</th><th>LINK</th></tr>
<tr><td rowspan="2"></td><td>- Learning outcomes
- Methodologies
- Sources of information
- Contents
- Personal guidance
- Recommendations
➢ Competences
➢ Map of competences
➢ Educational profile of the degree
➢ Core curriculum
➢ Timetable simulation

• Tutorial action plan
• Core curriculum
• Information of interest (Job Bank; Access to academic record; Email; Sport and leisure; Accommodation)

WORK PLAN: Virtual Campus (moodle.urv.cat)
• Name of the activity and description
• Assessment criteria
• Delivery date
• Competences and learning outcomes</td><td></td></tr>
<tr><td>• Timetables

• Exam schedule</td><td>http://www.etseq.urv.es/etseq/ca/97-estudiants/111-examens_i_horaris.html</td></tr>
<tr><td>TEACHING STAFF</td><td>Lecturers’ CVs</td><td>GEQ: http://www.urv.cat/html/docencia-per-centre/index-professors-2020.php

GEM: http://www.urv.cat/html/docencia-per-centre/index-professors-2022.php

GEBA:http://www.urv.cat/html/docencia-per-centre/index-professors-2023.php

GTBA: http://www.urv.cat/html/docencia-per-centre/index-professors-2024.php

DG GEQ-GTBA: http://www.urv.cat/html/docencia-per-centre/index-professors-2090.php</td></tr>
</table>

Standard 4: Suitability of lecturers for the study programme

Table B.4.1 General profile of the lecturers on the degree

Pla		2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	**Number of teaching and research staff**	109	116	116	121
	Number of doctors	73	73	67	69
	%Doctors	66.97%	62.93%	57.76%	57.02%
	Hours taught	5139.05	4895.70	4968.65	5029.01
	Hours taught per doctor	4152.62	3794.14	3664.63	3610.55
	%Hours taught per doctor	80.81%	77.50%	73.76%	71.79%
	Mean age	48.45	48.29	48.82	49.52
	Number of women	29	34	33	36
	%women	26.61%	29.31%	28.45%	29.75%
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	**Number of teaching and research staff**	70	70	73	70
	Number of doctors	33	30	31	28
	%Doctors	47.14%	42.86%	42.47%	40.00%
	Hours taught	5284.62	5216.33	5119.1	5086.53
	Hours taught per doctor	3119.41	3082.03	2972.35	2899.75
	%Hours taught per doctor	46.39	46.18	47.18	46.86
	Mean age	9	11	10	12
	Number of women	12.86%	15.71%	13.70%	17.14%

Source: URV in figures. ACRG15: General profile of lecturers on bachelor's degrees by category, age and sex. On 28 October 2021

Table B.4.2 Profile of lecturers by professional category

Curriculum	Category	2020-21			
		Number of lecturers	Number of lecturers who are doctors	Hours taught	Hours taught per doctor
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	University professor	15	15	902.06	902.06
	Postdoctoral researcher	2	2	62.00	62.00
	Pre-doctoral trainee researchers	28	0	672.65	0.00
	Adjunct lecturer	30	7	1123.94	393.13
	Assistant lecturer	2	2	61.20	61.20
	Senior lecturer	14	14	809.98	809.98
	Professors	1	1	19.80	19.80
	Permanent collaborating professors	1	0	15.00	0.00
	Emeritus professor	2	2	31.40	31.40
	Contracted visiting professor	2	2	93.90	93.90
	University school senior lecturer	1	1	13.13	13.13
	Senior lecturer	23	23	1223.96	1223.96
	Total	**121**	**69**	**5029.01**	**3610.55**
	University professor	2	2	174.05	174.05

Curriculum	Category	2020-21			
		Number of lecturers	Number of lecturers who are doctors	Hours taught	Hours taught per doctor
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	External collaborators	1	0	5.00	0.00
	Pre-doctoral trainee researchers	7	0	232.20	0.00
	Adjunct lecturer	35	2	2129.58	225.00
	Lecturer on secondment	2	2	414.00	414.00
	Assistant lecturer	1	1	216.00	216.00
	Senior lecturer	9	9	654.75	654.75
	Permanent collaborating professors	1	0	45.00	0.00
	Contracted visiting professor	1	1	109.00	109.00
	University school senior lecturer	2	2	179.95	179.95
	Senior lecturer	9	9	927.00	927.00
	Total	**70**	**28**	**5086.53**	**2899.75**

Source: URV en xifres. ACRG15: General profile of lecturers on bachelor's degrees by category, age and sex. On 28 October 2021

Table B.4.3 Table of lecturers and hours taught by professional category and PhD on bachelor's degrees

Curriculum	Y/N doctor	Permanent 1		Permanent 2		Adjuncts		Assistant lecturers		Others		Total	
		Number of staff	Hours taught	Number of staff	Hours taught	Number of staff	Hours taught	Number of staff	Hours taught	Number of staff	Hours taught	Number of staff	Hours taught
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Y	53	2955.79	1	13.13	7	393.13	2	61.20	6	187.30	**69**	**3610.55**
	N			1	15.00	23	730.81			28	672.65	**52**	**1418.46**
	Total	**53**	**2955.79**	**2**	**28.13**	**30**	**1123.94**	**2**	**61.20**	**34**	**859.95**	**121**	**5029.01**
2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Y	20	1755.80	2	179.95	2	225.00	1	216.00	3	523.00	**28**	**2899.75**
	N			1	45.00	33	1904.58			8	237.2	42	2186.78
	Total	**20**	**1755.80**	**3**	**224.95**	**35**	**2129.58**	**1**	**216.00**	**11**	**760.20**	**70**	**5086.53**

Source: URV in figures. ACRG16 Lecturers and hours taught by professional category and PhD on bachelor's degrees. On 7 February 2022
Permanent 1: permanent lecturers who need to be doctors.
Permanent 2: permanent lecturers who do not need to be doctors.
Others: visiting lecturers, grant holders, etc.
Statutory teaching staff will be regarded as accredited

Table B.4.4 Subjects on the curricula 2020 (GEQ)

CURRICULUM: 2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
GRAPHICAL EXPRESSION	1	Core	6	2	9	84	Carazo Torres, Pau	Y	DEM	Adjunct	N	49.50	4
							Gomis Sánchez, Jordi	N	DEM	Senior	S	37.95	3
							López Soler, Jose Luis	Y	DEM	Adjunct	N	49.50	4
							Turon Rodriguez, Carlos	N	DEM	Senior	S	31.35	2
	Total											**168.3**	**13**
COMPUTING IN PROCESS ENGINEERING	1	Core	6	2	10	94	Gilabert Mallol, Robert Manuel	Y	DEM	Senior	S	40.80	3
							Goraki Fard, Mohsen	N	DEM	Trainee researcher	N	30.60	2
							Norouzi , Mohammadjavad	N	DEM	Trainee researcher	N	30.60	2
							Reichardt Candel, Ignasi	N	DEM	Adjunct	S	40.8	2
							Salueña Pérez, Clara	N	DEM	Senior	S	10.2	1
							Stiriba , Youssef	Y	DEM	Senior	S	40.8	3
	Total											**193.8**	**13**
PHYSICS	1	Core	6	2	13	132	Farah -, Mary	N	DEQ	Trainee researcher	N	10.35	1
							Fernández Bartaburu, Gonzalo	N	DEM	Trainee researcher	N	20.7	2
							Font Pomarol, Lluc	N	DEQ	Trainee researcher	N	10.35	1
							Herrero Sabartés, Juan	Y	DEQ	Senior	S	31.05	2
							Iglesias Deutú, Jordi	N	DEM	Trainee researcher	N	31.05	3
							Rivas Chacón, Antonio José	N	DEM	Adjunct	N	20.7	2
							Sales Pardo, Marta	Y	DEQ	Senior	S	31.05	2
							Varela Ballesta, Sylvana Verónica	N	DEM	Postdoc researcher	S	20.7	2
	Total											**175.95**	**15**
PHYSICAL CHEMISTRY	1	Core	6	2	3	92	Bonet Avalos, José	Y	DEQ	Uni. professor	S	39.6	2
							Giamberini , Marta	Y	DEQ	Senior	S	39.6	2
							Perez Pacheco, Yaride	N	DEQ	Trainee researcher	N	9.9	1
	Total											**89.1**	**5**
MATHEMATICS I	1	Core	9	2	3	99	Barberà Escoí, Carlos	N	DEIiM	Senior	S	30.6	1
							Farràs Ventura, Oriol	S	DEIiM	Assistant	S	30.6	1
							Montejano Cantoral, Luis Pedro	N	DEIiM	Assistant	S	30.6	1
							Pérez Rosés, Hebert	S	DEIiM	Visiting lecturer	S	61.2	2
	Total											**153**	**5**
MATHEMATICS II	2	Core	6	1	6	64	Danús Amengual, Lluís	N	DEQ	Trainee researcher	N	12.15	1
							Fernández Sabater, Alberto	S	DEQ	Senior	S	48.6	3
							Font Pomarol, Lluc	N	DEQ	Trainee researcher	N	12.15	1
							Girbes Balague, Roger	N	DEQ	Adjunct	N	12.15	1
							Rostami , Fatemeh	N	DEQ	Trainee researcher	N	12.15	1
	Total											**97.2**	**7**
MATHEMÀTICS III	2	Core	6	1	6	73	Pallarés Curto, Jorge María	N	DEM	Senior	S	40.5	3
							Reichardt Candel, Ignasi	N	DEM	Adjunct	Y	58.5	3

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Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
							Salueña Pérez, Clara	S	DEM	Senior	Y	45	3
	Total											**144**	**9**
CHEMISTRY I	1	Core	6	2	9	80	Constantí Garriga, Magdalena	S	DEQ	Senior	Y	37.8	3
							Jayakumar , Jitesh	N	DEQ	Trainee researcher	N	28.35	3
							Puga Vaca, Alberto	S	DEQ	Postdoc researcher	Y	37.8	3
							Ruhela , Ankur	N	DEQ	Trainee researcher	N	9.45	1
							Zare , Alireza	N	DEQ	Trainee researcher	N	9.45	1
	Total											**122.85**	**11**
CHEMISTRY II	1	Core	6	2	9	79	Aguilar Anguera, Maria del Carmen	N	DQAiQO	PCAT	Y	19.8	1
							Andrade , Francisco Javier	S	DQAiQO	Senior	Y	16.17	3
							Callao Lasmarias, María Pilar	N	DQAiQO	Uni professor	Y	46.2	3
							Larrechi García, Maria Soledad	S	DQAiQO	Uni professor	Y	42.57	5
							Lligadas Puig, Gerard	S	DQAiQO	Senior	Y	15.84	2
							Rius Ferrús, Francisco Javier	N	DQAiQO	Emeritus	Y	26.4	2
							Ronda Bargalló, Juan Carlos	S	DQAiQO	Uni professor	Y	15.84	2
	Total											**182.82**	**18**
ECONOMICS AND INDUSTRIAL ORGANISATION	2	Core	6	1	2	61	Torres Coronas, Maria Teresa	S	DGE	Senior	Y	37	3
							Vidal Blasco, Maria Arantzazu	S	DGE	Senior	Y	18.5	3
	Total											**55.5**	**6**
PROJECT MANAGEMENT	3	Comp.	3	1	2	65	Alabart Córdoba, Joan Ramon	S	DEQ	Senior	Y	30	2
							Vitrone ., Federica	N	DEQ	Trainee researcher	N	10	1
	Total											**40**	**3**
TECHNICAL OFFICE	4	Comp.	6	1	1	47	Cabello Rimbau, Antonio	S	DEQ	Adjunct	N	30	2
							Farriol Roigés, Francesc Xavier	S	DEQ	Uni professor	Y	30	1
	Total											**60**	**3**
ELECTROTECHNICS	2	Comp.	6	1	6	61	Munte Puig, Javier	S	DEEEiA	Adjunct	Y	98.4	7
	Total											**98.4**	**7**
ELECTRONICS	4	Comp.	3	1	1	45	Munte Puig, Javier	S	DEEEiA	Adjunct	Y	30	2
	Total											**30**	**2**
CONTROL AND INSTRUMENTATION	3	Comp.	6	2	6	55	Amin , Mohammad Shaiful Alam	N	DEQ	Trainee researcher	N	13.05	1
							Bonet Avalos, José	S	DEQ	Uni professor	Y	19.575	2
							Giralt Marcé, Jaume	N	DEQ	Uni professor	Y	78.3	5
							Masip Vernis, Lluis	S	DEQ	Senior	Y	19.575	2
	Total											**130.5**	**10**
MACHINES AND MECHANISMS	4	Comp.	3	1	1	45	Saavedra Orellana, Enrique Alejandro	S	DEM	Adjunct	N	29.4	2
	Total											**29.4**	**2**
	4	Comp.	6	1	1	47	Cabello Rimbau, Antonio	S	DEQ	Adjunct	N	30	2

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DESIGN OF EQUIPMENT AND CHEMICAL PLANTS							Farriol Roigés, Francesc Xavier	S	DEQ	Uni professor	Y	30	1
	Total											**60**	**3**
MATERIALS SCIENCE	3	Comp.	3	1	1	56	Medina Cabello, Francisco	S	DEQ	Uni professor	Y	30	2
	Total											**30**	**2**
RESISTANCE OF MATERIALS	3	Comp.	3	1	3	61	Saavedra Orellana, Enrique Alejandro	S	DEM	Adjunct	N	35	3
							Simón Olmos, María José	N	DEM	COLP	N	15	2
	Total											**50**	**5**
ENGINEERING FLUID MECHANICS	1	Comp.	6	2	2	77	Pallarés Curto, Jorge María	S	DEM	Senior	Y	46.2	2
							Vernet Peña, Antonio	S	DEM	Senior	Y	46.2	2
	Total											**92.4**	**4**
ENVIRONMENTAL TECHNOLOGY	3	Comp.	6	1	5	55	Contreras Iglesias, Sandra	S	DEQ	Adjunct	Y	45	2
							Exposito Lorenzo, Nora	N	DEQ	Trainee researcher	N	9	1
							Farah -, Mary	N	DEQ	Trainee researcher	N	18	1
							Torres Costa, Carmen Maria	N	DEQ	Adjunct	Y	18	2
	Total											**90**	**6**
DESIGN OF HEAT EXCHANGE OPERATIONS	3	Comp.	5	1	1	57	Boer , Dieter-Thomas	S	DEM	Senior	Y	25	2
							Vallès Rasquera, Joan Manel	S	DEM	Senior	Y	25	2
	Total											**50**	**4**
INDUSTRIAL SAFETY	3	Comp.	3	1	1	50	Basco Montia, José	S	DEQ	Adjunct	Y	10	1
							Bengoa , Christophe José	S	DEQ	Senior	Y	10	1
							Farah -, Mary	N	DEQ	Trainee researcher	N	10	1
	Total											**30**	**3**
THERMODYNAMICS	2	Comp.	6	1	2	66	Font Capafons, José	S	DEQ	Senior	Y	26.4	1
							Llovell Ferret, Fèlix Lluís	S	DEQ	Senior	Y	26.4	2
							Zare , Alireza	N	DEQ	Trainee researcher	N	13.2	1
	Total											**66**	**4**
TECHNICAL THERMODYNAMICS	3	Comp.	4	1	1	52	Bruno Argilaguet, Juan Carlos	S	DEM	Senior	Y	45	2
	Total											**45**	**2**
FUNDAMENTALS OF PROCESS ENGINEERING	1	Comp.	9	2	11	112	Aldureid , Abdulaziz	N	DEQ	Trainee researcher	N	14	1
							Andhalkar ., Vaibhav Vilas	N	DEQ	Trainee researcher	N	14	1
							Andrade , Francisco Javier	N	DQAiQO	Senior	Y	1.4	1
							Ballon ., AURÉLIE	N	DEQ	Trainee researcher	N	14	2
							Barberà Escoí, Carlos	N	DEIiM	Senior	Y	2.8	1
							Bengoa , Christophe José	N	DEQ	Senior	Y	24.5	1
							Carazo Torres, Pau	N	DEM	Adjunct	N	1.05	1
							Constantí Garriga, Magdalena	N	DEQ	Senior	Y	3.5	1

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							Dronjak ., Lara	N	DEQ	Trainee researcher	N	14	1
							Dubov , Oleg	N	DEQ	Trainee researcher	N	14	1
							Fabregat Llangostera, Azael	N	DEQ	Uni prof	Y	24.5	1
							Farriol Roigés, Francesc Xavier	Y	DEQ	Uni prof	Y	35	2
							Ferrando Cogollos, Maria Montserrat	N	DEQ	Senior	Y	28	1
							Garcia Valls, Ricard	N	DEQ	Senior	Y	43.75	3
							Giamberini , Marta	N	DEQ	Senior	Y	3.5	1
							Giralt Marcé, Jaume	Y	DEQ	Uni prof	Y	45.5	6
							Grifoll Taverna, Jordi	Y	DEQ	Uni prof	Y	31.5	4
							Güell Saperas, Maria Carmen	N	DEQ	Senior	Y	24.5	1
							Herrero Medina, Zaida Nair	N	DEQ	Trainee researcher	N	10.5	1
							Herrero Sabartés, Juan	N	DEQ	Senior	Y	3.5	1
							Jayakumar , Jitesh	N	DEQ	Trainee researcher	N	14	1
							Larrechi García, Maria Soledad	N	DQAiQO	Uni prof	Y	1.4	1
							Llovell Ferret, Fèlix Lluís	N	DEQ	Senior	Y	24.5	1
							López Soler, Jose Luis	N	DEM	Adjunct	N	1.05	1
							Masip Vernis, Lluis	N	DEQ	Senior	Y	24.5	1
							Pallarés Curto, Jorge María	N	DEM	Senior	Y	1.4	1
							Puga Vaca, Alberto	N	DEQ	Postdoc researcher	Y	3.5	1
							Sales Pardo, Marta	N	DEQ	Senior	Y	7	1
							Salueña Pérez, Clara	N	DEM	Senior	Y	1.4	1
							Schuhmacher Ansuategui, Marta	N	DEQ	Uni prof	Y	24.5	1
							Stiriba , Youssef	N	DEM	Senior	Y	1.4	1
							Vernet Peña, Antonio	N	DEM	Senior	Y	1.4	1
							Warczok , Justyna Aleksandra	N	DEQ	Adjunct	Y	36.75	1
							Witt , Hansjörg Albert	Y	DEQ	Visiting	Y	14	1
	Total											**510.3**	**46**
CHEMICAL PROCESSES AND PRODUCTS	2	Comp.	9	1	6	66	Alabart Córdoba, Joan Ramon	N	DEQ	Senior	Y	8.7	1
							Aldureid , Abdulaziz	N	DEQ	Trainee researcher	N	13.05	1
							Bonet Avalos, José	N	DEQ	Uni prof	Y	26.1	2
							Fabregat Llangostera, Azael	Y	DEQ	Uni prof	Y	25.23	3
							Fernández Sabater, Alberto	N	DEQ	Senior	Y	19.14	2
							Font Capafons, José	N	DEQ	Senior	Y	19.14	2
							Giamberini , Marta	N	DEQ	Senior	Y	26.1	1
							Grifoll Taverna, Jordi	N	DEQ	Uni prof	Y	19.14	2
							Herrero Sabartés, Juan	N	DEQ	Senior	Y	26.1	2
							Katakis , Ioanis	Y	DEQ	Senior	Y	82.65	5
							Munte Puig, Javier	N	DEEEiA	Adjunct	Y	10.44	2
							Pallarés Curto, Jorge María	N	DEM	Senior	Y	1.74	2

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							Reichardt Candel, Ignasi	N	DEM	Adjunct	Y	1.74	1
							Salueña Pérez, Clara	N	DEM	Senior	Y	1.74	1
							Stüber , Frank Erich	N	DEQ	Senior	Y	21.75	2
							Torres Coronas, Maria Teresa	N	DGE	Senior	Y	10.44	2
							Witt , Hansjörg Albert	Y	DEQ	Visiting	Y	8.7	1
	Total											**321.9**	**32**
SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	3	Comp.	9	1	4	54	Alabart Córdoba, Joan Ramon	N	DEQ	Senior	Y	5	1
							Bengoa , Christophe José	N	DEQ	Senior	Y	5	1
							Boer , Dieter-Thomas	N	DEM	Senior	Y	5	1
							Bruno Argilaguet, Juan Carlos	N	DEM	Senior	Y	9	1
							Contreras Iglesias, Sandra	N	DEQ	Senior	Y	10	1
							Font Capafons, José	N	DEQ	Senior	Y	14	1
							Herrero Sabartés, Juan	Y	DEQ	Senior	Y	95	3
							Jiménez Esteller, Laureano	Y	DEQ	Uni prof	Y	15	2
							Llovell Ferret, Fèlix Lluís	Y	DEQ	Senior	Y	42	2
							Mackie Walker, Allan Donald	N	DEQ	Uni prof	Y	14	2
							Masip Vernis, Lluis	N	DEQ	Senior	Y	10	1
							Pereira Andrade, Edilene	N	DEQ	Trainee researcher	N	22	1
							Salvadó Rovira, Joan	N	DEQ	Uni prof	Y	10	1
							Stüber , Frank Erich	N	DEQ	Senior	Y	14	1
							Vallès Rasquera, Joan Manel	N	DEM	Senior	Y	5	1
							Witt , Hansjörg Albert	Y	DEQ	Visiting	Y	10	1
	Total											**285**	**21**
TRANSPORT PHENOMENA AND FLUID MECHANICS LABORATORY	2	Comp.	3	0	4	63	Gibert Masip, José Luís	Y	DEM	Adjunct	N	158.4	4
	Total											**158.4**	**4**
CHEMICAL THERMODYNAMICS AND KINETICS LABORATORY	2	Comp.	3	0	4	60	Bengoa , Christophe José	Y	DEQ	Senior	Y	38.7	1
							Cheikhwafa , Jacky	N	DEQ	Trainee researcher	N	51.6	2
							Llovell Ferret, Fèlix Lluís	N	DEQ	Senior	Y	38.7	1
							Perez Pacheco, Yaride	N	DEQ	Trainee researcher	N	25.8	1
	Total											**154.8**	**5**
LABORATORY OF UNIT OPERATIONS	3	Comp.	6	0	3	49	Abokersh , Mohamed Hany Mohamed Basiuony	N	DEM	Trainee researcher	N	8.9	1
							Akdemir -, Reyda	N	DEQ	Trainee researcher	N	13.35	1
							Bruno Argilaguet, Juan Carlos	Y	DEM	Senior	Y	13.35	1
							Güell Saperas, Maria Carmen	N	DEQ	Senior	Y	26.7	1
							Salavera Muñoz, Daniel	Y	DEM	Senior	Y	17.8	2
							Stüber , Frank Erich	Y	DEQ	Senior	Y	48.95	2

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							Vitrone ., Federica	N	DEQ	Trainee researcher	N	13.35	1
							Yenice , Cansu Pinar	N	DEQ	Trainee researcher	N	44.5	2
							Zare , Alireza	N	DEQ	Trainee researcher	N	13.35	1
	Total											**200.25**	**12**
DESIGN OF SEPARATION OPERATIONS	3	Comp.	9	1	2	57	Barbero Colmenar, Elena	N	DEQ	Trainee researcher	N	29.4	1
							Salvadó Rovira, Joan	Y	DEQ	Uni prof	Y	73.5	2
							Torras Font, Carles	Y	DEQ	Adjunct	Y	14.7	2
	Total											**117.6**	**5**
BIOTECHNOLOGY	3	Comp.	3	1	1	53	Constantí Garriga, Magdalena	Y	DEQ	Senior	Y	30	2
	Total											**30**	**2**
CHEMICAL KINETICS AND DESIGN OF REACTORS	2	Comp.	9	1	2	84	Amin , Mohammad Shaiful Alam	N	DEQ	Trainee researcher	N	13.35	1
							Bengoa , Christophe José	Y	DEQ	Senior	Y	40.05	2
							Stüber , Frank Erich	Y	DEQ	Senior	Y	40.05	2
							Zare , Alireza	N	DEQ	Trainee researcher	N	13.35	1
	Total											**106.8**	**6**
TRANSPORT PHENOMENA	2	Comp.	6	1	2	86	Akdemir -, Reyda	N	DEQ	Trainee researcher	N	13.65	1
							Grifoll Taverna, Jordi	Y	DEQ		Y	54.6	2
	Total											**68.25**	**3**
TEAM LEADERSHIP	-1	Op	9	0	2	15	Alabart Córdoba, Joan Ramon	Y	DEQ	Senior	Y	78	2
	Total											**78**	**2**
STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS	-1	Oo	3	1	0	4	Herrero Medina, Zaida Nair	Y	DEQ	Trainee researcher	N	20	1
							Sales Pardo, Marta	Y	DEQ	Senior	Y	29	1
							Uribe Uribe, Laura Andrea	Y	DEQ	Trainee researcher	N	20	1
	Total											**69**	**3**
INDUSTRIAL ORGANIC CHEMISTRY	-1	Op	6	1	1	36	Ronda Bargalló, Juan Carlos	Y	DQAiQO	Uni prof	Y	52	2
	Total											**52**	**2**
INSTRUMENTAL ANALYSIS FOR INDUSTRIAL CHEMISTRY	-1	Op	3	1	1	13	Ferré Baldrich, Joan	Y	DQAiQO	Senior	Y	13	2
							Pocurull Aixala, Eva	Y	DQAiQO	Uni prof	Y	13	2
	Total											**26**	**4**
POLYMER SYSTEMS AND PROCESSES	-1	Op	6	1	1	13	Bonet Avalos, José	Y	DEQ	Uni prof	Y	52	2
	Total											**52**	**2**
POLYMER ENGINEERING	-1	Op	3	1	1	15	Puig Bosch, Pere	Y	DEM	Adjunct	N	11.18	2
	Total											**11.18**	**2**

