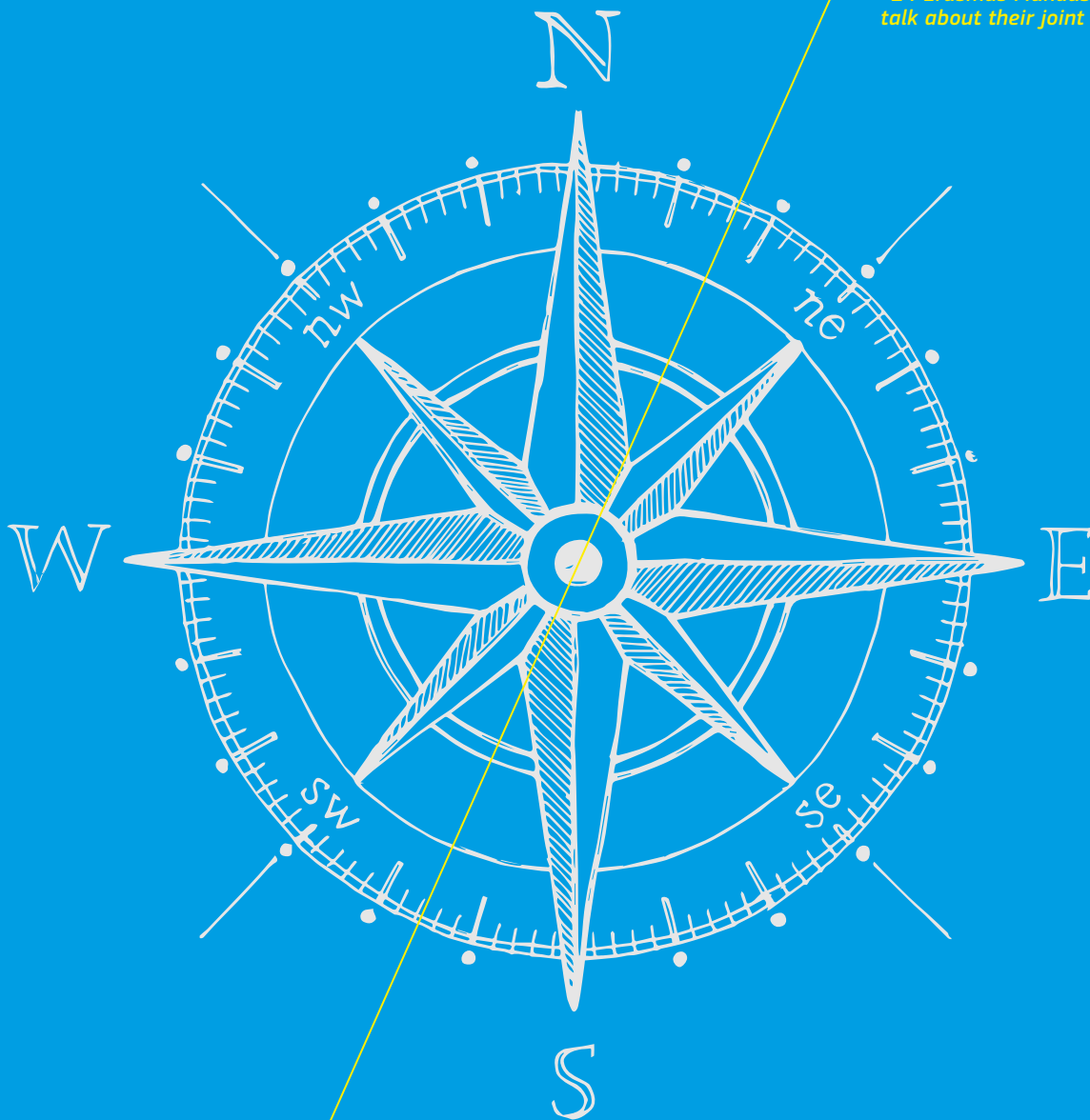




European
Commission

24 DEGREES

*24 Erasmus Mundus coordinators
talk about their joint programmes*



June 2017

#1

Featuring Erasmus Mundus Joint Master Degrees:

ACES • BDMA • CARTO • ChIR • COSI • DESEM • DOCNOMADS • EM3E • EMCL+ •
EMECs • EMLE • EMM-Nano • EURO CULTURE • FIPDes • IMAESC • IMQP • MATHMODS •
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24 DEGREES

24 Erasmus Mundus coordinators talk about their joint programmes

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EUROPEAN COMMISSION

Directorate-General for Education, Youth,
Sport and Culture
Unit C3 - International Cooperation
B-1049 Brussels

E-mail:
eac-erasmus-plus-international@ec.europa.eu

About this publication

The European Commission interviewed 24 academics who each play a key role in an Erasmus Mundus Joint Master Degree. We wanted to know how and why they started their joint degree programme. We asked them what they think is special about the content of their course, and about the students they recruit and teach.

What we talked about

- How do we work together inside our consortium?
- What's new in our programme?
- Our ideal student
- Our ideal graduate
- Dialogue with our students
- Working with partners outside the university

This publication gives a flavour of their answers during these interviews. Professors, administrators, coordinators and partners all touched on different aspects of their programme. Individually or together, their stories give a good picture of what Erasmus Mundus Joint Master Degrees are all about.

More information on the European Union is available on the Internet (<http://europa.eu>).

Luxembourg: Publications Office of the European Union, 2017

ISBN 978-92-79-55261-8
doi: 10.2766/873707

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What are Erasmus Mundus Joint Master Degrees?

Erasmus Mundus Joint Master Degrees form part of Erasmus+, the EU’s programme to support education, training, youth and sport, running from 2014-2020. The concept however remains largely unchanged since 2004, when the first Erasmus Mundus Master programmes were selected by the European Commission.

An Erasmus Mundus Joint Master Degree is a high-quality, integrated programme of study at master level, offered by a consortium of higher education institutions from at least three different countries. The consortium may include, where relevant, other educational and/or non-educational partners with specific expertise and interest in the area of study. These partners can be from Programme Countries (the EU+) or from Partner Countries.

Each programme awards EU-funded scholarships to the best students who apply under annual selection rounds. All students study in at least two of the higher education institutions involved. The way a student moves around during their master course – their “mobility track” – is unique to Erasmus Mundus, showing just how integrated the programmes are.

In the first phases of the programme, projects were funded for five annual intakes of students: since 2014, projects have been funded for three annual selections.

Each year, new consortia can apply for Erasmus Mundus Joint Master Degree status. Selected projects then receive a grant from the EU that covers the cost of a number of scholarships and an allowance for the management of the project.

Between 2004 and 2016, the programme selected a total of 346 Erasmus Mundus master programmes. This figure includes some projects that were re-selected for a second period of funding. Over the same period, the master programmes provided scholarships for almost 20,000 master students. From 2004 to 2008, these scholarships were made available for individuals from outside the EU to come to Europe; scholarships for students from Programme Countries started in 2009.

An Erasmus Mundus Joint Master Degree can be in any academic discipline: these 24 stories show a wide range of subject matter: from wine-making to map-making and from law & economics to business intelligence. Programmes are selected according to the quality they offer, rather than any prescribed lists of disciplines.

Many programmes are the result of a re-think within the universities involved of how to best match the teaching offer with the skills and knowledge that young professionals require in the world of work. Many have crossed traditional border-lines between faculties and show a real inter-disciplinary approach.

Programme Countries

Partner Countries

EU Member States + five other countries that have signed up to the Programme

All other countries worldwide



Dr Helen Bury
Education Administrator
University of the Highlands and Islands
United Kingdom

ACES

Joint Master Degree in Aquaculture, Environment and Society

We offer a brand new course in aquaculture, environment and society – a joint degree in conjunction with our partners at the Universities of Crete and Nantes. The Scottish Association for Marine Science – a partner of the University of the Highlands and Islands – is the lead coordinator for the course. The partners met each other at a conference on marine science and started talking about how to get funding to develop joint projects, including a joint master degree, in the field of global aquaculture.

