



**Erasmus Mundus Master Course in
Chemical Innovation and Regulation**

Annual Report 2022

for the Programme Committee

University of Bologna

July 6, 2022



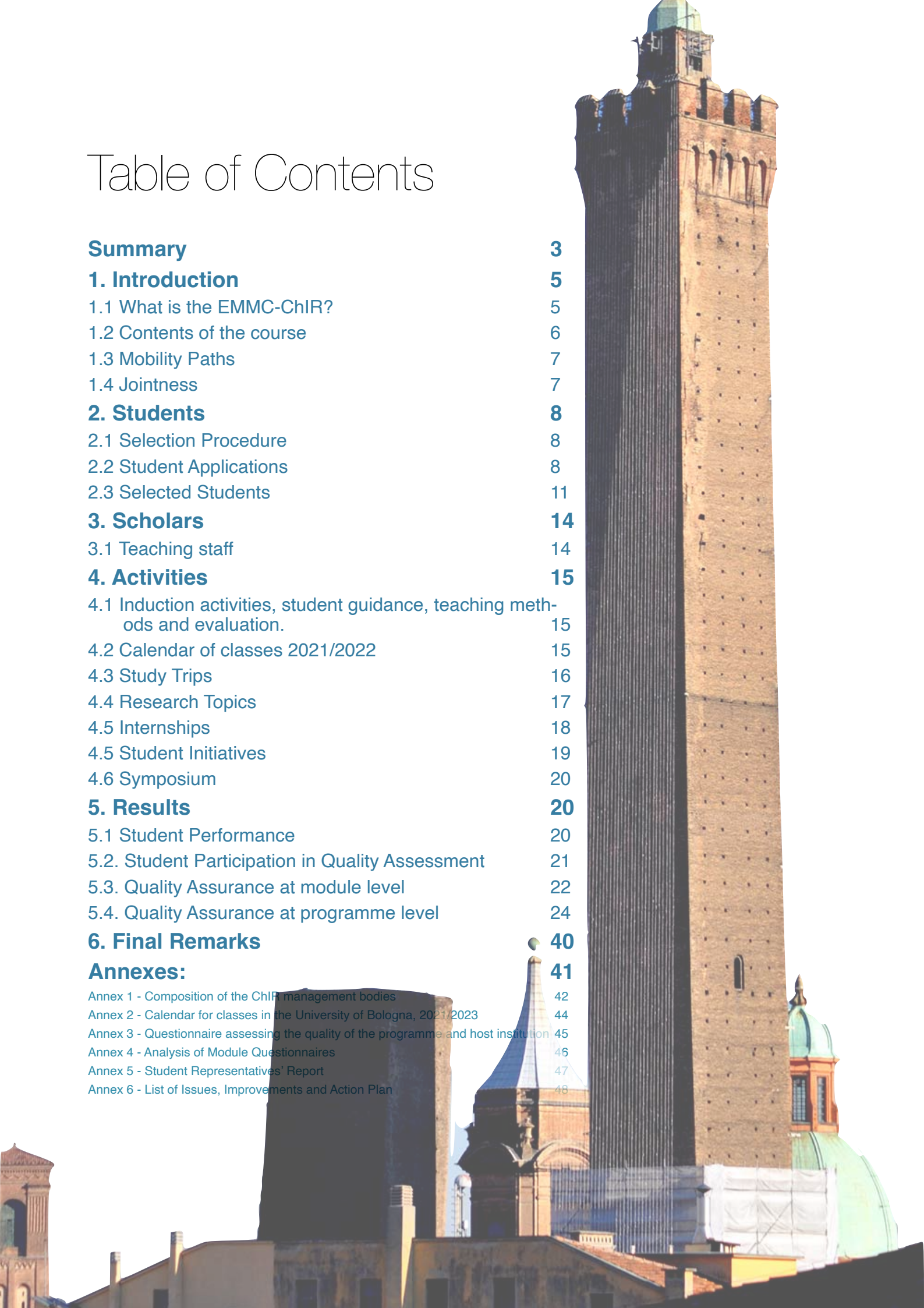
With the support of the
Erasmus+ Programme
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Summary

This report summarises the activities and results of the first year of the 2021 - 2023 edition of the Erasmus Mundus MSc in Chemical Innovation (ChIR) programme.

It is the first year the ChIR project is running under a new organization and structure. It has already run five editions between the academic years 2013/2014 and 2018/2019. In 2020 the programme was revised and awarded, for the second time, Erasmus Mundus status by the European Commission through the Erasmus+ programme to run four editions within the period 2021 - 2026.

This report is intended for the annual review of the ChIR programme by the Programme Committee.

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1. Introduction

1.1 What is the EMMC-ChIR?

The ChIR - Erasmus Mundus Master in Chemical Innovation and Regulation - is a MSc providing professionals with the key tools and knowledge needed from the scientific, the regulatory and the economic point of view to manage the risks of chemicals responsibly and to address chemical legislation requirements worldwide.



The ChIR was created in 2012 as a Joint Degree by the ChIR Consortium of European Universities. As a Joint Degree offered by the ChIR Consortium, it benefits from a much larger offer of contents and facilities than would be possible in a single university. As an Erasmus Mundus project, ChIR also aims to promote research and collaboration in the EHEA supporting the implementation of chemical safety regulations.

The course website provides more detailed information: www.emmcchir.org.

The ChIR is managed by the Consortium of the University of Algarve (UAlg), University of Barcelona (UB) and University of Bologna (UniBo). The UAlg is the current coordinator of the ChIR Consortium.

The programme was redesigned in 2019, keeping the same overall objectives. Heriot-Watt University (HWU) was a full partner of the consortium until 2019 and is now Associated Partner.

The Masters course has a duration of 2 years and comprise a total of 120 ECTS credits.

There are two main components: first, a fully integrated taught (curricular) part of 66 ECTS credits (one year). Second, a period dedicated to an internship (15 ECTS credits, 3 months) and research (39 ECTS credits, 9 of which dedicated to a curricular unit of preparation for the research thesis). The curricular course is hosted in turn at the European Universities, as shown in the table.

Edition	Academic Year	Host University
6th	2021 / 2022	UniBo
7th	2022 / 2023	UAlg
8th	2023 / 2024	UB
9th	2024 / 2025	UniBo

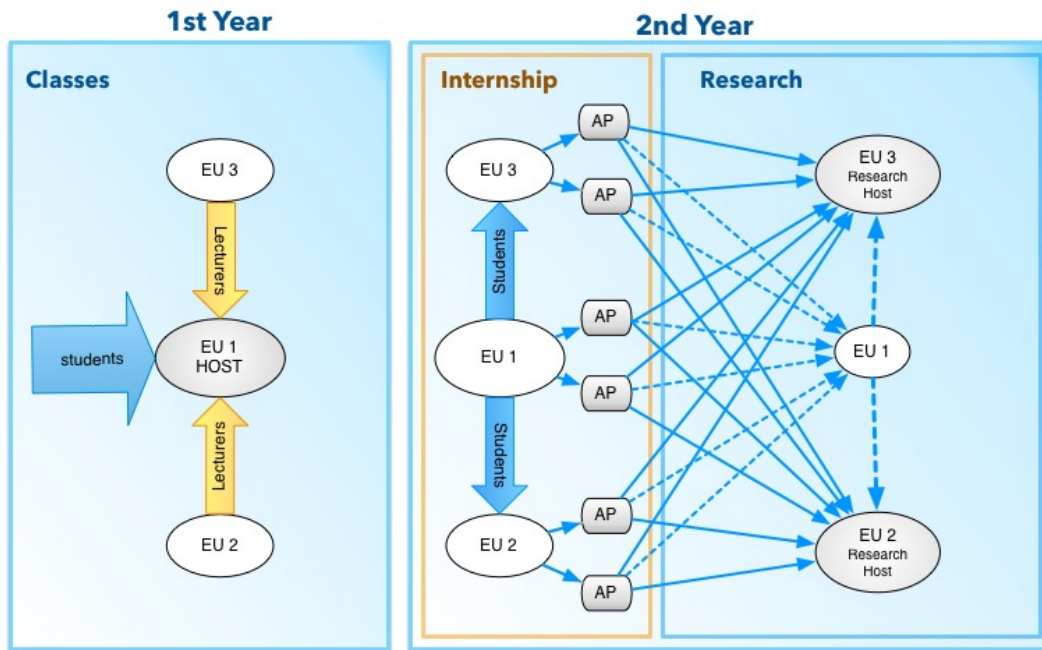
1.2 Contents of the course

The course is organised into eleven disciplines, within which a minimum of three different optional units are offered. Each optional unit is made of three stand-alone modules of 2 credits 1 week of classes). The table below depicts the relation between disciplines, course units and modules.

Group 1 - Design <table border="1"> <tr> <td>Innovative Products Design</td> <td>Applied New Products</td> <td>Alternative Pharmaceutical Products Design</td> </tr> <tr> <td>D01 Alternative Green Products</td> <td>D04 Food and Chemistry</td> <td>D06 Drug Design</td> </tr> <tr> <td>D02 Structure Toxicity Relationship</td> <td>D03 Design of Chemical Formulations</td> <td>D01 Alternative Green Products</td> </tr> <tr> <td>D03 Design of Chemical Formulations</td> <td>D05 Properties of Materials and New Materials</td> <td>D02 Structure Toxicity Relationship</td> </tr> </table>	Innovative Products Design	Applied New Products	Alternative Pharmaceutical Products Design	D01 Alternative Green Products	D04 Food and Chemistry	D06 Drug Design	D02 Structure Toxicity Relationship	D03 Design of Chemical Formulations	D01 Alternative Green Products	D03 Design of Chemical Formulations	D05 Properties of Materials and New Materials	D02 Structure Toxicity Relationship	Group 6 - Toxicology <table border="1"> <tr> <td>Toxicological Perspective</td> <td>Human Toxicology</td> <td>Toxicological Assessment</td> </tr> <tr> <td>T01 Toxicology</td> <td>T01 Toxicology</td> <td>T02 Principles of Toxicological Assessment</td> </tr> <tr> <td>T02 Principles of Toxicological Assessment</td> <td>T04 Genotoxicity Assessment</td> <td>T04 Genotoxicity Assessment</td> </tr> <tr> <td>T03 Guidelines for the Testing of Chemicals: Toxicology Approaches</td> <td>T05 Toxicokinetics and Toxicogenetics</td> <td>T06 Biosafety</td> </tr> </table>	Toxicological Perspective	Human Toxicology	Toxicological Assessment	T01 Toxicology	T01 Toxicology	T02 Principles of Toxicological Assessment	T02 Principles of Toxicological Assessment	T04 Genotoxicity Assessment	T04 Genotoxicity Assessment	T03 Guidelines for the Testing of Chemicals: Toxicology Approaches	T05 Toxicokinetics and Toxicogenetics	T06 Biosafety
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Group 5 - Circular Economy <table border="1"> <tr> <td>Circular Economy</td> <td>Waste Management</td> <td>Raw Materials</td> </tr> <tr> <td>C06 Life Cycle Assessment</td> <td>C04 Waste Materials Regulations</td> <td>C06 Life Cycle Assessment</td> </tr> <tr> <td>C02 Sustainability of Raw Materials Supply</td> <td>C05 Chemical and Biological Treatment of Wastewater</td> <td>C02 Sustainability of Raw Materials Supply</td> </tr> <tr> <td>C03 Recycling and Reusing</td> <td>C03 Recycling and Reusing</td> <td>C01 Design for Recycling</td> </tr> </table>	Circular Economy	Waste Management	Raw Materials	C06 Life Cycle Assessment	C04 Waste Materials Regulations	C06 Life Cycle Assessment	C02 Sustainability of Raw Materials Supply	C05 Chemical and Biological Treatment of Wastewater	C02 Sustainability of Raw Materials Supply	C03 Recycling and Reusing	C03 Recycling and Reusing	C01 Design for Recycling	Group 10 - Regulation <table border="1"> <tr> <td>Chemicals Regulations</td> <td>Food and Drugs Regulations</td> <td>Regulations and Nanotechnology</td> </tr> <tr> <td>R01 REACH and CLP Regulations</td> <td>R01 REACH and CLP Regulations</td> <td>R01 REACH and CLP Regulations</td> </tr> <tr> <td>R02 Non-EU Regulations: US, Japan, Brazil and China</td> <td>R07 Food Regulations</td> <td>R05 Nanomaterials and Nanotechnologies Regulations</td> </tr> <tr> <td>R06 Biocides and Pesticides Regulations</td> <td>R03 Pharmaceuticals Regulations</td> <td>R03 Pharmaceuticals Regulations</td> </tr> </table>	Chemicals Regulations	Food and Drugs Regulations	Regulations and Nanotechnology	R01 REACH and CLP Regulations	R01 REACH and CLP Regulations	R01 REACH and CLP Regulations	R02 Non-EU Regulations: US, Japan, Brazil and China	R07 Food Regulations	R05 Nanomaterials and Nanotechnologies Regulations	R06 Biocides and Pesticides Regulations	R03 Pharmaceuticals Regulations	R03 Pharmaceuticals Regulations
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Group 11 - Transferable Skills <table border="1"> <tr> <td>Communication Skills</td> <td>IT Skills</td> <td>Research Skills</td> <td>Innovation Skills</td> </tr> <tr> <td>TS01 Intensive Language Course</td> <td>TS01 Intensive Language Course</td> <td>TS01 Intensive Language Course</td> <td>TS01 Intensive Language Course</td> </tr> <tr> <td>TS02 Communication Skills</td> <td>TS04 IT Tools</td> <td>TS06 Research Skills</td> <td>TS08 Innovation Skills</td> </tr> <tr> <td>TS03 Team Building</td> <td>TS06 Research Skills</td> <td>TS07 Laboratory Skills</td> <td>TS03 Team Building</td> </tr> </table>			Communication Skills	IT Skills	Research Skills	Innovation Skills	TS01 Intensive Language Course	TS01 Intensive Language Course	TS01 Intensive Language Course	TS01 Intensive Language Course	TS02 Communication Skills	TS04 IT Tools	TS06 Research Skills	TS08 Innovation Skills	TS03 Team Building	TS06 Research Skills	TS07 Laboratory Skills	TS03 Team Building							
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1.3 Mobility Paths

International mobility is embedded in the ChIR structure, both for students and lecturers. Lecturer mobility is implicit because the Host University (EU1, in the figure below) rotates every year and hence classes take place in a different university of the consortium each year. Lecturers from universities EU2 and EU3 teach under mobility. Students take all classes of the curricular year in the same university but must spend a minimum of 6 months in a different country of the consortium during the second year, leading to the possible paths below.