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APPLIED BIOCHEMISTRY	-1	Op	3	1	1	12	Constantí Garriga, Magdalena	Y	DEQ	Senior	Y	26	2
	Total											**26**	**2**
INDUSTRIAL MAINTENANCE	-1	Op	3	1	1	35	Garcin Rius, Juan José	Y	DEM	Adjunct	N	13	2
	Total											**13**	**2**
PRESSURE VESSEL DESIGN	-1	Op	3	1	1	28	Rodriguez Iriarte, David	Y	DEM	Adjunct	N	20.28	2
	Total											**20.28**	**2**
MODELLING OF BIOTECHNOLOGICAL PROCESSES	-1	Op	3	1	1	11	Torres Costa, Carmen Maria	Y	DEQ	Adjunct	Y	21.9	2
	Total											**21.9**	**2**
TECHNICAL ENGLISH	-1	Op	3	0	5	36	Besora De Miguel, Igor	N	DEAiA	Adjunct	N	24.6	2
							Koba , Renata Elzbieta	Y	DEAiA	Adjunct	N	24.6	2
							Prieto i Xufré, Raquel	N	DEAiA	Adjunct	N	12.3	1
	Total											**61.5**	**5**
HISTORY OF ENGINEERING	-1	Op	6	0	1	10	Brezmes Llecha, Jesús Jorge	Y	DEEEiA	Uni prof	Y	9	1
	Total											**9**	**1**
TOOLS FOR ENTREPRENEURSHIP	-1	Op	6	0	1	12	Càmara Turull, Xavier	Y	DGE	Senior	Y	13.125	1
	Total											**13.125**	**1**
GENDER, SCIENCE AND SOCIAL CHANGE	-1	Op	3	2	0	7	Merino Sancho, Víctor Manuel	Y	DDP	Senior	Y	4	1
							Pastor Gosálbez, María Inmaculada	Y	DHHA	Senior	Y	2	2
							Sanchez Aragon, Anna Maria	N	DHHA	Trainee researcher	N	2	1
	Total											**8**	**4**
BACHELOR'S DEGREE THESIS	4	Thesis	12	1	0	52	Agorreta Fando, Ernesto Luis	Y	DEQ	Adjunct	N	23.5	1
							Alvarez Herrero, Carlos	Y	DEQ	Adjunct	N	14.2	1
							Basco Montia, José	Y	DEQ	Adjunct	Y	23.5	1
							Cabello Rimbau, Antonio	Y	DEQ	Adjunct	N	14.2	1
							Castells Piqué, Francesc	Y	DEQ	Emeritus	Y	5	1
							Cazorla Martin, Jose Diego	Y	DEQ	Adjunct	N	23.5	1
							Gabarra Girones, Pere	Y	DEQ	Adjunct	N	10	1
							Gavaldà Casado, Jordi	Y	DEQ	Senior	Y	37	1
							Llauradó Vidal, Armand	Y	DEQ	Adjunct	N	5	1
							Montané Calaf, Daniel	Y	DEQ	Senior	Y	10	1
							Navarro Amorós, Miguel Ángel	Y	DEQ	Adjunct	Y	28.4	1
							Rosell Trillas, Monica	Y	DEQ	Adjunct	N	14.2	1
							Sanminiatelli , Luca	Y	DEQ	Adjunct	N	23.5	1

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							Tarragó Masalles, Jaume	Y	DEQ	Adjunct	N	23.5	1
							Tierno García, Manuel	Y	DEQ	Adjunct	N	33	1
							Vendrell Ciurana, Josep Maria	Y	DEQ	Adjunct	N	23.5	1
	Total											**312**	**16**
EXTERNAL INTERNSHIPS	-1	Op	12	0	1	35	Bonet Avalos, José	Y	DEQ	Uni prof	Y	20	1
							Farriol Roigés, Francesc Xavier	Y	DEQ	Uni prof	Y	20	1
							Ferrando Cogollos, Maria Montserrat	Y	DEQ	Senior	Y	17.5	1
							Giamberini , Marta	Y	DEQ	Senior	Y	14	1
							Giralt Marcé, Jaume	Y	DEQ	Uni prof	S	2	1
							Herrero Sabartés, Juan	Y	DEQ	Senior	S	12	1
							Mackie Walker, Allan Donald	Y	DEQ	Uni prof	S	2	1
	Total											**87.5**	**7**

Source: URV in figures. ACRG18. Subjects on the curricula of bachelor's degrees. On 02 November 2021
Senior: Senior lecturer, COLP: Permanent collaborating lecturer, Uni prof: University professor, PCAT: Professor, COLEX: External collaborators, Postdoc researcher: Postdoctoral researcher, Predoc researcher: Predoctoral researcher, Assistant: Assistant lecturer, Adjunct: Adjunct lecturer, PCSER: Lecturer on secondment, Visiting: Contracted visiting professor, Senior: Senior lecturer, Emeritus: Emeritus lecturer; Comp: Compulsory, Op: Optional, Thesis: Bachelor's degree thesis, Core: Core credit

Table B.4.4 Sujects on the curricula 2020 (GEM)

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN I	1	Core	6	1	6	75	Carazo Torres, Pau	N	DEM	Adjunct	N	120.00	4
							González Baixauli, Genaro	Y	DEM	Senior	Y	30.00	2
							Roig Fernandez, Jose Maria	Y	DEM	Adjunct	N	30.00	2
	Total											**180**	**8**
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN II	1	Core	6	1	6	82	Gonzalez Montarelo, Hector	N	DEM	Adjunct	N	60.00	2
							González Baixauli, Genaro	Y	DEM	Senior	Y	30.00	2
							Roig Fernandez, Jose Maria	Y	DEM	Adjunct	N	90.00	4
	Total											**180**	**8**
NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	1	Core	6	1	6	69	Cito , Salvatore	Y	DEM	Adjunct	Y	150	6
							Kazemi , Koorosh	N	DEM	Predoc. researcher	N	30	1
	Total											**180**	**7**
	1	Core	6	1	6	80	Cuesta Romeo, Ildefonso	Y	DEM	Senior	Y	90	4

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
FUNDAMENTALS OF PHYSICS IN ENGINEERING I							Gomis Prats, Anna	N	DEM	Adjunct	N	30	1
							Marín Genescà, Marc	N	DEM	Visiting	Y	60	2
	Total											**180**	**7**
FUNDAMENTALS OF PHYSICS IN ENGINEERING II	1	Core	6	1	5	72	Cuesta Romeo, Ildefonso	Y	DEM	Senior	Y	75	3
							Marín Genescà, Marc	N	DEM	Visiting	Y	30	1
							Santiago Abraira, David Manuel	N	DEM	Adjunct	Y	30	1
							Stiriba , Youssef	N	DEM	Senior	Y	15	1
	Total											**150**	**6**
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING I	1	Core	6	1	2	72	Berto Roselló, Francisco	Y	DEQ	Adjunct	Y	45	2
							Danús Amengual, Lluís	N	DEQ	Predoc. researcher	N	30	1
							Fragoso Sierra, Alex	Y	DEQ	Senior	Y	30	1
	Total											**105**	**4**
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING II	1	Core	6	1	2	101	Berto Roselló, Francisco	Y	DEQ	Adjunct	Y	60	2
							Font Pomarol, Lluc	N	DEQ	Predoc. researcher	N	30	1
							Sales Pardo, Marta	Y	DEQ	Senior	Y	15	1
	Total											**105**	**4**
STATISTICAL METHODS IN ENGINEERING	2	Core	6	1	3	56	Berto Roselló, Francisco	Y	DEQ	Adjunct	Y	45	2
							Fernández Sabater, Alberto	Y	DEQ	Senior	Y	15	1
							Girbes Balague, Roger	N	DEQ	Adjunct	N	30	1
							Vitrone ., Federica	N	DEQ	Predoc. researcher	N	30	1
	Total											**120**	**5**
FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	1	Core	6	1	2	88	Dubov , Oleg	N	DEQ	Predoc. researcher	N	29.7	1
							Giamberini , Marta	Y	DEQ	Senior	Y	74.25	2
	Total											**103.95**	**3**
BUSINESS ADMINISTRATION AND ORGANISATION OF PRODUCTION	1	Core	6	1	2	76	Vallet Plana, Manuel	Y	DGE	Adjunct	N	105	3
	Total	**OB**										**105**	**3**
OPERATIONS MANAGEMENT	3	Comp.	3	1	3	61	Melià Roig, Ignasi	S	DGE	Adjunct	N	60	4
	Total											**60**	**4**
MACHINES AND MECHANISMS LABORATORY	2	Comp.	3	0	3	49	García Sierra, Iván	N	DEM	Adjunct	N	75	2
							Marcé Nogué, Jordi	Y	DEM	Assistant	Y	46	2
							Marín Genescà, Marc	N	DEM	Visiting	Y	15	1
							Urbina Pons, Cristina Victoria	Y	DEM	Senior	Y	20	1
	Total											**156**	**6**

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
MECHANICS AND THEORY OF MECHANISMS I	2	Comp.	6	1	2	76	Sanchez Serrano, Marcos	N	DEM	Adjunct	N	30	1
							Urbina Pons, Cristina Victoria	Y	DEM	Senior	Y	60	2
	Total											**90**	**3**
MECHANICS AND THEORY OF MECHANISMS II	2	Comp.	6	1	2	63	Sanchez Serrano, Marcos	N	DEM	Adjunct	N	30	1
							Urbina Pons, Cristina Victoria	Y	DEM	Senior	Y	60	2
	Total											**90**	**3**
ELASTICITY AND STRENGTH OF MATERIALS LABORATORY	2	Comp.	3	0	4	62	Borràs Montañés, David	N	DEM	Adjunct	N	20	2
							Cito , Salvatore	Y	DEM	Senior	Y	19	1
							De la Flor Lopez, Silvia	Y	DEM	Senior	Y	32	1
							Gomis Prats, Anna	Y	DEM	Assistant	N	24	1
							Marcé Nogué, Jordi	Y	DEM	Assistant	Y	68	3
							Santiago Abraira, David Manuel	N	DEM	Adjunct	Y	45	1
	Total	**Comp.**										**208**	**9**
ELASTICITY AND STRENGTH OF MATERIALS I	2	Comp.	6	1	2	66	Marcé Nogué, Jordi	Y	DEM	Assistant	Y	90	3
	Total											**90**	**3**
ELASTICITY AND STRENGTH OF MATERIALS II	2	Comp.	6	1	2	76	Borràs Montañés, David	N	DEM	Adjunct	N	15	1
							De la Flor Lopez, Silvia	Y	DEM	Senior	Y	35	2
							López de Zamora Enrich, Luis Marcos	N	DEM	Adjunct	N	40	2
	Total											**90**	**5**
THERMAL ENGINEERING I	2	Comp.	6	1	2	59	Bruno Argilaguet, Juan Carlos	Y	DEM	Senior	Y	55	2
							Salavera Muñoz, Daniel	Y	DEM	Senior	Y	35	2
	Total											**90**	**4**
THERMAL ENGINEERING II	2	Comp.	6	1	2	52	Vallès Rasquera, Joan Manel	Y	DEM	Senior	Y	90	3
	Total											**90**	**3**
INDUSTRIAL HEATING AND COOLING	3	Comp.	3	1	2	62	Bourouis Chebata, Mahmoud	Y	DEM	Senior	Y	45	3
	Total											**45**	**3**
THERMAL MACHINES LABORATORY	3	Comp.	3	0	3	51	Bourouis Chebata, Mahmoud	Y	DEM	Senior	Y	66	2
							Oliva Cano, Francisco	Y	DEM	Adjunct	N	90	2
	Total											**156**	**4**
MATERIALS SCIENCE AND TECHNOLOGY	2	Comp.	6	1	4	47	Fragoso Sierra, Alex	Y	DEQ	Senior	Y	67.5	4
							Simón Olmos, María José	N	DEM	COLP	N	45	3
							Uribe Uribe, Laura Andrea	N	DEQ	Predoc researcher	N	22.5	1
	Total											**135**	**8**

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
HYDRAULICS	3	Comp.	6	1	2	60	Salueña Pérez, Clara	Y	DEM	Senior	Y	90	3
	Total											**90**	**3**
ENGINEERING FLUID MECHANICS	3	Comp.	6	1	1	62	Stiriba , Youssef	Y	DEM	Senior	Y	60	2
	Total											**60**	**2**
HYDRAULICS LABORATORY	3	Comp.	3	0	3	59	Gibert Masip, José Luís	Y	DEM	Adjunct	N	30	2
							Pino Roca, Gloria	Y	DEM	Adjunct	N	30	1
							Rivas Chacón, Antonio José	N	DEM	Adjunct	N	30	1
							Salueña Pérez, Clara	Y	DEM	Senior	Y	36	1
							Vernet Peña, Antonio	Y	DEM	Senior	Y	30	3
	Total											**156**	**8**
MECHANICAL TECHNOLOGY	3	Comp.	3	1	2	69	Fabregat Sanjuan, Albert	Y	DEM	PCSER	Y	45	3
	Total											**45**	**3**
MECHANICAL TECHNOLOGY LABORATORY	3	Comp.	3	0	3	61	Fabregat Sanjuan, Albert	Y	DEM	PCSER	Y	156	3
	Total											**156**	**3**
THEORY AND DESIGN OF STRUCTURES	3	Comp.	6	1	2	62	López de Zamora Enrich, Luis Marcos	Y	DEM	Adjunct	N	90	3
	Total											**90**	**3**
INDUSTRIAL CONSTRUCTION	4	Comp.	3	1	3	46	González Baixauli, Genaro	Y	DEM	Senior	Y	60	4
	Total											**60**	**4**
FUNDAMENTALS OF ELECTRICAL TECHNOLOGY	3	Comp.	6	1	1	57	García Amorós, Jordi	Y	DEEEiA	Senior	Y	60	2
	Total											**60**	**2**
FUNDAMENTALS OF ELECTRONIC AND AUTOMATED TECHNOLOGY	3	Comp.	6	1	1	54	Galia Tejerina, José Maria	Y	DEEEiA	Adjunct	N	58.8	2
	Total											**58.8**	**2**
MACHINE DESIGN	3	Comp.	6	1	2	64	Ferrando Piera, Francesc	Y	DEM	Uni prof	Y	30	1
							Rodriguez Cabrera, Francisco Javier	N	DEM	Adjunct	N	60	2
	Total											**90**	**3**
DYNAMICS OF MECHANICAL SYSTEMS	4	Comp.	6	1	1	55	Huera Huarte, Francisco Javier	Y	DEM	Senior	Y	60	2
	Total											**60**	**2**

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
MACHINE TESTING LABORATORY	4	Comp.	3	0	3	69	Huera Huarte, Francisco Javier	Y	DEM	Senior	Y	96	2
							Neira Prieto, Javier	N	DEM	Predoc. researcher	N	60	2
	Total											**156**	**4**
FINAL PROJECT I	1	Comp.	6	1	4	73	Artime Guzman, Ramon	N	DEM	Adjunct	N	30	1
							Espasa Roca, David	Y	DEM	Adjunct	N	80	4
							Ferrando Piera, Francesc	Y	DEM	Uni prof	Y	20	2
							Urbina Pons, Cristina Victoria	N	DEM	Senior	Y	5	1
	Total											**135**	**8**
FINAL PROJECT II	2	Comp.	6	1	3	48	López de Zamora Enrich, Luis Marcos	Y	DEM	Adjunct	N	45	2
							Ramos Romero, Diego	N	DEM	PCSER	Y	30	1
							Zamora Fernández, Francisco Javier	N	DEM	Adjunct	N	30	1
	Total											**105**	**4**
FINAL PROJECT III	3	Comp.	6	1	3	57	Caballero Padilla, Eduard	Y	DEM	Adjunct	N	100	4
							Ferrando Piera, Francesc	Y	DEM	Uni prof	Y	5	1
	Total											**105**	**5**
TECHNICAL OFFICE	4	Comp.	6	1	3	48	Ramos Romero, Diego	Y	DEM	PCSER	Y	120	4
	Total											**120**	**4**
TECHNICAL ENGLISH	4	Comp.	3	0	5	51	Besora De Miguel, Igor	N	DEAiA	Adjunct	N	35.4	2
							Koba , Renata Elzbieta	Y	DEAiA	Adjunct	N	35.4	2
							Prieto i Xufré, Raquel	N	DEAiA	Adjunct	N	17.7	1
	Total											**88.5**	**5**
MACHINERY AND MAINTENANCE	-1	Op	3	1	1	22	Artime Guzman, Ramon	Y	DEM	Adjunct	N	26	2
	Total											**26**	**2**
INDUSTRIAL MAINTENANCE	-1	Op	3	1	1	35	Garcin Rius, Juan José	Y	DEM	Adjunct	N	13	2
	Total											**13**	**2**
PRESSURE VESSEL DESIGN	-1	Op	3	1	1	8	Rodriguez Iriarte, David	Y	DEM	Adjunct	N	5.72	2
	Total											**5.72**	**2**
DESIGN OF MECHANICAL GROUPS	-1	Op	3	1	1	21	Casanova Pallejà, Francesc Xavier	Y	ETSA	Adjunct	N	26	2
	Total											**26**	**2**
TRIBOLOGY AND LUBRICATION	-1	Op	3	1	1	25	Garcin Rius, Juan José	Y	DEM	Adjunct	N	26	2
	Total											**26**	**2**
TOPOGRAPHY	-1	Op	3	1	1	17	López Soler, Jose Luis	Y	DEM	Adjunct	N	23.14	2
	Total											**23.14**	**2**

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	**Year**	**Credit type**	**ECTS**	**Theory groups**	**Practical groups**	**No. sts**	**Teaching staff**	**Y/N Head of subject**	**Dept.**	**Category**	**Y/N doctor**	**Hours taught**	**Groups per lecturer**
ADVANCED STRUCTURAL ANALYSIS	-1	Op	3	1	1	14	Serven Pascual, José Luis	Y	DEM	Adjunct	N	26	2
	Total											**26**	**2**
HISTORY OF ENGINEERING	-1	Op	6	0	1	24	Brezmes Llecha, Jesús Jorge	Y	DEEEiA	Uni prof	Y	22.05	1
	Total											**22.05**	**1**
POLYMER ENGINEERING	-1	OP	3	1	1	20	Puig Bosch, Pere	Y	DEM	Adjunct	N	14.82	2
	Total											**14.82**	**2**
AUTOMOBILES	-1	Op	3	1	1	21	Puig Castelló, Joan	Y	DEM	Adjunct	N	26	2
	Total											**26**	**2**
INTERNAL COMBUSTION ENGINES	-1	Op	3	1	1	9	Bruno Argilaguet, Juan Carlos	Y	DEM	Senior	Y	8	1
							Bruyninx , Johan	Y	DEM	COLEX	N	5	1
							Fernandez Hee, Jonatan	Y	DEM	Adjunct	N	13	2
	Total											**26**	**4**
TOOLS FOR ENTREPRENEURS	-1	Op	6	0	1	18	Càmara Turull, Xavier	Y	DGE	Senior	Y	19.95	1
	Total											**19.95**	**1**
BACHELOR'S DEGREE THESIS	4	Thesis	12	1	0	73	Avinyó Miret, Martí	Y	DEM	ASSOC	N	21.6	1
							Caballero Padilla, Eduard	Y	DEM	ASSOC	N	40	1
							Casanova Pallejà, Francesc Xavier	Y	ETSA	ASSOC	N	22	1
							De la Flor Lopez, Silvia	Y	DEM	TU	Y	41	1
							Fernandez Hee, Jonatan	Y	DEM	ASSOC	N	15	1
							Ferrando Piera, Francesc	Y	DEM	CU	Y	41	1
							García Sierra, Iván	Y	DEM	ASSOC	N	16	1
							Gomis Prats, Anna	Y	DEM	ASSOC	N	16	1
							Gomis Sánchez, Jordi	Y	DEM	TU	Y	41	1
							González Baixauli, Genaro	Y	DEM	TEU	Y	40	1
							Ramos Romero, Diego	Y	DEM	PCSER	Y	41	1
							Rodriguez Cabrera, Francisco Javier	Y	DEM	ASSOC	N	7	1
							Roig Fernandez, Jose Maria	Y	DEM	ASSOC	N	32	1
							Serven Pascual, José Luis	Y	DEM	ASSOC	N	14	1
	Total											**387.6**	**14**
EXTERNAL INTERNSHIPS	-1	Op	12	0	1	40	Fabregat Sanjuan, Albert	Y	DEM	PCSER	Y	16	1
							Ferrando Piera, Francesc	Y	DEM	CU	Y	56	1
							Marcé Nogué, Jordi	Y	DEM	LEC	Y	12	1
							Marín Genescà, Marc	Y	DEM	PVC	Y	4	1
							Ramos Romero, Diego	Y	DEM	PCSER	Y	6	1
							Urbina Pons, Cristina Victoria	Y	DEM	TU	Y	6	1

CURRICULUM: 2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)													
Subject	Year	Credit type	ECTS	Theory groups	Practical groups	No. sts	Teaching staff	Y/N Head of subject	Dept.	Category	Y/N doctor	Hours taught	Groups per lecturer
	Total											**100**	**6**

Source: URV in figures. ACRG18. Subjects on the curricula of bachelor's degrees. On 21 October 2021
Senior: Senior lecturer, COLP: Permanent collaborating lecturer, Uni prof: University professor, PCAT: Professor, COLEX: External collaborators, Postdoc researcher: Postdoctoral researcher, Predoc researcher: Predoctoral researcher, Assistant: Assistant lecturer, Adjunct: Adjunct lecturer, PCSER: Lecturer on secondment, Visiting: Contracted visiting professor, Senior: Senior lecturer, Emeritus: Emeritus lecturer; Comp: Compulsory, Op: Optional, Thesis: Bachelor's degree thesis, Core: Core credit

Table B.4.5 Lecturers' profile

Table only available for accreditation on the URV's Virtual Campus

Source: ACRG19 on 20 October 2021
Senior: Senior lecturer, COLP: Permanent collaborating lecturer, Uni prof: University professor, Postdoc researcher: Postdoctoral researcher, Assistant: Assistant lecturer, Adjunct: Adjunct lecturer, PCSER: Lecturer on secondment, PVC: Visiting: Contracted visiting professor, Senior: Senior lecturer.

Table B.4.6 Number of hours taught as a function of stages

Curriculum			2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Research stages	Hours taught with no research stages	1897.42	1761.69	1957.45	2021.42
		Hours taught with ongoing research stages	2750.11	2841.68	2759.00	2708.05
		Hours taught with non-ongoing research stages	491.53	292.33	252.20	299.54
	Teaching stages	Hours taught with no teaching stages	1719.43	1634.61	1805.87	1983.09
		Hours taught with ongoing teaching stages	3419.62	3253.59	3162.78	2990.82
		Hours taught with non-ongoing teaching stages	0.00	7.50	0.00	55.10
		Hours taught	**5139.05**	**4895.70**	**4968.65**	**5029.01**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Research stages	Hours taught with no research stages	3330.31	3213.63	3140.65	3114.73
		Hours taught with ongoing research stages	1635.14	1602.00	1863.95	1971.80
		Hours taught with non-ongoing research stages	173.00	400.70	22.50	0.00
	Teaching stages	Hours taught with no teaching stages	2946.68	3064.18	2979.65	2889.78
		Hours taught with ongoing teaching stages	2337.94	2129.65	2139.45	1980.75
		Hours taught with non-ongoing teaching stages	0.00	22.50	0.00	216.00
		Hours taught	**5284.62**	**5216.33**	**5119.10**	**5086.53**

Source: URV in figures. ACRG17 Number of hours taught as a function of teaching staff stages in bachelor's degrees. On 2 November 2021

Table B.4.7. List of students per lecturer

Curriculum		2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Number of FTE lecturers	21.41	20.40	20.70	21.24
	FTE students	253.98	262.50	266.47	270.47
	Ratio of FTE students to FTE lecturers	11.86	12.87	12.87	12.73
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Number of FTE lecturers	22.02	21.73	21.33	21.19
	FTE students	247.45	258.80	262.35	256.35
	Ratio of FTE students to FTE lecturers	11.24	11.91	12.30	12.10

Source: URV in figures. ACRG20. List of FTE students per FTE lecturers on bachelor's degrees. On 2 November 2021
Caption: FTE: Full-time equivalent (Number of FTE lecturers: Calculated by dividing the total number of hours taught by 240 hours, which is the teaching load for a full-time lecturer. FTE students: Calculated by dividing the total number of credits enrolled in by 60, which is the minimum number of credits students must pass every year if they are to graduate on time.)