The course comprises four semesters – over a 2-year period – and students move as an entire cohort each semester: the first semester is based at SAMS in Oban, Scotland, where students acquire an overview of the principles, theories and knowledge of aquaculture and the hands-on skills needed for sustainable development of the industry; the second semester is based at the University of Crete, where students gain detailed and critical knowledge of managing biological lifecycles of marine and freshwater farmed fin-fish species; and then students move to

Nantes for their third semester where they study the global shellfish aquaculture sector. Students spend their final semester on their research dissertation where they can be based in Oban, Nantes or Crete, depending on their specialism.

Successful graduates will receive an Erasmus Mundus Joint Master Degree from the University of the Highlands and Islands and the University of Crete, with a diploma supplement from the University of Nantes.

For our first intake of students, starting in September 2015, we received more than 40 applications but ended up with a degree cohort of only 4 students – not bad for a brand new degree. For this year's application cycle, we've ramped up our marketing and promotions, and received more than 400 enquiries and around 110 applications. As part of the selection of new scholarship holders for this year, we interviewed 46 applicants from all corners of the globe – quite literally including people from Colombia, New Zealand, Belize, Jamaica, Zimbabwe and the Philippines – which means we'll be able to offer more than 20 scholarships for our 2016 intake.

The scientists-in-charge – who are the main partners of our ACES Joint Master Degree – first met at a conference on marine science and started talking about how to secure funding to develop joint projects, including a joint master degree, in the field of global aquaculture.

take. We're also delighted to have our first self-funding students from the USA, Brazil, Portugal and Norway, which we think bodes really well for the future of ACES!

FACTBOX

This full-time, two-year course is devoted to gaining an overview of the global aquaculture industry, by looking into the interactions of aquaculture with the environment and new technologies and systems. It also ensures students acquire more specialist knowledge in the finfish and shellfish industries, particularly looking at welfare, product quality and product refinement.

Partners:

- University of the Highlands and Islands, United Kingdom.
- Université de Nantes, France.
- University of Crete, Greece.

Website: www.emm-aces.org





BDMA

Big Data Management and Analytics

(Formerly IT4BI – Information Technology for Business Intelligence)

Dr Oscar Romero
Associate Professor
Universitat Politècnica de Catalunya-BarcelonaTech
Spain

The focus of our programmes (first IT4BI, now BDMA) is on data management and analysis. Business intelligence and Big Data are means through which we manage and analyse data.

These are areas in constant evolution and, to keep up to speed with their fast-moving nature, we need to expand the focus of a traditional computer science programme. We have therefore added the study of mathematics and statistics as foundations to cover advanced analysis and various aspects of business practice to cover innovation in our Joint Master programme. Although it has been a challenge to bring everyone together, it has been highly rewarding to work with experts from other domains.

Although our core remains computer science, we initially looked for partners to complement our own expertise, who could deliver a course on topics such as creating a start-up and bringing innovation. We also included a focus on the ethics of data analysis, which includes debates among students to take computer scientists out of their comfort zone. Anything we thought was missing from a typical computer science course, yet necessary in these areas, has been incorporated into the programme.

As a result, our students need, and are presented with, a comprehensive view on the three main pillars of study (computer science, mathematics/statistics, and business). This is reinforced through applying problem-based learning to projects which encompass all three areas. The students' business ideas and solutions are validated by real business people and IT experts – something which we see as a real advantage of the programme.

Our work with non-academic partners extends to company visits, to get an insight into real working environments. Furthermore, labs and

companies in the partner cities are happy to host students as part of their thesis research. Our programme creates a profile that can result in a job in one of these companies, while 25% of our graduates go into the world of research.

Another way we keep up with new developments is by inviting visiting scholars to contribute to the programme. For example, something currently gaining relevance in these fields is deep learning, which is based on unsupervised advanced learning methods to analyse data. Although this is not an integral part of the curriculum, we are able to bring in expert scholars in the domain to provide a seminar, keeping our students up to date with the latest innovations. This is a must in computer science as, when devising the programme syllabus, you cannot predict all the fields that are going to be important in the next five years.