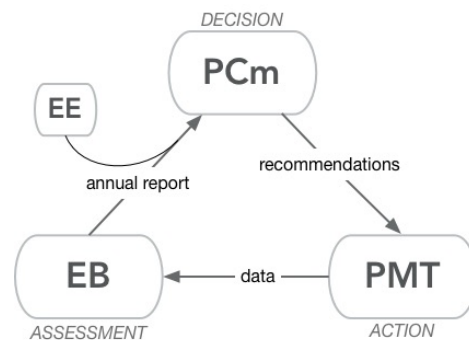


Mobility scheme for ChIR students and lecturers

1.4 Jointness

The course is fully integrated in the Universities of the ChIR Consortium and is managed by joint management bodies where these universities are represented. These management bodies are:

- the Programme Committee (PCm);
- The Programme Management Team (PMT)
- The Examiners Board (EB)
- The Selection Committee (SC)



ChIR Joint Management Bodies

Annex 1 indicates the members composing each of the joint management bodies.

2. Students

2.1 Selection Procedure

The Consortium designed a new online student application form within a Moodle system created specifically to manage student applications. This platform has proven to be a remarkable improvement relative to the one used in former editions of the programme. The new platform can register and organize all the relevant information and documents for each candidate, provide them a detailed individual feedback on the evaluation results and is a convenient platform to communicate with candidates either individually or collectively providing instructions, updates or announcements. It also allows the secure sharing of information between candidates and the SC members, ensuring the protection of personal data. Based on open access software, it can be easily adapted and used by other EM consortia at no commercial cost.

The selection of students is done every year by the Selection Committee (SC), a joint body in which the three partner universities are equally represented. The SC evaluates all student applications according to the established procedures and criteria, ensuring consensus among the partner universities in the acceptance and evaluation of each candidate. SC members collaborated online sharing information and discussing using a dedicated platform created in the ChIR Moodle. Two meetings took place to approve the lists of students for the 2021/2023 edition: the first on March 31 for selection of the Erasmus Mundus grant holders and the second on July to approve the lists of self-funded students.

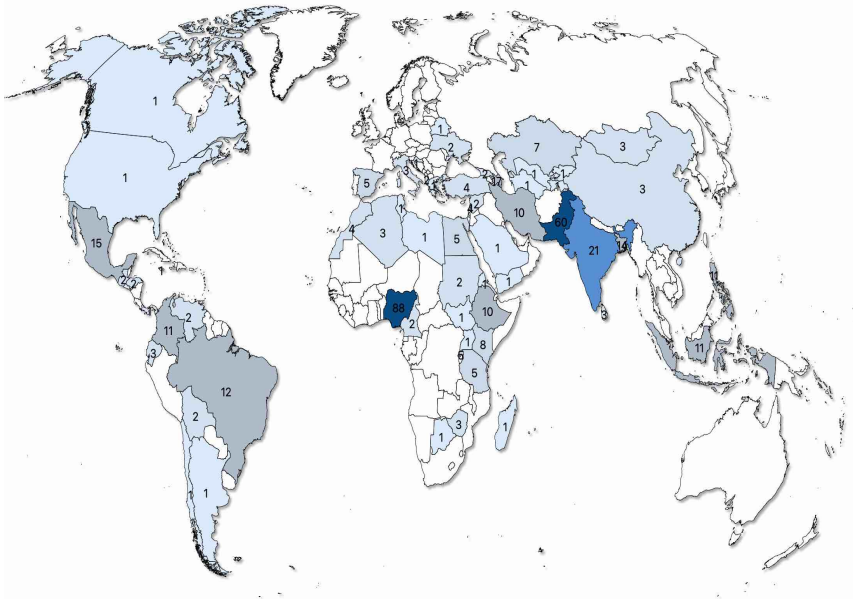
2.2 Student Applications

The ChIR has received near 500 online applications for 2022-23, of which 321 are complete applications. Candidates apply from 58 countries distributed all over the world. Compared to the previous year, 2021/2022, when the number of completed applications were of 96 from 37 countries, a marked increase in the number of candidates is clear, as well as of diversity of countries. The majority of candidates apply from Africa and Asia, followed by the Americas and Europe in 2022, similarly to 2021 applicants.

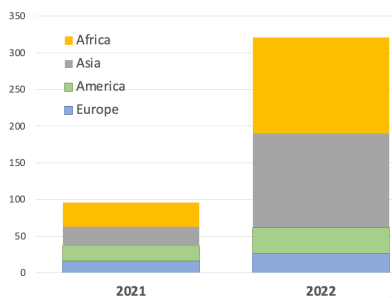
Geographical Distribution of Erasmus Mundus candidates for ChIR 2022-2023

Table 1 - Geographical distribution of ChIR candidates for 2021-2022 and 2022-2023

Nationality	Number applicants		Nationality	Number applicants		Nationality	Number applicants	
	2021	2022		2021	2022		2021	2022
Albania	2	----	Greece	1		Philippines	3	8
Algeria	1	2	Guatemala	1	1	Russia	----	3
Argentina	----	1	Honduras	1	1	Rwanda	----	5
Azerbaijan	7	10	India	3	18	South Sudan	----	1
Bangladesh	4	10	Indonesia	3	8	Spain	1	5
Belarus	----	1	Iran	3	7	Saudi Arabia	1	----
Bolivia	1	1	Italy	1	2	Sri Lanka	----	3
Botswana	----	1	Jamaica	----	1	Sudan	----	2
Brazil	5	7	Kazakhstan	1	6	Syria	----	2
Cameroon	1	1	Kenya	----	8	Tajikistan	----	1
Canada	----	1	Kyrgyzstan	----	1	Tanzania	1	4
Chile	----	1	Lebanon	1	3	Tunisia	----	1
China	1	2	Libya	----	1	Turkey	2	2
Colombia	3	8	Madagascar	1	----	Turkmenistan	----	1
Croatia	1	----	Mexico	8	7	Uganda	----	1
Ecuador	1	2	Mongolia	2	1	Ukraine	1	1
Egypt	2	3	Morocco	----	4	U.S.A.	----	1
El Salvador	----	1	Nigeria	21	67	Uzbekistan	----	1
Eritrea	----	1	Pakistan	----	60	Venezuela	----	2
Ethiopia	1	9	Palestine	----	1	Yemen	1	----
Georgia		2	Panama	----	1	Zimbabwe	1	2

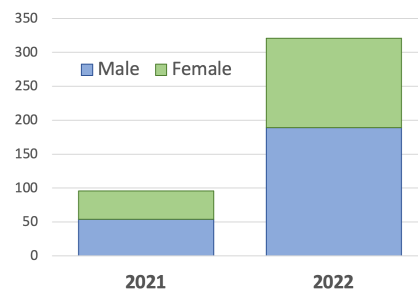


Geographical cumulative distribution of ChIR candidates in 2021 and 2022



Distribution of candidates, by region

Gender distribution among candidates was skewed towards male candidates, slightly increasing relative to the 2021 edition. Female candidates are only 41% (44 % in 2021) of the evaluated applicants and 59% male (56 % in 2021).



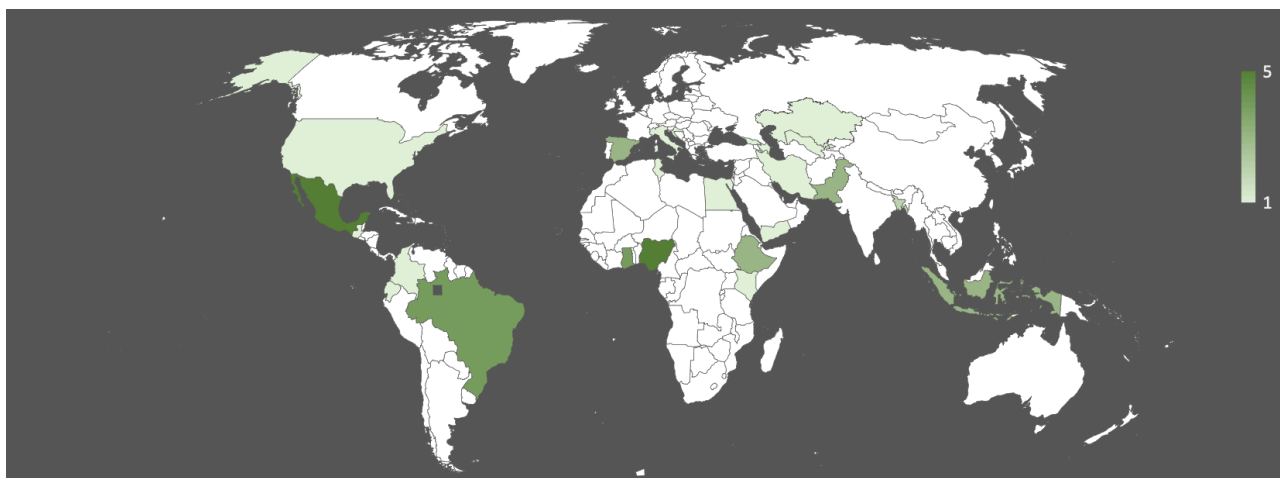
Number of candidates, by gender

2.3 Selected Students

In the 2021-2023 edition 22 students have enrolled in the ChIR. Two students dropped out in January due to difficulties in obtaining a student visa. One complained of the treatment he received from the Italian embassy in Pakistan and the other, a self-funded student from Nigeria, applied to the visa too late to have ready it in useful time.

At the time of publishing this report, 25 students are in the process of joining the 2022-2024 edition. These are grant-holder students. A call for applications for self-funded students is still open.

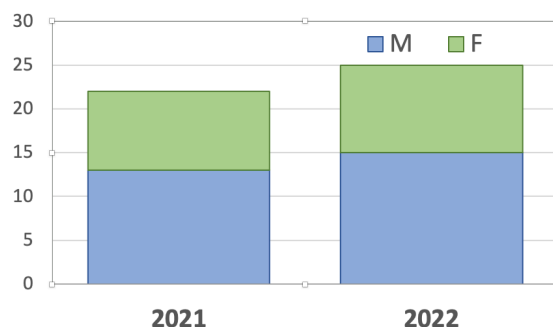
Geographical and gender balance are controlled when assigning Erasmus Mundus studentships. **Geographical balance** requires that no more than three students from the same country are funded by the Erasmus Mundus Programme. This rule assures a variety of nationalities and cultures in each ChIR cohort. As all students are together during the first year they constitute a multicultural group which fosters personal growth and the development of "international" soft skills. Working and studying for one year within such a group students have the opportunity to communicate and collaborate with colleagues of completely different backgrounds, which would not be possible in traditional study environments.