Standard 6: Quality of the outcomes of the study programmes

Table B.6.1. Methodologies, Educational Activities and Assessment Systems on the Bachelor's Degree in Chemical Engineering

Methodologies	nºmet.	Assessment	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
M1 Introductory activities	49	0	68	68.5%	13.4	31.21	31.5%	99.2
M2 Lecture	41	1	1017.5	43.4%	39.3	1324.89	56.6%	2342.4
M4 Seminars	4	1	48	37.6%	1	79.5	62.4%	127.5
M6 Presentations / oral communications	2	2	6	40%	3	9	60%	15
M7 Problem solving, exercises in the classroom	29	11	409	40.5%	35	601.96	59.5%	1011
M8 IT-based practicals in computer rooms	6	3	96	37.5%	7.5	160	62.5%	256
M9 Laboratory practicals	11	9	263	53%	10.1	232.9	47%	495.9
M11 Fieldwork/excursions	1	0	2.5	100%	0	0	0%	2.5
M15 Practical cases/ case studies in the classroom	2	1	29	45.3%	1	35	54.7%	64
M16 Assignments	6	6	29	21.7%	11	104.5	78.3%	133.5
M18 Previous study	4	2	29	46.4%	5.5	33.5	53.6%	62.5
M19 Problem solving, exercises	9	5	95	42.1%	5.6	130.7	57.9%	225.7
M20 IT-based practicals	1	1	2	20%	0	8	80%	10
M21 Practical cases/ case studies	2	2	21	27.3%	2	56	72.7%	77
M25 Preliminary project	5	4	210	56.8%	1.1	159.64	43.2%	369.6
M29 Selection/assignation of an external work experience programme	1	0	0	0%	0	2	100%	2
M31 Mechanisms for coordinating and monitoring external work experience	1	0	12	60%	0	8	40%	20
M34 Work placement	1	1	0	0%	0	267.5	100%	267.5
M38 Selecting/assigning the bachelor's degree/master's degree thesis	1	0	2	33.3%	2	4	66.7%	6
M39 Mechanisms for coordinating and monitoring the bachelor's degree/master's degree thesis	1	0	6	33.3%	2	12	66.7%	18
M40 Drafting of the bachelor's degree/master's degree thesis	1	1	51	20%	4	204	80%	255
M41 Presentation and defence of the bachelor's degree/master's degree thesis	1	1	10	66.7%	1	5	33.3%	15
M46 Report	1	1	0	0%	0	10	100%	10
M47 Personal attention	48	0	77.5	52.4%	20.4	70.4	47.6%	147.9
M54 Projects	1	1	1	9.5%	0	9.5	90.5%	10.5
Subtotal	229	53	2484.5	41.1%		3559.2	58.9%	6043.7

Methodologies	nºmet.	Assessment	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
Tests	**nºprov**	**Assessment**	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
P1 Extended-answer tests	4	4	5	30.8%	3	11.25	69.2%	16.3
P2 Short-answer objective tests	21	20	77	47%	22	87	53%	164
P3 Multiple-choice objective tests	7	7	14	40%	5	21	60%	35
P4 Mixed tests	15	15	45	66.9%	6.4	22.29	33.1%	67.3
P5 Practical tests	35	34	97	36.1%	20.5	171.5	63.9%	268.5
P6 Oral tests	2	2	2.5	40%	3	3.75	60%	6.3
Subtotal	84	82	240.5	43.2%		316.8	56.8%	557.3
Total	313	135	2725	41.3%		3876	58.7%	6601

Source: SREd/ Docnet/ Planning. On 9 September 2021

Table B.6.1. Methodologies, Educational Activities and Assessment Systems on the Bachelor's Degree in Mechanical Engineering

Methodologies	nºmet.	Assessment	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
M1 Introductory activities	52	0	70	82.9%	5.5	14.4	17.1%	84.4
M2 Lecture	46	1	997	45.9%	33.2	1173.6	54.1%	2170.6
M4 Seminars	4	0	63	49.2%	0	65	50.8%	128
M6 Presentations / oral communications	6	4	23	32.4%	9.5	48	67.6%	71
M7 Problem solving, exercises in the classroom	29	8	537	49.3%	20	551.5	50.7%	1088.5
M8 IT-based practicals in computer rooms	3	2	84	42.4%	2.5	114	57.6%	198
M9 Laboratory practicals	9	8	274	70.8%	3.9	113	29.2%	387
M11 Fieldwork/excursions	2	0	12.5	55.6%	0	10	44.4%	22.5
M15 Practical cases/ case studies in the classroom	1	0	15	50%	0	15	50%	30
M16 Assignments	12	9	39	27.5%	11	103	72.5%	142
M19 Problem solving, exercises	6	2	74.5	39.6%	1	113.5	60.4%	188
M20 IT-based practicals	11	7	85	40.5%	20	125	59.5%	210
M22 PBL (Problem Based Learning)	6	4	87	37%	9.8	148	63%	235
M25 Preliminary project	6	4	76	29.7%	2	180	70.3%	256
M29 Selection/assignation of an external work experience programme	1	0	0	0%	0	1	100%	1

Methodologies	nºmet.	Assessment	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
M31 Mechanisms for coordinating and monitoring external work experience	1	0	1	100%	0	0	0%	1
M34 Work placement	1	1	0	0%	0	288	100%	288
M38 Selecting/assigning the bachelor's degree/master's degree thesis	1	0	5	100%	0	0	0%	5
M39 Mechanisms for coordinating and monitoring the bachelor's degree/master's degree thesis	1	1	9	64.3%	0	5	35.7%	14
M40 Drafting of the bachelor's degree/master's degree thesis	1	1	0	0%	20	245	100%	245
M41 Presentation and defence of the bachelor's degree/master's degree thesis	1	1	1	3.2%	0	30	96.8%	31
M46 Report	1	1	0	0%	0	9	100%	9
M47 Personal attention	51	0	58	64.1%	5.5	32.5	35.9%	90.5
M53 Experimental integrative project	1	1	1	25%	0	3	75%	4
M54 Projects	1	1	30	27.8%	0	78	72.2%	108
Subtotal	254	56	2542	42.3%		3465.5	57.7%	6007.5
Tests	**nºprov**	**Assessment**	Teaching hours A	A%	Coeficient of independent work B	Independent working hourst C	C%	Student workload (A+C) D
P1 Extended-answer tests	14	14	40	31.7%	16	86	68.3%	126
P2 Short-answer objective tests	16	16	39	44.1%	11.5	49.5	55.9%	88.5
P3 Multiple-choice objective tests	7	7	12	36.4%	4	21	63.6%	33
P4 Mixed tests	21	21	69.5	70.2%	2.5	29.5	29.8%	99
P5 Practical tests	19	18	60	40.8%	10	87	59.2%	147
P6 Oral tests	5	5	7.2	34.3%	11	13.8	65.7%	21
P7 Online oral tests	1	1	0.2	20%	4	0.8	80%	1
Subtotal	83	82	227.9	44.2%		287.6	55.8%	515.5
Total	337	138	2769.9	42.5%		3753.1	57.5%	6523

Source: SREd/ Docnet/ Planning. On 9 September2021

➢ EXTERNAL INTERNSHIPS

Table B.6.3 Performance of students on external internships

Curriculum (subject)	Academic year	No. students	Student grades										Extracurricular agreements	Total agreements
			Di	%	Ex	%	G	%	P	%	Ab	%		
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	2020-21	35	1	2.86%	23	65.71%	11	31.43%					17	52
	2019-20	36			12	33.33%	22	61.11%	2	5.56%			9	45
	2018-19	36	1	2.78%	14	38.89%	19	52.78%	1	2.78%	1	2.78%	12	48
	2017-18	50			22	44.00%	24	48.00%	3	6.00%	1	2.00%	16	66
	2016-17	50			29	58.00%	17	34.00%	3	6.00%	1	2.00%		50
2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	2020-21	40			15	37.50%	24	60.00%			1	2.50%	14	54
	2019-20	55			25	45.45%	28	50.91%			2	3.64%	7	62
	2018-19	30			14	46.67%	15	50.00%	1	3.33%			18	48
	2017-18	45			28	62.22%	14	31.11%	2	4.44%	1	2.22%	16	61
	2016-17	39			14	35.90%	23	58.97%	1	2.56%	1	2.56%		39

Source: URV in figures. Report ACRG12 on 4 November 2021
Caption: Di: Distinction; Ex: Excellent; G: Good; P: Pass; F: Fail; Ab: Absent.
Extracurricular internships can be extensions of internship agreements or new agreements.

Table B.6.4 List of internship centres. GEQ Academic year 2020-21

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)		
Company	**Area**	**Students**
Arcamo Controls, S.A.	4669- Wholesale trade in machinery, equipment and supplies	3
Ball Beverage Packaging Iberica, S.L.	2592 – Manufacture of light metal containers and packaging	2
BASF Española, SL (1)	2014- Manufacture of other basic organic chemistry products	3
Basf Sonatrach Propanchem S.A.	2014- Manufacture of other basic organic chemistry products	2
Contratos y Diseños Industriales S.A.	4299- Construction of other civil engineering projects	1
Covestro, S.L.	2014- Manufacture of other basic organic chemistry products	1
EMATSA	3600- WATER CAPTURE, DISTRIBUTION AND TREATMENT	1
Abroad	Abroad	2
EUROFINS AGROAMBIENTAL S.A.	7490- Other professional, scientific and technical activities	2

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)		
Company	**Area**	**Students**
Fundació Eurecat	7219 – Other research and experimental development in natural and technical sciences	1
GO Fruselva, SL	1032 – Production of fruit and vegetable juices	1
Ismael Minguet de la Fuente	7112- Technical engineering services and other technical consultancy-based activities	1
LAGUPRES, SL	08122- Other industrial cleaning activities	1
MASA, MANTENIMIENTO Y MONTAJES INDUSTRIALES, S.A.	3311- Repair of metal products	1
Messer Iberica de gases, SAU	2013 - Manufacture of other basic inorganic chemistry products	2
Ravago Plásticos, SA	2016- Manufacture of primary plastics	1
REDI Ingenieros (2)	7112- Technical engineering services and other technical consultancy-based activities	1
Repsol, S.A.	1920- Oil refining	4
Schwartz Hautmont Construcciones Metálicas S.A (1)	2821- Manufacture of tanks, large storage vessels and metal containers	1
Solenis Hispania, SA	2059-Manufacture of other chemical products	1
TOTAL		**32**

Source: ETSEQ on 9 December 2021

Table B.6.4 List of internship centres. GEM Academic year 2020-21

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Company	**Area**	**Students**
Agile Ethical Group, Sociedad Limitada	8349/1- Other technical services	1
Valls Town Council	8411- General public administration activities	1
L'Ampolla Town Council	8411- General public administration activities	1
Altcam Automotive, SL	7112- Technical engineering services and other technical consultancy-based activities	1
Asociación Nuclear Ascó-Vandellòs II, A.I.E. (1)	3517- Production of electrical nuclear energy	1
Ball Beverage Packaging Iberica, S.L.	2592 - Manufacture of light metal containers and packaging	1

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Company	**Area**	**Students**
Bandas Tarragona, S.L.	4661- Wholesale trade in machinery and equipment	1
BJA ENGINYERIA I SERVEIS SLU	5041- Electrical plants in general	1
CALDITEC SA	2511- Manufacture of metal structures and their components	1
Daniel Aguiló Panisello, SA (DAPSA)	1721- Manufacture of corrugated paper and cardboard; manufacture of paper and cardboard containers and packaging	1
Dupon Biscuits Iberica, S.A.U.	1072- Manufacture of biscuits and long-life bakery and confectionery products	1
E7 Automation S.L.	843.1- Technical engineering services	1
ELIX Polymers, SL	2016- Manufacture of primary plastics	1
ELRING KLINGER, SAU	2932- Manufacture of other components	1
EMDEP 2, S.L.	2651- Manufacture of measuring, testing and navigation instruments and apparatus	1
ENGIAUX SL	7112- Technical engineering services and other technical consultancy-based activities	1
Abroad	Abroad	1
ETECNIC MOVILIDAD ELECTRICA SRL	7112- Technical engineering services and other technical consultancy-based activities	1
Gonvarri Tarragona, S.L.	2561- Treating and coating metals	1
Hydro Extrusion Spain	2433- Production of cold-formed profiles	1
Industrias Teixidó, SA (1)	2932- Manufacture of other components, pieces and accessories for motor vehicles	1
INSTALDEC S.L.	6152- Wholesale trade of furniture and civil works projects	1
Iplan Gestión Integral, S.L.	7112 - Technical engineering services and other technical consultancy-based activities	1
Kellogg Manufacturing España, S.L.	1089- Production of other food products	1
METALURGICA FOLCH,S.L.	2571- Manufacture of knives and cutlery	1
MPA PLASTIC RECYCLING S.L	2229- Manufacture of other plastic products	1

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Company	**Area**	**Students**
NESTLE ESPAÑA S.A.	1083 – Production of coffee, tea and infusions	1
NOXIFER S.L	2511- Manufacture of metal structures and their components	1
Oca Global	7120- Technical services in architecture and engineering: technical tests and analyses	1
Pretensados Arnal, SA (2)	2364 – Manufacture of concrete pieces for construction	1
Ravago Plásticos, SA	2016- Manufacture of primary plastics	1
REDI Ingenieros (2)	7112- Technical engineering services and other technical consultancy-based activities	2
Repsol, SA (1)	1920- Oil refining	1
Solenis Hispania, SA	2059-Manufacture of other chemical products	1
Technip Iberia, SA (3)	7112- Technical engineering services and other technical consultancy-based activities	2
Tecnolama, SA	2599- Manufacture of other metal products	2
Vanlex, Producción y mecánica Industrial, S.L.	2599- Manufacture of other metal products	1
TOTAL		**40**

Source: ETSEQ on 9 December 2021

BACHELOR'S DEGREE THESIS

Table B.6.5. Performance of students on bachelor's degree theses

Curriculum (assignatura)	Academic year	No. students	Student grades												In-company thesis
			Di	%	Ex	%	G	%	P	%	F	%	Ab	%	
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	2020-21	54	1	1.85%	3	5.56%	37	68.52%	11	20.37%			2	3.70%	2
	2019-20	59	3	5.08%	8	13.56%	34	57.63%	11	18.64%			3	5.08%	6
	2018-19	49	1	2.04%	6	12.24%	23	46.94%	12	24.49%	3	6.12%	4	8.16%	3
	2017-18	54	2	3.70%	7	12.96%	33	61.11%	9	16.67%			3	5.56%	11
	2016-17	63	1	1.59%	13	20.63%	34	53.97%	9	14.29%			6	9.52%	
	2020-21	77	1	1.30%	11	14.29%	10	12.99%	17	22.08%	4	5.19%	34	44.16%	3

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	2019-20	74	1	1.35%	11	14.86%	24	32.43%	16	21.62%	3	4.05%	19	25.68%	4
	2018-19	85			14	16.47%	20	23.53%	22	25.88%	2	2.35%	27	31.76%	1
	2017-18	90	1	1.11%	3	3.33%	23	25.56%	16	17.78%	2	2.22%	45	50.00%	6
	2016-17	77	1	1.30%	6	7.79%	12	15.58%	12	15.58%			46	59.74%	

Source: URV in figures. Report ACRG12 Academic performance by subject (and session). On 4 November 2021
Caption: Di: Distinction; Ex: Excellent; G: Good; P: Pass; F: Fail; Ab: Absent.

Table B.6.6 List of bachelor's degree theses submitted in the academic year 2020-21

Only available for the accreditation.

➢ ACADEMIC INDICATORS

Table B.6.7 Academic performance per subject 2020-21 (GEQ)

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
1	GRAPHICAL EXPRESSION	Core	1st semester	84	Jan			10	11.90%	39	46.43%	17	20.24%	7	8.33%	11	13.10%
	CHEMISTRY I	Core	1st semester	80	Jan			1	1.25%	16	20.00%	23	28.75%	33	41.25%	7	8.75%
	PHYSICS	Core	1st semester	132	Jan					4	3.03%	32	24.24%	94	71.21%	2	1.52%
	COMPUTING IN PROCESS ENGINEERING	Core	2nd semester	94	June	3	3.19%			15	15.96%	39	41.49%	16	17.02%	20	21.28%
					Jan					1	1.06%						
	ENGINEERING FLUID MECHANICS	Comp	2nd semester	77	June	3	3.90%	5	6.49%	18	23.38%	27	35.06%	4	5.19%	20	25.97%
	PHYSICAL CHEMISTRY	Core	2nd semester	92	June	2	2.17%	2	2.17%	9	9.78%	24	26.09%	19	20.65%	36	39.13%
	CHEMISTRY II	Core	2nd semester	79	June			1	1.27%	2	2.53%	52	65.82%	4	5.06%	20	25.32%
	MATHEMATICS I	Core	Annual	99	June	2	2.02%	3	3.03%	15	15.15%	23	23.23%	20	20.20%	36	36.36%
	FUNDAMENTALS OF PROCESS ENGINEERING	Comp	Annual	112	June			4	3.57%	15	13.39%	19	16.96%	50	44.64%	24	21.43%
2	MATHEMATICS II	Core	1st semester	64	Jan	1	1.56%			6	9.38%	49	76.56%	8	12.50%		
	TRANSPORT PHENOMENA	Comp	1st semester	86	Jan			1	1.16%	9	10.47%	24	27.91%	45	52.33%	7	8.14%
					June							1	1.16%				
	THERMODYNAMICS	Comp	1st semester	66	Jan					6	9.09%	32	48.48%	26	39.39%	2	3.03%

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
	MATHEMATICS III	Core	2Q	73	June	2	2.74%			13	17.81%	42	57.53%	16	21.92%		
	ECONOMICS AND INDUSTRIAL ORGANISATION	Core	2Q	61	June					28	45.90%	32	52.46%	1	1.64%		
	ELECTROTECHNICS	Core	2Q	61	June					12	19.67%	45	73.77%	3	4.92%	1	1.64%
	CHEMICAL KINETICS AND DESIGN OF REACTORS	Core	AN	84	Jan					1	1.19%						
					June							32	38.10%	33	39.29%	18	21.43%
	CHEMICAL PROCESSES AND PRODUCTS	Core	AN	66	June					20	30.30%	26	39.39%	15	22.73%	5	7.58%
	TRANSPORT PHENOMENA AND FLUID MECHANICS LABORATORY	Core	CU AN S/A	63	June					13	20.63%	45	71.43%	5	7.94%		
	CHEMICAL THERMODYNAMICS AND KINETICS LABORATORY	Core	CU AN S/A	60	June					6	10.00%	51	85.00%			3	5.00%
3	MATERIALS SCIENCE	Core	1st semester	56	Jan	1	1.79%			7	12.50%	39	69.64%	9	16.07%		
	INDUSTRIAL SAFETY	Core	1st semester	50	Jan	1	2.00%			18	36.00%	30	60.00%			1	2.00%
	TECHNICAL THERMODYNAMICS	Core	1st semester	52	Jan	2	3.85%	1	1.92%	24	46.15%	19	36.54%	4	7.69%	2	3.85%
	CONTROL AND INSTRUMENTATION	Core	1st semester	55	Jan					5	9.09%	40	72.73%	8	14.55%	2	3.64%
		Core			June									1	1.82%		
	DESIGN OF HEAT EXCHANGE OPERATIONS	Core	2Q	57	June	2	3.51%	1	1.75%	34	59.65%	19	33.33%			1	1.75%
	RESISTANCE OF MATERIALS	Core	2Q	61	June	1	1.64%			4	6.56%	36	59.02%	10	16.39%	10	16.39%
	BIOTECHNOLOGY	Core	2Q	53	June			1	1.89%	22	41.51%	25	47.17%	3	5.66%	2	3.77%
	PROJECT MANAGEMENT	Core	2Q	64	June					8	12.50%	31	48.44%	24	37.50%	1	1.56%
	DESIGN OF SEPARATION OPERATIONS	Core	AN	57	June	2	3.51%	2	3.51%	21	36.84%	26	45.61%	3	5.26%	2	3.51%
					Jan					1	1.75%			1	1.75%		
	SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	Core	AN	54	June	2	3.70%	2	3.70%	40	74.07%	10	18.52%				
		Core			Jan											1	1.85%
	ENVIRONMENTAL TECHNOLOGY	Core	AN	54	June					32	59.26%	20	37.04%	1	1.85%	1	1.85%
	LABORATORY OF UNIT OPERATIONS	Core	CU AN S/A	49	June					24	48.98%	25	51.02%				
4	DESIGN OF EQUIPMENT AND CHEMICAL PLANTS	Core	1st semester	50	Jan	1	2.00%	3	6.00%	22	44.00%	20	40.00%			1	2.00%
		Core			Sep							1	2.00%				
					June							2	4.00%				
	TECHNICAL OFFICE	Core		49	Jan	2	4.08%	3	6.12%	19	38.78%	22	44.90%				

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
			1st semester		Sep					1	2.04%						
					June							1	2.04%			1	
	ELECTRONICS	Core	1st semester	49	Jan			6	12.24%	33	67.35%	7	14.29%				
					Sep					1	2.04%						
					June							1	2.04%			1	2.04%
	MACHINES AND MECHANISMS	Core	1st semester	48	Jan					12	25.00%	29	60.42%			4	8.33%
					Sep					1	2.08%						
					June							2	4.17%			2	4.17%
	BACHELOR'S DEGREE THESIS	Thesis	2Q	54	June	1	1.85%	3	5.56%	34	62.96%	3	5.56%			7	12.96%
					Jan					2	3.70%	3	5.56%				
					Sep					1	1.85%	5	9.26%			2	3.70%
Undefined	APPLIED BIOCHEMISTRY	Op	1st semester	10	Jan	1	10.00%	1	10.00%	1	10.00%	7	70.00%				
	POLYMER SYSTEMS AND PROCESSES	Op	1st semester	13	Jan	1	7.69%			4	30.77%	6	46.15%			2	15.38%
	INSTRUMENTAL ANALYSIS FOR THE CHEMICAL INDUSTRY	Op	1st semester	14	Jan			1	7.14%	2	14.29%	11	78.57%				
	PRESSURE VESSEL DESIGN	Op	1st semester	29	Jan			1	3.45%	12	41.38%	16	55.17%				
	TOOLS FOR ENTREPRENEURS	Op	1st semester	11	Jan			1	9.09%	10	90.91%						
	INDUSTRIAL ORGANIC CHEMISTRY	Op	1st semester	38	Jan			8	21.05%	22	57.89%	6	15.79%				
					June					1	2.63%						
					Sep					1	2.63%						
	HISTORY OF ENGINEERING	Op	1st semester	10	Jan					4	40.00%	6	60.00%				
	TECHNICAL ENGLISH	Op	2nd semester	37	June	1	2.70%	6	16.22%	26	70.27%	2	5.41%			1	2.70%
					Sep					1	2.70%						
	POLYMER ENGINEERING	Op	2nd semester	15	June	1	6.67%	1	6.67%	2	13.33%	6	40.00%	3	20.00%	2	13.33%
	MODELLING OF BIOTECHNOLOGICAL PROCESSES	Op	2nd semester	11	June	1	9.09%	2	18.18%	6	54.55%	2	18.18%				
	INDUSTRIAL MAINTENANCE	Op	2nd semester	37	June			2	5.41%	24	64.86%	8	21.62%			2	5.41%
					Sep							1	2.70%				
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS I	Op	An	4	Jan					1	25.00%						
					June					2	50.00%						
					Sep					1	25.00%						
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS I	Op Op	An	4	Jan					1	25.00%						
					June					2	50.00%						
					Sep					1	25.00%						
		Op	CU 2Q	35	Sep	1	2.86%	12	34.29%	2	5.71%						

2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
	EXTERNAL INTERNSHIPS	Op			June			11	31.43%	9	25.71%						
	TEAM LEADERSHIP	Op	CU A	15	June			1	6.67%	8	53.33%	6	40.00%				
	GENDER, SCIENCE AND SOCIAL CHANGE	Op	2nd semester	7	June			1	14.29%	4	57.14%					2	28.57%

Source: URV in figures. ACRG12 Academic performance per subject 2020-21 (per session). Date 2 November 2021
Key: B: Basic; Comp: Compulsory; Op: Optional; Thesis: Bachelor's degree thesis; PEI: External internships; 1st semester: First-semester results; 2nd semester: Second-semester results; An: Annual results; CU A: Single annual exam session; CU 2Q: Single second-semester exam session; Matr.: Number of students enrolled; Session: Exam period; Jan: January; May: May; June: June; Sep: September; Di: Distinction; Ex: Excellent; G: Good; P: Pass; F: Fail; Ab: Absent.