During the first year, students remain in one cohort, studying in Brussels (ULB) and then Blois (UFRT). In the second year, students specialise on an aspect of the data-driven paradigm in Barcelona (UPC), Berlin (TUB) or Eindhoven (TUE).



FACTBOX

Big Data Management and Analytics (BDMA) is a unique programme that fully covers all of the data management and analytics aspects of Big Data (BD), built on top of Business Intelligence (BI) foundations, and complemented with horizontal skills.

Partners:

- *Université Libre de Bruxelles, Belgium.*
- *Université François Rabelais Tours, France.*
- *Technical University of Eindhoven, Netherlands.*
- *Universitat Politècnica de Catalunya, Spain.*
- *Technische Universität Berlin, Germany.*

Website:

<http://bdma.univ-tours.fr/bdma>



Juliane Cron
 Programme Coordinator
 Technical University of Munich TUM
 Germany

CARTO

Erasmus Mundus Joint Master Degree in Cartography

Cartography is a highly specialised domain, although the need for good maps is growing and everybody can participate in mapmaking. This has created a new challenge in terms of providing an excellent education in cartography with an increased awareness of ethical values. European cooperation in this area is vital, as it increases the potential number of students on a course, allowing us to maintain our excellent Master in Cartography programme for the future.

This course in particular has been built on existing partnerships and courses. While three partners (TUM, TUW, and TUD) had been working on a joint programme since 2011, we sought cooperation with the Uni-

versity of Twente in 2014 in order to benefit from additional fields of expertise and international experience.

Knowledge of each partner's complementary profile enabled us to create a coherent team, in which each establishment focuses on its specific area of expertise.

The programme's design was the fruit of a collaborative effort to ensure new challenges for students without duplicating existing courses. After an analysis of de-

mand, all partners agreed to focus on a specific area in which each is a national leader and recognised internationally.

During the first semester, students are provided with the foundations in cartography and geo-visualisation at TUM, followed by multimedia cartography, especially web mapping, mobile internet and location-based services at TUW in the second semester. Students are taught mobile and 3D cartography during the third semester at TUD. In addition, online modules prepared by the University of Twente are incorporated into the course during the first and third semesters.

FACTBOX

CARTO provides students with a qualification for entry into the professions of cartography research, map publishing, internet mapping, geographic information systems or navigation. The curriculum incorporates and highlights methods and applications in spatial data modelling, analysis and visualization of geographic information.

Partners:

- Technical University of Munich TUM, Germany.
- Vienna University of Technology TUW, Austria.
- University of Twente UT, Netherlands.
- Technical University of Dresden TUD, Germany.

Website: www.cartographymaster.eu





ChIR

Erasmus Mundus Master in Chemical Innovation and Regulation

Dr Isabel Cavaco
Professor
Universidade do Algarve
Portugal

This is the second Erasmus Mundus project I have coordinated. Most of our partners had in-depth knowledge of the model and structure of the course, so we could refine it based on our experience. While it has not been easy to design and start managing the new model, I am convinced of the benefits of integration as we share roles and coordination among the universities. This has resulted in a unique collaboration that works well, as one partner hosts all the students for one year of the course. Monthly meetings allow us to discuss issues and share best practice.

Although European students do not always realise the benefits of taking such a course, from a professor's perspective I see successive cohorts of intelligent, motivated students, brimming with ideas, who are able to share different ideas from their various backgrounds and cultures. In fact, I would go as far as to say that teaching a group of Erasmus Mundus students has been one of the most rewarding and fantastic teaching experiences I have had. My colleagues have also begun to see the advantages, and are all now motivated to collaborate. The programme really allows participants to understand how knowledge can be put to use, and how problems can be resolved.

Students are very carefully chosen from hundreds of candidates and, although they come from very different backgrounds where there are different teaching and grading systems, we try to evaluate academic quality thoroughly. For example, we have many applicants from Ethiopia where there is a relatively weak academic system, but we try to identify the best academic quality per continent to take this course. As this is a multi-disciplinary

course, we are looking for proficiency in languages, high levels of motivation, and evidence of practical work experience during the selection process.