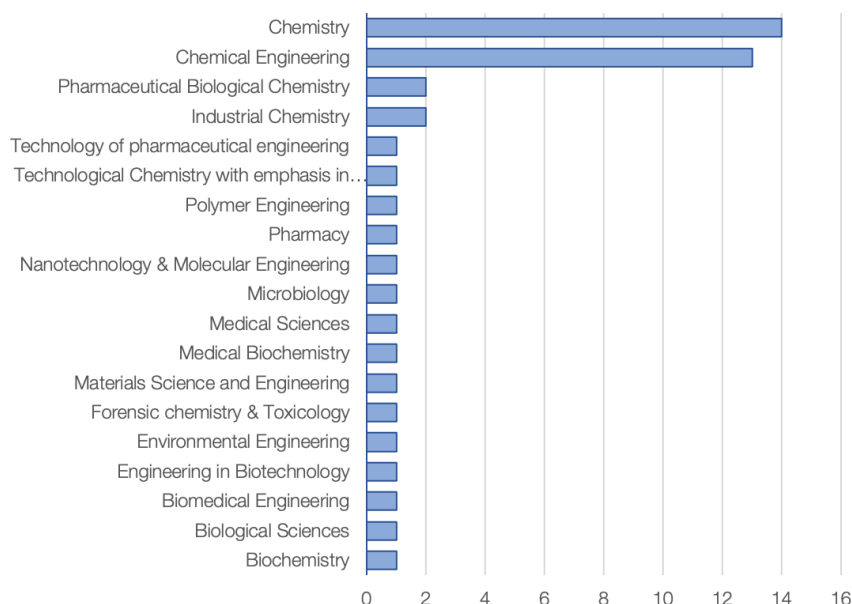
Cumulative geographic distribution of nationalities of ChIR students enrolled in 2021 and 2022.

The **Gender balance** rule requires that each gender represents a minimum of 40% of grant-holders. This contributes to more balanced cohorts and opens opportunities to female candidates. Female candidates are a minority within the candidates from African countries, one of the regions with most applicants.

Gender distribution of ChIR students



Scientific Background (1st Cycle) of ChIR Students



The ChIR is open to candidates holding degrees where chemistry is taught. This allows for candidates from varied **scientific backgrounds**. The graphic below shows that the predominant background of students joining the ChIR in 2021 and 2022 has been, by far, Chemistry and Chemical Engineering.

The next tables detail the members of the 6th and 7th cohorts.

ChIR students enrolled in the 2021-2023 edition: gender, nationalities and scientific background.

Name	Family Name	Gender	Nationality	Background
Aladdin	Mardanov	M	Azerbaijan	Chemical Engineering
Leticia	Anjinho de Barros	F	Brazil	Technological Chemistry with emphasis in Quality Management
Carla Thaís	Pereira Coelho	F	Brazil	Chemistry
Lea	Lemajic	F	Croatia	Medical Sciences
Adriana	Gonzalez Alcivar	F	Ecuador	Environmental Engineering
Negussie Darota	Daka	M	Ethiopia	Forensic chemistry & Toxicology
Charles	Ayi	M	Ghana	Chemical Engineering
Juan	Chajón	M	Guatemala	Chemical Engineering
Reyhan	Ammar	M	Indonesia	Chemical Engineering
Fajar Ramadhitya	Putera	M	Indonesia	Pharmacy

Name	Family Name	Gender	Nationality	Background
Majid	Esmaeili	M	Iran	Analytical Chemistry
Erika	Martinelli	F	Italy	Chemistry
Gisela	Obregón Gutiérrez	F	Mexico	Chemical Engineering
Marcelo	Martínez	M	Mexico	Chemistry and Nanotechnology
Héctor	Romero	M	Mexico	Nanotechnology & Molecular Engineering
Mariana	Martínez Valdovinos	F	Mexico	Pharmaceutical Biological Chemistry
Yusuf	Ibrahim	M	Nigeria	Industrial Chemistry
Nneoma Chizurumoke	George	F	Nigeria	Microbiology
Syed Akbar Ali	Shah	M	Pakistan	Biomedical Engineering
Segismundo	García Valverde	M	Spain	Chemistry and Law
Ariana Gabriela	Neyra Pérez	F	Spain	Pharmaceutical Biological Chemistry
Abdulrahman Badr Hasan	Al-Kubati	M	Yemen	Chemical Engineering

ChIR students joining the ChIR 2022-2023 edition: gender, nationalities and scientific background.

Name	Family Name	Gender	Nationality	Background
Sultana	Chowdhury	F	Bangladesh	Applied Chemistry & Chemical Engineering
Aysha	Siddika	F	Bangladesh	Chemistry
Adrine Elisabeth	Ganimian Tcharkhetian	F	Brazil	Chemistry
Breno	Savazini Leone	M	Brazil	Chemical Engineering
Elizabeth	Alvarez Pérez	F	Colombia	Chemistry
Sara	Ghazy	F	Egypt	Biochemistry
Tewodros	Shibabaw	M	Ethiopia	applied chemistry
Getachew	Gebrehiwet	M	Ethiopia	Biological and Chemical Engineering
Mariam	Abramishvili	F	Georgia	Chemistry With the Emphasis in Biochemistry
Gideon	Asew Boafo	M	Ghana	Chemical engineering
Raphael	Mensah	M	Ghana	Chemical engineering
Prince	Ebo-Donkor	M	Ghana	Industrial Chemistry
Gavrilla	Sompie	F	Indonesia	Chemistry
Marlen	Mustafin	M	Kazakhstan	Technology of pharmaceutical engineering
Sharon	Otieno	F	Kenya	Medical Biochemistry
Bryan Leonardo	Morales Espino	M	Mexico	Engineering in Biotechnology
Moses	David	M	Nigeria	Applied Chemistry
Perfect Peace	Sunday	F	Nigeria	Chemical Engineering
Samuel	Amali	M	Nigeria	Chemistry
Abdul	Miraj	M	Pakistan	Polymer Engineering
Jalal	Ahmad	M	Pakistan	Biological Sciences
Jordi	Falguera Garcia	M	Spain	Chemistry and Physics
Ayoub	Antar	M	Tunisia	Chemical Engineering
Ana	Diges	F	USA, Spain	Materials Science and Engineering
Bositkhon	Akhmedov	M	Uzbekistan	Chemical Engineering and Technology
Alex	Kamande	M	Kenya	BSc chemistry major

3. Scholars

3.1 Teaching staff

The academic year 2021-2022 counted with the collaboration of 54 lecturers, of which 40 lecturers came from the Universities of the Consortium. Half of the teaching staff taught under mobility: fourteen lecturers from the University of Barcelona and six from the University of Algarve.

The ChIR consortium invites experts from external institutions and companies to teach their fields of expertise. In 2021-2023 fourteen external lecturers contributed to the course.

Lecturers contributing to the 2021-2022 study plan

UAlg	UB	UniBo	External
Clara Costa	Albert Romano	Alessandra Bonoli	Anna Costa (CNR)
Isabel Cavaco	Anna de Juan	Alessandra Tolomelli	Teresa Fernandes (HWU)
José Moreira	Anton Vidal	Chiara Samorì	Angelo Romasanta (ESADE)
Luis Nunes	Axel Bidon-Chanal	Claudio Trombini	Carlos Molina (FEIQUE)
Lurdes Cristiano	Carme González	Emilio Tagliavini	Cristina Massa (ALBA)
Vera Marques	Daniel Sainz	Fabrizio Passarini	Drinalda Mehja (Fresenius Kabi)
	Jaume Argerich	Giuseppe Falini	Eugenia Anta (FEIQUE)
	Merce Segarra	Laura Tositti	Helder Mota Filipe (OF)
	Pilar Ramirez de la Piscina	Luca Ciacci	Irene Belinchon (FEIQUE)
	Rafael Llorach	Luca Evangelisti	Isabel Correia (IST-UL)
	Rubén Huertas	Luca Pietrantoni	Isabel Tomaz (FCT-UL)
	Santiago Esplugas	Marco Bandini	Matteo Pori (BASF)
	Susana Amezqueta	Marco de Angelis	Thomas Aspray (Solidsense)
	Xavier Saurina	Marco Lombardo	Victor Garrido (ALBA)
		Paola Galletti	Riccardo Ocello (UniBo, post-doc)
		Silvia Bagni	Helinor Johnston (HWU)
		Teresa Quarta	
		Walter Cabri	

4. Activities

4.1 Induction activities, student guidance, teaching methods and evaluation.

An induction meeting which took place the start of the academic year, on October 5, when the Programme Coordinator and UniBo Programme Directors presented students with information on the choices they must do while building study plans, deciding on internships and research projects.

The main platform used for communication and sharing of information between lecturers and students is the ChIR Moodle Teaching and Collaboration Platform, available from <https://emmcchir.org/moodle310/>. This platform is used for submission of assignments, feedback and grading.

Classes are organized in weekly modules, each taught by a lecturer who often is teaching under mobility. As a consequence, during the week they teach lecturers are completely available to students during the time after classes. After returning to their home institutions students and lecturers keep in contact through the ChIR Moodle Platform.

Students attending classes remotely, either because they were under mandatory quarantine, did not hold a green pass or were still awaiting travel visas communicated with lecturers via the Moodle platform, email or by videoconference through the UniBo Teams System.

Students' performance is evaluated for each module in their Study Plan. For each Course Unit students receive a grade calculated as the average of the grades achieved in the three modules which compose the Course Unit.

All classes took place in aula 2 and 7 of the Department of Chemistry of the University of Bologna "Giacomo Ciamician", which was equipped since the start of the academic year to allow for blended / hybrid teaching, simultaneously in presence and by videoconference through the UniBo MS Teams system.

4.2 Calendar of classes 2021/2022

The calendar for classes was agreed with each lecturer depending on their availability and under the following principles: (1) not more than two modules must take place in the same week; (2) modules taking part in the same course units would be taught as close as possible within the academic year; (3) modules would be taught in presence, unless strong reasons oppose it. The definitive calendar can be found in annex 2.

4.3 Study Trips

During the academic year 2021-2022, two study trips to visit companies in the area of Bologna were organized.

The first trip took place on May 27th in BASF Italia in Pontecchio Marconi (Bologna). The students had the opportunity to listen to a presentation on the company by Dr. Matteo Pori, who is also a ChIR lecturer, describing the business, the organization and the technical/chemical details of the activities

carried out in the plant. A short time was dedicated to the discussion about the students' curiosities and questions. After receiving personal protective equipments, the class was divided into two groups and lead to visit all the facility's departments, including the R&D laboratories, the plants, the reagents storage areas and the waste treatment areas. At the end of the morning the company offered a coffee break and a small gift to every student.

The second trip took place on June 24th to visit Eley SRL in Cadriano di Granarolo dell'Emilia (Bologna). ELEY is a cosmetic company, producing hair-care related products. The students were received by Dr. Laura Tomasoni, head of R&D department, who presented the company structure and the sustainable approach of the company in terms of reagent supply chain. The company is associated to EPOA (European Palm Oil Alliance) an initiative of refiners and producers promoting sustainable production and use of palm oil in achieving the UN Sustainable Development Goals, to protect biodiversity and improve socio-economic development. In a second part of the presentation, the biodynamic agriculture approach to the production of some fragrances, as for instance the lavender flavour has been presented. Then the group had the opportunity to visit all the facility's departments, including the R&D



laboratories, the plants, the waste treatment area and the packaging area.



4.4 Research Topics

Students were offered the list of research topics approved by the Programme Committee in November 2021. Assignment of research topics was done according to student choices as far as possible, avoiding overlap of topics. When more than one student applied to the same topic, the selection was made based on the student original ranking during the selection procedure and the suitability of their background. Two students, Carla Coelho and Mariana Martinez, asked for topics in specific areas not in the original list: nanomaterials and regulations. The PMT was able to assign adequate adequate topics and supervisors to these requests.

Assignment of Research Topics to 2021-2023 Students

Student	Research Host	Supervisor	Research topic
Abdulrahman Badr Hasan Al-Kubati	UALg / Hovione	Ana Rosa Garcia / Ricardo Mendonça (Hovione)	Substitution of problematic solvents with greener options for industrial applications.
Adriana Gonzalez Alcivar	UALg	Isabel Marín Beltrán / Clara Costa	Biodegradation of conventional and biodegradable microplastics
Aladdin Mardanov	UALg	Isabel Cavaco / Luisa Barreira	Extraction and identification of volatile compounds of commercial interest from microalgae
Ariana Gabriela Neyra Pérez	UB	Albert Romano / Daniel Sainz	Metal organic framework nanosheets of metal-catecholate for chemical sensing.