Table B.6.7 Academic performance per subject 2020-21 (GEM)

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
1	FUNDAMENTALS OF PHYSICS IN ENGINEERING I	Core	1st semester	80	Jan	2	2.50%	8	10.00%	21	26.25%	24	30.00%	16	20.00%	9	11.25%
	FUNDAMENTALS OF MATHEMATICS IN ENGINEERING I	Core	1st semester	72	Jan	3	4.17%	1	1.39%	7	9.72%	32	44.44%	15	20.83%	14	19.44%
	FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	Core	1st semester	88	Jan	4	4.55%			13	14.77%	32	36.36%	27	30.68%	12	13.64%
	BUSINESS ADMINISTRATION AND ORGANISATION OF PRODUCTION	Core	1st semester	76	Jan					11	14.47%	46	60.53%	10	13.16%	9	11.84%
	GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN I	Core	1st semester	75	Jan					9	12.00%	22	29.33%	31	41.33%	13	17.33%
	FUNDAMENTALS OF PHYSICS IN ENGINEERING II	Core	2nd semester	72	June	2	2.78%	3	4.17%	13	18.06%	26	36.11%	8	11.11%	20	27.78%
	FUNDAMENTALS OF MATHEMATICS IN ENGINEERING II	Core	2nd semester	101	June	2	1.98%	2	1.98%	6	5.94%	19	18.81%	61	60.40%	11	10.89%
	NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	Core	2nd semester	69	June			3	4.35%	13	18.84%	22	31.88%	31	44.93%		
	GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN II	Core	2nd semester	82	June					15	18.29%	20	24.39%	15	18.29%	32	39.02%
	FINAL PROJECT I	Comp	CU 2Q	73	June					27	36.99%	28	38.36%	3	4.11%	15	20.55%
2	MATERIALS SCIENCE AND TECHNOLOGY	Comp	1st semester	47	Jan	2	4.26%			8	17.02%	30	63.83%	4	8.51%	3	6.38%
	ELASTICITY AND STRENGTH OF MATERIALS I	Comp	1st semester	66	Jan	3	4.55%			5	7.58%	22	33.33%	30	45.45%	6	9.09%
	THERMAL ENGINEERING I	Comp	1st semester	59	Jan	1	1.69%	4	6.78%	7	11.86%	19	32.20%	10	16.95%	18	30.51%
	STATISTICAL METHODS IN ENGINEERING	Core	1st semester	56	Jan	2	3.57%	9	16.07%	25	44.64%	9	16.07%	9	16.07%	2	3.57%
	MECHANICS AND THEORY OF MECHANISMS I	Comp	1st semester	76	Jan			1	1.32%	6	7.89%	30	39.47%	22	28.95%	17	22.37%

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)

Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades Di	%	Ex	%	G	%	P	%	F	%	Ab	%
	ELASTICITY AND STRENGTH OF MATERIALS II	Comp	2nd semester	73	June	1	1.37%			8	10.96%	25	34.25%	18	24.66%	21	28.77%
	THERMAL ENGINEERING II	Comp	2Q	52	June	1	1.92%			8	15.38%	18	34.62%	10	19.23%	15	28.85%
	MECHANICS AND THEORY OF MECHANISMS II	Comp	2Q	63	June	2	3.17%	2	3.17%	10	15.87%	19	30.16%	9	14.29%	21	33.33%
	ELASTICITY AND STRENGTH OF MATERIALS LABORATORY	Comp	CU 2Q S/A	62	June	2	3.23%			12	19.35%	24	38.71%	9	14.52%	15	24.19%
	MACHINES AND MECHANISMS LABORATORY	Comp	CU 2Q S/A	49	June	2	4.08%	2	4.08%	19	38.78%	15	30.61%	5	10.20%	6	12.24%
	FINAL PROJECT II	Comp	CU 2Q S/A	48	June	1	2.08%	2	4.17%	5	10.42%	31	64.58%	2	4.17%	7	14.58%
	INDUSTRIAL HEATING AND COOLING	Comp	1st semester	62	Jan	3	4.84%	3	4.84%	40	64.52%	15	24.19%			1	1.61%
	ENGINEERING FLUID DYNAMICS	Comp	1st semester	62	Jan	2	3.23%			14	22.58%	29	46.77%	17	27.42%		
	MECHANICAL TECHNOLOGY	Comp	1st semester	69	Jan	1	1.45%	1	1.45%	11	15.94%	32	46.38%	21	30.43%	3	4.35%
					June									1	1.45%		
	THEORY AND DESIGN OF STRUCTURES	Comp	1st semester	63	Jan	1	1.59%	2	3.17%	5	7.94%	33	52.38%	14	22.22%	7	11.11%
					June					1	1.59%	4	6.35%			1	1.59%
					Sep					1	1.59%						
	FUNDAMENTALS OF ELECTRICAL TECHNOLOGY	Comp	1st semester	57	Jan					6	10.53%	38	66.67%	12	21.05%	1	1.75%
	HYDRAULICS	Comp	2nd semester	60	June	1	1.67%	4	6.67%	19	31.67%	30	50.00%	6	10.00%		
3	OPERATIONS MANAGEMENT	Comp	2nd semester	61	June					8	13.11%	42	68.85%	7	11.48%	4	6.56%
	MACHINE DESIGN	Comp	2nd semester	65	June					4	6.15%	34	52.31%	15	23.08%	11	16.92%
			2nd semester		Sep					1	1.54%						
	FUNDAMENTALS OF ELECTRONIC AND AUTOMATED TECHNOLOGY	Comp	2nd semester	54	June					2	3.70%	40	74.07%	12	22.22%		
	THERMAL MACHINES LABORATORY	Comp	CU 1st semester	51	Jan					4	7.84%	36	70.59%	5	9.80%	6	11.76%
	MECHANICAL TECHNOLOGY LABORATORY	Comp	CU 1st semester	61	Jan					20	32.79%	30	49.18%	6	9.84%	5	8.20%
	HYDRAULICS LABORATORY	Comp	CU 2nd semester	59	June	2	3.39%	1	1.69%	19	32.20%	36	61.02%	1	1.69%		
	FINAL PROJECT III	Comp	CU 2nd semester	58	June			2	3.45%	7	12.07%	39	67.24%	6	10.34%	3	5.17%
					Sep							1	1.72%				
	TECHNICAL OFFICE	Comp	1st semester	53	Jan	1	1.89%	1	1.89%	27	50.94%	8	15.09%	6	11.32%	7	13.21%
					Sep			1	1.89%	2	3.77%						
					June					1	1.89%	2	3.77%	1	1.89%	1	1.89%
	INDUSTRIAL CONSTRUCTION	Comp	1st semester	49	Jan					29	59.18%	16	32.65%			2	4.08%
					Sep					2	4.08%						

2022-BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)																	
Year	Subject	Credit type	Duration	No. of students	Exam session	Student grades											
						Di	%	Ex	%	G	%	P	%	F	%	Ab	%
	DYNAMICS OF MECHANICAL SYSTEMS	Comp	1st semester	58	Jan					2	3.45%	29	50.00%	23	39.66%	2	3.45%
					June					1		6	10.34%	3	5.17%	1	1.72%
					Sep					1						1	1.72%
	MACHINE TESTING LABORATORY	Comp	1st semester	73	Jan					11	15.07%	37	50.68%	19	26.03%	4	5.48%
					Sep					1	1.37%	1	1.37%				
					June							7	9.59%	4	5.48%	1	1.37%
	TECHNICAL ENGLISH	Comp	2nd semester	54	June	1	1.85%	4	7.41%	35	64.81%	9	16.67%			2	3.70%
					Sep					3	5.56%						
	BACHELOR'S DEGREE THESIS	Thesis	2nd semester	77	Sep	1	1.30%	6	7.79%	6	7.79%	12	15.58%	2	2.60%	35	45.45%
					June			5	6.49%	4	5.19%	4	5.19%	2	2.60%	56	72.73%
					Jan							1	1.30%			1	1.30%
UNDEFINED	TOOLS FOR ENTREPRENEURS	Op	1st semester	20	June			5	25.00%	13	65.00%						
					Sep					2	10.00%						
	MACHINERY AND MAINTENANCE	Op	1st semester	23	Jan			4	17.39%	7	30.43%	10	43.48%			1	4.35%
					Sep					1	4.35%						
	TOPOGRAPHY	Op	1st semester	17	Jan			2	11.76%	6	35.29%	9	52.94%				
	AUTOMOBILES	OP	1st semester	21	Jan					4	19.05%	15	71.43%	2	9.52%		
	PRESSURE VESSEL DESIGN	Op	1st semester	8	Jan					2	25.00%	5	62.50%			1	12.50%
	HISTORY OF ENGINEERING	OP	1st semester	25	Jan					11	44.00%	14	56.00%				
	INTERNAL COMBUSTION ENGINES	Op	1st semester	9	Jan					4	44.44%	2	22.22%			3	33.33%
	TRIBOLOGY AND LUBRICATION	Op	1st semester	27	Jan					20	74.07%	3	11.11%			2	7.41%
					Sep					1	3.70%	1	3.70%				
	INDUSTRIAL MAINTENANCE	Op	2nd semester	37	June			8	21.62%	20	54.05%	4	10.81%			3	8.11%
					Jan					1	2.70%						
					Sep							1	2.70%				
	ADVANCED STRUCTURAL ANALYSIS	Op	2nd semester	14	June					4	28.57%	3	21.43%			7	50.00%
	DISSENY DE GRUPS MECÀNICS	OP	2nd semester	21	June					13	61.90%	5	23.81%	1	4.76%	2	9.52%
	POLYMER ENGINEERING	Op	2nd semester	20	June					5	25.00%	8	40.00%	4	20.00%	2	10.00%
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS I	Op	An	4	Jan					1	25.00%						
					Sep					3	75.00%						
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS II	Op	An	2	Sep					2	100.00 %						
	EXTERNAL INTERNSHIPS	Op	CU 2Q	40	June			5	12.50%	8	20.00%						
					Sep			10	25.00%	16	40.00%						

Source: URV in figures. ACRG12 Academic performance per subject 2020-21 (per session). Date 2 November 2021

Key: B: Basic; Comp: Compulsory; Op: Optional; Thesis: Bachelor's degree thesis; PEI: External internships; 1st semester: First-semester results; 2nd semester: Second-semester results; An: Annual results; CU A: Single annual exam session; CU 2Q: Single second-semester exam session; Matr.: Number of students enrolled; Session: Exam period; Jan: January; May: May; June: June; Sep: September; Di: Distinction; Ex: Excellent; G: Good; P: Pass; F: Fail; Ab: Absent.

Table B.6.8 Success rate and performance per subject (GEQ)

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	PHYSICS	Core	1st semester	51.89%	53.15%	37.86%	27.69%	49.11%	52.21%	37.50%	27.27%
	CHEMISTRY I	Core	1st semester	85.71%	79.10%	82.35%	54.79%	78.69%	73.61%	80.00%	50.00%
	MATHEMATICS II	Core	1st semester	95.95%	94.23%	91.23%	87.50%	95.95%	92.45%	91.23%	87.50%
	GRAPHICAL EXPRESSION	Core	1st semester	84.13%	92.86%	88.41%	90.41%	68.83%	75.58%	80.26%	78.57%
	PHYSICAL CHEMISTRY	Core	2nd semester	80.82%	63.77%	84.34%	66.07%	62.11%	50.00%	72.92%	40.22%
	COMPUTING IN PROCESS ENGINEERING	Core	2nd semester	74.60%	73.97%	90.16%	78.38%	63.51%	61.36%	65.48%	61.70%
	CHEMISTRY II	Core	2nd semester	73.02%	80.00%	92.54%	93.22%	61.33%	66.67%	82.67%	69.62%
	MATHEMATICS III	Core	2nd semester	82.54%	85.71%	96.36%	78.08%	81.25%	82.19%	88.33%	78.08%
	ECONOMICS AND INDUSTRIAL ORGANISATION	Core	2nd semester	98.11%	98.15%	100.00%	98.36%	96.30%	94.64%	97.87%	98.36%
	MATHEMATICS I	Core	An	71.05%	60.29%	83.12%	68.25%	62.07%	45.56%	63.37%	43.43%
	EXTERNAL INTERNSHIPS	PE	CU 2nd semester	100.00%	100.00%	100.00%		98.00%	97.22%	100.00%	
		Op	CU 2nd semester				100.00%				100.00%
	BACHELOR'S DEGREE THESIS	TFG	2nd semester	100.00%	93.33%	100.00%	100.00%	94.44%	85.71%	94.92%	96.30%
	APPLIED BIOCHEMISTRY	Op	1st semester	100.00%	80.00%	100.00%	100.00%	90.00%	66.67%	100.00%	100.00%
	INSTRUMENTAL ANALYSIS FOR THE CHEMICAL INDUSTRY	Op	1st semester	100.00%	88.24%	80.00%	100.00%	96.55%	88.24%	72.73%	100.00%
	POLYMER SYSTEMS AND PROCESSES	Op	1st semester	94.74%	85.71%	100.00%	100.00%	94.74%	80.00%	90.48%	84.62%
	PRESSURE VESSEL DESIGN	Op	1st semester	96.30%	100.00%	100.00%	100.00%	96.30%	100.00%	100.00%	100.00%

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
	INDUSTRIAL ORGANIC CHEMISTRY	Op	1st semester	100.00%	100.00%	100.00%	100.00%	100.00%	93.94%	94.87%	100.00%
	TOOLS FOR ENTREPRENEURS	Op	1st semester			100.00%	100.00%			100.00%	100.00%
	HISTÒRY OF ENGINEERING	Op	1st semester		100.00%	100.00%	100.00%		100.00%	100.00%	100.00%
	POLYMER ENGINEERING	Op	2nd semester	96.00%	100.00%	100.00%	76.92%	92.31%	85.71%	92.86%	66.67%
	TECHNICAL ENGLISH	Op	2nd semester		94.12%	100.00%	100.00%		88.89%	100.00%	97.30%
	INDUSTRIAL MAINTENANCE	Op	2nd semester	97.37%	96.67%	100.00%	100.00%	92.50%	87.88%	96.43%	94.59%
	MODELiLING BIOTECHNOLOGICAL PROCESSES	Op	2nd semester	100.00%	100.00%	100.00%	100.00%	90.91%	100.00%	90.00%	100.00%
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS I	Op	An	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS II	Op	An	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	TEAM LEADERSHIP	Op	CU An	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	GENDER, SCIENCE AND SOCIAL CHANGE	OP	2nd semester				100.00%				71.43%
	TRANSPORT PHENOMENA	Comp	1st semester	55.41%	41.46%	76.53%	44.30%	53.95%	40.00%	74.26%	40.70%
	THERMODYNAMICS	Comp	1st semester	76.47%	87.69%	71.88%	59.38%	75.36%	83.82%	68.66%	57.58%
	MATERIALS SCIENCE	Comp	1st semester	80.85%	70.31%	89.71%	83.93%	74.51%	67.16%	88.41%	83.93%
	DESIGN OF EQUIPMENT AND CHEMICAL PLANTS	Comp	1st semester	87.50%	81.63%	98.39%	100.00%	83.05%	76.92%	95.31%	98.00%
	INDUSTRIAL SAFETY	Comp	1st semester	82.61%	88.89%	94.44%	100.00%	80.85%	86.15%	94.44%	98.00%
	CONTROL AND INSTRUMENTATION	Comp	1st semester	90.24%	83.05%	90.16%	84.91%	86.05%	79.03%	88.71%	81.82%
	TECHNICAL THERMODYNAMICS	Comp	1st semester	94.74%	83.87%	94.83%	92.00%	80.00%	76.47%	87.30%	88.46%
	ELECTRONICS	Comp	1st semester	100.00%	100.00%	98.11%	100.00%	97.50%	97.83%	96.30%	97.96%
	TECHNICAL OFFICE	Comp	1st semester	100.00%	100.00%	98.28%	100.00%	98.00%	93.62%	98.28%	97.96%

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2020-21
	MACHINES AND MECHANISMS	Comp	1st semester	100.00%	94.59%	100.00%	100.00%	94.12%	81.40%	90.48%	91.67%
	PROJECT MANAGEMENT	Comp	2nd semester	95.24%	85.96%	92.86%	61.90%	93.02%	83.05%	81.25%	60.94%
	ENGINEERING FLUID MECHANICS	Comp	2nd semester	78.13%	70.89%	92.96%	92.98%	61.73%	62.92%	77.65%	68.83%
	RESISTANCE OF MATERIALS	Comp	2nd semester	92.31%	87.72%	87.30%	80.39%	85.71%	81.97%	83.33%	67.21%
	BIOTECHNOLOGY	Comp	2nd semester	80.49%	83.02%	100.00%	94.12%	71.74%	75.86%	94.20%	90.57%
	DESIGN OF HEAT EXCHANGE OPERATIONS	Comp	2nd semester	91.30%	100.00%	100.00%	100.00%	91.30%	98.39%	98.00%	98.25%
	ELECTROTECHNICS	Comp	2nd semester	98.21%	96.08%	100.00%	95.00%	98.21%	94.23%	94.23%	93.44%
	CHEMICAL KINETICS AND REACTOR DESIGN	Comp	An	84.27%	55.84%	85.33%	50.00%	75.00%	51.81%	79.01%	39.29%
	FUNDAMENTALS OF PROCESS ENGINEERING	Comp	An	76.09%	52.56%	70.37%	43.18%	66.67%	45.05%	55.88%	33.93%
	CHEMICAL PROCESSES AND PRODUCTS	Comp	An	74.19%	91.67%	91.67%	75.41%	74.19%	90.16%	87.30%	69.70%
	ENVIRONMENTAL TECHNOLOGY	Comp	An	91.49%	86.67%	91.38%	98.11%	86.00%	80.00%	82.81%	96.30%
	DESIGN OF SEPARATION OPERATIONS	Comp	An	86.79%	89.09%	88.46%	94.55%	85.19%	81.67%	80.70%	91.23%
	SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	Comp	An	94.74%	98.39%	98.00%	100.00%	94.74%	98.39%	96.08%	100.00%
	TRANSPORT PHENOMENA AND FLUID MECHANICS LABORATORY	Comp	CU AN	100.00%	100.00%	92.86%	92.06%	98.18%	95.92%	91.23%	92.06%
	UNIT OPERATIONS LABORATORY	Comp	CU AN	100.00%	100.00%	100.00%	100.00%	97.73%	100.00%	100.00%	100.00%
	CHEMICAL THERMODYNAMICS AND KINETICS LABORATORY	Comp	CU An	100.00%	98.15%	100.00%	100.00%	100.00%	96.36%	100.00%	95.00%

Source: URV in figures. Report ACRG10 Success rate and performance rate of subjects.On 2 November 2021
Formula: Performance rate: % credits passed / credits enrolled
Success rate: % credits passed / credits examined
Key: B: Basic; Comp: Compulsory; Op: Optional; Thesis: Bachelor's degree thesis; PEI: External internships; 1st semester: First-semester results; 2nd semester: Second-semester results; An: Annual results; CU A: Single annual exam session; CU 2Q: Single second-semester exam session.

Table B.6.8 Success rate and performance per subject (GEM)

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2017-18
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN I	Core	1st semester	92.06%	68.42%	74.60%	50.00%	82.86%	56.52%	59.49%	41.33%
	FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	Core	1st semester	74.14%	82.09%	74.19%	64.47%	63.24%	67.07%	55.42%	55.68%
	FUNDAMENTALS OF MATHEMATICS IN ENGINEERING I	Core	1st semester	88.71%	90.16%	79.03%	74.14%	87.30%	84.62%	74.24%	59.72%
	FUNDAMENTALS OF PHYSICS IN ENGINEERING I	Core	1st semester	77.78%	81.69%	75.00%	77.46%	73.13%	77.33%	64.86%	68.75%
	STATISTICAL METHODS IN ENGINEERING	Core	1st semester	78.13%	84.13%	79.69%	83.33%	76.92%	82.81%	78.46%	80.36%
	BUSINESS ADMINISTRATION AND ORGANISATION OF PRODUCTION	Core	1st semester	93.75%	90.00%	79.37%	85.07%	93.75%	85.71%	72.46%	75.00%
	FUNDAMENTALS OF MATHEMATICS IN ENGINEERING II	Core	2nd semester	56.06%	54.02%	68.29%	32.22%	40.66%	44.34%	52.34%	28.71%
	NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	Core	2nd semester	94.55%	90.16%	97.96%	55.07%	89.66%	83.33%	77.42%	55.07%
	FUNDAMENTALS OF PHYSICS IN ENGINEERING II	Core	2nd semester	82.05%	88.06%	96.36%	84.62%	71.11%	73.75%	71.62%	61.11%
	GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN II	Core	2nd semester	83.08%	69.49%	84.75%	70.00%	72.97%	54.67%	60.98%	42.68%
	BACHELOR'S DEGREE THESIS	Thesis	2nd semester	95.56%	96.55%	96.30%	95.12%	47.78%	65.88%	70.27%	50.65%
	AUTOMOBILES	Op	1st semester	100.00%	95.65%	96.43%	90.48%	100.00%	95.65%	96.43%	90.48%
	TOPOGRAPHY	Op	1st semester	100.00%	100.00%	100.00%	100.00%	100.00%	94.12%	94.12%	100.00%
	HISTORY OF ENGINEERING	Op	1st semester	100.00%	100.00%	96.43%	100.00%	100.00%	100.00%	96.43%	100.00%
	INTERNAL COMBUSTION ENGINES	Op	1st semester	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	66.67%
	AIR CONDITIONING IN BUILDINGS	Op	1st semester								

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2017-18
	PRESSURE VESSEL DESIGN	Op	1st semester	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	87.50%
	MACHINERY AND MAINTENANCE	Op	1st semester	100.00%	100.00%	100.00%	100.00%	87.50%	100.00%	100.00%	95.65%
	TRIBOLOGY AND LUBRICATION	Op	1st semester	100.00%	100.00%	100.00%	100.00%	93.33%	100.00%	100.00%	92.59%
	TOOLS FOR ENTREPRENEURS	Op	1st semester			100.00%	100.00%			100.00%	100.00%
	POLYMER ENGINEERING	Op	2nd semester	100.00%	87.50%	100.00%	76.47%	90.91%	84.00%	92.00%	65.00%
	INDUSTRIAL MAINTENANCE	Op	2nd semester	92.59%	94.44%	100.00%	100.00%	89.29%	94.44%	85.71%	91.89%
	DESIGN OF MECHANICAL GROUPS	Op	2nd semester	95.24%	100.00%	100.00%	94.74%	95.24%	100.00%	88.00%	85.71%
	ADVANCED STRUCTURAL ANALYSIS	Op	2nd semester	94.12%	100.00%	100.00%	100.00%	80.00%	100.00%	100.00%	50.00%
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS II	Op	An	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	STUDIES IN THE FRAMEWORK OF MOBILITY AGREEMENTS I	Op	An	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	EXTERNAL INTERNSHIPS	Op	CU 2nd semester	100.00%	100.00%	100.00%	100.00%	97.78%	100.00%	98.18%	97.50%
	ELASTICITY AND STRENGTH OF MATERIALS I	Comp	1st semester	76.12%	82.67%	68.25%	50.00%	76.12%	82.67%	68.25%	45.45%
	MECHANICS AND THEORY OF MECHANISMS I	Comp	1st semester	75.32%	64.52%	61.19%	62.71%	74.36%	61.54%	56.94%	48.68%
	MACHINE TESTING LABORATORY	Comp	1st semester	61.67%	91.23%	63.33%	82.61%	59.68%	83.87%	57.58%	78.08%
	MECHANICAL TECHNOLOGY	Comp	1st semester	80.39%	87.10%	63.79%	68.18%	80.39%	85.71%	60.66%	65.22%
	DYNAMICS OF MECHANICAL SYSTEMS	Comp	1st semester	77.78%	87.76%	86.89%	70.91%	76.36%	82.69%	82.81%	67.24%
	THEORY AND DESIGN OF STRUCTURES	Comp	1st semester	71.19%	83.61%	84.62%	85.45%	67.74%	73.91%	76.39%	74.60%
	THERMAL ENGINEERING I	Comp	1st semester	82.81%	71.67%	91.38%	75.61%	77.94%	65.15%	82.81%	52.54%
	ENGINEERING FLUID MECHANICS	Comp	1st semester	95.74%	81.13%	86.27%	72.58%	95.74%	79.63%	86.27%	72.58%
	FUNDAMENTALS OF ELECTRICAL TECHNOLOGY	Comp	1st semester	79.17%	83.33%	82.69%	78.57%	76.00%	82.09%	82.69%	77.19%

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2017-18
	TECHNICAL OFFCE	Comp	1st semester	81.03%	83.33%	91.94%	95.56%	79.66%	78.43%	85.07%	81.13%
	INDUSTRIAL HEATING AND COOLING	Comp	1st semester	90.48%	92.06%	93.02%	100.00%	82.61%	89.23%	81.63%	98.39%
	MATERIALS SCIENCE AND TECHNOLOGY	Comp	1st semester	96.36%	100.00%	97.87%	90.91%	94.64%	96.49%	97.87%	85.11%
	INDUSTRIAL CONSTRUCTION	Comp	1st semester	100.00%	100.00%	100.00%	100.00%	97.73%	95.45%	98.15%	95.92%
	MECHANICS AND THEORY OF MECHANISMS II	Comp	2nd semester	80.00%	61.90%	91.18%	78.57%	71.11%	52.70%	76.54%	52.38%
	ELASTICITY AND STRENGTH OF MATERIALS II	Comp	2nd semester	80.33%	75.71%	77.42%	65.38%	66.22%	67.95%	64.00%	46.58%
	MACHINE DESIGN	Comp	2nd semester	76.47%	85.25%	82.46%	72.22%	70.91%	81.25%	73.44%	60.00%
	THERMAL ENGINEERING	Comp	2nd semester	85.71%	80.36%	98.33%	72.97%	77.14%	67.16%	86.76%	51.92%
	OPERATIONS MANAGEMENT	Comp	2nd semester	77.78%	84.85%	91.38%	87.72%	76.36%	83.58%	85.48%	81.97%
	FUNDAMENTALS OF ELECTRONIC AND AUTOMATED TECHNOLOGY	Comp	2nd semester	100.00%	100.00%	100.00%	77.78%	100.00%	96.92%	96.08%	77.78%
	TECHNICAL ENGLISH	Comp	2nd semester	83.02%	86.00%	100.00%	100.00%	77.19%	81.13%	96.97%	96.30%
	HYDRAULICS	Comp	2nd semester	96.23%	93.44%	91.49%	90.00%	94.44%	91.94%	87.76%	90.00%
	MECHANICAL TECHNOLOGY LABORATORY	Comp	CU 1st semester	83.67%	86.89%	86.21%	89.29%	77.36%	81.54%	78.13%	81.97%
	THERMAL MACHINES LABORATORY	Comp	CU 1st semester	88.10%	100.00%	86.36%	88.89%	88.10%	100.00%	86.36%	78.43%
	ELASTICITY AND STRENGTH OF MATERIALS LABORATORY	Comp	CU 2nd semester	81.16%	81.82%	85.07%	80.85%	74.67%	72.00%	76.00%	61.29%
	FINAL PROJECT III	Comp	CU 2nd semester	97.92%	75.81%	86.57%	89.09%	92.16%	75.81%	82.86%	84.48%
	MACHINES AND MECHANISMS LABORATORY	Comp	CU 2nd semester	93.94%	82.69%	98.21%	88.37%	92.54%	76.79%	90.16%	77.55%
	FINAL PROJECT I	Comp	CU 2nd semester	96.36%	91.23%	100.00%	94.83%	89.83%	81.25%	78.13%	75.34%
	HYDRAULICS LABORATORY	Comp	CU 2nd semester	95.35%	98.44%	95.45%	98.31%	95.35%	95.45%	95.45%	98.31%

Curriculum	Subject	Credit type	Duration	Success rate				Performance rate			
				2017-18	2018-19	2019-20	2020-21	2017-18	2018-19	2019-20	2017-18
	FINAL PROJECT II	Comp	CU 2nd semester	96.55%	94.55%	100.00%	95.12%	96.55%	91.23%	92.45%	81.25%

Source: URV in figures. Report ACRG10 Success rate and performance rate of subjects. On 2 November 2021
Formula: Performance rate: % credits passed / credits enrolled
Success rate: % credits passed / credits examined
Key: B: Basic; Comp: Compulsory; Op: Optional; Thesis: Bachelor's degree thesis; PEI: External internships; 1st semester: First-semester results; 2nd semester: Second-semester results; An: Annual results; CU A: Single annual exam session; CU 2Q: Single second-semester exam session.