I am very happy when I see our graduates return to their own countries and make a difference. For example, one former student started a consultancy company for quality laboratory management in Brazil, where she is able to draw on many of the skills and international perspectives she learned here, and that she could only obtain in Europe. We therefore build flexibility into the course, ensuring that transferable skills are gained, so that students are able to pursue a future in either the academic sphere or in industry.

(The course itself was designed at the academic level with the partner universities, and regular meetings take place. However, we do face some tricky administrative issues, such as the issuance of joint diplomas, which we try to resolve cooperatively.)

Successive cohorts of intelligent, motivated students, brimming with ideas, are able to share different ideas from their various backgrounds and cultures. Teaching a group of Erasmus Mundus students has been one of the most rewarding and fantastic experiences I have had.

FACTBOX

This course provides professionals with all the tools and knowledge needed from the scientific, regulatory and economic point of view to manage the risks of chemicals responsibly and to meet responsibilities over chemical legislation worldwide.

Partners:

- Universidade do Algarve, Portugal.
- Alma Mater Studiorum Universita Bologna, Italy.
- Universitat de Barcelona, Spain.
- Heriot Watt University, United Kingdom.

Website:

www.emmcchir.org



Dr Alain Trémeau
Professor
University Jean Monnet
France



Dr Juan Luis Nieves
Professor
Universidad de Granada
Spain

COSI

Erasmus Mundus Joint Master Degree in Colour in Science and Industry

Our consortium was established in 2007 when we started working together on a research-based Erasmus Mundus course; we have taken a more industrial focus for our COSI programme.

The fast-moving industries of colour, spectral and digital imaging require highly-trained and adaptable experts to meet constantly evolving research and development needs. We have more than 20 industrial and academic partners in Europe and Asia, enabling us to offer adaptable, specialised courses to produce highly-skilled graduates.

While many of the most important research centres in these sectors are located in Europe, the fastest-growing markets for multimedia systems are in Asia. We identified universities in developing economies such as Indonesia, Thailand and Malaysia, as well as in industrialised countries specialising in the field, such as Japan, with whom we could partner. We also see companies from

these markets, but with European operations, seek to benefit from the skills and expertise of European researchers; for example, Japan's Olympus has recently set up a research centre at our partner university in Finland.

Companies now approach us to establish new collaborations, in order to obtain support in research and development and have access to the brightest students. We meet with our industrial partners every year to discuss the programme's content and the latest technologies in the industry, which enables us to develop specific teaching modules to suit the industry's requirements.

Our students have the opportunity to work on their thesis while working directly with one of our industrial partners, including Technicolor in France, Olympus in Finland or Chromasens in Germany. Many will stay on after they graduate, as researchers, engineers or group leaders.

Companies approach us to establish new collaborations, in order to obtain support in research and development and have access to the brightest students.



FACTBOX

COSI aims to develop interdisciplinary trained experts in sectors encompassing colour, spectral and digital imaging in applied science and in applications development and analysis. The objective is to educate students in advanced methodologies, applied models and practical applications to both enhance their employability and meet the needs of industry.

Partners:

- University Jean Monnet, France.
- University of Granada, Spain.
- University of Eastern Finland, Finland.
- Norwegian University of Science and Technology, Norway.

Website:

<https://master-colourscience.eu>





DESEM

Erasmus Mundus Joint Master in Dependable Software Systems

Dr Adam Winstanley
 Head of Computer Science
 National University of Ireland, Maynooth
 Ireland

The three partner universities already had research links in software engineering and formal methods of computer science before forming this Joint Master Degree programme, which has proven itself to be a good way to disseminate new research and enhance cooperation.

We bring in different scholars from outside the consortium through existing research links, and make the most of visiting academics by integrating new teaching and learning materials.