Student	Research Host	Supervisor	Research topic
<i>Carla Thaís Pereira Coelho</i>	UB	Merce Segarra / Monica Martinez	Isolation of Cellulose Nanofibers from renewable sources and their application as a reinforcement and 3D printing.
Charles Ayi	UB	Santi Esplugas	Solar-assisted activation of chlorine for water remediation: characterization and feasibility
Erika Martinelli	UB	Laura Rodríguez / Inmaculada Angurell	Supramolecular tools for the molecular recognition of environmental contaminants.
Fajar Ramadhitya Putera	UB	Bidon-Chanal Badia, Axel	Computational modelling of taste receptors.
Gisela Obregón Gutiérrez	UALg / Hovione	Ana Rosa Garcia / Ricardo Mendonça (Hovione)	Solvent assessment and selection in terms of sustainability, performance and cost.
Héctor Romero	UALg	Vera Marques	Understanding cellular adaptation to chemicals.
Juan Chajón	UB	Pilar Ramirez de la Piscina/ Lourdes Mestres	Study of 2D materials for sustainable conversion of CO ₂ through catalysed processes
Lea Lemajic	UB / UALg	Carne González/ Luisa Barreria	Encapsulation of microalgae
Letícia Anjinho de Barros	UB	Carne González	Development of nanoemulsification technologies with application in food: Application to the preservation of fresh food and the incorporation
Majid Esmaeili	UB	Anton Vidal/Arnald Grabulosa	Development of efficient catalysts for hydroacylations of unsaturated substrates from the oil industry
Marcelo Martínez	Unibo / UB	Alessandra Tolomelli / Walter Cabri - Fernando Albericio (UB)	Greening active pharmaceutical ingredients synthesis: use of alternative biogenic solvents in solid phase peptide synthesis
<i>Mariana Martínez Valdovinos</i>	UB	Daniel Sainz	Comparative analysis of chemical regulations in Mexico , US and EU
Negussie Darota Daka	UB	Albert Figuerola	Inorganic Nanocomposites As Dual Therapeutic Agents
Reyhan Ammar	UB	Santi Esplugas	Application of biochar for the recovery of phosphorus in wastewater: a technology for a green future
Segismundo García Valverde	UALg	Isolation and identification of compounds with anti-inflammatory activity from microalgae	Isolation and identification of compounds with anti-inflammatory activity from microalgae
Yusuf Ibrahim	UB	Santi Esplugas	Solar-assisted activation of chlorine for water remediation: characterization and feasibility

4.5 Internships

Students were offered a list of the internship hosts approved by the Programme Committee in May 2022. The table details the assignment of internship to each student. The assignment was made based on the student choices, limited by the number of available places in the host. One student is still awaiting a placement due to health issues which forced a change in her mobility scheme.

Assignment of Internships to 2021-2023 Students

Student	Internship Placement	Contact University	Country
Abdulrahman Badr Hasan Al-Kubati	Hovione	UALg	PT
Adriana Gonzalez Alcivar	*	UALg	PT
Aladdin Mardanov	Hovione	UALg	PT
Ariana Gabriela Neyra Pérez	Chemical Industry	UB	ES
Carla Thaís Pereira Coelho	Nanomaterials	UB	ES
Charles Ayi	BASF	UniBo	IT
Erika Martinelli	NILU	UALg	NO
Fajar Ramadhitya Putera	Ercros	UB	ES
Gisela Obregón Gutiérrez	Hovione	UALg	PT
Héctor Romero	Caviro	UniBo	IT
Juan Chajón	SERVIREACH	UB	ES
Lea Lemajic	<i>Galenicum</i>	UB	ES
Leticia Anjinho de Barros	BASF	UniBo	IT
Majid Esmaeili	Masso	UB	ES
Marcelo Martínez	<i>Galenicum</i>	UB	ES
Mariana Martínez Valdovinos	SERVIREACH	UB	ES
Negussie Darota Daka	PolyCristalLine	UniBo	IT
Reyhan Ammar	CEPSA	UB	ES
Segismundo García Valverde	Trinity college, Dublin	UALg	IR
Yusuf Ibrahim	Masso	UB	ES

4.5 Student Initiatives

Students chose three student representatives in an election organised in November 2021. All students, including the ones who had not yet arrived to UniBo, were able to participate in the election, through anonymous voting. The elected representatives were:

- Erika Martinelli
- Héctor Romero
- Abdulrahman Badr Hasan Al-Kubati

Student representatives are full members of the Programme Committee and are invited to attend the biweekly meetings of the Programme Management Team. While preparing for the

annual review meeting of the PCm, student representatives collected their colleagues' opinions and complains and collected them into a report, which can be found in annex 5.

4.6 Symposium

On July 4th and 5th 2022, the 6th ChIR Symposium “Building Capacity in Chemical Safety and Sustainability” was organized in the Aula Magna of the new Campus of Chemistry of the University of Bologna. The symposium was organized in hybrid modality, allowing participants to follow the lecture both in person and online. Thirty four participants attended in person while other twenty six attended online. The initial welcome was given by the Director of the Department of Chemistry in Bologna, Prof. Marco Lucarini, and by the ChIR Programme Coordinator of the Master, Prof. Isabel Cavaco. All the sessions were chaired by members of the Program Management Teams representing all the three universities of the network. The program of the two days included four keynotes from experts coming from academy (Prof. Philip Jessop, Queens University, Ontario), from industrial research (Dr. Andrea Porcari, AIRI), from consultancy services (Dr. Bruno Marchesini, HSE and REACH Consultant) and from start-up companies (Prof. Cristian Torri, University of Bologna and Dr. Davide Collini, B-Plas Company). Moreover twelve alumni, graduates of the previous ChIR master editions, presented short communications. Four presented in person, Kateryna Vengel, José Miguel Albahaca Oliva, Yemataw Alemu, Diego Milan, while six presented remotely, Donn Matienzo, Lorenzo Marotti, Mohammad Jamil, Victor Ajao, Pauline Roxas. They shared their experience and their actual occupation, thus offering to the students a panoramic view of their possible expectations. The alumni who were able to join the symposium in person took also part to a round-table focused on spreading chemical regulation and innovation culture. In the first day of the symposium two of the ChIR 2022 students made a presentation related to the module of Communication skills and other four exposed the posters prepared for the module of Innovation Skills. The final farewell lunch was the occasion to say goodbye to the students changing country for the mobility scheme of the master.

5. Results

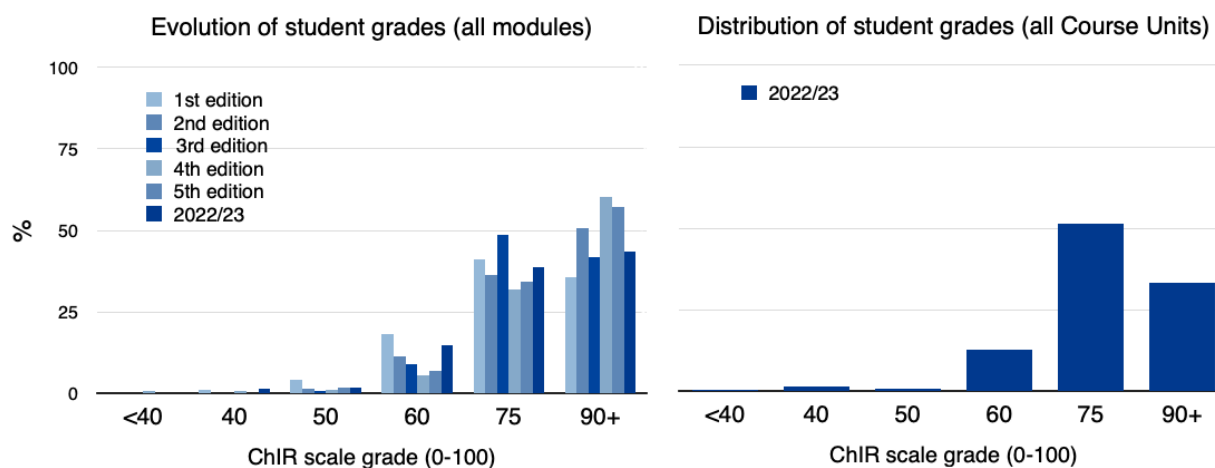
5.1 Student Performance

In order to facilitate the transfer of grades between the universities of the consortium an internal grading scale, the “ChIR scale”, ranging from 0 to 100, has been adopted.

A recurring complain from students in previous ChIR editions has been the long delay in the feedback and grading. In 2021/2022 this situation has improved significantly, even if it was not completely solved. By the end of June 2022, 34 modules have been graded from the total of 67 modules and 7 modules are effectively late. This corresponds to 17% of modules in which grades are not submitted within 3 months of the module week. In previous editions this percentage reached 30%.

Lecturers grade students in each module. The grade of each Course Unit is calculated as the mean of the three grades from modules which compose it.

The graphics below depict the distribution of grades of all students in all modules and of all students in all course units. The distribution of module grades is compared with the distribution observed in the previous editions of the ChIR.



The average grade of all Course Units is 83.7%, while the average grade of all modules is 84.0%. This is lower than the last edition, when the average grade was 87.6%. This decrease is most probably a consequence of the covid pandemic and the adaptation to blended classes.

An average performance of 84% for the whole cohort, roughly corresponding to a B level, is quite high and above the mean expected performance in regular degrees, which would statistically correspond to a C.

5.2. Student Participation in Quality Assessment

Students are required to assess each module through an online questionnaire. Student participation in this process is typically difficult. For example, student participation in quality assessment questionnaires varies between 20 and 40% in the UAlg. In the case of ChIR

students this is particularly tiresome because of the large number of modules (30) to be assessed.

Student participation in module questionnaires was monitored during the 2021/2022 academic year. The percentage of student participation was very high, highest in the history of the ChIR: 81.7% participation for all modules.

5.3. Quality Assurance at module level

Questionnaires were distributed to students one month after the week of teaching, allowing for all examinations within module to be completed. The questionnaire measures the students' perception of the quality of teaching, and was originally based on the SEEQ (Students' Evaluation of Educational Quality) reference questionnaire.¹ The same reference questionnaire is used by several Portuguese universities when assessing the quality of teaching.

An individual graphic report for each module summarizes the quantitative as well as qualitative analysis of the questionnaires. An overall “green” report does not raise concerns, while the appearance of “reds” requires some attention. A complete version of the report, containing the open student comments, is given to the lecturer and can be used to improve the module in future editions. The same information, but not in the graphic form, is directly available to the lecturers from the moodle area of their module.

The graphic reports are presented in Annex 4. They are organised into two groups: (1) graphic analysis of the groups of choice, where the average results for all modules within the same group of choice is presented and (2) graphic analysis of individual modules.

The following graphic presents the mean results for all modules taught in 2021/2022. Overall, 58,8% of all answers to all questions regarding teaching quality have the highest score (questions A-H, “Completely Agree / Very Good”) and 90.4% of all answers are positive. Still, 1.5% of answers reflect “Completely Disagree / Very Poor” and should be addressed in a case by case basis. The weakest scores are for Examinations and Assignments, in particular regarding the feedback and graded materials. Questions in group J reflect the difficulty of the modules, which on average appears to be adequate. When assessing the number of hours students dedicate to each module outside the class this is less than expected for modules worth 2 ECTS credits. Each module should require, on averages, a total of 50h of work, i.e.

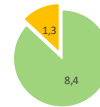
¹ “SEEQ: a reliable, valid and useful instrument for collecting student's evaluation of university teaching”, H. W. Marsh, British Journal of Educational Psychology, 52 (1) 77-95, 1982

30-40h outside classes. This is the case only for 13% of students*modules, while 50% of all students*modules report dedicating to the module less than 20h outside the class. Regarding grades expectations the grades were, on average, lower but not far from student expectations.

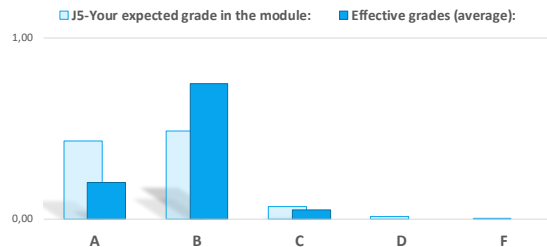
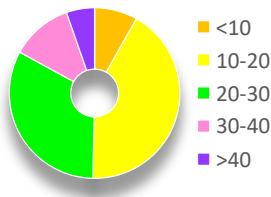
module: **All groups : Global Analysis**

Academic Year: 2021/2022

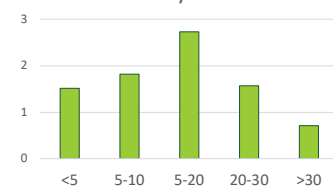
■ average # participants in survey
■ average # students not participating



J4 - Workload:



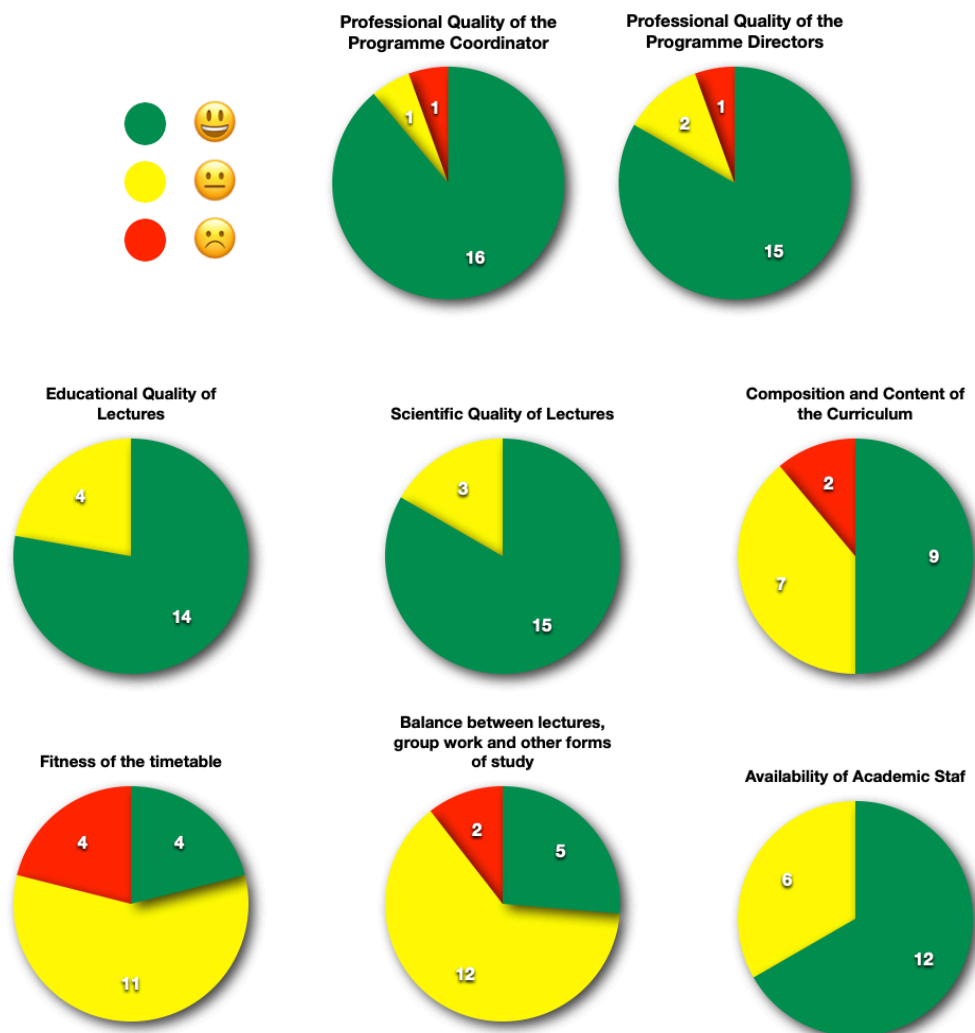
Number of modules already taken



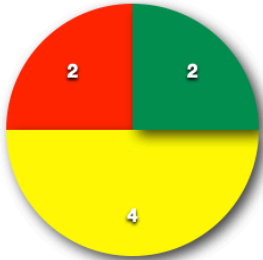
5.4. Quality Assurance at programme level

The results of the questionnaire, filled by students, evaluating the overall quality of the ChIR programme and of the Host University are presented in the following graphics and tables, which transcribe student comments. The student opinion of the conditions of the Host University shows a very negative result on the quality and access to accommodation, and a lower quality of administrative support compared to other editions. All university cities of the ChIR Consortium are suffering from a crisis in student accommodation, and Bologna was particularly affected. This may be because Bologna is increasingly a more touristic city and houses previously rent to students are now reserved for tourists and to the spread of AirB&B short term renting which is more profitable than long term renting. In the pandemic and post-pandemic crisis Universities have suffered from the lack of administrative staff due to quarantines, sick leaves and remote working, which explains the low rate given to the administrative support.

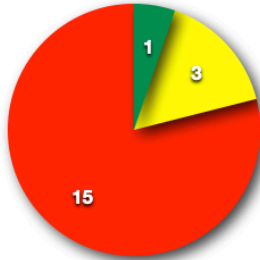
The text of the questionnaire can be found in **annex 3**.



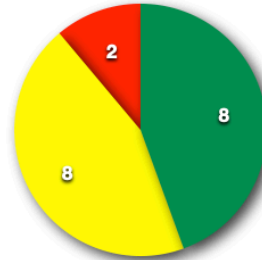
Quality and access to the canteen



Quality and access to accomodation



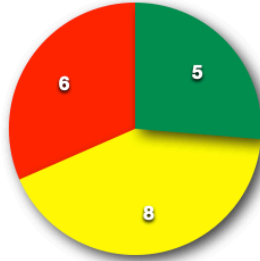
Quality and access to transport



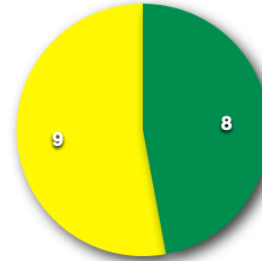
local language training



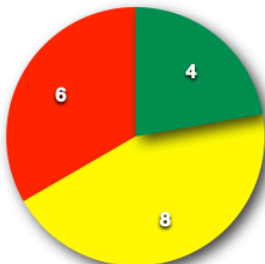
Integration Activities (welcome programme, mentoring and guidance from staff, help from local students and alumni, etc)



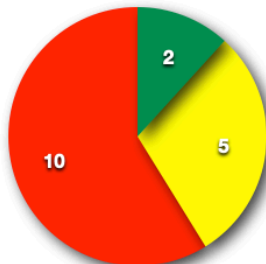
Study Places Adequacy



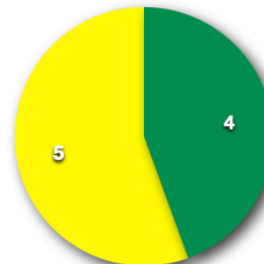
Service from the administrative staff



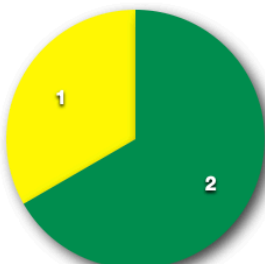
Service from the international office



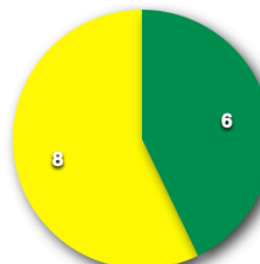
Quality and access to the library



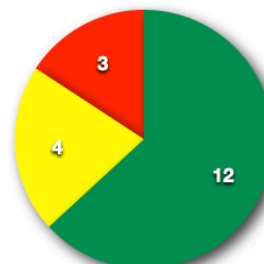
Quality and access to the laboratories



Quality and access to the computing facilities



Quality and access to the internet



Comments and suggestions about the study plan:

The curriculum is so packed that students do not get the opportunity to properly assimilate the information being put across since you always have assignments and deadline to beat.

- Content on the courses tend to be repetitive within similar topics, seems like the professors don't talk to each other or that their syllabus is outdated. Greatest courses were the ones imparted by the same professors e.g., Circular economy module: SMF and LCA by Luca Ciacci
- It would be great to have the ability to choose the courses from the 6 available courses of each of the modules instead of choosing an already rigid 3 courses selection.
- The timeline of the internships could be flexible and they offer more diverse internships.

Some modules overlap with each other in terms of the content proposed. It should be a significant improvement to combine some modules and/or avoid repetitions. Moreover, some of the modules that should have been environmentally oriented did not propose what was declared. As a minor point, it would be more efficient the content learning if modules of the same exam would have been nearer in the calendar. Last but not least, students did not receive module grades for months and in some cases after 7 months from the submission, there is still no feedback. The program committee should be more restrictive with lecturers in this sense

First, about the lectures. Sometimes the lectures seem to have no connection one to the other. There are just a bunch of professors that try to relate the topic from one subject to the other, or that try to make use of at least the language of the course. In other modules, there is no apparent connection at all, and it feels as a filler. About the resources for teaching, some professors are very good, some provide the enough, but there are others that even attending their modules is hard, as Prof. Huertas or Prof. Massa; and moreover, they seem to provide an assessment rather subjective than something based on certain grounds.

It would be great if we could get more practical experience besides the theoretical part. In addition, we could invest the time and effort in doing research work and publishing papers.

The study plans are good except in some cases where some moodle contents are heavier than others, and also time commitments for assignments vary. In this case, I think ECTS of such moodle should not all be the same, because some module contents are heavier and the same with its assessment requirements.

There is too much information to learn in just four days. Classes should have less information and more days so that people can learn more effectively.

The study plan facilitates the various interests and backgrounds of the students.

the study plan is impressive and exciting but the number of modules is very high. If it were 22 modules and 50% exams and 50% assignments, it would be a Good master's program.

It is not well-structured, it is inevitable to course double class in more than two weeks.

Although it is very flexible, sometimes the grouping of the modules may affect your preferences. Some modules are very repetitive (e.g., toxicology).

More communication between the teachers that deliver modules, particularly in the same group, would be beneficial to the masters. It sometimes happened that one module focused 50% of the class time on subjects we had already covered in another module, so aligning all the professors to work together rather than on a specific syllabus would favor wider learning opportunities.

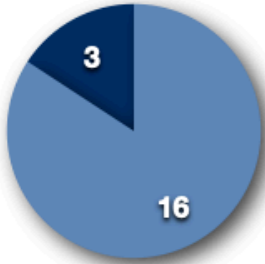
Professors who taught us were in general very kind, caring, and had strong qualifications in the field they were teaching. It is also suggested for some professors reduce daily homework because we are supposed to use our time after class to do our final report / final assignment for other courses. Some professors also did three assessments/evaluations (quiz, report, and presentation), which are a little bit complicated and endless. A maximum of two assessments are better.

Is good to be in touch with some many different subjects, but the lessons are really fast and difficult to fix all the information, maybe adopt a different strategy, with 3 subjects that compose a module became only one subject, and to it during a 1 month with 2 subject each would be better.

Comments and suggestions about the Host University infrastructure and facilities

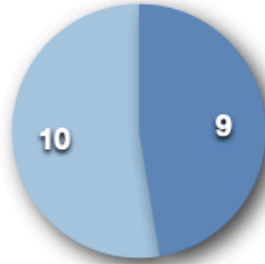
<p>The university is plenty of well-managed facilities. All good.</p>
<p>The timetable for the master seems to be inexistent or unimportant at all. It can suffer of "sudden changes", and hence the students, no matter how they have organized their day or whatsoever, have to superimpose someone else's decision over their own will, even if it is related to work. It would be nice that for next editions the communication with students, specially regarding schedules, is far more active than this year's.</p> <p>The classroom is useful although old. It would be fantastic to have one with more electric plugs so that the computers could be freely used. Only one time instead of using Aula II we used Aula III (think so), and that one was way better. About the installations for studying, as far as I know, no one ever used them, since we were never told they existed, and many of us preferred to go somewhere else, as in a coffee bar to study. this is the same with the library.</p> <p>Only at the very end, a bunch of professors started asking about how full of work were we, and to worry about how this balance worked out. Other than that, I had the perception that most of them didn't even worry about what were they going to evaluate, and just asked for a generic - and considerably long - way of assessment. For us, it didn't work to fully get the subject, since instead of doing the work consciously, we only wrote to deliver something and count with the grade.</p>
<p>The Wi-Fi from the Giacomo Ciamician Institute was not good. Slow most of the time, and when we had to do an online activity during class it was better to just use our phones' internet. Otherwise, the activity took a long time with the Alma Wi-fi.</p>
<p>The host university should be more involved in helping students find a place to live so that they can get used to their new environment better. Also, it would be great if there was an integration week the week before for cultural exchange.</p>
<p>Local programme directors and stuff have been very kind with us, but I think an specific administrative worker for ChIR would be very helpful. Most of the time professors find it difficult to help us, and that is understandable as they are not specifically trained for the bureocratic issues.</p>
<p>The Giacomo Ciamician department was in the middle of moving to another location; therefore, we didn't really have a library we could go to. Moreover, the department itself has very few learning and study places inside, when compared to other departments. We ended up going to other places to study simply because in the department there weren't enough. Nevertheless, besides these specific things, both the department and Uni-Bo had very very good infrastructure and facilities all around.</p>
<p>The procedure to enroll to the university was not clear and in someway redundant.</p>
<p>the bulding is old but it is well organized.</p>
<p>There was a lack of coordination between the administrative staff of Unibo and the University of Algarve. Before coming here they told me that it is not necessary for me to have DoV but when I registered in the International office, they said that I have to have it, so I have to pay more to issue DoV in Italy.</p>
<p>The same classroom was used in the whole year, this classroom feels a bit outdated. would have been nice to move to the Navile Campus.</p>
<p>The libraries in Bologna have too few seats to receive the amout of students.</p>
<p>The structure of unibo was very good. Libraries and class room has a very good infrastructure.</p>
<p>The classroom is well conductive and equipped with necessary facilities that will aid learning and communication.</p>

Where are you living?



- Private accomodation
- University Accomodation
- Other

Are you satisfied?



- Yes
- No

How much do you spend per month?



- <300 €
- 300-500 €
- 500-700 €
- 700-900 €
- 900-1200 €
- >1200 €

How far is your accommodation from your classroom place?



- < 2km
- 2 < < 5 km
- 5 < < 10 km
- 10 < < 30 km

How do you assess the quality of public transportation that you are currently using?



- Good
- reasonable
- Not good
- Unacceptable

Comment why you are not satisfied with your accommodation, the conditions and the price:

It was difficult to find a room that had a decent cost and that was close to university... But I still chose it because it was the best option at the moment.

The advice from Unibo to grab a place is literally: "Bologna welcomes a large number of students and finding accommodation can be difficult, especially for periods of less than 12 months. Start looking for accommodation well in advance. It is advisable to book an accommodation before arriving in Bologna"

I arrived on Sept 15th 2021, after 2 weeks looking and have to settle for a 620.00 EUR/month.