Table B.6.9 Success rate and performance rate

Curriculum		2017-18	2018-19	2019-20	2020-21
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Ordinary credits enrolled in	15239	15690	15853	16228
	Enrolled credits recognised	841	598	585	378
	Ordinary credits passed	12006	11655	12933	11570
	Ordinary credits presented	14149	14404	14598	14541
	Success rate	84.85%	80.92%	88.59%	79.57%
	Performance rate	78.78%	74.28%	81.58%	71.30%
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Ordinary credits enrolled in	14787	15408	15618	15381
	Enrolled credits recognised	348	168	537	318
	Ordinary credits passed	11445	11856	12018	10260
	Ordinary credits presented	13383	14001	13836	13053
	Success rate	85.52%	84.68%	86.86%	78.60%
	Performance rate	77.40%	76.95%	76.95%	66.71%

Source: URV in figures. Report ACRG07 Academic outcomes. On 11 November 2021
Formula: Performance rate: % credits passed / credits enrolled
Success rate: % credits passed / credits presented

Table B.6.10 Indicators of first-year academic outcomes

Pla		2017-18	2018-19	2019-20	2020-21
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Ordinary credits presented	3111	3801	3408	3288
	Ordinary credits passed	2322	2574	2643	2163
	Ordinary credits enrolled in	3591	4407	3906	4176
	1st year performance rate	64.66%	58.41%	67.67%	51.80%
	New students (1st year)	63	78	69	71
	Drop out (1st year)	19	20	10	18
	1st-year drop out rate	30.16%	25.64%	14.49%	25.35%
	1st-year success rate	74.64%	67.72%	77.55%	65.78%
	1st-year rate of students presented	86.63%	86.25%	87.25%	78.74%
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Ordinary credits presented	3072	3204	2787	3084

Pla		2017-18	2018-19	2019-20	2020-21
	Ordinary credits passed	2592	2586	2295	2160
	Ordinary credits enrolled in	3360	3588	3468	3636
	1st year performance rate	77.14%	72.07%	66.18%	59.41%
	New students (1st year)	59	62	60	63
	Drop out (1st year)	5	8	11	13
	1st-year drop out rate	8.47%	12.90%	18.33%	20.63%
	1st-year success rate	84.38%	80.71%	82.35%	70.04%
	1st-year rate of students presented	91.43%	89.30%	80.36%	84.82%

Source: URV in figures. Report ACRG09 Academic outcomes. On 11 November 2021

Table B.6.10.1 Indicators of first-year academic outcomes by gender

Curriculum		2017-18		2018-19		2019-20		2020-21	
		WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	1st year performance rate	61.00%	66.62%	46.91%	65.29%	56.41%	74.84%	49.50%	53.52%
	New students (1st year)	21	42	30	48	28	41	30	41
	Drop out (1st year)	7	12	9	11	7	3	8	10
	1st-year dropout rate	33.33%	28.57%	30.00%	22.92%	25.00%	7.32%	26.67%	24.39%
	1st-year success rate	72.03%	75.99%	59.04%	72.29%	69.25%	82.30%	61.46%	69.16%
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	1st year performance rate	91.89%	76.10%	70.00%	72.18%	72.00%	65.63%	88.33%	56.23%
	New students (1st year)	4	55	3	59	5	55	6	57
	Drop out (1st year)		5	1	7	1	10	1	12
	1st-year dropout rate		9.09%	33.33%	11.86%	20.00%	18.18%	16.67%	21.05%
	1st-year success rate	94.44%	83.61%	84.00%	80.55%	90.00%	81.63%	94.64%	67.03%

Source: URV in figures. Report ACRG09 1st-year academic outcomes. On 24 January 2022

Table B.6.11 Drop-out rates per number of credits passed

Degree	Number of credits passed	Drop outs (RD)			
		2017-18	2018-19	2019-20	2020-21
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	0 credits passed	6	5	7	5
	More than 0 and less than 60 credits passed	25	16	25	22
	Between 60 and 120 credits passed	2	2	2	1
	More than 120 credits passed	2	4	2	
	Total	**35**	**27**	**36**	**28**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	0 credits passed	2	6	2	3
	More than 0 and less than 60 credits passed	10	11	10	6
	Between 60 and 120 credits passed	9	5	2	2
	More than 120 credits passed	3	3	2	
	Total	**24**	**25**	**16**	**11**

Source: URV in figures. Report ACRG25 Drop-out rates per number of credits passed. On 2 November 2021

Taula B.6.12 Graduates, mean length of study programme and efficiency rate

Curriculum		2017-18	2018-19	2019-20	2020-21
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Graduates	55	41	56	49
	Credits required	13200	9840	13440	11760
	Credits consumed	15422	11581	15654	13608
	Efficiency rate	85.59%	84.97%	85.86%	86.42%
	Mean length of studies (years)	5.06	5.00	4.80	4.63
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Graduates	38	52	50	42
	Credits required	9120	12480	12000	10080
	Credits consumed	10866	14697	14385	11637
	Efficiency rate	83.93%	84.92%	83.42%	86.62%
	Mean length of studies (years)	5.65	5.59	6.37	5.47

Source: URV in figures. ACRG25 Bachelor's degree graduates. On 11 November 2021

Calculation formula (Aneca): Theoretical number of credits on the curriculum x Number of graduates
-- x 100
Total number of credits actually enrolled in by graduates

Table B.6.13 Graduates per grade point average

Curriculum	Final grade point average	Graduates			
		2017-18	2018-19	2019-20	2020-21
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	5.6 - 6	3	5	10	3
	6.1 - 6.5	25	18	24	21
	6.6 - 7	19	12	15	17
	7.1 - 7.5	4	2	5	2
	7.6 - 8	3	3		3
	8.1 - 8.5	1	1	2	3
	8.6 - 9				
	Total	**55**	**41**	**56**	**49**
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	5.6 - 6	10	9	9	6
	6.1 - 6.5	16	24	23	20
	6.6 - 7	4	12	15	6
	7.1 - 7.5	5	2	3	6
	7.6 - 8	3	3		2
	8.1 - 8.5		2		1
	8.6 - 9				1
	9.1 - 9.5				
	Total	**38**	**52**	**50**	**42**

Source: URV in figures. ACRG24 Graduates per grade point average. On 2 November 2021

Table B.6.14 Comparison of Royal Decree rates with the predictions in the report

Pla	Royal Decree rates	Predicted outcomes	2017-18	2018-19	2019-20	2020-21
2020- BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Graduation rate (RD)	**55%**	53.19%	52.38%	39.29%	44.44%
	Efficiency rate	**85%**	85.59%	84.97%	85.86%	86.42%
	Dropout rate (RD)	**30%**	37.23%	32.14%	42.86%	34.57%
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Graduation rate (RD)	**50%**	27.16%	36.76%	42.65%	40.98%
	Efficiency rate	**85%**	83.93%	84.92%	83.42%	86.62%
	Dropout rate (RD)	**20%**	29.63%	36.76%	23.53%	18.03%

Source: ETSEQ 12/11/2021. URV in figures. Reports ACRG11, ACRG13 and ACRG14.

Graduation rate: Calculation formula (Aneca): Graduates in "d" or in "d+1" (of the students enrolled in "c")
-- x100
Total number of students enrolled on a course "c"

Efficiency rate: Calculation formula (Aneca): Theoretical number of credits on the curriculum x Number of graduates
-- x 100
Total number of credits actually enrolled in by graduates

Dropout rate: Calculation formula (Aneca): No, of students not enrolled in the final year "t+1"
--x100
No, of students enrolled in the year t-n+1

(n = number of years the degree lasts)

Table B.6.15 Indicators and rates per gender

Curriculum	Gender indicators	2017-18			2018-19			2019-20			2020-21		
		WOMEN	MEN	Total	WOMEN	MEN	Total	WOMEN	MEN	Total	WOMEN	MEN	Total
2020-BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Number of students enrolled (03)	102	180	**282**	109	174	**283**	112	174	**286**			**288**
	% students enrolled (03)	36%	64%		39%	61%		39%	61%		40%	60%	
	% graduates (11)	25.45%	74.55%		43.90%	56.10%		35.71%	64.29%		40.82%	59.18%	
	Graduates (11)	14	41	**55**	18	23	**41**	20	36	**56**	20	29	**49**
	Efficiency rate (11)	81.32%	87.16%		84.46%	85.37%		90.24%	83.60%		85.14%	87.33%	
	Success rate (07)	80.39%	87.41%		77.57%	83.01%		85.48%	90.54%		74.45%	82.66%	
	Performance rate (07)	74.09%	81.51%		70.57%	76.65%		76.11%	85.20%		65.50%	74.90%	
	Dropouts (RD) (13)	5	30		4	23		10	26		9	19	
	Income (RD) (13)	31	63		23	61		27	57		37	44	
	Dropout rate (RD) (13)	16.13%	47.62%		17.39%	37.70%		37.04%	45.61%		24.32%	43.18%	

Curriculum	Gender indicators	2017-18			2018-19			2019-20			2020-21		
		WOMEN	MEN	Total	WOMEN	MEN	Total	WOMEN	MEN	Total	WOMEN	MEN	Total
	Graduation rate (RD) (14)	70.97%	44.44%		60.87%	49.18%		40.74%	38.60%		48.65%	40.94%	
2022- BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Number of students enrolled (03)	25	287	**312**	24	292	**316**	26	285	**311**	29	281	**310**
	% students enrolled (03)	8%	92%		8%	92%		8%	92%		9%	91%	
	% graduates (11)	5.26%	94.74%		5.77%	94.23%		10.00%	90.00%		11.90%	88.10%	
	Graduates (11)	2	36	**38**	3	49	**52**	5	45	**50**	5	37	**42**
	Efficiency rate (11)	87.91%	83.72%		98.36%	84.21%		81.80%	83.60%		87.34%	86.52%	
	Success rate (07)	87.39%	85.36%		88.54%	84.37%		91.44%	86.43%		93.01%	77.09%	
	Performance rate (07)	80.90%	77.11%		79.64%	76.73%		82.50%	76.44%		84.71%	65.08%	
	Dropouts (RD) (13)	3	21		2	23		3	13		0	11	
	Income (RD) (13)	6	75		5	63		6	62		7	54	
	Dropout rate (RD) (13)	50.00%	28.00%		40.00%	36.51%		50.00%	20.97%		0.00%	20.37%	
	Graduation rate (RD) (14)	50.00%	25.33%		40.00%	36.51%		33.33%	43.55%		28.57%	42.59%	

Source: ETSEQ 28/01/2022 URV in figures. Reports ACRG11, ACRG13 and ACRG14.

ANNEX C: RESULTS OF SATISFACTION SURVEYS FOR BACHELOR'S DEGREES IN CHEMICAL ENGINEERING AND MECHANICAL ENGINEERING 2020-21

URV AND ETSEQ STUDENT SATISFACTION SURVEYS

Table C.0.1. Satisfaction of URV students with the individual sessions and workshops on careers guidance

Careers Guidance Surveys academic year 2020/21			
	Individual Guidance	**Workshop Block 2**	**Workshop Block 3**
How do you rate the activity in general terms?	3.89	3.30	3.53
How do you rate the content of the activity?	3.86	3.32	3.47
How do you rate the instructor of the activity?			
Knowledge of the topic	3.81	3.60	3.72
Attitude	3.76	3.64	3.82
Methodology	3.81	3.32	3.47
Resources	3.68	3.20	3.39
How do you rate the organisational aspects of the activity?			
Information about the activity	3.73	3.11	3.29
Duration	3.73	3.06	3.35
Timetable	3.81	2.94	3.07
Do you think the activity will be useful for your professional future?	3.63	3.26	3.47
Average (maximum score 4 points)	**3.77**	**3.27**	**3.45**

Source: OFES (Students's Office) Results of the surveys on the individual sessions and workshops on careers guidance 2020-21 on 01.02.2022. General URV information.

Table C.0.2 ETSEQ student satisfaction with outgoing mobility

Outgoing mobility survey	Assessment	2017-18	2018-19	2019-20	2020-21
No. of outgoing students		**40**	**48**	**38**	**17**
No. of respondees		**36**	**48**	**12**	**17**
% Participation		**90%**	**100%**	**32%**	**100%**
Academic aspects	Negative	0.00%	2.10%	0.00%	0.00%

Outgoing mobility survey	Assessment	2017-18	2018-19	2019-20	2020-21
	Poor	2.80%	2.10%	25.00%	0.00%
	Normal	16.70%	14.60%	16.70%	5.90%
	Satisfactory	47.20%	37.50%	16.70%	47.10%
	Excellent	33.30%	43.80%	41.70%	47.10%
Personal aspects	Negative	0.00%	0.00%	0.00%	0.00%
	Poor	2.80%	2.80%	16.70%	0.00%
	Normal	2.80%	6.30%	8.30%	0.00%
	Satisfactory	16.70%	18.80%	25.00%	17.60%
	Excellent	77.80%	72.90%	50.00%	82.40%
Improvement in employability	Negative	0.00%	0.00%	0.00%	0.00%
	Poor	2.80%	0.00%	8.30%	0.00%
	Normal	5.60%	16.70%	8.30%	17.60%
	Satisfactory	47.20%	41.70%	33.30%	41.20%
	Excellent	44.40%	41.70%	-50.00%	41.20%
Language improvement	Negative	0.00%	2.10%	0.00%	0.00%
	Poor	5.60%	6.30%	25.00%	11.80%
	Normal	8.30%	20.80%	16.70%	11.80%
	Satisfactory	44.40%	20.80%	8.30%	47.10%
	Excellent	41.70%	50.00%	50.00%	29.40%
Understanding the other culture	Negative	0.00%	2.10%	0.00%	0.00%
	Poor	0.00%	0.00%	16.70%	0.00%
	Normal	0.00%	6.30%	8.30%	17.60%
	Satisfactory	44.40%	50.00%	41.70%	47.10%
	Excellent	55.60%	41.70%	33.30%	35.30%
Overall assessment	Negative	0.00%	0.00%	8.30%	0.00%
	Poor	2.80%	2.10%	8.30%	0.00%
	Normal	0.00%	6.30%	16.70%	5.90%
	Satisfactory	38.90%	33.30%	16.70%	47.10%

Outgoing mobility survey	Assessment	2017-18	2018-19	2019-20	2020-21
	Excellent	58.30%	58.30%	50.00%	47.10%
Survey mean		**8.56**	**8.46**	**7.29**	**8.53**

Source: I-Center Outgoing Students Survey (Q. 5) 2020-21: 21/12/2021; 2019-20: 21/12/2021; 2018-19: 09/03/2020, 2017-18: 24/04/2019

SURVEYS ON THE BACHELOR'S DEGREE IN CHEMICAL ENGINEERING

Table C.1 Surveys for determining the satisfaction of stakeholders and the percentage of participation GEQ

GEQ	Head of survey	Survey/Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
	Students															
ENQ_S12	GPQ	FIRST-YEAR UNDERGRADUATE SURVEY	●Educational experience ●Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	13.56%	7.41	4.05%	4.44	13.43%	6.98	13.00%	6.49	E1 E2 E5 E6
ENQ_S12	GPQ	UNDERGRADUATE SURVEY DURING	●Educational experience ●Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	9.65%	5.92	8.16%	7.69	7.96%	7.47	2.00%	6.55	E1 E2 E5 E6
ENQ_S12	GPQ	UNDERGRADUATE SURVEY WHEN THEY FINISH	●Educational experience ●Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	9.09%	7.86	4.62%	7.86	3.74%	6.96	11.00%	7.63	E1 E2 E5 E6
ENQ_S12 Sur Bach degree lec PDI I	HRS	SURVEY DEGREE SUBJECT	●Educational experience ●Other dimensions of the educational	Bachelor's degree	Online	Semestral	Final year completed	15.81%	7.47	11.90%	7.36	15.41%	7.63	12.00%	7.07	E1 E2 E5 E6

GEQ	Head of survey	Survey/Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
			programme and services (2)													
ENQD2 PDI II	GPQ	"TEACHING STAFF" SURVEY BACHELOR'S SUBJECT	• Teaching	Bachelor's degree	Online	Semestral	Final year completed	15.81%	7.59	11.90%	7.27	15.41%	7.77	15.00%	7.58	E4
ENQ_S12	GPQ	EI-SURVEY DEGREE SUBJECT	•Key actions	Bachelor's degree	Online	Annual	Final year completed	20.00%	6.45	20.00%	6.70	13.66%	8.50	6.00%	9.21	E6
ENQ_S12	GPQ	MT-SURVEY DEGREE SUBJECT	•Key actions	Bachelor's degree	Online	Annual	Final year completed	24.07%	7.22	12.24%	7.39	5.08%	6.28	15.00%	8.16	E6
I-CENTER	I-CENTER	OUTGOING MOBILITY SURVEY	• Faculty/School mobility	Bachelor's degree and Master's degree	Online	Annual	Final year completed	90.00%	8.56	100.00%	8.46	32.00%	7.29	100.00%	8.53	E5
CRAI	CRAI	CRAI satisfaction survey	• Use • Staff • Facilities and equipment • Documentary resources • Services	Bachelor's, master's and doctoral degrees	Online	Termly	Academic year 2018-19	n.a.	n.a	16.60%	8.00	n.a.	n.a.	n.a.	n.a.	E5
Surveys of new students (faculty/school)	ETSEQ	Survey on induction sessions	• Public information • Student guidance	Bachelor's degree	Pen and paper/Online	Annual	Final year completed	50.68%	n.d.	70.73%	8.00	77.03%	8.20	32.10%	8.20	E2 E5
	Graduates															

GEQ	Head of survey	Survey/Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
Faculty/School	ETSEQ	Faculty/School survey of graduates	• Training received • Employment and job satisfaction	Bachelor's degree and Master's degree	Online	Graduates 2017-18	Final year completed	13.46%	7.14	24.39%	5.80	32.14%	7.00	36.73%	7.50	E1 E2 E4 E5 E6
AQU	AQU	Survey on career opportunities for graduates (AQU Catalunya)	• Training received •i Employment and job satisfaction	Bachelor's degree	Online	3 times a year	Study from 2017 and 2020	59.40%	8.42	n.a.	n.a.	45.90%	10.00	n.a.	n.a.	E6
	Teaching staff (only for accreditation)															
Faculty/School	ETSEQ	Satisfaction survey for teaching staff	• The structure of the curriculum (subjects and their weight). • Profile of competences (predicted learning outcomes) of	Bachelor's degree and Master's degree	Online	Accreditation	Final year completed	n.a	n.a	n.a	n.a	n.a	n.a	46.00%	8.09	E4

<table>
<tr><th rowspan="3">GEQ</th><th rowspan="3">Head of survey</th><th rowspan="3">Survey/Mechanism (1)</th><th rowspan="3">Dimensions or items of satisfaction</th><th rowspan="3">Scope</th><th rowspan="3">Format</th><th rowspan="3">Frequency</th><th rowspan="3">Latest data available</th><th colspan="8">Percentage of participation(%); Mean satisfaction of the survey (0-10)</th><th rowspan="3">Related accreditation standards</th></tr>
<tr><th colspan="2">17-18</th><th colspan="2">18-19</th><th colspan="2">19-20</th><th colspan="2">20-21</th></tr>
<tr><th>%part</th><th>Mean</th><th>%part</th><th>Mean</th><th>%part</th><th>Mean</th><th>%part</th><th>Mean</th></tr>
<tr><td></td><td></td><td></td><td>the degree programme.
• Profile of students admitted on the degree programme.
• Organisation the the curriculum (groups, opening hours.).
• Teaching coordination and internal communication.
• Teaching methodologies and assessment strategies.
• Available teaching resources.
• Work and commitment of the students.
• Learning outcomes obtained by students.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

Source: Cell Id gives information about the different reports and the participation is taken from SINIA Informe ENQ_S05 on 2 February 2022
Key: ND: not available (not enough responses to give results or data not available); N/A: not applicable (survey is not given, e.g. there are no graduates).

➢ SATISFACTION SURVEYS FOR STUDENTS

Table C.2 Satisfaction of first-year undergraduates – GEQ (enrolled for the first time on the degree)

Title of the block	Survey of student satisfaction with the degree: START BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	**2018-19**	**2019-20**	**2020-21**
Adaptation to the university	I have adapted to the university environment	7.14	8.33	6.67	4.89
	I am satisfied with my colleagues on the degree	8	9	6.22	6.22
Languages: Professional tool	I can follow a meeting in English.	8.25	7	8.22	6.22
	I can make a presentation in English.	8.25	7.33	7.67	4.89
	I can write an article in English.	7.38	6.67	8.11	5.89
	I can read documentation in English.	7.5	5.33	9.11	7.11
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	8.5	8.33	7.29	7.17
	The tutor has encouraged a good climate of personal relations and communication.	7.6	1	7	7.17
	I am satisfied with the information given during the tutorials.	8	0	6.86	6.67
	I am satisfied with how my tutor resolved my queries.	7.2	0	6.43	6.83
	The tutorial has been useful.	6.8	0	6.14	6.67
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	6.6	0	5.71	7.17
Learning environment	The learning environment in the degree is one of collaboration.	6.2	0	6.89	7.33
	The learning environment in the degree is one of competition.	7.88	8.67	5.44	5.56
Induction sessions	If you attended: To what extent were they useful for your adaptation to the University? (mark your response on the scale)	5.88	5	7	7.5
	Survey mean	**7.41**	**4.44**	**6.98**	**6.49**
	Number of surveys assessed	**8**	**3**	**9**	**9**
	Participation	**13.56%**	**4.05%**	**13.43%**	**13.00%**

Source: URV in figures. Report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021

Table C.3 Undergraduate satisfaction during – GEQ (after the 2nd enrolment and before enrolling for the bachelor's thesis)

Title of the block	Survey of student satisfaction with the degree: DURING BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Languages: Professional tool	I can follow a meeting in English.	6	6.75	8.22	6.67
	I can make a presentation in English.	5.36	6.75	8.11	6.00
	I can write an article in English.	5.55	7.5	7.56	6.67
	I can read documentation in English.	6.91	6.25	6.44	7.67
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	5.29	7.08	7.67	5
	The tutor has encouraged a good climate of personal relations and communication.	6.14	7.75	8.44	8
	I am satisfied with the information given during the tutorials.	5.67	6.92	6.6	8
	I am satisfied with how my tutor resolved my queries.	5.17	6	8	8
	The tutorial has been useful.	4.67	8.29	7.6	7
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	5.17	9	7.8	7
Adaptation to the university	I have adapted to the university environment	6.45	9.17	7	4.67
	I am satisfied with my colleagues on the degree	7	8.83	8.25	5.67
Learning environment	The learning environment in the degree is one of collaboration.	7.09	8.67	8.22	5.33
	The learning environment in the degree is one of competition.	6.36	8.67	4.67	6
	Survey mean	**5.92**	**7.69**	**7.47**	**6.55**
	Number of surveys assessed	**11**	**12**	**9**	**3**
	Participation	**9.65%**	**8.16%**	**7.96%**	**2.00%**

Source: URV in figures/Report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021

Table C.4 Final undergraduate satisfaction - GEQ (enrolled in the bachelor's thesis)

Title of the block	Survey of student satisfaction with the degree: FINAL BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Adaptation to the university	I have adapted to the university environment	8.60	8.33	6.50	7.71
	I am satisfied with my colleagues on the degree	8.40	7.67	6.75	7.86
Languages: Professional tool	I can follow a meeting in English.	7.60	8.33	6.75	9.00
	I can make a presentation in English.	6.90	9.33	6.75	7.86
	I can write an article in English.	7.60	9.00	7.25	8.00
	I can read documentation in English.	8.90	8.67	7.75	9.43
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	6.75	5.00	9.00	8.00
	The tutor has encouraged a good climate of personal relations and communication.	8.25	8.00	9.00	7.50
	I am satisfied with the information given during the tutorials.	8.00	8.00	9.00	8.00
	I am satisfied with how my tutor resolved my queries.	8.00	8.00	9.00	7.00

Title of the block	Survey of student satisfaction with the degree: FINAL BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
	The tutorial has been useful.	7.75	8.00	8.50	7.50
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	7.75	9.00	8.50	9.00
Learning environment	The learning environment in the degree is one of collaboration.	7.70	6.67	6.75	7.71
	The learning environment in the degree is one of competition.	6.60	7.33	3.50	3.86
Degree programme	The curriculum is structured in such a way that I have made good progress.	8.00	7.33	6.25	8.14
	The content of the subjects on the degree programme is well coordinated and there is no repetition.	7.50	7.33	5.00	7.29
Competences	The course has helped me improve my ability to speak in public.	8.50	8.00	7.00	7.00
	The course has helped me improve my ability to express myself in writing.	7.70	8.00	5.00	7.00
	The course has helped me improve my ability to work independently.	8.50	8.00	6.25	7.86
	The course has helped me improve my ability to take decisions.	8.00	5.67	6.75	7.57
	The course has helped me improve my ability to solve problems.	8.30	7.67	7.50	8.43
	The course has helped me improve my ability to work as part of a team.	9.10	7.33	8.00	9.14
	The course has helped me improve my ability to manage information.	8.20	8.00	7.00	8.86
	The course has helped me improve my ability to work in foreign languages.	6.90	8.00	4.50	4.86
	The course has helped me improve my ability to use the information and communication technologies.	7.90	9.00	5.00	6.86
	The course has helped me to reflect on aspects of social and ethical responsibility.	7.10	9.33	7.75	6.57
	The course has helped me improve my ability to define my future academic and professional profile.	7.80	8.33	6.75	8.00
	The course has helped me improve my professional abilities.	7.90	6.67	7.25	7.57
The degree during the COVID-19 health emergency	The degree adapted well to the new situation.	-	-	6.50	6.43
	The course: In general, the information provided during the new situation was useful.	-	-	6.00	7.29
	Assessment: In general, the information on how assessment would be carried out in this new situation was useful	-	-	5.25	7.14
The teaching staff during the COVID-19 health emergency	If applicable to you, assess the following statement about the degree in general: The support given by the teaching staff was sufficient.	-	-	7.75	8.43
Tutorials during the COVID-19 health emergency	If applicable, assess the following statement: The support provided by the tutor was sufficient.	-	-	5.00	7.50
Online tools during the COVID-19 health emergency	Real-time videoconferencing	-	-	6.00	6.71
	Recorded videoconferencing	-	-	5.67	8.00
	Forums	-	-	5.00	6.40
	Chats	-	-	5.50	5.80
Administration and services during the	If applicable, assess the following statement: The support provided by the Administration and Services Staff was sufficient.	-	-	7.50	8.80

Title of the block	Survey of student satisfaction with the degree: FINAL BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
COVID-19 health emergency					
	Survey mean	**7.86**	**7.86**	**6.96**	**7.63**
	Number of surveys assessed	**10**	**3**	**4**	**7**
	Participation	**9.09%**	**4.62%**	**3.74%**	**11.00%**

Source: URV in figures. Report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021
The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.5 Student satisfaction with the teaching staff I - GEQ

Survey of student satisfaction with teaching staff I BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
	2017-18	**2018-19**	**2019-20**	**2020-21**
The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).	7.46	7.29	7.71	7.44
The recommended bibliography was readily available.	7.35	7.46	7.48	7.19
The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.	7.81	7.64	7.82	6.43
The campus facilities allowed the subject to be taught satisfactorily.	7.81	7.68	7.77	6.08
The information given about the activities involved in the subject (assignments, excursions, exams, etc.) is sufficient for me to organise my study time.	7.48	7.29	7.69	7.46
The subject has helped me to learn.	7.46	7.29	7.57	7.34
The assessment methods helped me to learn.	7.03	6.97	7.29	6.88
I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle).	7.58	7.30	7.74	7.31
The Course Guide gave me all the information I needed about the subject.	7.21	7.41	7.71	7.52
On a scale of 0 to 10 rate your satisfaction with the subject.	7.48	7.23	7.55	7.04
Survey mean	**7.47**	**7.36**	**7.63**	**7.07**
Number of surveys assessed	**387**	**308**	**400**	**332**
Participation	**15.81%**	**11.90%**	**15.41%**	**12.00%**

Source: URV in figures/Lecturer surveys PDI/Report ENQ_S12 on 11 October 2021
The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.5.1. Student satisfaction with subjects GEQ

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2020)											
Subject	**No. surveys**	**The lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The course guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
TECHNICAL ENGLISH	5	6.67	9.00	9.33	9.33	8.80	9.00	8.00	8.20	8.80	8.00
INSTRUMENTAL ANALYSIS FOR THE CHEMICAL INDUSTRY	2	7.50	7.00	4.00	4.00	9.50	8.00	7.00	6.00	7.00	8.00
APPLIED BIOCHEMISTRY	3	9.00	9.00	7.50	8.00	7.67	7.33	8.00	9.00	7.67	6.33
BIOTECHNOLOGY	8	2.25	5.25	5.38	5.50	5.00	2.25	4.13	6.13	7.25	3.63
CHEMICAL KINETICS AND REACTOR DESIGN	13	6.46	6.77	6.50	5.83	5.69	6.38	5.23	6.15	6.31	6.54
MATERIALS SCIENCE	13	3.13	6.15	2.15	2.54	4.15	2.77	2.54	3.62	4.31	2.77
COMPUTING IN PROCESS ENGINEERING	17	6.88	6.14	5.54	5.62	7.18	7.12	7.06	6.12	6.35	6.88
CONTROL AND INSTRUMENTATION	10	6.11	6.30	4.60	3.78	5.20	7.20	5.70	5.80	6.60	5.20
DESIGN OF EQUIPMENT AND CHEMICAL PLANTS	9	8.44	8.33	6.25	5.71	8.56	9.44	8.22	8.67	8.33	8.22
DESIGN OF HEAT EXCHANGE OPERATIONS	6	8.67	8.17	6.17	6.17	7.67	8.50	8.33	8.50	7.50	8.33
DESIGN OF SEPARATION OPERATIONS	7	8.86	8.57	7.83	7.83	8.43	8.86	8.71	9.00	8.29	8.00

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2020)											
Subject	**No. surveys**	**The lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The course guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
DESIGN OF PRESSURE VESSELS	12	8.29	7.67	7.00	7.00	8.83	8.82	8.33	7.83	8.50	8.00
ECONOMY AND INDUSTRIAL ORGANIZATION	4	7.33	7.75	7.25	6.75	7.75	8.00	8.50	7.75	7.00	8.00
TOOLS FOR ENTREPRENEURSHIP	1	10.00	10.00	-	-	9.00	9.00	10.00	10.00	8.00	8.00
ELECTROTECHNICS	4	1.00	6.33	7.00	7.00	6.75	6.50	6.00	5.75	5.50	6.75
ELECTRONICS	8	8.50	8.43	5.17	4.33	8.63	7.63	7.25	7.75	8.88	7.38
POLYMER ENGINEERING	1	-	8.00	8.00	10.00	6.00	7.00	6.00	10.00	7.00	8.00
ENGINEERING FLUID MECHANICS	10	8.30	5.63	6.29	6.14	7.22	6.50	6.10	7.10	8.11	6.90
GRAPHICAL EXPRESSION	25	7.52	7.43	7.42	5.25	9.04	8.76	7.72	8.72	8.40	8.36
TRANSPORT PHENOMENA	11	7.60	7.82	5.70	5.60	8.09	7.82	7.82	8.00	7.64	7.45
PHYSICAL CHEMISTRY	15	8.00	6.07	6.75	5.90	7.40	7.67	7.07	7.33	7.27	7.20
FUNDAMENTALS OF PROCESS ENGINEERING	15	8.13	6.93	6.55	6.60	7.00	7.67	7.40	7.67	7.40	7.07
PHYSICS	23	7.29	6.50	7.10	6.30	7.22	7.22	5.65	6.74	7.17	6.87
PROJECT MANAGEMENT	7	8.60	8.71	7.86	7.86	9.00	7.57	6.86	8.71	8.29	7.71
GENDER, SCIENCE AND SOCIAL CHANGE	0	-	-	-	-	-	-	-	-	-	-
HISTORY OF ENGINEERING	0	-	-	-	-	-	-	-	-	-	-

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2020)											
Subject	**No. surveys**	**The lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The course guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
UNIT OPERATIONS LABORATORY	6	9.33	7.67	8.00	8.00	8.00	8.67	8.67	8.17	8.00	8.17
TRANSPORT PHENOMENA AND FLUID MECHANICS LABORATORY	5	8.67	8.40	8.20	8.40	8.60	8.20	8.00	7.80	8.40	8.20
CHEMICAL THERMODYNAMICS AND KINETICS LABORATORY	6	7.67	7.50	7.83	8.00	7.50	7.67	6.83	7.67	7.67	7.67
INDUSTRIAL MAINTENANCE	1	-	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
MATHEMATICS I	12	7.42	5.64	5.89	5.44	7.42	6.67	6.83	7.08	6.75	6.25
MATHEMATICS II	7	8.00	7.43	6.50	6.00	7.43	6.71	7.00	7.14	7.14	7.43
MATHEMATICS III	8	8.00	7.29	6.86	6.86	7.88	7.50	8.38	7.88	8.00	7.50
MODELLING OF BIOTECHNOLOGICAL PROCESSES	1	-	9.00	5.00	5.00	10.00	9.00	9.00	10.00	9.00	9.00
MACHINES AND MECHANISMS	9	8.50	7.63	6.57	5.86	8.00	7.00	6.44	7.44	8.44	7.22
TECHNICAL OFFICE	9	8.22	7.78	6.29	5.57	8.56	9.22	8.89	8.00	8.56	8.44
CHEMICAL PROCESSES AND PRODUCTS	7	7.43	6.43	6.57	6.29	7.00	6.43	6.71	6.71	7.29	6.57
TEAM LEADERSHIP PRACTICES	5	9.00	8.20	6.00	5.00	8.20	8.80	5.40	7.80	8.60	7.20
CHEMISTRY I	21	7.54	6.95	7.56	6.88	7.48	6.90	6.38	6.48	7.57	7.00
CHEMISTRY II	12	7.17	5.91	8.17	7.91	6.00	7.17	6.83	6.67	7.25	6.25

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2020)											
Subject	**No. surveys**	**The lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The course guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
INDUSTRIAL ORGANIC CHEMISTRY	7	7.33	8.14	6.67	5.60	8.57	8.00	8.00	9.00	9.00	8.29
RESISTANCE OF MATERIALS	5	9.00	7.20	8.20	7.40	8.60	8.20	8.20	9.00	8.00	7.80
INDUSTRIAL SAFETY	11	3.00	7.09	2.91	3.70	6.27	5.64	4.45	4.90	6.18	4.27
SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	5	9.00	8.20	8.40	8.40	7.60	7.80	8.60	8.80	8.20	8.40
POLYMERIC SYSTEMS AND PROCESSES	1	-	9.00	-	-	9.00	10.00	9.00	10.00	9.00	8.00
ENVIRONMENTAL TECHNOLOGY	7	7.83	8.00	8.14	8.40	7.57	7.14	7.29	8.57	8.14	7.71
THERMODYNAMICS	5	8.40	7.40	5.60	5.20	5.80	7.00	6.40	5.60	6.80	7.20
TECHNICAL THERMODYNAMICS	7	10.00	9.43	3.86	5.00	8.43	8.57	7.86	9.29	9.00	8.14

Source: URV in figures./Surveys on teaching quality/Survey results/ENQ_S12, Mean score per question on 10 September 2021
The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.6 Student satisfaction with teaching staff II - GEQ

Survey of student satisfaction with teaching staff II BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
At the beginning of the subject, the objectives, the syllabus and the assessment criteria are clearly explained.	7.73	7.67	8	
The teaching activities match the objectives, content, assessment system and competences explained in the course guide.	7.64	7.43	7.93	
The teaching methodology matches the objectives of the subject.	7.36	7.03	7.59	
The lecturer clearly explains the content.	7.38	6.91	7.43	7.31
Does the lecturer follow the course guide of the subject?				7.98

Survey of student satisfaction with teaching staff II BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
The lecturer satisfactorily answers any questions that he/she is asked.	7.72	7.28	7.87	
The lecturer attempts to stimulate the students' interest in the subject.	7.09	6.76	7.22	
The teacher communicates well and maintains good interpersonal relations with the students.	7.52	7.12	7.71	
The lecturer complies with the timetable for classes and for personal tutorials outside the classroom.	8.22	8.00	8.47	
The workload is consistent and in proportion with the credits awarded for the subject.	7.59	7.26	7.8	
Overall I think he/she is a good teacher.	7.66	7.27	7.7	7.46
Survey mean	**7.59**	**7.27**	**7.77**	**7.58**
Number of surveys assessed	**387**	**308**	**400**	**386**
Participation	**15.81%**	**11.90%**	**15.41%**	**15.00%**

Source: URV in figures./Surveys on lecturers/Report ENQD2 Overall data per degree on 11 October 2021
* In the academic year 2020-21, the survey consisted of only the three questions in bold.

Table C.6.1. Student satisfaction with the teaching GEQ

Subject BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Surveys		% part	Subject mean	Does the lecturer clearly explain the content?	Does the lecturer follow the course guide of the subject?	Overall, do I think he/she is a good teacher?
	Potential	Actual					
TECHNICAL ENGLISH	37	5	13.51%	8.13	7.80	8.80	7.80
INSTRUMENTAL ANALYSIS FOR THE CHEMICAL INDUSTRY	14	2	14.29%	9.11	10.00	8.67	8.67
APPLIED BIOCHEMISTRY	12	3	25.00%	6.67	5.00	8.67	6.33
BIOTECHNOLOGY	53	8	15.09%	4.79	3.75	6.38	4.25
CHEMICAL KINETICS AND REACTOR DESIGN	84	12	14.29%	6.42	6.15	6.80	6.30
MATERIALS SCIENCE	56	13	23.21%	3.64	3.31	4.15	3.46
COMPUTING IN PROCESS ENGINEERING	94	15	15.96%	6.69	6.41	7.00	6.66
CONTROL AND INSTRUMENTATION	55	10	18.18%	6.81	5.94	7.56	6.94
DESIGN OF EQUIPMENT AND CHEMICAL PLANTS	50	9	18.00%	8.39	8.17	9.06	7.94
DESIGN OF HEAT EXCHANGE OPERATIONS	57	6	10.53%	8.83	8.70	9.10	8.70
DESIGN OF SEPARATION OPERATIONS	57	7	12.28%	8.05	7.95	8.15	8.05
DESIGN OF PRESSURE VESSELS	29	12	41.38%	8.56	8.17	9.17	8.33
ECONOMY AND INDUSTRIAL ORGANIZATION	61	3	4.92%	6.58	6.50	6.50	6.75
TOOLS FOR ENTREPRENEURSHIP	12	1	8.33%	8.67	9.00	9.00	8.00
ELECTROTECHNICS	61	4	6.56%	7.42	7.25	7.50	7.50
ELECTRONICS	49	6	12.24%	8.56	8.17	9.00	8.50
POLYMER ENGINEERING	15	1	6.67%	8.67	10.00	8.00	8.00
ENGINEERING FLUID MECHANICS	77	9	11.69%	7.73	7.88	7.76	7.53
GRAPHICAL EXPRESSION	84	26	30.95%	8.24	7.98	8.63	8.10

Subject BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Surveys		% part	Subject mean	Does the lecturer clearly explain the content?	Does the lecturer follow the course guide of the subject?	Overall, do I think he/she is a good teacher?
	Potential	Actual					
TRANSPORT PHENOMENA	86	11	12.79%	8.12	7.82	8.64	7.91
PHYSICAL CHEMISTRY	92	14	15.22%	8.45	8.21	8.43	8.71
FUNDAMENTALS OF PROCESS ENGINEERING	112	13	11.61%	7.73	7.66	7.89	7.63
PHYSICS	132	22	16.67%	8.23	7.95	8.56	8.17
PROJECT MANAGEMENT	65	7	10.77%	8.14	8.00	8.86	7.57
GENDER, SCIENCE AND SOCIAL CHANGE	7	0	0.00%	-	-	-	-
HISTORY OF ENGINEERING	10	0	0.00%	-	-	-	-
UNIT OPERATIONS LABORATORY	49	6	12.24%	7.96	6.78	9.00	8.11
TRANSPORT PHENOMENA AND FLUID MECHANICS LABORATORY	63	4	6.35%	8.5	8.25	8.50	8.75
CHEMICAL THERMODYNAMICS AND KINETICS LABORATORY	60	5	8.33%	7.1	6.69	7.62	7.00
INDUSTRIAL MAINTENANCE	37	1	2.70%	10	10.00	10.00	10.00
MATHEMATICS I	99	10	10.10%	7.32	6.97	7.73	7.24
MATHEMATICS II	64	7	10.94%	7.43	7.00	8.00	7.29
MATHEMATICS III	73	7	9.59%	8	7.67	8.20	8.13
MODELLING OF BIOTECHNOLOGICAL PROCESSES	11	1	9.09%	9.67	10.00	9.00	10.00
MACHINES AND MECHANISMS	48	8	16.67%	7.58	7.13	8.25	7.38
TECHNICAL OFFICE	50	8	16.00%	8.63	8.25	9.19	8.44
CHEMICAL PROCESSES AND PRODUCTS	66	5	7.58%	5.83	5.61	6.06	5.83
TEAM LEADERSHIP PRACTICES	15	5	33.33%	8.13	7.80	8.80	7.80
CHEMISTRY I	80	22	27.50%	7.16	6.53	7.75	7.19
CHEMISTRY II	79	12	15.19%	7.82	7.70	8.21	7.56
INDUSTRIAL ORGANIC CHEMISTRY	38	7	18.42%	9.1	8.86	9.43	9.00
RESISTANCE OF MATERIALS	61	5	8.20%	8.73	8.60	9.00	8.60
INDUSTRIAL SAFETY	50	11	22.00%	5.11	4.42	6.33	4.58
SIMULATION AND ANALYSIS OF CHEMICAL PROCESSES	54	5	9.26%	8.19	8.25	8.06	8.25
POLYMERIC SYSTEMS AND PROCESSES	13	1	7.69%	7.67	7.00	9.00	7.00
ENVIRONMENTAL TECHNOLOGY	55	7	12.73%	7.61	7.67	7.50	7.67
THERMODYNAMICS	66	5	7.58%	7.83	7.70	7.90	7.90
TECHNICAL THERMODYNAMICS	52	8	15.38%	8.88	8.75	9.00	8.88

Source: URV in figures/Surveys on lecturers/ENQD3 - Overall data per subject, Mea per question per subject, 10 September 2021

The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.7 Student satisfaction with external internships - GEQ

Student satisfaction with external internships BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
The subject has helped me to learn.	-	7.38	10	9.67
The process of allocating the practicum was reasonable.	5.3	3.88	7.5	6.67
At the beginning of the external internship I had all the information I needed to know what I had to do.	5.6	5.5	6.5	8.33
At the beginning of the external internship I had all the information I needed to know what I had to do.	6.4	7.5	6.75	9.67
The work load for this subject is appropriate.	6.7	7.63	8.75	9.33
The external internship was adequately supervised by the professional tutor.	6.33	7.63	9	9.33
The external internship was adequately supervised by the professional tutor.	6.11	6.75	8.33	9
The procedure for assessing the external internships is appropriate.	7	6	7	9.67
The external internships have given me the chance to gain experience of the world of work.	7.44	7.5	9.67	9.67
The external internships have enabled me to apply and consolidate the knowledge and skills that I have acquired during the course.	6.78	7.25	9.33	9.33
The external internships make it easier to find work.	6.63	5.75	8	9.67
On a scale of 0 to 10 rate your satisfaction with the subject.	6.44	6.63	9.67	9.67
On a scale of 0 to 10 rate your satisfaction with the place where you did your external internship.	6.67	7.75	10	9.67
Survey mean	**6.45**	**6.70**	**8.50**	**9.21**
Number of surveys assessed	**10**	**8**	**8**	**2**
Participation	**20.00%**	**20.00%**	**13.66%**	**6.00%**

Source: URV in figures/Surveys on teaching quality/Results of Surveys/ENQ_S12 Statistical values of the survey questions/Survey on external undergraduate internships On 21 September 2021
The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.8 Student satisfaction with the bachelor's degree thesis - GEQ

Survey on student satisfaction with the bachelor's degree thesis BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
The process by which the bachelor's degree thesis was assigned was reasonable.	7.13	7.83	4.00	8.38
The information given about the subject was clear and understandable (objectives, planning, and assessment criteria).	6.13	7.33	6.00	6.75
The work load for this subject is appropriate.	6.25	7.33	8.50	7
The guidance by the tutor was useful.	6.63	7.17	6.00	8.25
The assessment procedure for the bachelor's degree thesis is appropriate.	7.00	5.67	7.50	8
The bachelor's degree thesis has given me the chance to take part in research and/or professional activities.	7.81	8.17	5.00	7.5
The bachelor's degree thesis has given me the chance to evaluate the extent to which I master the competences of the degree.	8.38	8.33	7.00	8.5
On a scale of 0 to 10 rate your satisfaction with the subject.	8.75	6.83	5.00	9.13
The bachelor's degree thesis has enabled me to consolidate the competences of the degree.	6.88	7.83	7.50	8.88
The subject has helped me to learn.	-	-	-	9.25

Survey on student satisfaction with the bachelor's degree thesis BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	**2018-19**	**2019-20**	**2020-21**
Survey mean	**7.22**	**7.39**	**6.28**	**8.16**
Number of surveys assessed	**13**	**6**	**3**	**8**
Participation	**24.07%**	**12.24%**	**5.08%**	**15.00%**

Source: URV in figures/Surveys on teaching quality/Results of Surveys/ENQ_S12 Statistical values of the survey questions. Survey on the bachelor's degree thesis. On 21 September 2021
The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.8.1 Student satisfaction with the Learning and Research Resources Centre (CRAI) - GEQ

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)		
Number of surveys received*: 47 / 45		
Percentage of participation: 16.6% / 15.9%		
		Percentage
		student survey 2018-19
Do you use the CRAI?:		
	Never	0%
	Less than once a month	0%
	Once a month	0%
	2 or 3 times a month	15%
	More than once a the week	85%
Which CRAI do you use most?		
	CRAI Bellissens Campus	0%
	CRAI Campus Catalunya	2%
	CRAI Sescelades Campus	98%
	CRAI Terres de l'Ebre Campus	0%
	CRAI Vila-seca campus	0%
	CRAI Medicine and Health Sciences	0%
	CRAI Baix Penedès Campus	0%
	Library of the Teaching Unit at the Joan XXIII University Hospital (Tarragona)	0%
	Library of the Teaching Unit at the Sant Joan University Hospital (Reus)	0%
	Another (please specify)	0%
		Student survey 2018-19
CRAI staff (1: totally disagree; 10: totally agree):		
	Are prepared to help	8.11
	Understand my requirements.	7.91
	Answer my questions accurately and clearly.	8.2
	Give me the information I need quickly.	7.98

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)		
Number of surveys received*: 47 / 45		
Percentage of participation: 16.6% / 15.9%		
	Make me feel I am in good hands.	8.05
	Help me to find the resources I need.	8.26
	Mean	**8.08**
The CRAI's facilities and equipment (1: totally disagree; 10: totally agree):		
	Are comfortable and welcoming.	7.69
	They are conducive to study.	7.36
	They have group work spaces.	8.11
	The temperature is just right in both winter and summer.	5.71
	There are enough places to work and study.	7.29
	They are well lit.	8.29
	The timetable is appropriate.	6.89
	They are pleasant looking (e.g. furniture, paining. etc.).	7.64
	The photocopiers all work and are usually available.	7.44
	The computers work and are readily available.	7.4
	Mean	**7.38**
The CRAI's collection of documents (1: totally disagree; 10: totally agree):		
	I find the books and the journals I need.	8.16
	I have easy access to the electronic resources that the URV purchases.	7.72
	The documents are in the right places on the shelves.	8.16
	The books and journals that have been used are quickly replaced on the shelves.	8
	The staff quickly find the lost books and journals that I need.	7.7
	I am quickly supplied with the documents that I request from other URV CRAIs.	7.93
	I am quickly supplied with the documents that I request from libraries other than the URV's.	7.88
	I have access to language-learning materials in different formats.	8.23
	Mean	**7.97**
The CRAI's services (1: totally disagree; 10: totally agree):		
	The courses taught at the CRAI are useful.	7.61
	I easily find the information I need on the CRAI's website.	7.39
	I find it easy to use the search tools available (catalogue, search engine, etc.)	7.47
	The CRAI's email notifications help me to return my loans on time.	8.29
	The waiting times at the CRAI desks are reasonable.	7.86
	I find that the supervised activities to improve my written English or Catalan are useful.	7.54
	I find that the English and Catalan conversation groups are useful.	7.64
	I find that the Factory's advice service is useful.	7.76

BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (2010)		
Number of surveys received*: 47 / 45		
Percentage of participation: 16.6% / 15.9%		
	Mean	**7.69**
All things considered... (1: totally disagree; 10: totally agree):		
	All things considered, I am satisfied with the CRAI's resources and services.	8
	All things considered, I am satisfied with the support given by the CRAI.	7.86
	All things considered, I think that the services provided by the CRAI are positive.	8.22
	Rate the extent of your satisfaction with the CRAI on a scale of 1 (very little) to 10 (a lot).	**8**

*: Number of surveys responded/Number of surveys assessed.

➢ SURVEY OF GRADUATE SATISFACTION

Table C.9 Satisfaction of recent bachelor's degree graduates GEQ (ETSEQ)

RECENT SURVEY OF ETSEQ GEQ GRADUATES				
DEGREE	***GEQ***	***GEQ***	***GEQ***	***GEQ***
Academic year	***2017-18***	***2018-19***	***2019-20***	***2020-21***
No. of graduates	***52***	***41***	***56***	***49***
No. of respondees	***7***	***10***	***18***	***18***
Participation	***13.46%***	***24.39%***	***32.14%***	***36.73%***
% Participation women	***-***	***60.00%***	***27.78%***	***61.11%***
STRUCTURE AND LEARNING				
Structure of the curriculum *(it has enabled me to make good progress in my learning)*	7.71	6.20	6.67	6.61
Coordination of content between subjects *(there has been no repetition of content)*	7.43	7.10	6.33	5.78
Volume of work *(appropriate for the number of credits for each subject)*	6.43	5.90	5.17	5.50
Teachers	5.43	5.50	5.72	6.83
Teaching methodologies	6.14	4.70	5.50	7.11
Assessment methods	6.14	6.50	6.28	7.11
Academic support *(from the tutor/coordinator)*	6.14	4.30	5.17	4.78
Careers guidance	5.57	4.30	4.89	4.56
Virtual Campus *(Moodle or others)*	8.00	6.60	7.39	8.06
Subject content (Is it up-to-date? Is the level right? etc.)	7.71	6.00	6.44	7.44
Organisation (order of subjects, timetable, calendar. etc.)	6.43	5.90	6.22	7.06
I am satisfied with the course.	7.14	5.80	7.00	7.50
PERSONAL IMPACT ON THE STUDENT				
External internships *(learning acquired, supervision and evaluation) (If you have done any. If not, write Not Applicable)*	8.14	7.40	6.63	5.87
Mobility activities *(If you have done any. If not, write Not Applicable)*	9.00	10.00	6.25	6.25
Communicative Abilities	8.00	7.30	6.56	6.35
Personal competences	8.29	7.80	7.11	7.38
Professional abilities	7.14	5.60	6.53	6.53
Bachelor's / Master's Degree Thesis (learning acquired, supervision and evaluation)	6.43	7.44	7.44	7.88
SERVICES AND EQUIPMENT				
Teaching facilities *(laboratories, classrooms. etc)*	6.86	7.60	6.56	7.83
CRAI *(accessibility to resources, installations. bibliographic sources, etc.)*	8.86	8.40	8.33	8.39
Student support services *(information on registration, academic procedures, grants, etc.)*	8.14	7.10	6.28	7.11
Responses to my complaints and suggestions *(If you have made any If not, write Not Applicable)*	7.50	6.29	4.33	7.08
Web information (accessible, complete, useful and up to date)	6.57	6.56	6.11	7.06
ETSEQ web information (accessible, complete, useful and up to date)				6.53

RECENT SURVEY OF ETSEQ GEQ GRADUATES				
SAME DEGREE				
If you had to start again, would you choose the same degree (Yes)?	71.40%	60.00%	77.78%	94.44%
SAME UNIVERSITY				
If you had to start again, would you choose the same university (Yes)?	85.70%	80.00%	66.67%	83.33%
CONTINUE STUDYING				
Are you still a student? (Yes)	100.00%	70.00%	88.89%	88.88%
If you responded affirmatively to the previous question, state the name of the degree programme and the name of the university (or education centre):				
Universitat Rovira i Virgili				1
Master's Degree in Industrial Engineering, URV	1	3	4	4
Operations Management, UOC				
Official Master's Degree in Training for Teachers of Compulsory Secondary Education and Upper Secondary Education, Professional Training and Language Teaching.				1
Master's degree in Tools for Professional Development in Industry, URV				1
Chemical Institute of Sarrià, Master's Degree in Chemical Engineering				1
Master's Degree in Chemical Engineering, URV	2	2	1	5
Master's Degree in Chemical Engineering (TUDelft)	1			
Universitat Oberta de Catalunya	1			
Master's Degree in Teacher Training, University of Valencia (VIU)				1
Master's Degree in Computational Fluid Mechanics	1			
Master's Degree in Materials and Processes	1			1
MEI+MEQ (URV)MEI+(URV)		1		
MASTER'S DEGREE IN INDUSTRIAL ENGINEERING AT THE UNIVERSITY OF SARAGOSSA		1		
Master's Degree in Paper and Graphic Technology, UPC			1	
Master's Degree in Chemical Engineering, UPC			1	
Masters Degree in Occupational Risk Prevention, URV			1	1
Master's Degree in Chemical Engineering at Denmark Technical University			1	
Master's Degree at IQS			1	