I had to move in January/February to a more affordable (500 EUR/month).

Prices in Bologna are ridiculously expensive, especially if you rent near the University area. My previous accommodation was close to the University area and I considered it was a fair price for what I had, nonetheless, the owner never gave me a contract and when I asked for the contract he asked for the room. In the middle of the year, no owner will rent you for a 3-month or shorter period. I had no option but to rent another room without a contract. Here in Bologna, most owners won't rent you for a period shorter than a year, which complicates our situation since we are here less than a year. There is also discrimination to rent it to foreigners.

It was hard to find a place to stay, and the price was too high for what you got. It's expensive and not very good.

Half of my monthly salary goes for rent, and that's just for a shared room . It would be good if the students got suitable support in their accommodation according to the city that they are in.

I spent more than 3000 eur to airbnb when I left my previous accommodation (previous neighbor was aggressive). Afterwards I had to live in a house with 11 people, for no available rooms in the city.

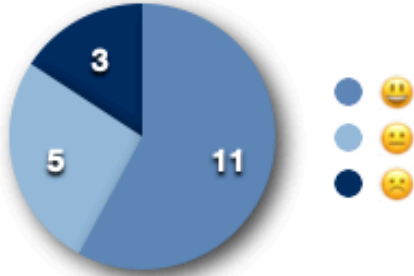
I am not satisfied with the level of privacy provided and the price for a shared room is expensive for a student within my budget.

in Bologna getting accommodation is very difficult. I stayed in the hostel all academic year in the hostel because I could not get a house in bologna. many students from overall the world come to bologna and study. so, accommodation in bologna should always be arranged by ChIR coordinators for the next CHIR cohort.

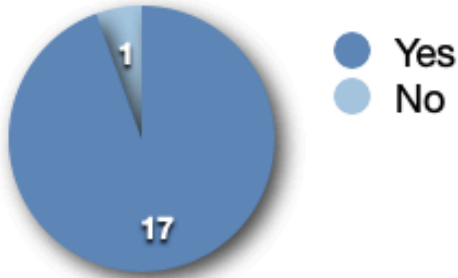
I live in a double room, so, a doppia, and I pay 300 euros only for rent IN A SHARED ROOM THAT ISN'T EVEN IN THE CENTER. Such a huge university should have university residences are something like that to offer.

The accommodation is totally overpriced for the things that offers and the house Maintenance. It was the only solution that I was able to find after almost two months of research, but I am not satisfied

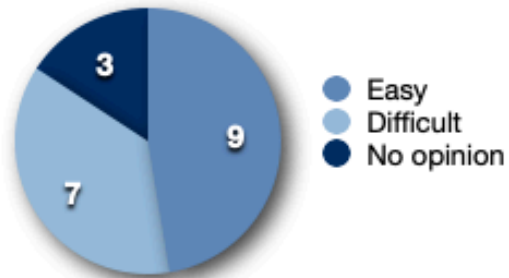
How do you assess life at the university with local and international students?



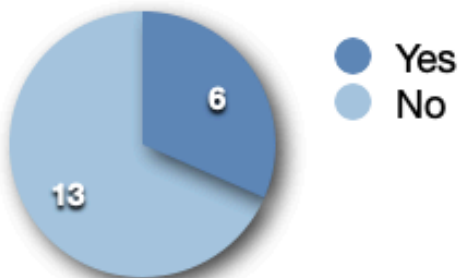
Do you have friends at the university?



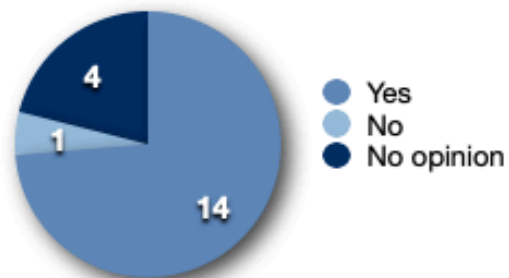
Is it difficult to contact European students?



Do you participate in extra-university groups?



Do you feel accepted / integrated?



Comments about cultural differences experienced:

The dressing, food, lifestyle and how the Europeans talk is very difference but very nice and free

There is no issue when I have an interaction with Italian people, so far they are nice. However, in our batch, I cannot feel real "cultural diversity" due to not-so-diverse student backgrounds because almost half of the students come from the same language and geographical region, and it is rather difficult for students coming from other parts of the world to get engaged with them.

The student representatives were initially expected to integrate us all together (e.g. by arranging events or fun activities), but unfortunately, they didn't.

For me, it wasn't a great shock since my culture is latin-based, but the usual things were the ones that defefed, as the service culture and how people relate to each other. Here in Bologna it is far easier to find another international student than Italians, and the Italian students can be very welcoming; but, the only issue is that it exists a great barrier in language, since it is rare to find an Italian that speaks English, or that is willing to speak in English. Considering the scope of the local language, almost no one had a conversational level, so that it was difficult to know people in this way.

I had a great academic experience in the classroom and between lectures. I also have the opportunity to meet other students from different countries from all over the world and embrace cultural differences. Furthermore, I appreciate that the program directors and the lecturers acknowledge and facilitate the religious needs of some students.

Well, in my case is much more easy to interact with students from Latin America than with the rest, but still have to say that the european friends I have are amazing people. Regarding students from Asia, reallyly difficult to interact.

There is not that much of a difference between Latin-Americans and Italians.

I dont feel that much different but some random people may perceive me as such because of stereotypes/ looks.

As Latin American I haven't maybe had such a big cultural shock than some other of my peers. In line with this, I've always felt accepted and like the Europeans are very open to me, patient with me, etc. As well, I haven't had any issues with any European or Italian person, whether on a personal or professional/academic note. We've integrated very well actually :) even going out together and so on.

Nevertheless, the big cultural shocks came with the Arab/African people in the masters; from the start we did not connect very well (in part because they could not attend classes because of a lack of Green Pass). This disconnect continues until now, almost a year after we started this master. Even though we've (Latin Americans) have tried to connect with them separately from the courses, we haven't had any luck in making real connections. To aid this, I would definitely say that integration activities at the start of the master, even a simple one like going out to have a picnic all of us together, would greatly aid cohort-cohesion. The disconnect has certainly made even working together a little bit hard, because we do not know each other, to the point where (when a professor wants to randomize groups for a team project) we fear ending up alone in a team with them, truly from not having ever even had a real conversation with them. How can you work with someone you've never even really talked to? I believe in a way the cohort is broken up somewhere along the middle in two big groups, with some people riding the line between the two, but we could benefit so much from being a closer-knit cohort; just we never really had a chance to do it.

The differences are based mainly on culture, religion, and manners. For me, I believe it's important to understand diversity and to learn from others.

I learned a lot from the cultural concepts of Europe and I'm still learning .I know that such experience will affect me in many way and get my practical and theoretical knowledge father more

I am from a middle eastern country with different culture and lifestyle.
I knew about the differences before because i travelled to Europe frequently before this time.
But this time I live with local people . they were supportive and kind to me and i were glad to see this
I did not experience racist or something else

Food is one of the biggest cultural differences.

I want to mention three cultural differences. the first difference is the habit of smoking cigarettes. in our country smoking cigarettes, at the nearby university forbidden even in public places rarely people do but here in Italy it routine activity almost in all public places. secondly, the type of food available in Italy is different. most of the food depends on cereals such as wheat. whereas in our country we have our indigenous food. thirdly. the difference in social life. here the interaction of the people with each other is rare. they do not share anything with their neighbour. on another hand, in my country we always share ideas, and foodstuff, drink coffee together and help each others.

Main Expectations from the MSc course

Main expectations	Have they been fulfilled so far?
I wanted an international academic background and focus more my knowledge on the environmental and regulatory area, and I think that ChIR helps people to reach this goal.	Yes. The master give me what I expected
I thought that we would have classes in labs and do more things related to academic research and development, since is a master that promotes an innovation character. In the end we have too many subjects in Safety (at least 4 looking at pictograms) and Marketing.	The part in biosynthesis, using renewable sources and life cycles ones are just amazing.
1. Finding answers to my professional concerns in the different modules studied. 2. Become more confident with English language. 3. Knowing more about international people and their cultures.	Yes, they have been fulfilled.
I decided when I was in a previous work working in a area outside chemistry and saw that it was not what I wanted to do. So, the flexibility of the master and the industry bias made me choose.	Yes
I expecte to acquire new and exciting knowledge on my fields of interest. Also, I expected to taylor an international plan including internship and thesis. I also expected to meet people from all around the world.	Mostly, yes. Most of the modules are very interesting and professors are well-known professionals. On the other hand, I found the administrative issues to be the main drawback of my experience. Also, sometimes I had the feeling that strict discipline and no flexibility was required from the students while it was not matched by the PMT.

<p>I expected to deepen my knowledge of chemistry, get back in touch with it a little bit, while learning new skills. Primarily, I expected to learn a lot about European regulation and culture towards chemistry. Other expectations I had were, of course, the chance to experience first-hand living in Europe and the European way of life.</p>	<p>So far definitely yes.</p>
<p>To gain an adapt knowledge in chemical safety management as this would help me deploy it in the industry to protect lives, process plant and the environment at large. Also, to know more about chemical regulations in EU and Non-EU countries.</p>	<p>Yes</p>
<p>To learn and interact with industrial and academic professionals.</p>	<p>Unfortunately there were symposiums carried out in Germany and netherlands for Rawmaterials but we were not invited or advised to be part of them.</p>
<p>-Strong academic challenges -Cross-cultural exchanges -Business-Scientific orientation</p>	<p>It can be more business oriented but the modules imparted, specially on the research topics availability.</p>
<p>I expected to learn new sciences and practical aspects of sciences and i learnt them. it satisfy me. now I am Familiar with new subject specially about recycling , safety, Management, and regulation.</p>	<p>Yes.</p>
<p>To be honest, I was expecting something more regulation based, that took their base on scientific approaches but only to make sense out of it, not to be again the core. I was also expecting something more about developing solutions, not only exploring what it has been reseached on.</p>	<p>There is a very strong foundation on circularity and so on, but for me, two out of the three core concepts of the master: innovation and regulation; seem unexplored. I was expecting something more from a professional experience rather than mostly academical, and to was also expecting that the professors thought a little bit more on what they wanted their contribution to be to the under development profile more than only giving a lesson and asking for a 10 pages essay.</p>
<p>Learn about alternative and green processes to be implemented industrially.</p>	<p>Yes, I never expected to learn so much about green chemistry and toxicology, so I am grateful for this opportunity.</p>
<p>(i) I expect to be taught by excellent professors about chemical innovation and regulation, bringing new ideas, insights, and knowledge (ii) I expect to have multicultural experiences with other students with no barriers</p>	<p>(i) Yes! (ii) Unfortunately no</p>
<p>To learn a lot of interesting things, travel, meet new people, grow as a person, learn about other cultures, etc.</p>	<p>Mostly yes</p>

<p>Academically I expected by the end of the first year to have an overall understanding of the regulatory processes for chemical products in Europe and how to foster innovation in the chemical sector.</p> <p>Personally, before coming to Europe, we had a goodbye reunion with the Ambassador of the EU in my country and he told us what a wonderful experience we will be going to have abroad, meeting friends of different cultures, traveling abroad, best two years of our lives.</p>	<p>Academically yes. I consider I have learned about the regulatory processes in Europe and the innovation aspect.</p> <p>For my personal expectations, it was quite the opposite of what I had pictured. Labeling it "the worst year of my life" would probably be too dramatic. Nonetheless, the first month in Bologna was truly the worst experience for anyone who has not lived abroad. While searching for accommodation I came across scams and sexual harassment. The University staff did not help at all when I forwarded my complaints.</p>
<p>My expectations from this master's course are to learn new approaches of scientific and technical perspectives on safety, Innovation, management, and regulations of chemicals.</p>	<p>So far everything seems to be in order towards reaching these expectations, but I am not there yet.</p>
<p>My main academic interest in this program is to obtain a broader insight in the mechanisms of environmental and human toxicity of chemicals and their regulations</p>	<p>yes</p>
<ol style="list-style-type: none"> 1. Getting a double European degree 2. Learn more about green chemistry and renewable resources. 3. Being prepared for the job market 4. Improving my academic English 5. Publishing at least one scientific paper. 	<p>Not all of them because the scheduled classes and the homework took most of my time.</p>
<p>I hope to gain a comprehensive perspective on chemicals use or develop sound management of chemicals. I also have interest to improve my language skills.</p>	<p>So far I have been exposed to various aspects of chemical innovation and regulation, which some of them can be used to address various issues in my home organization.</p>

Main concerns before coming to study at an Erasmus Mundus Programme

<p>I was worried about the procedures to move and the bureaucracy to stay here legally with no worries.</p>
<p>facing problems in finding a suitable job after graduation.</p>
<p>Academic level, administrative issues, accommodation.</p>
<p>That the scholarship would be enough to make a proper living; that the work load could be so big that I would have to do some drop alike.</p>
<p>My main concerns were related to the deepness of the knowledge achieved after a week module. I thought should have been enough to properly learn a subject.</p>
<p>Insecurity of my educational background How to manage my time between studying, surviving, and resting</p>
<p>How I would be able to get the most out of my time in the programme was my main concern.</p>
<p>Lack of support from people abroad mainly. I wasn't concerned about leaving my country or moving to a new place, or even the new language. My concerns came mostly from doing all of it, and then needing help or support to understand a process (such as how to obtain the residence permit) and not having anyone helping me figure it out.</p>

"Where am I going to live?". In Bologna, it is very difficult to find an accommodation if you are foreign.
Difficulties in following the lessons because it has been a long time since I left college.
Being able to live by myself in a different continent, issues with money and was worried the classes were going to be too difficult for me.
The accommodation and the language barrier.
The mobility path, visa/immigration procedures, accommodation.
I thought I had a lower level of education and English, but I was wrong.
The accommodation aidance was paid after approximately 3 months after being in Europe. This makes things very difficult for who do not have the enough money in the beginning of the program.
Social factors.
interaction with new program with different university.

Problems faced so far

I think I've faced mainly two problems. The first one has been due to the language, for example, when having to explain myself in a government office or a doctor's room, but that was to be expected to a certain degree. The second problem I've faced so far has been a disconnect between our experience studying abroad and maybe the PMT's expectations of us. It feels like the PMT wants us to be available all the time for the Masters (24/7) and not live the groundbreaking experience that Europe is for us, while we also give value to exploring a new country, a new continent, in a way that is normally impossible for us if we stay in our countries of origin. That is not to say we do not give value to the masters, this is the reason we are here, but we also give value to other things, while the PMT seems to recognize that the only thing we should be giving value to is the classes.
Indeed italian burocracy was difficult but after a while you get used to it
The stress in travelling more than 60 km (back and forth) all the time for in person class. You get home very tired, can't even read what was taught during the day, then again you have to try and finish pending assignments. For one research paper I have to read not less than 15 papers to understand the topic before writing and this is certainly time consuming and hectic. In fact, I must confess it's been really a challenge especially if I have two classes in a week in person, but I had to endure because professors wouldn't agree for me to take online lessons
Fortunately, my problems are more related about the effort that it takes to deliver on time, which for any person going through an academic degree, is the regular and normal issue. Other than that, the next issues were related to living together with my current roommates and making personal relations.
The main problem I faced was difficulty to find accommodation.
Some courses that are not closely related with my field, both academic and work experience.
<ol style="list-style-type: none"> 1. Find an accommodation. 2. Deadline of the grades: In some cases, professors do not communicate the final grade in ChIR scale, or basically, they do not say nothing. We are in June and I am expecting my grades of modules coursed on November. 3. Timetable structure. It must be improved! 4. Double class + exam in the same week. It is inevitable to take an exam, but it does not make sense if the Professor that is assessing us, it is not in presence nor online during the exam in order to solve our doubts related to the test.
<p>(i) problem of enrollment in university -- there was no clear guideline on what steps we have to do before coming here when we are here, and what should we do before moving to a second country</p> <p>(ii) problem of residence permit -- until now there is no information on what should I do if the residence permit has not been issued at the time when I have to continue my mobility to a second country. The responsible appointed by PMT has not replied to us.</p>

Problems with accommodation affected everything (from mental health to study quality), due to unstable expenditures every month and stress.
<ul style="list-style-type: none"> - Accommodation problems. I have changed twice during the academic year and the process of searching, visiting, and selecting a new place can take up to a month. It takes valuable time that you should be spending studying rather than looking for a place to live. - Residence permit. It has been almost a year since we started the residence permit process and we still don't have an answer from the Immigration Office.
Sometimes the course schedule is very restrictive and it is difficult to respect all the deadlines attending 6/7 hours of classes. For this reason the quality of some works and the preparation for some exams was not as effective as I wanted.
issuing the resident permit took a long time (more than 8 months)
<ol style="list-style-type: none"> 1. Time management problems 2. Accommodation 3. Needing for practical education
To find accommodation.
The schedule of the Study plan and the number of modules was the problem I faced. this program has a busy study schedule. it is very challenging to do an assignment and submit it on the due date. once you finish one assignment immediately you have to start another one. so, you spend all of the academic year by doing assignments and preparing yourself for exams. you can not get the time to expose yourself and learn the culture and language of the people living around you.
Mostly issues with accommodation and money, cultural shocks, trying to build relationships, all while keeping focused to deliver all the projects and assignments required by the course.
Problems with housing and chemistry classes. The combination of chemistry and arduous study is excellent, but housing was the biggest issue.

Plans after obtaining the ChIR Master Degree

I would like to search for a PhD to continue my career as a researcher
Work for a European regulatory company for at least a year, so I can gain in-depth knowledge of REACH regulation. After a year of working, I will like to go back to my country.
I would like to work in the pharmaceutical Industry.
My planning is to work in the industry in the sector of chemical innovation (in Europe or in my natural country)
Hopefully, practice in the chemical industry as a chemical or process safety engineer to acquire more hands on experience
I will be looking for work in Europe, in the industry. I am interested in working on Business Development or Innovation Management in chemical companies.
I am still registered in my previous job, so I will go back to my institution.
I want to look for an internship/apprenticeship/job opportunity here in Europe, not because of the region, but because is where the professional profile that I want to develop is being hired and continually developed also.
Find a job.
I plan to seek opportunities abroad mainly work related to blend the scientific and business perspectives, but a PhD degree in innovation as professor Romasanta path sounds interesting to me.
PhD

I really dont know, I feel things can change in matter of weeks. My plan till now is to find a job afterwards and go back but everything can change, Im open to possibilities.
Apply for a job in the industry.
Further studies and find a job.
I plan to find a job in european commission, especially in regulation field
Looking for a job or continuing PhD
I would like to work in the regulatory field, but I am open mind to new and different opportunities
This program will make me a research scientist and it will be a cornerstone to pursuing my PhD.
I'm between two choices :Finding a job or continuing with PhD I will try to find a job to secure my economical needs and gain practical experience.

How will the European Master Degree Help in Career

I believe the knowledge and experiences from this master degree will help me to address the challenges in my future career.
Since we could learn a lot in regulatory sector, I think it will help to get employed in the same area.
Now I am aware of all the legislation and quality requirements pertaining to the labelling of products containing hazardous or special substances. This will be useful if I conduct inspections or wish to register substances for businesses. Also, I can utilize the data regarding solvents and feedstocks to make better decisions.
It's not common to achieve a joint degree even being European, companies usually evaluate this kind of background. Moreover, the master offers opportunities to learn different subjects, resulting in a distinctive point compared to other chemists or engineers that followed more traditional courses.
Erasmus Mundus is a joint degree by the Consortium of European Universities. I got the opportunity to learn both practical and theoretical knowledge from a well-experienced professor. thus, I become acquainted with the academic and hand on experience, and social, and cultural diversity of Europe. additionally, it increases the quality of my CV and helps me to work in a highly reputed company or organization at an international level
In regions outside europe, an international master s ver worthful, so it can be easier to find a job in our area. Besides, an europeand master makes easier to find a job also in Europe.
European Master degree has broadened my knowledge, and will make my CV more valuable
It is a really important step in my academic career
It will broaden my job perspectives. Having first-hand knowledge of the European Chemical Regulation is a desirable asset for many companies. Since my country is interested in businesses with the European Union, people that know both legislations are needed.
Yes, because a European Master's degree is well recognized and reputable, thus will give advantage in my career path.
I think it completely changed my life, it definitely is a whole new chapter. I feel like Im more independent, I know a lot more about things Im interested in, Im more confident, I feel a lot more adaptable and open minded. I think these skills will be very useful in any job, when working as a team or as a leader. I do feel I have an advantage compared to other students who havent studied abroad.

It will help me significantly, mainly because this major is unique and complete, it consists of learning in class, (gaining knowledge) doing an internship (work experience), and doing a thesis (research experience) which is perfect!

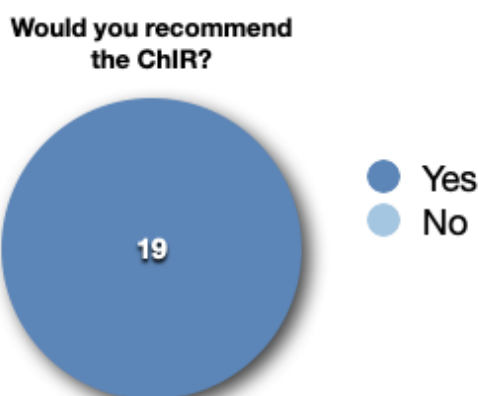
The European Master degree with its courses content and with the knowledge acquired, I strongly believe I would be accepted to work in any chemical industry to deploy my skill set and knowledge to perform my duties to the optimum as a process safety engineer

Greatly, it has the support of strong institutions to give the appropriate leverage to access new opportunities.

The Masters title will definitely be a push forward for me, particularly when considering it is European. I hope it will open doors for me in Europe, while helping me make connections across the board.

Of course, I believe that it is a way to show our will to contribute to Europe, and that in some way, it provides a standard of what to expect from us in terms that the people out can understand more easily.

it will be helpful and I enjoyed exploring new sciences



Reasons to recommend / not recommend the programme

Well you will obviously learn a lot about the topics you're passionate about, you will have the opportunity to live in a completely different culture and city, you will meet new people and travel a lot, you will live a lot of good experiences but also difficult ones that will help you grow as a person.

This experience is valuable and worth to try

I would suggest it, because it's innovative, more related to what is the job world and offers the opportunity to learn from your international colleagues. The different background among students is another straight point, because gives you a different work prospective.

spreadin this sciences is really help to make earth a better place for life

I would suggest it, in case the person is interested on moving on from hard science, as chemistry, biology, etc.; to a perspective of making services or landing more in a daily day world. If the person is more interested into going fully academic, or more about a business alike profile, I would suggest to look for other possible programmes.

It is an unique experience, where you will learn in an international environment (Professors and students). If you are sure that the study plan will respond to your professional interests, go ahead!

Mainly the international experience, the scholarship and the fact that contents are specific and difficult to find in other masters

It is a great program with million of oportunities during and after

The masters is a great mix of very important skills and knowledge. I feel like I benefit greatly from having both sides of the coin in the masters - the academics of it with the business part. The countries in the ChIR are also a great fit for me and other Latin Americans, both because of language and cultural closeness to the countries.

It is a great opportunity to open the scope of what does the student want to work with and find their true passion with as much subjects as they are while learning new languages, people and different cultures.

To suggest:

1. Having international experience
2. Studying in different highly recognized universities
3. Learning from the experts

Not to suggest:

1. Lack in stability
2. Difficulties in case if the student is not used to travel and change his environment a lot.

I want to suggest this program because it teach you how to manage your time, it teach you how to be effective and efficient in Grade and time by using all of your energy and time consistently. in this program without consistent effort it is very difficult to be effective and efficient.

The programme comprises comprehensive content of chemical managements.

I think the issue with student accommodation should be solved. To begin with, I suggest the programme coordinators cut a deal with landlords to receive students (If possible rent allowance can be paid directly to these landlords with the balance coming to us). In this sense all ChIR students or groups of ChIR students get to stay together and at a close proximity to lecture rooms. In this regards, ChIR student start bonding at the early stages of classes and this could help them form various study groups, learn from each other and acquire the most out of the programme.

Again, I think the course is too packed. Almost every lecturer requires a written monograph in the space of a month after the completion of work, however critically looking at it, its less than a month. Assuming having two classes a week for three consecutive weeks and all lecturers requiring a monograph in a months time, thats just a lot.

Lastly, I think the coordinators should be in the position to help student secure relevant documents such as the residence permits with ease. We applied for residence permit upon arrival and up to now about 95% of us still don't have our residence permit with some including myself having expired visas making it very difficult to even travel to your home country.

Because of the quality of the master's degree and the Institutions involved.

Quality of the programme and possibility to learn and apply in the future

Overall, it is a good Master's program and it can open new career opportunities in Europe or in your own country. Maybe for the first year, it will be better if it started in Faro, to avoid all the complications of accommodation in Bologna. The University here is so big you will not receive any form of support from the administrative staff.

The structure of the program is very good. The scholarship is also enough to live in Europe and the cultural exchange is very important an make you develop yourself besides as an professional, as a person.

6. Final Remarks

This report describes the main elements for the quality evaluation of the academic year 2021-2021 of the ChIR. From it, a list of issues to improve has been compiled by the EB. The PMT prepared an Action Plan for each issue. These can be found in annex 6 of the report. The same annex also contains a list of detected improvements and examples of good practice.