RECENT SURVEY OF ETSEQ GEQ GRADUATES				
Management of Technology Companies - URV			1	
MGIQMAS (URV)			1	
Energy conversion technologies and systems, URV			1	
WORK				
EPA (Labour Force Survey (Total employment rate in Catalonia)	**53.50%**	**54.20%**	**54.80%**	**52.70%**
Are you currently employed? *(Yes)* ***Employment rate (1)***	85.70%	21.00%	38.89%	44.44%
What did you need to get this job?				
The degree you studied	71.40%	33.00%	38.46%	44.44%
No degree was necessary	14.00%	17.00%	38.00%	33.33%
Any degree		50.00%	15.38%	11.11%
I have never had a job.				11.11%
Suitability rate (number of job holders who have university-level functions)	**71.40%**	**83.00%**	**53.84%**	**55.55%**
Is the work that you do/did in the same field as your degree? (Yes)	42.90%	67.70%	61.54%	50.00%
For this work you do/did, do you think you need to have a degree? (Yes)	57.10%	67.70%	61.54%	55.55%
SUITABILITY OF THE EDUCATION RECEIVED				
Usefulness of the theoretical training	-	7.00	5.94	6.61
Usefulness of the practical training	-	7.56	6.83	7.33

(1)https://www.idescat.cat/indicadors/?id=anuals&n=10386&utm_campaign=cercador&utm_medium=sugg&utm_source=Idescat&utm_term=taxa%20d%27ocupacio&utm_content=indicadors(indicators/?%20d%27_content=indicators

OPEN QUESTIONS (GEQ 2020-21)
In which area of business does the company you work/worked for operate?
RD
Industrial
Hotel and catering
Leisure
Administration
Food industry
Glass recycling
Industrial maintenance (instrumentation)
Management

Source: Design. Results of the Alchemer Formely SurveyGizmo/survey Recent Graduates 2 February 2022

Table C.9.1 Graduate satisfaction with job opportunities GEQ (AQU-EUC data)

Graduate survey on job opportunities (AQU)			
GEQ		2017	2020
		Sample: 19	Sample: 17
Question	Assessment item	Participation: 59.40%	Participation: 45.90%
Employment status	Employed	89.5%	94.1%
	Unemployed	10.5%	5.9%
Functions developed	Specific functions of the degree	57.9%	64.7%
	Graduate functions	42.1%	35.3%
Would you choose the same faculty/school?	Yes	84.2%	100.0%
Would you do the same degree again?	Yes	84.2%	82.4%

Source: EUC survey on job opportunities on 11 October 2021

- **SURVEY OF TEACHING STAFF**

Table C.10 Satisfaction of the teaching staff of the bachelor's degree GEQ

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEQ***
Academic year	***2020-21***
No. of lecturers	***123***
No. of respondees	***57***
Participation	***46,00%***
ACADEMIC RANK	
Contracted Professor	3,51%
Full University Professor	15,79%
University School Professor	
Senior lecturer	31,58%
Senior university school lecturer	1,75%
Senior lecturer (Catalan system)	17,54%
Collaborating lecturer	1,75%
Assistant lecturer (Catalan system)	2,00%
Assistant lecturer (Spanish system)	

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEQ***
Academic year	***2020-21***
Adjunct lecturer	14,03%
ICREA researcher	
CIBERDEM researcher	
Postdoctoral researcher	1,75%
Trainee researcher	5,26%
Non-contracted visiting lecturers (speakers)	
Contracted visiting lecturers	1,75%
Emeritus professors	1,75%
Teachers on secondment	
Others (specify category)	1,75%
CREDITS TAUGHT ON THE DEGREE	
<5	35,09%
5-10	36,84%
10.1-15	15,79%
15.1-20	8,77%
20.1-25	1,75%
>25	1,75%
CURRICULUM, ACADEMIC MANAGEMENT AND COORDINATION: **Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE:**	
Fit of my profile to the subject/s	9.30
Timetable	9.09
Exam schedule	8.89
Number of students in practical groups (if you teach practical groups. If not, write Not Applicable N/A)	8.23
The coordination between the lecturers who teach the same subject (If applicable. If not, write , N/A)	9.10
The coordination of the teaching	8.43
The competencies and the learning outcomes of the subject/s	8.36
Level of the graduates	7.40
General satisfaction with the subject/s	8.52
General satisfaction with the curriculum	8.09
TEACHING: **Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE**	
Suitably of students admitted to the degree (If you teach 1st-year subjects. If you don’t, write N/A)	5.04
The work and effort made by students in your subject/s	6.31
The teaching methodologies that you have used	8.30
The assessment strategies that you have used	8.39

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEQ***
Academic year	***2020-21***
The learning outcomes of students on the subjects you teach	7.55
The suitability of the approach, the organisation and assessment of the thesis (If you are responsible for the thesis. If you are not, write N/A.)	8.81
The suitability of the approach. The organisation and assessment of the external work-experience programme (If you are a work-experience tutor. If you are not, write N/A.)	7.75
General satisfaction with your teaching on this degree	8.25
IINFRASTRUCTURE AND RESOURCES FOR TEACHING: Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE	
General condition of the classrooms you use (acoustics, visibility, visibility, heating, etc.)	7.88
Technological resources available in the classroom	7.77
Equipment and instrumentation available in the laboratory or workshop for practical sessions with the students (If you teach practical subjects. If not, write N/A)	8.10
Assistance provided by laboratory technicians (If you teach practical subjects. If not, write N/A)	8.86
Virtual Campus (Moodle or others)	8.68
Resources provided by the library	8.92
General satisfaction with the teaching resources available	8.28
GENERAL ASPECTS: Indicate your degree of satisfaction with the following statements:	
The ICE training programme responds to my needs	6.98
The faculty/school’s ability to solve problems (If there have been any. If not, write N/A)	8.15
ETSEQ web information (accessible, useful and up to date)	7.46
URV web information (accessible, useful and up to date)	7.60

Source: ETSEQ. Results of Lecturer Satisfaction Survey on 31 January 2022

Surveys of the Bachelor's Degree in Mechanical Engineering

Table C.1 Surveys for determining the satisfaction of stakeholders and the percentage of participation GEM

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
	Students															
ENQ_S12	GPQ	FIRST-YEAR UNDERGRADUATE SURVEY	•Educational experience •Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	12.28 %	4.17	1.16%	-	13.33 %	7.85	3.00%	6.06	E1 E2 E5 E6
ENQ_S12	GPQ	UNDERGRADUATE SURVEY DURING	•Educational experience •Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	12.31 %	6.74	9.76%	7.23	5.34%	5.75	3.00%	6.56	E1 E2 E5 E6
ENQ_S12	GPQ	UNDERGRADUATE SURVEY WHEN THEY FINISH	•Educational experience •Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Annual	Final year completed	4.76%	5.74	6.32%	7.19	4.03%	6.29	8.00%	5.79	E1 E2 E5 E6

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
ENQ_S12 Sur Bach degree lec PDI I	HRS	SURVEY DEGREE SUBJECT	•Educational experience •Other dimensions of the educational programme and services (2)	Bachelor's degree	Online	Semestral	Final year completed	20.11 %	7.14	12.31%	7.66	12.62 %	7.01	15.00%	6.53	E1 E2 E5 E6
ENQD2 PDI II	GPQ	"TEACHING STAFF" SURVEY BACHELOR'S SUBJECT	• Teaching	Bachelor's degree	Online	Semestral	Final year completed	20.11 %	7.21	12.31%	7.79	12.62 %	7.13	12.00%	7.31	E4
ENQ_S12	GPQ	EI-SURVEY DEGREE SUBJECT	•Key actions	Bachelor's degree	Online	Annual	Final year completed	11.11 %	6.70	16.67%	7.70	12.70 %	6.50	3.00%	6.42	E6
ENQ_S12	GPQ	MT-SURVEY DEGREE SUBJECT	•Key actions	Bachelor's degree	Online	Annual	Final year completed	6.67%	6.16	8.24%	7.76	6.76%	6.78	8.00%	6.92	E6
I-CENTER	I-CENTER	OUTGOING MOBILITY SURVEY	• Faculty/School mobility	Bachelor's degree and Master's degree	Online	Annual	Final year completed	90.00 %	8.56	100.00 %	8.46	32.00 %	7.29	100.00 %	8.53	E5
CRAI	CRAI	CRAI satisfaction survey	• Use • Staff • Facilities and equipment • Documentary resources • Services	Bachelor's, master's and doctoral degrees	Online	Termly	Academic year 2018-19	n.a.	n.a	10.70%	7.94	n.a.	n.a.	n.a.	n.a.	E5

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
Surveys of new students (faculty/school)	ETSEQ	Survey on induction sessions	● Public information ● Student guidance	Bachelor's degree	Pen and paper/Online	Annual	Final year completed	83.61 %	8.00	76.19%	8.00	76.56 %	7.90	36.36%	7.96	E2 E5
	Graduates															
Faculty/School	ETSEQ	Faculty/School survey of graduates	● Training received ● Employment and job satisfaction	Bachelor's degree and Master's degree	Online	Annual	Final year completed	13.79 %	7.25	15.38%	6.63	30.00 %	6.07	28.57%	6.50	E1 E2 E4 E5 E6
AQU	AQU	Survey on career opportunities for graduates (AQU Catalunya)	● Training received ●i Employment and job satisfaction	Bachelor's degree	Online	3 times a year	Study from 2017 and 2020	n.a.	n.a.	n.a.	n.a.	52.60 %	9.47	n.a.	n.a.	E6
	Teaching staff (only for accreditation)															
Faculty/School	ETSEQ		● The structure of the	Bachelor's degree	Online	Accreditation	Final year completed	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	42.00%	8,21	E4

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
		Satisfaction survey for teaching staff	curriculum (subjects and their weight). • Profile of competences (predicted learning outcomes) of the degree programme. • Profile of students admitted on the degree programme. • Organisation the the curriculum (groups,	and Master's degree												

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
			opening hours.). • Teaching coordination and internal communication. • Teaching methodologies and assessment strategies. • Available teaching resources. • Work and commitment of the students. • Learning outcomes obtained by students.													
Faculty/School	ETSEQ	Satisfaction survey for employers / Tutors of external	• Public information • Profile of graduates (and/or	Bachelor's degree and Master's degree	Online	Accreditation	Final year completed	n.a	n.a	n.a	n.a	n.a	n.a	n.d.	n.d.	E1 E2 E6

GEM	Head of survey	Survey /Mechanism (1)	Dimensions or items of satisfaction	Scope	Format	Frequency	Latest data available	Percentage of participation(%); Mean satisfaction of the survey (0-10)								Related accreditation standards
								17-18		18-19		19-20		20-21		
								%part	Mean	%part	Mean	%part	Mean	%part	Mean	
		internships / master's theses	IE/thesis students) • Colllaboration with the University													

Source: Cell Id gives information about the different reports and the participation is taken from SINIA Informe ENQ_S05 on 2 February 2022
Key: ND: not available (not enough responses to give results or data not available); N/A: not applicable (survey is not given, e.g. there are no graduates).

➢ STUDENT SATISFACTION SURVEYS

Table C.2 Satisfaction of first-year undergraduates – GEM (enrolled for the first time on the degree)

Title of the block	Survey of student satisfaction with the degree: START BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Adaptation to the university	I have adapted to the university environment	7	-	7.5	4
	I am satisfied with my colleagues on the degree	8	-	7.88	8
Languages: Professional tool	I can follow a meeting in English.	8.43	-	5.75	6.5
	I can make a presentation in English.	6.57	-	5	6.5
	I can write an article in English.	5.57	-	5.38	6.5
	I can read documentation in English.	6.43	-	6.63	8
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	7.29	-	10	-
	The tutor has encouraged a good climate of personal relations and communication.	0	-	10	-
	I am satisfied with the information given during the tutorials.	0	-	10	-
	I am satisfied with how my tutor resolved my queries.	0	-	10	-
	The tutorial has been useful.	0	-	10	-
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	0	-	10	-
Learning environment	The learning environment in the degree is one of collaboration.	0	-	7.13	6
	The learning environment in the degree is one of competition.	7.43	-	6.25	3

Title of the block	Survey of student satisfaction with the degree: START BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Block Support: Induction sessions	If you attended: To what extent were they useful for your adaptation to the University? (mark your response on the scale)	5.86	-	6.2	6
	Survey mean	**4.17**	**-**	**7.85**	**6.06**
	Number of surveys assessed	**7**	**1**	**8**	**2**
	Participation	**12.28%**	**1.16%**	**13.33%**	**3.00%**

Source: URV in figures. Report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021

Table C.3 Undergraduate satisfaction during – GEM (after the 2nd enrolment and before enrolling for the bachelor's thesis)

Title of the block	Survey of student satisfaction with the degree: DURING BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Languages: Professional tool	I can follow a meeting in English.	6.94	7.81	7.14	6.0
	I can make a presentation in English.	5.81	8.75	8	4.4
	I can write an article in English.	6.25	6.38	6.29	4.6
	I can read documentation in English.	8.06	5.50	6.29	7.4
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	7.57	5.88	6.14	6.0
	The tutor has encouraged a good climate of personal relations and communication.	7.29	7.50	6.86	8.0
	I am satisfied with the information given during the tutorials.	6.43	7.13	5.00	8.0
	I am satisfied with how my tutor resolved my queries.	6.71	5.38	5.00	8.0
	The tutorial has been useful.	6.00	7.20	5.00	7.0
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	6.43	8.25	5	8.0
Adaptation to the university	I have adapted to the university environment	6.81	7.75	3	8
	I am satisfied with my colleagues on the degree	5.31	8.25	4	7.5
Learning environment	The learning environment in the degree is one of collaboration.	7.31	7.25	6.43	4.67
	The learning environment in the degree is one of competition.	7.44	8.25	6.29	4.33
	Survey mean	**6.74**	**7.23**	**5.75**	**6.56**
	Number of surveys assessed	**16**	**16**	**7**	**5**
	Participation	**12.31%**	**9.76%**	**5.34%**	**3.00%**

Source: SINIA report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021

Table C.4 Final undergraduate satisfaction – GEM (enrolled in the bachelor's thesis)

Title of the block	Survey of student satisfaction with the degree: FINAL BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
Adaptation to the university	I have adapted to the university environment	6.83	7.83	6.60	6.71
	I am satisfied with my colleagues on the degree	7.00	7.50	7.40	7.14
Languages: Professional tool	I can follow a meeting in English.	6.67	7.67	6.40	7.86
	I can make a presentation in English.	6.17	7.83	5.60	7.00
	I can write an article in English.	6.67	5.83	5.60	7.29
	I can read documentation in English.	7.67	6.83	7.60	8.57
If you have been involved in tutorials	The information given about the tutorial (what it is, what it consists of, who the tutor is) was clear.	5.00	5.75	8.00	3.00
	The tutor has encouraged a good climate of personal relations and communication.	7.33	8.67	8.00	2.50
	I am satisfied with the information given during the tutorials.	7.33	8.33	8.00	2.50
	I am satisfied with how my tutor resolved my queries.	7.33	8.33	8.00	3.00
	The tutorial has been useful.	5.50	7.33	4.00	0.00
	I would recommend a colleague to speak with their tutor if they had a query or a problem with the degree.	7.33	6.67	7.00	2.50
Learning environment	The learning environment in the degree is one of collaboration.	7.33	7.33	6.40	7.14
	The learning environment in the degree is one of competition.	6.17	6.83	5.80	5.14
Degree programme	The curriculum is structured in such a way that I have made good progress.	6.50	8.00	5.40	6.86
	The content of the subjects on the degree programme is well coordinated and there is no repetition.	3.50	7.33	4.40	6.86
Competences	The course has helped me improve my ability to speak in public.	4.83	7.67	5.60	5.14
	The course has helped me improve my ability to express myself in writing.	4.67	7.50	5.80	5.14
	The course has helped me improve my ability to work independently.	5.00	8.00	8.00	8.00
	The course has helped me improve my ability to take decisions.	4.83	5.83	6.80	8.29
	The course has helped me improve my ability to solve problems.	5.00	7.00	9.00	8.43
	The course has helped me improve my ability to work as part of a team.	5.50	6.83	5.20	7.57
	The course has helped me improve my ability to manage information.	4.67	7.33	6.00	7.43
	The course has helped me improve my ability to work in foreign languages.	3.83	7.50	4.80	4.00
	The course has helped me improve my ability to use the information and communication technologies.	4.67	6.33	5.40	6.43
	The course has helped me to reflect on aspects of social and ethical responsibility.	4.17	6.67	3.20	5.00
	The course has helped me improve my ability to define my future academic and professional profile.	3.83	7.33	6.20	7.71
	The course has helped me improve my professional abilities.	5.50	5.33	5.80	8.14
The degree during the	The degree adapted well to the new situation.	-	-	3.20	5.71
	The course: In general, the information provided during the new situation was appropriate.	-	-	2.60	6.57

Title of the block	Survey of student satisfaction with the degree: FINAL BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
		2017-18	2018-19	2019-20	2020-21
COVID-19 health emergency	Assessment: In general, the information on how assessment would be carried out in this new situation was useful	-	-	4.20	6.86
The teaching staff during the COVID-19 health emergency	If applicable to you, assess the following statement about the degree in general: The support given by the teaching staff was sufficient.	-	-	3.60	6.67
Tutorials during the COVID-19 health emergency	If applicable, assess the following statement: The support provided by the tutor was sufficient.	-	-	1.00	0.00
Online tools during the COVID-19 health emergency	Real-time videoconferencing	-	-	4.80	6.86
	Recorded videoconferencing	-	-	4.40	6.29
	Forums	-	-	2.00	4.20
	Chats	-	-	1.60	4.20
Administration and services during the COVID-19 health emergency	If applicable, assess the following statement: The support provided by the Administration and Services Staff was sufficient.	-	-	5.00	5.00
	Survey mean	**5.74**	**7.19**	**6.29**	**5.79**
	Number of surveys assessed	**6**	**6**	**5**	**7**
	Participation	**4.76%**	**6.32%**	**4.03%**	**8.00%**

Source: URV in figures. Report ENQ_S12 Statistical values on the questions of the survey on 26 July 2021
The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.5 Student satisfaction with the teaching staff I - GEM

Survey of student satisfaction with teaching staff I BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
	2017-18	2018-19	2019-20	2020-21
The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).	7.22	7.86	7.08	6.99
The recommended bibliography was readily available.	7.1	7.55	6.86	6.83
The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.	7.15	7.75	7.22	5.45
The campus facilities allowed the subject to be taught satisfactorily.	7.34	7.83	7.22	4.79
The information given about the activities involved in the subject (assignments, excursions, exams, etc.) is sufficient for me to organise my study time.	7.2	7.75	6.92	6.75
The subject has helped me to learn.	7.39	7.85	7.17	7.23
The assessment methods helped me to learn.	6.54	7.15	6.4	6.55

Survey of student satisfaction with teaching staff I BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (1-10)			
	2017-18	2018-19	2019-20	2020-21
I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle).	7.09	7.58	7.04	6.79
The Course Guide gave me all the information I needed about the subject.	7.3	7.65	7.28	7.29
On a scale of 0 to 10 rate your satisfaction with the subject.	7.1	7.61	6.86	6.65
Survey mean	**7.14**	**7.66**	**7.01**	**6.53**
Number of surveys assessed	**521**	**342**	**352**	**386**
Participation	**20.11%**	**12.31%**	**12.62%**	**15.00%**

Source: URV in figures/Lecturer surveys PDI/Report ENQ_S12 on 11 October 2021
The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.5.1. Student satisfaction with subjects GEM

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2022)											
Subject	No. surveys	The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).	The recommended bibliography was readily available.	The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.	The campus facilities allowed the subject to be taught satisfactorily.	The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.	The subject has helped me to learn.	The assessment methods helped me to learn.	I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.	The Course Guide gave me all the information I needed about the subject.	On a scale of 0 to 10 rate your satisfaction with the subject.
BUSINESS ADMINISTRATION AND ORGANIZATION OF PRODUCTION	5	5.00	7.80	1.00	1.50	7.40	7.40	6.75	4.40	7.60	6.80
TECHNICAL ENGLISH	8	6.83	7.43	6.00	3.67	7.29	6.29	5.57	7.00	8.00	6.88
AUTOMOBILES	2	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
INDUSTRIAL HEATING AND COOLING	18	8.40	6.89	5.00	4.14	7.22	7.72	6.33	7.89	7.59	7.50
SCIENCE AND TECHNOLOGY OF MATERIALS	10	8.29	8.00	7.78	8.10	8.20	8.60	7.80	8.70	8.10	8.40
INDUSTRIAL CONSTRUCTION	5	7.00	8.00	7.00	4.40	7.25	7.60	8.00	8.40	7.40	8.00
ADVANCED STRUCTURAL ANALYSIS	4	5.50	5.25	5.67	5.67	3.75	5.25	5.50	5.25	4.50	5.75

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2022)											
Subject	**No. surveys**	**The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The recommended bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The Course Guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
DYNAMICS OF MECHANICAL SYSTEMS	5	7.00	7.00	5.75	5.75	8.60	8.40	6.40	7.20	8.60	7.20
OPERATIONS MANAGEMENT	5	7.33	7.60	7.50	5.50	7.00	8.40	6.80	8.60	7.80	7.20
DESIGN OF MECHANICAL GROUPS	11	8.40	8.36	7.00	4.75	8.55	8.45	7.80	8.73	8.36	8.18
MACHINE DESIGN	6	6.33	6.33	4.60	4.00	5.17	6.67	6.17	3.67	7.00	5.83
DESIGN OF PRESSURE VESSELS	1	-	7.00	5.00	0.00	8.00	7.00	7.00	7.00	8.00	6.00
TOOLS FOR ENTREPRENEURSHIP	3	8.33	6.50	0.00	0.00	7.00	8.33	9.00	8.67	8.00	8.00
ELASTICITY AND STRENGTH OF MATERIALS I	10	7.75	6.20	6.63	6.57	7.10	6.80	6.80	6.80	6.70	6.20
ELASTICITY AND STRENGTH OF MATERIALS II	7	8.33	7.14	7.29	7.29	7.86	8.14	7.00	7.71	8.43	7.14
POLYMER ENGINEERING	2	5.00	6.00	6.00	2.50	6.50	7.00	6.00	6.00	6.00	7.00
ENGINEERING FLUID MECHANICS	6	10.00	8.17	4.20	3.00	7.83	7.83	7.83	7.00	8.00	7.50
THERMAL ENGINEERING I	10	5.20	6.67	5.63	6.11	7.00	6.10	6.30	6.50	6.40	5.90
THERMAL ENGINEERING II	8	-	5.63	4.67	4.86	6.13	6.25	5.88	3.88	5.75	4.50
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN I	6	6.67	6.33	1.40	1.40	5.17	6.33	3.00	4.83	7.17	6.17
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN II	7	5.00	4.71	2.50	2.40	4.00	6.43	2.57	4.43	5.57	3.86
FUNDAMENTALS OF ELECTRONIC AND AUTOMATIC TECHNOLOGY	5	8.00	5.80	7.25	5.75	6.60	7.80	6.00	7.20	6.80	7.60
FUNDAMENTALS OF ELECTRICAL TECHNOLOGY	8	10.00	8.25	5.83	4.33	8.50	8.38	7.75	8.88	8.25	8.25
FUNDAMENTALS OF PHYSICS IN ENGINEERING I	6	8.20	8.17	6.00	5.00	6.50	8.33	6.83	6.67	7.50	7.50
FUNDAMENTALS OF PHYSICS IN ENGINEERING II	7	5.86	6.71	3.86	3.14	6.00	6.14	6.17	5.14	7.00	5.29

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2022)											
Subject	**No. surveys**	**The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The recommended bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The Course Guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING I	5	7.60	7.40	3.60	3.60	6.60	7.80	6.80	6.20	8.00	7.40
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING II	8	2.50	3.88	2.83	2.00	4.13	3.25	4.38	3.88	5.63	3.00
FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	6	7.67	8.00	5.17	5.00	7.00	8.33	7.67	6.67	8.50	8.50
HYDRAULICS	4	9.00	8.25	8.67	8.67	9.00	8.75	9.50	8.75	8.75	9.00
HISTORY OF ENGINEERING	2	6.00	6.00	6.00	6.00	4.50	6.50	7.50	8.00	6.50	7.00
MACHINE TESTING LABORATORY	4	2.33	2.50	0.00	0.00	3.50	2.50	2.50	3.00	3.00	2.00
ELASTICITY AND STRENGTH OF MATERIALS LABORATORY	7	6.43	5.57	7.57	7.14	6.57	7.29	6.67	6.14	7.00	6.43
HYDRAULICS LABORATORY	4	9.00	8.00	4.75	6.00	9.00	9.00	9.00	8.25	8.00	7.50
MACHINES AND MECHANISMS LABORATORY	9	8.75	6.78	6.78	6.00	7.33	8.33	7.67	7.56	7.33	7.22
THERMAL MACHINES LABORATORY	20	5.00	4.56	4.80	4.80	4.60	5.20	4.20	3.74	5.47	4.30
MECHANICAL TECHNOLOGY LABORATORY	6	7.00	6.17	3.17	2.67	6.67	6.83	6.67	6.67	7.33	5.67
INDUSTRIAL MAINTENANCE	4	9.33	9.25	6.75	6.00	9.25	9.00	8.25	8.50	9.25	9.00
MACHINERY AND MAINTENANCE	0	-	-	-	-	-	-	-	-	-	-
MECHANICS AND THEORY OF MECHANISMS I	9	6.67	8.56	5.75	4.86	5.89	8.33	7.11	7.89	8.11	6.22
MECHANICS AND THEORY OF MECHANISMS II	14	8.45	8.14	7.36	7.07	7.07	8.29	7.93	8.29	8.43	7.93
INTERNAL COMBUSTION ENGINES	0	-	-	-	-	-	-	-	-	-	-

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2022)											
Subject	**No. surveys**	**The different lecturers who taught the course coordinated the syllabus well (leave blank if there was only one lecturer).**	**The recommended bibliography was readily available.**	**The state of the classrooms, laboratories and other facilities allowed the subject to be taught satisfactorily.**	**The campus facilities allowed the subject to be taught satisfactorily.**	**The information given about the activities involved in the subject (assignments, excursions, exams, etc,...) is sufficient for me to organise my study time.**	**The subject has helped me to learn.**	**The assessment methods helped me to learn.**	**I am satisfied with how the lecturers on the subject used the Virtual Campus (Moodle.**	**The Course Guide gave me all the information I needed about the subject.**	**On a scale of 0 to 10 rate your satisfaction with the subject.**
STATISTICAL METHODS IN ENGINEERING	7	8.50	8.29	7.00	6.83	8.86	8.71	8.00	8.71	8.57	8.57
NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	8	8.50	5.63	4.33	2.43	5.88	6.25	6.75	6.50	6.13	5.63
TECHNICAL OFFICE	6	1.50	4.60	2.80	2.17	4.83	4.33	4.33	3.80	5.50	4.00
FINAL PROJECT I	4	9.00	6.75	2.67	2.67	7.50	6.75	6.50	6.75	8.00	7.50
FINAL PROJECT II	6	7.50	7.00	6.33	6.83	6.67	8.67	7.83	6.67	7.67	6.67
FINAL PROJECT III	2	4.00	7.00	6.00	4.00	6.00	8.00	7.50	7.00	8.00	7.50
MECHANICAL TECHNOLOGY	7	5.00	6.14	3.71	3.14	6.00	6.86	6.29	7.86	7.71	6.00
THEORY AND DESIGN OF STRUCTURES	23	8.00	7.89	6.30	5.53	7.83	8.09	7.30	8.22	8.00	7.77
TOPOGRAPHY	1	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TRIBOLOGY AND LUBRICATION	1	-	7.00	6.00	0.00	7.00	8.00	8.00	8.00	7.00	8.00

Source: URV in figures./Surveys on teaching quality/Survey results/ENQ_S12, Mean score per question on 10 September 2021
The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.6 Student satisfaction with teaching staff II - GEM

Survey of student satisfaction with teaching staff II BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	**Mean score per question Scale (0-10)**			
	2017-18	**2018-19**	**2019-20**	**2020-21**
At the beginning of the subject, the objectives, the syllabus and the assessment criteria are clearly explained.	7.46	7.98	7.56	
The teaching activities match the objectives, content, assessment system and competences explained in the course guide.	7.39	7.86	7.19	
The teaching methodology matches the objectives of the subject.	6.97	7.74	6.77	
The lecturer clearly explains the content.	6.87	7.66	6.87	6.94

Survey of student satisfaction with teaching staff II BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
Does the lecturer follow the course guide of the subject?				7.85
The lecturer satisfactorily answers any questions that he/she is asked.	7.29	7.81	7.25	
The lecturer attempts to stimulate the students' interest in the subject.	6.79	7.42	6.83	
The lecturer complies with the timetable for classes and for personal tutorials outside the classroom.	7.27	7.84	7.23	
The lecturer complies with the timetable for classes and for personal tutorials outside the classroom.	7.61	8.13	7.67	
The workload is consistent and in proportion with the credits awarded for the subject.	7.2	7.67	6.79	
Overall I think he/she is a good teacher.	7.29	7.82	7.1	7.13
Survey mean	**7.21**	**7.79**	**7.13**	**7.31**
Number of surveys assessed	**521**	**342**	**352**	**332**
Participation	**20.11%**	**12.31%**	**12.62%**	**12.00%**

Source: URV in figures./Surveys on teaching staff/Report ENQD2 Overall data per degree on 11 October 2021

* In the academic year 2020-21, the survey consisted of only the three questions in bold.

Table C.6.1. Student satisfaction with the teaching GEM

Subject	Surveys		% part	Subject mean	Does the lecturer clearly explain the content?	Does the lecturer follow the course guide of the subject?	Overall, do I think he/she is a good teacher?
	Potential	Actual					
BUSINESS ADMINISTRATION AND ORGANIZATION OF PRODUCTION	77	5	6.49%	7.53	7.00	8.40	7.20
TECHNICAL ENGLISH	54	7	12.96%	7.33	6.29	8.00	7.71
AUTOMOBILES	21	2	9.52%	5	5.00	5.00	5.00
INDUSTRIAL HEATING AND COOLING	62	18	29.03%	8	7.33	8.83	7.83
SCIENCE AND TECHNOLOGY OF MATERIALS	47	10	21.28%	8.52	8.30	8.65	8.60
INDUSTRIAL CONSTRUCTION	49	6	12.24%	8.17	8.17	7.83	8.50
ADVANCED STRUCTURAL ANALYSIS	14	4	28.57%	5.75	5.50	5.75	6.00
DYNAMICS OF MECHANICAL SYSTEMS	58	6	10.34%	7.72	7.17	8.50	7.50
OPERATIONS MANAGEMENT	61	4	6.56%	8.33	7.75	9.00	8.25
DESIGN OF MECHANICAL GROUPS	21	10	47.62%	8.13	7.60	8.60	8.20
MACHINE DESIGN	65	6	9.23%	6.75	7.00	6.83	6.42
DESIGN OF PRESSURE VESSELS	9	3	33.33%	7.22	7.00	7.33	7.33
TOOLS FOR ENTREPRENEURSHIP	20	3	15.00%	8.56	8.67	8.33	8.67
ELASTICITY AND STRENGTH OF MATERIALS I	66	9	13.64%	6	5.22	6.89	5.89
ELASTICITY AND STRENGTH OF MATERIALS II	73	7	9.59%	7.77	7.60	7.80	7.90
POLYMER ENGINEERING	21	1	4.76%	5.33	6.00	5.00	5.00

Subject	Surveys		% part	Subject mean	Does the lecturer clearly explain the content?	Does the lecturer follow the course guide of the subject?	Overall, do I think he/she is a good teacher?
	Potential	Actual					
ENGINEERING FLUID MECHANICS	62	6	9.68%	8.17	7.50	9.00	8.00
THERMAL ENGINEERING I	59	9	15.25%	6.67	6.22	7.67	6.11
THERMAL ENGINEERING II	52	8	15.38%	5.38	4.75	6.88	4.50
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN I	76	6	7.89%	7.71	7.86	8.29	7.00
GRAPHICAL EXPRESSION AND COMPUTER-AIDED DESIGN II	83	5	6.02%	6	5.89	6.44	5.67
FUNDAMENTALS OF ELECTRONIC AND AUTOMATIC TECHNOLOGY	54	5	9.26%	8.93	9.00	9.40	8.40
FUNDAMENTALS OF ELECTRICAL TECHNOLOGY	57	8	14.04%	8.79	8.63	9.00	8.75
FUNDAMENTALS OF PHYSICS IN ENGINEERING I	81	6	7.41%	7.8	7.20	8.70	7.50
FUNDAMENTALS OF PHYSICS IN ENGINEERING II	73	6	8.22%	7.21	6.77	7.62	7.23
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING I	73	5	6.85%	7.67	7.00	8.42	7.58
FUNDAMENTALS OF MATHEMATICS IN ENGINEERING II	102	8	7.84%	5.4	5.19	6.00	5.00
FUNDAMENTALS OF CHEMISTRY IN ENGINEERING	89	7	7.87%	6.31	4.93	8.21	5.79
HYDRAULICS	60	4	6.67%	8.58	8.50	8.75	8.50
HISTORY OF ENGINEERING	25	2	8.00%	8	8.00	8.00	8.00
MACHINE TESTING LABORATORY	73	5	6.85%	4.43	3.86	6.00	3.43
ELASTICITY AND STRENGTH OF MATERIALS LABORATORY	62	6	9.68%	6.63	6.18	7.29	6.41
HYDRAULICS LABORATORY	59	4	6.78%	7.93	7.78	8.11	7.89
MACHINES AND MECHANISMS LABORATORY	49	9	18.37%	7.67	7.14	8.45	7.41
THERMAL MACHINES LABORATORY	51	19	37.25%	5.19	4.67	5.95	4.95
MECHANICAL TECHNOLOGY LABORATORY	61	6	9.84%	6.28	6.50	6.50	5.83
INDUSTRIAL MAINTENANCE	37	3	8.11%	9.22	9.33	9.00	9.33
MACHINERY AND MAINTENANCE	24	1	4.17%	6.33	6.00	6.00	7.00
MECHANICS AND THEORY OF MECHANISMS I	76	9	11.84%	8.67	8.50	8.71	8.79
MECHANICS AND THEORY OF MECHANISMS II	63	12	19.05%	8.2	7.95	8.70	7.95
INTERNAL COMBUSTION ENGINES	9	0	0.00%	-	-	-	-
STATISTICAL METHODS IN ENGINEERING	56	7	12.50%	8.51	8.33	8.73	8.47
NUMERICAL METHODS AND ALGORITHMIC PROGRAMMING	70	7	10.00%	6.33	6.00	7.29	5.71
TECHNICAL OFFICE	53	7	13.21%	4.67	4.57	5.14	4.29
FINAL PROJECT I	74	4	5.41%	8	7.75	8.38	7.88
FINAL PROJECT II	48	6	12.50%	7.37	7.30	7.60	7.20
FINAL PROJECT III	58	3	5.17%	7.67	7.80	7.20	8.00

Subject	Surveys		% part	Subject mean	Does the lecturer clearly explain the content?	Does the lecturer follow the course guide of the subject?	Overall, do I think he/she is a good teacher?
	Potential	Actual					
MECHANICAL TECHNOLOGY	69	7	10.14%	6.67	5.86	8.00	6.14
THEORY AND DESIGN OF STRUCTURES	63	22	34.92%	8.27	7.82	8.45	8.55
TOPOGRAPHY	18	1	5.56%	10	10.00	10.00	10.00
TRIBOLOGY AND LUBRICATION	27	2	7.41%	7.67	7.00	7.00	9.00

Source: URV in figures/Surveys on teaching staff/ENQD3 - Overall data per subject, Mean per question per subject on 10 September 2021
The results of surveys with 3 or fewer responses are marked in the tables with a (-).

Table C.7 Student satisfaction with external internships

Student satisfaction with external internships. BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
The subject has helped me to learn.	-	9.40	8.00	10
The process of allocating the internship was reasonable.	5.56	6.4	3.5	0
At the beginning of the external internship I had all the information I needed to know what I had to do.	5.56	5	7.33	3.5
At the beginning of the external internship I had all the information I needed to know how I would be assessed.	6.56	5.2	6	4
The work load for this subject is appropriate.	7.89	8.8	7.67	6.5
The external internship was adequately supervised by the professional tutor.	7	6.67	5	6
The external internship was adequately supervised by the academic tutor.	6.22	7	4.33	3.5
The procedure for assessing the external internships is appropriate.	6.22	4.8	5.33	7.5
The external internships have given me the chance to gain experience of the world of work.	8	9.6	8.67	10
The external internships have enabled me to apply and consolidate the knowledge and skills that I have acquired during the course.	5.89	7.8	5.67	10
The external internships make it easier to find work.	5.89	9.4	6.67	7.5
On a scale of 0 to 10 rate your satisfaction with the subject.	7.33	10	8.33	6.5
On a scale of 0 to 10 rate your satisfaction with the place where you did your external internship.	8.33	10	8	8.5
Survey mean	**6.70**	**7.70**	**6.50**	**6.42**
Number of surveys assessed	**5**	**5**	**8**	**1**
Participation	**11.11%**	**16.67%**	**12.70%**	**3.00%**

Source: URV in figures/Surveys on teaching quality/Results of Surveys/ENQ_S12 Statistical values of the survey questions/Survey on external undergraduate internships On 21 September 2021
The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.8 Student satisfaction with the bachelor's degree thesis GEM

Survey on student satisfaction with the bachelor's degree thesis BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)	Mean score per question Scale (0-10)			
	2017-18	2018-19	2019-20	2020-21
The process by which the bachelor's degree thesis was assigned was reasonable.	8.10	9.00	7.67	7.29
The information given about the subject was clear and understandable (objectives, planning, and assessment criteria).	7.20	8.00	8.00	7.57
The work load for this subject is appropriate.	4.40	6.71	7.00	5.14
The guidance by the tutor was useful.	6.00	5.43	6.00	5.57
The assessment procedure for the bachelor's degree thesis is appropriate.	5.90	7.57	7.33	6.29
The bachelor's degree thesis has given me the chance to take part in research and/or professional activities.	5.20	7.71	4.67	5.00
The bachelor's degree thesis has given me the chance to evaluate the extent to which I master the competences of the degree.	6.70	8.00	6.67	8.43
On a scale of 0 to 10 rate your satisfaction with the subject.	6.40	8.57	6.00	6.86
The bachelor's degree thesis has enabled me to consolidate the competences of the degree.	5.50	8.86	7.67	8.71
The subject has helped me to learn.	-	-	-	8.29
Survey mean	**6.16**	**7.76**	**6.78**	**6.92**
Number of surveys assessed	**6**	**7**	**5**	**6**
Participation	**6.67%**	**8.24%**	**6.76%**	**8.00%**

Source: URV in figures/Surveys on teaching quality/Results of Surveys/ENQ_S12 Statistical values of the survey questions. Survey on the bachelor's degree thesis. On 21 September 2021

The results of surveys with 3 responses or fewer are indicated with a (-) in the tables.

Table C.8.1 Student satisfaction with the Learning and Research Resources Centre (CRAI) - GEM

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Number of surveys received*: 34 / 32		
Percentage of participation: 10.7% / 10.1%		
		Percentage student survey 2018-19
Do you use the CRAI?:		
	Never	3%
	Less than once a month	0%
	Once a month	6%
	2 or 3 times a month	38%
	More than once a the week	53%
Which CRAI do you use most?		
	CRAI Bellissens Campus	6%
	CRAI Campus Catalunya	6%

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Number of surveys received*: 34 / 32		
Percentage of participation: 10.7% / 10.1%		
	CRAI Sescelades Campus	85%
	CRAI Terres de l'Ebre Campus	0%
	CRAI Vila-seca campus	3%
	CRAI Medicine and Health Sciences	0%
	CRAI Baix Penedès Campus	0%
	Library of the Teaching Unit at the Joan XXIII University Hospital (Tarragona)	0%
	Library of the Teaching Unit at the Sant Joan University Hospital (Reus)	0%
	Another (please specify)	0%
		Student survey 2018-19
CRAI staff (1: totally disagree; 10: totally agree):		
	Are prepared to help	7.58
	Understand my requirements.	7.67
	Answer my questions accurately and clearly.	7.9
	Give me the information I need quickly.	7.87
	Make me feel I am in good hands.	7.84
	Help me to find the resources I need.	7.86
	Mean	**7.79**
The CRAI's facilities and equipment (1: totally disagree; 10: totally agree):		
	Are comfortable and welcoming.	7.94
	They are conducive to study.	7.77
	They have group work spaces.	8.39
	The temperature is just right in both winter and summer.	5.52
	There are enough places to work and study.	7.55
	They are well lit.	8.39
	The timetable is appropriate.	7.1
	They are pleasant to look at (e.g. furniture, paint, etc.).	7.67
	The photocopiers all work and are usually available.	7.14
	The computers work and are readily available.	6.79
	Mean	**7.42**
The CRAI's collection of documents (1: totally disagree; 10: totally agree):		
	I find the books and the journals I need.	7.8
	I have easy access to the electronic resources that the URV purchases.	7.92
	The documents are in the right places on the shelves.	8.11
	The books and journals that have been used are quickly replaced on the shelves.	8
	The staff quickly find the lost books and journals that I need.	8.17
	I am quickly supplied with the documents that I request from other URV CRAIs.	7.94
	I am quickly supplied with the documents that I request from libraries other than the URV's.	8.2

BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (2010)		
Number of surveys received*: 34 / 32		
Percentage of participation: 10.7% / 10.1%		
	I have access to language-learning materials in different formats.	8.16
	Mean	**8.04**
The CRAI's services (1:totally disagree;10: totally agree):		
	The courses taught at the CRAI are useful.	7.86
	I easily find the information I need on the CRAI’s website.	7.03
	I find it easy to use the search tools available (catalogue, search engine, etc.)	7.04
	The CRAI’s email notifications help me to return my loans on time.	8.13
	The waiting times at the CRAI desks are reasonable.	7.96
	I find that the supervised activities to improve my written English or Catalan are useful.	7.94
	I find that the English and Catalan conversation groups are useful.	8.38
	I find that the Factory’s advice service is useful.	8.07
	Mean	**7.8**
All things considered (1: totally disagree;10: totally agree):		
	All things considered, I am satisfied with the CRAI’s resources and services.	7.87
	All things considered, I am satisfied with the support given by the CRAI.	7.77
	All things considered, I think that the services provided by the CRAI are positive.	8.27
	Rate the extent of your satisfaction with the CRAI on a scale of 1 (very little) to 10 (a lot).	**7.94**

*: Number of surveys responded/Number of surveys assessed.

- **SURVEYS OF GRADUATE SATISFACTION**

Table C.9 Satisfaction of recent bachelor's degree graduates GEM (ETSEQ)

RECENT SURVEY OF ETSEQ GEQ GRADUATES				
DEGREE	**GEM**	**GEM**	**GEM**	**GEM**
Academic year	**2017-18**	**2018-19**	**2019-20**	**2020-21**
No. of graduates	**29**	**52**	**50**	**42**
No. of respondees	**4**	**8**	**15**	**12**
Participation	**13.79%**	**15.38%**	**30.00%**	**28.57%**
% Participation women	**-**	**12.50%**	**20.00%**	**8.33%**
STRUCTURE AND LEARNING				
Structure of the curriculum (it has enabled me to make good progress in my learning)	7.00	6.75	6.67	7.17
Coordination of content between subjects (there has been no repetition of content)	7.75	6.25	5.67	6.17
Volume of work (appropriate for the number of credits for each subject)	7.00	6.13	5.07	5.67
Teachers	6.00	6.25	5.93	6.75
Teaching methodologies	5.75	6.13	4.93	6.58
Assessment methods	7.00	5.88	5.87	6.67
Academic support (from the tutor/coordinator)	4.25	3.50	4.20	5.50
Career guidance	6.75	3.63	3.33	3.75
Virtual Campus (Moodle or others)	8.00	5.63	6.93	7.92
Subject content (Is it up-to-date? Is the level right? etc.)	7.25	5.75	5.47	7.08
Organisation (order of subjects, timetable, calendar. etc.)	7.25	6.13	5.33	6.92
I am satisfied with the course.	7.25	6.63	6.07	6.50
PERSONAL IMPACT ON THE STUDENT				
External internships (learning acquired, supervision and evaluation) (If you have done any. If not, write Not Applicable)	8.75	5.86	6.36	6.09
Mobility activities (If you have done any. If not, write Not Applicable)	8.00	3.50	9.50	7.25
Communicative abilities	7.67	5.50	5.73	5.83
Personal competences	7.33	6.25	6.20	6.42
Professional abilities	8.00	5.63	5.13	6.42
Bachelor's / Master's Degree Thesis (learning acquired. supervision and evaluation)	5.75	6.63	5.87	6.75
SERVICES AND EQUIPMENT				
Teaching facilities (laboratories, classrooms. etc.)	6.50	5.88	5.47	6.92
CRAI (accessibility to resources, installations, collection, etc.)	8.75	7.00	7.60	8.17
Student support services (information on registration, academic procedures, grants, etc.)	7.50	5.00	4.80	6.42
Responses to my complaints and suggestions (If you have made any, If not, write Not Applicable)	8.00	3.00	4.33	7.43
Web information (accessible, complete, useful and up to date)	6.75	6.00	5.93	7.42
ETSEQ web information (accessible, complete, useful and up to date)				6.58
SAME DEGREE				
If you had to start again, would you choose the same degree (Yes)?	75.00%	87.50%	73.33%	83.30%

RECENT SURVEY OF ETSEQ GEQ GRADUATES				
DEGREE	**GEM**	**GEM**	**GEM**	**GEM**
Academic year	**2017-18**	**2018-19**	**2019-20**	**2020-21**
SAME UNIVERSITY				
If you had to start again, would you choose the same university (Yes)?	75.00%	63.00%	53.33%	75.00%
CONTINUE STUDYING				
Are you still a student? (Yes)	75.00%	75.00%	40.00%	33.33%
If you responded affirmatively to the previous question, state the name of the degree programme and the name of the university (or education centre):				
Master's Degree in Industrial Engineering, URV	1	4	1	3
Master's Degree in Occupational Risk Prevention, URV			1	
University Master's Degree in Industrial Engineering, UPC		1	1	
Master's Degree in Structural and Construction Engineering (UPC)				1
Master degree in Technology and Engineering Management - URV	1			
PowerMBA	1			
Master's Degree Computational Mechanics. URV with UNIR		1		
Intelligent Design and Manufacturing, UOC			1	
Nebrija University and Pontífice de Comillas University			1	
Master's Degree in Business Management (UOC)			1	
WORK				
EPA (Labour Force Survey) (Total employment rate in Catalonia)	**53.50%**	**54.20%**	**54.80%**	**52.70%**
Are you employed at the moment? (Yes) **Employment rate (1)**	100.00%	63.00%	80.00%	83.33%
What did you need to get this job?				
The degree you studied	75.00%	87.50%	60.00%	75.00%
No degree was necessary	25.00%	12.50%	26.67%	8.33%
Any degree			13.33%	16.66%
Suitability rate (number of job holders who have university-level functions)	**75.00%**	**87.50%**	**73.33%**	**91.66%**
Is the work that you do/did in the same field as your degree? (Yes)	50.00%	75.00%	73.33%	100.00%
For this work you do/did. do you think you need to have a degree? (Yes)	25.00%	75.00%	66.67%	50.00%
SUITABILITY OF THE EDUCATION RECEIVED				
Usefulness of the theoretical training	-	6,38	5.60	6.42
Usefulness of the practical training	-	5.50	6.07	6.17

(1)https://www.idescat.cat/indicadors/?id=anuals&n=10386&utm_campaign=cercador&utm_medium=sugg&utm_source=Idescat&utm_term=taxa%20d%27ocupacio&utm_content=indicadors(indicators/?%20d%27_content=indicators

OPEN QUESTIONS (GEM 2020-21)
State the name of the company where you work:
Grupo Navec

OPEN QUESTIONS (GEM 2020-21)
BOAVIDA
Foundations and scrap iron
Star 7
Ipte
Orbea
Ravago Plásticos
In which area of business does the company you work/worked for operate?
Metallurgy
Metalwork
Construction
Industrial
Automotion and consultancy
Mechanical engineering
Sports sector

Source: ETSEQ. Results of the Alchemer Formely SurveyGizmo/survey Recent Graduates on 2 February 2022

Table C.9.1 Graduate satisfaction with job opportunities GEM (AQU-EUC data)

Graduate survey on job opportunities (AQU)		
GEM		2020 Sample: 20
Question	Assessment item	Participation: 52.60%
Employment status	Employed	95.0%
	Unemployed	5.0%
Functions developed	Specific functions of the degree	65.0%
	Graduate functions	30.0%
	Non-university level functions	5.0%
Would you choose the same faculty/school?	Yes	94.7%
Would you do the same degree again?	Yes	80.0%

Source: EUC survey on job opportunities on 11 October 2021

➢ **SURVEY OF TEACHING STAFF**

Table C.10 Satisfaction of the teaching staff of the bachelor's degree GEM

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEM***
Academic year	***2020-21***
No. of lecturers	***73***
No. of respondees	***31***
Participation	***42,00%***
ACADEMIC RANK	
Contracted Professor	3,22%
Full University Professor	3,22%
University School Professor	
Senior lecturer	22,58%
Senior university school lecturer	6,45%
Senior lecturer (Catalan system)	19,35%
Collaborating lecturer	3,22%
Assistant lecturer (Catalan system)	3,22%
Assistant lecturer (Spanish system)	
Adjunct lecturer	
ICREA researcher	
CIBERDEM researcher	
Postdoctoral researcher	
Trainee researcher	
Non-contracted visiting lecturers (speakers)	
Contracted visiting lecturers	3,22%
Emeritus professors	
Teachers on secondment	6,45%
Others (specify category)	
CREDITS TAUGHT ON THE DEGREE	
<5	3,22%
5-10	16,13%
10.1-15	16,13%
15.1-20	16,13%
20.1-25	12,90%
>25	

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEM***
Academic year	***2020-21***
CURRICULUM, ACADEMIC MANAGEMENT AND COORDINATION: **Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE:**	
Fit of my profile to the subject/s	9.16
The timetable	7.65
Exam schedule	7.99
Number of students in practical groups (if you teach practical groups. If not, write Not Applicable N/A)	8.08
The coordination between the lecturers who teach the same subject (If applicable. If not, write , N/A)	8.82
The way in which the course teaching is coordinated	8.29
The competencies and the learning outcomes of the subject/s	8.29
Level of the graduates	7.63
General satisfaction with the subject/s	8.58
General satisfaction with the curriculum	8.21
TEACHING: **Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE**	
Suitably of students admitted to the degree (If you teach 1st-year subjects. If you don't, write N/A)	6.37
The work and effort made by students in your subject/s	7.00
The teaching methodologies that you have used	8.37
The evaluation strategies that you have used	8.42
The learning outcomes of students on the subjects you teach	7.92
The suitability of the approach, the organisation and assessment of the thesis (If you are responsible for the thesis. If you are not, write N/A.)	8.10
The suitability of the approach. The organisation and assessment of the external internship programme (If you are an internship tutor. If you are not, write N/A.)	8.16
General satisfaction with your teaching on this degree	8.42
IINFRASTRUCTURE AND RESOURCES FOR TEACHING: Indicate your degree of satisfaction with the SUBJECT/S YOU TEACH ON THIS DEGREE	
General condition of the classrooms you use (acoustics, visibility, heating, etc.)	7.46
Technological resources available in the classroom	7.83
Equipment and instrumentation available in the laboratory or workshop for practical sessions with the students (If you teach practical subjects. If not, write N/A)	8.21
Assistance provided by laboratory technicians (If you teach practical subjects. If not, write N/A)	8.30
Virtual Campus (Moodle or others)	8.82
Resources provided by the library	8.60
General satisfaction with the teaching resources available	8.37

SATISFACTION OF THE TEACHING STAFF OF THE BACHELOR'S DEGREE	
DEGREE	***GEM***
Academic year	***2020-21***
GENERAL ASPECTS: Indicate your degree of satisfaction with the following statements:	
The ICE training programme responds to my needs	7.05
The faculty/school’s ability to solve problems (If there have been any. If not, write N/A)	7.79
ETSEQ web information (accessible, useful and up to date)	7.78
URV web information (accessible, useful and up to date)	7.75