Annexes:

Annex 1 - Composition of the ChIR management bodies

Annex 2 - Calendar for classes in the University of Bologna, 2021/2023

Annex 3 - Questionnaire assessing the quality of the programme and host institution

Annex 4 - Analysis of Module Questionnaires

Annex 5 - Student Representatives' Report

Annex 6 - List of Issues, Improvements and Action Plans

Annex 1 - Composition of the ChIR management bodies

Members of the PCm in 2021-2023

UAlg	UB	UniBo	External	Student representatives
Clara Costa	Albert Romano	Alessandra Bonoli	Anna Costa (CNR)	Erika Martinelli
Isabel Cavaco	Anna de Juan	Alessandra Tolomelli	Teresa Fernandes (HWU)	Héctor Romero
José Moreira	Anton Vidal	Chiara Samori	Angelo Romasanta (ESADE)	Abdulrahman Badr Hasan Al-Kubati
Luis Nunes	Axel Bidon-Chanal	Claudio Trombini	Carlos Molina (FEIQUE)	
Lurdes Cristiano	Carme González	Emilio Tagliavini	Cristina Massa (ALBA)	
Vera Marques	Daniel Sainz	Fabrizio Passarini	Drinalda Mehja (Fresenius Kabi)	
Ana Rosa Garcia	Jaume Argerich	Giuseppe Falini	Eugenia Anta (FEIQUE)	
	Merce Segarra	Laura Tositti	Helder Mota Filipe (OF)	
	Pilar Ramirez de la Piscina	Luca Ciacci	Irene Belincion (FEIQUE)	
	Rafael Llorach	Luca Evangelisti	Isabel Correia (IST-UL)	
	Rubén Huertas	Luca Piertrantoni	Isabel Tomaz (FCT-UL)	
	Santiago Esplugas	Marco Bandini	Matteo Pori (BASF)	
	Susana Amezqueta	Marco de Angelis	Thomas Aspray (HWU)	
	Xavier Saurina	Marco Lombardo	Victor Garrido (ALBA)	
		Paola Galletti	Riccardo Occele (UniBo, post-doc)	
		Silvia Bagni		
		Teresa Quarta		
		Walter Cabri		

Members of the Programme Management Team

UAlg	UB	UniBo
Isabel Cavaco	Daniel Sainz	Emilio Tagliavini
Vera Marques	Carme González	Alessandra Tolomelli
Ana Rosa Garcia		

Members of the Examiner's Board

UAlg	UB	UniBo
Isabel Cavaco	Daniel Sainz	Emilio Tagliavini
		Alessandra Tolomelli

Members of the Selection Committee

UAlg	UB	UniBo
Isabel Cavaco	Daniel Sainz	Emilio Tagliavini
Ana Rosa García	Carme González	Alessandra Tolomelli

Annex 2 - Calendar for classes in the University of Bologna, 2021/2023

dates	code	Name of module, Color code
05/10/2021		Welcome
05-08/10/21	A01	Measuring variability and statistical decision
	TS2	Communication Skills
	TS8	Innovation Skills
11-15/10/21	TS1	Intensive "Survival" Language Course - Italian
	D01	Alternative Green Products
18-22/10/21	TS1	Intensive "Survival" Language Course - Italian
25-29/10/21	TS3	Team Building
02-05/11/21	M01	Business planning
	M03	Entrepreneurship
08-12/11/21	D02	Structure Toxicity Relationship
	A06	Reference materials and laboratory proficiency testing schemes
15-19/11/21	D05	Properties of materials and new materials
	T01	Toxicology
22-26/11/21	T02	Principles of Toxicological Assessment
	T04	Genotoxicity Assessment
29/11-3/12/21	A05	Good Laboratory Practices
06/10/12/21	S01	Health and Safety in Chemistry
13-17/12/21	A04	Chemometrics
	M05	Market research
20/12/21 - 07/01/22		Christmas Break
10-14/01/22	S02	Risk Management
17-21/01/22	E01	Environmental fate of organic pollutants (Chemical Transformation and Degradation in the Environment)
	D06	Drug design
24-28/01/22	C06	Life Cycle Assessment
	A02	Experimental design
31/01-04/02/22	I05	Nanomanufacturing and Nanoprocessing
	TS7	Laboratory Skills
07-11/02/22	S05	Chemical Process Safety
	T05	Toxicokinetics and toxicogenetics
14-18/02/22	C03	Recycling and recovery
	TS4	IT tools
21-25/02/22	C02	Sustainability and Circularity of Material Flows
	I06	Health Safety of Nanotechnology (Environmental and Health Safety of Nanotechnology)
28/02-04/03/22	E04	Global changes
	C05	Chemical and biological treatment of wastewater
07-11/03/22	G02	Green Metrics
	E05	International Law and New Ecological Legal Patterns of Environmental Protection
14-18/03/22	E02	Environmental risk of plastic material
	G03	Alternative Green Solvents
21-25/03/22	I07	Synthesis and Characterization of Nanomaterials (Synthesis and Properties of Inorganic Nanomaterials)
	M04	Quality Management
28/03-01/04/22	C01	Design for recycling
	E03	Chemical Pollutant Remediation
04-08/04/22	G05	Sustainable biocatalytic processes
	I03	Patenting new products
11-13/04/22	TS6	Research skills
	T03	Metals in Toxicology and Health
14-19/04/22		Easter Break
20/04/2022	TS6	Research skills
26-29/04/22	I04	Industrial forgery detection
	R03	Pharmaceuticals regulations
02-06/05/22	G01	Renewable Sources
	T06	Biosafety
09-13/05/22	G04	Green Synthesis and catalysis
	R01	REACH and CLP regulations
16-20/05/22	M02	Innovation Management
	I01	Pharmaceutical and fine chemicals Industry
23-27/05/22	S06	Social Perception of the Chemical Risk
	R05	Nanomaterials and nanotechnologies regulations
30/05-03/06/22	S04	Chemical Reactivity Hazards
	R07	Food regulation
06-10/06/22	E06	Environmental analysis and detection in the environment
	R02	Non-EU regulations: US, Japan, Brazil, China
13-17/06/22	R06	Biocides and pesticides regulations
	I02	Environmental Catalysis
20-24/06/22	C04	Waste materials regulations (Chemical Waste Materials Regulations)
	S03	Safety in the use of Chemicals
27/06-01/07/22	D03	Design of Chemical formulations
	D04	Food and Chemistry
JULY 4th		SYMPOSIUM

color code:

COURSE UNIT	Modules
D-U1 Innovative Products Design	D01 D02 D03
D-U2 Applied New Products	D04 D03 D05
D-U3 Alternative Pharmaceutical Products Design	D06 D01 D02
I-U1 Industrial Innovation	I01 I04 I02
I-U2 Sustainable Pharma Industry	I01 I03 I04
I-U3 Nanotech Industry	I05 I07 I06
M-U1 Business and Enterprise	M01 M02 M03
M-U2 Quality and Innovation	M04 M05 M02
M-U3 Business and Marketing	M01 M05 M04
G-U1 Chemical Sustainability	G01 G02 G03
G-U2 Green Chemistry	G04 G05 G02
G-U3 Chemistry from Nature	G05 G01 G03
C-U1 Circular Economy	C06 C02 C03
C-U2 Waste Management	C04 C05 C03
C-U3 Raw Materials	C06 C02 C01
T-U1 Toxicological Perspective	T01 T02 T03
T-U2 Human Toxicology	T01 T04 T05
T-U3 Toxicological Assessment	T02 T04 T06
E-U1 Environmental Sustainability	E01 E02 E03
E-U2 Global Concerns	E04 E05 E01
E-U3 Environmental Assessment	E06 E02 E01
A-U1 General Assessment	A06 A01 A02
A-U2 Data Management	A02 A04 A01
A-U3 Laboratory Assessment	A05 A06 A01
S-U1 Risk and Safety	S01 S02 S03
S-U2 Chemical Safety	S04 S05 S06
S-U3 Chemical Plant Safety	S04 S05 S02
R-U1 Chemical Regulation	R01 R02 R06
R-U2 Food and Drugs Regulations	R01 R07 R03
R-U2 Food and Drugs Regulations	R01 R05 R03
TS-U1 Communication Attitude	TS1 TS2 TS3
TS-U2 IT Skills	TS1 TS6 TS4
TS-U3 Research Attitude	TS1 TS6 TS7
TS-U4 Innovation Attitude	TS1 TS3 TS8

Annex 3 - Questionnaire assessing the quality of the programme and host institution

ChIR Students

[Dashboard](#) / [My courses](#) / [Students](#) / [6. General student survey](#) / [General Student Survey](#) / [Questions](#) / [Templates](#)

General Student Survey



A. Study Course Choice

(1) How did you learn about Erasmus Mundus Programme and about ChIR Master?

- From the internet
- From an advertisement
- From a professor
- From a friend
- Other (please specify in the "comments" area)

(1b) Comments:

(2) Why did you choose to study in Europe?

(3) Why did you choose to study at this Master programme?

B. Motivations in choosing an Erasmus Mundus Master course?

4. How important were the following aspects in choosing studying at Erasmus Mundus Master course in Chemical Innovation and Regulation?

- (4a) Academic Quality in the EU country in which you are studying
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4b) Academic Quality of ChIR Master Course
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4c) Renown professors / Institution
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4d) ChIR Master course study programme
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4e) Culture of countries in the Consortium organizing the Master course
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4f) Scholarship
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4g) Previous experience of living, studying or working in EU countries
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4i) Opportunity to learn local European language(s)
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4j) International character of the programme
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant
- (4k) Career opportunities after completing the course
- 1 - Extremely important
 2 - Very Important
 3 - Important
 4 - Not Very Important
 5 - Unimportant

(4l) Please specify below any additional reasons

C. Assessment of the Erasmus Mundus Master Course in Chemical Innovation and Regulation

Please evaluate the quality of the course as a whole and in particular of the Host university.

Please choose the appropriate response for each item:

(5a) The professional quality of the ChIR programme coordinator Good Reasonable Not Good

(5b) The professional quality of the local programme directors Good Reasonable Not Good

(5c) The scientific quality of lectures Good Reasonable Not Good

(5d) The educational quality of lectures Good Reasonable Not Good

(5e) Structure and content of curriculum Good Reasonable Not Good

(5f) Make comments and suggestions about the study plan

(5g) The balance between lectures, group work and other forms of studying Good Reasonable Not Good

(5h) Fitness of the timetable Good Reasonable Not Good

(5i) Availability of the academic staff Good Reasonable Not Good

(5j) Service from the administrative staff Good Reasonable Not Good

(5k) Service from the international office Good Reasonable Not Good

(5l) Classroom adequacy Good Reasonable Not Good

(5m) Laboratory adequacy (if utilized) Good Reasonable Not Good

(5n) Quality and access to the library Good Reasonable Not Good

(5o) Remote teaching and listening adequacy Good Reasonable Not Good

(5p) Quality and access to the computing facilities Good Reasonable Not Good

(5q) Institutional internet facilities Good Reasonable Not Good

(5r) Make comments and suggestions about the Host University infrastructure and facilities

(5s) Local languages training Good Reasonable Not Good

(5t) Induction activities (welcome programme, mentoring and guidance from staff, etc.) Good Reasonable Not Good

D. Living Circumstances

(6) How did it was the finding of an accommodation? Straightforward Difficult Very difficult

(7) In which kind of accommodation are you living? Private accomodation University accomodation

(8) How far is your accommodation from your classroom place? < 2 Km > 2 Km; < 5 Km > 5 Km; <10 Km > 10 Km; < 30 Km > 30 Km

(9) How do you assess the quality of public transportation that you are currently using? Good Reasonable Not Good Unacceptable

(10) How much money do you spend for your monthly living costs? above 1200€ 900€ - 1200€ 700€ - 900€ 500€ - 700€ 300€- 500€ below 300€

(11) Are you satisfied with your accomodation, the conditons and the price? Yes No

(11a) If your answer was No, describe why: (11->No)

(12) How do you assess the life at the university and your interactions with local and international students?

- Good
 Reasonable
 Not so good

(13) Do you have friends at the university?

- Yes
 No

(14) Is it difficult or easy to get in contact with European students?

- Easy
 Difficult

(18) Do you participate in any extra-university group (sport, choir, associations, church, etc)?


- Yes
 No

(19) If yes, which one? (18->Yes)

(20) Do you feel integrated / accepted?

- Yes
 No

(21) If no, why not? (20->No)

(22) Are you European? 

- Yes
 No

(23) Do you think that your national / cultural identity differs from the one that European / Italian people have? (22->No)

- Yes
 No

(24) Comment about cultural differences you experienced (22->No)

E. Expectations and Problems

(25) What were your main expectations when you decided to take this Master course?

(26) Have they been fulfilled so far?

(27) What were your main concerns before coming to study at an Erasmus Mundus Programme?

(28) What problems have you faced during your Master studies so far?


(29) Do you think that your background preparation was strong enough to follow this Master ?

- More than enough
 Enough
 Not enough; I have to struggle

(30) If you find it difficult, explain: (29->Not enough; I have to struggle)


(31) What are you planning to do after obtaining your ChIR Master degree?

(32) How do you think the European Master degree will help you in your future career?

(33) Would you recommend to a fellow-student that she / he apply for the ChIR Master? 

Yes
 No

(34) Which are the reasons to suggest / not suggest the application?

There are required fields in this form marked  .

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