Building on the existing programmes already available within the individual universities, this course allowed us to complement each other's roles in the curriculum without overlapping. The programme has been designed to include not only attendance at two of the three universities in the partnership, but also a summer school for all students, which has developed over the last four years. We bring in different scholars from outside the consortium through existing research links, and make the most of visiting academics by integrating new teaching and learning materials. The course has allowed increased research collaboration with each other in the partnership, and inspired us to apply for other EU funds such as Framework 7 and Horizon 2020.

In terms of the students we are looking for, we identify and select not just the best, but also those who have the potential to be the best. We attach importance not only to academic excellence, but also to the students' prior experience in the industry, in addition to relevant extra-curricular computer science activities, such as entering programming competitions relevant to the course. We recruit via advertising campaigns on social media and through our dedicated website. We have a common admissions system with a joint selection committee involving the three partners. For quality and consistency purposes we share the same external examiner for

the students' work. We also emphasise our efforts in trying to ensure a gender balance; we have been particularly successful this year, as seven of the top ten students who have been offered places are female.

We did not receive funding from our first two application attempts, so we found reviewer feedback very useful in improving our application; we were then selected for funding on our third application.



FACTBOX

The objective is to provide students with the knowledge, skill and in-depth technical understanding of the key concepts required to design and build dependable software systems.

Partners:

- Maynooth University (formerly National University of Ireland, Maynooth), Ireland.
- University of Lorraine (formerly Henri Poincaré University Nancy 1), France.
- University of St Andrews, United Kingdom.

Website:

www.cs.nuim.ie/courses/desem



DOCNOMADS

Erasmus Mundus Joint Master Degree in Documentary Film Directing

Erika Winkler
Education Development Manager
University of Theatre and Film Arts, Budapest
Hungary

DocNomads trains documentary directors, and aims to supply well-prepared, independent creators for the cinematographic/ filmmaking profession. The fact that it is a Joint Master programme means it sets the foundations for international co-productions, where the combination of different cultural and personal approaches adds to the final product.

Our message is "Documentary film-making is not just a profession, it's an attitude toward the world", which is both the professional credo of our academic/artistic staff and a way for potential applicants to measure their motivation and professional commitment to taking the course.

Within DocNomads, the students of each edition move together from the first semester, based in Portugal, through the second, Budapest-based one, to the third semester in Belgium, before being divided into three groups to return to one of these institutions for their final semester. The goal of keeping the cohorts together is to have the strongest possible professional and personal bonds – the basis for films to be made in coproduction later on – by the end of the programme.

It is also important students get acquainted with the different cultures, social structures, and political realities of their host countries. They need to find their themes and characters in unfamiliar countries, which invites them to focus more on the process itself. This all means the students learn a global way of thinking when addressing the challenges of film-making.

DocNomads uses its annual conference and e-platforms to reach the BA graduates of all the film schools globally, considering them its priority target group. We also work through EDN, the European Documentary Network, to reach potential students. Our website and higher education fairs are useful recruitment tools, and alumni also promote and recommend the programme through social media and their own networks. DocNomads' alumni society makes sure that graduates stay in touch with us and with each other. Consequently, the DocNomads family has turned into the best and most efficient embassy of the programme, with as many as 127 graduate-diplomats as of now.

The goal of keeping the cohorts together is to have the strongest possible professional and personal bonds by the end of the programme.



Overall, the programme has had students from 56 countries of the world, enhancing its added value based on an intercultural approach. It also helps the DocNomads Consortium reach the highest possible number of potential students from those countries through its alumni.

FACTBOX

DocNomads is the first Erasmus Mundus in the Arts. It is a two-year, full-time, international graduate programme taught entirely in English, which takes a practical approach to film-making, combining a focus on the arts with contemporary practices in film production.

Partners:

- Universidade Lusófona, Portugal.
- University of Theatre and Film Arts, Budapest, Hungary.
- Luca School of Arts, Belgium.

Website:

www.docnomads.eu





Dr André Ayrat
EM3E Coordinator
University of Montpellier
France

EM3E

Erasmus Mundus Joint Master Degree in Membrane Engineering

EM3E offers an advanced education programme related to membrane science and engineering at the interface between material science and chemical engineering and focused on specific applicative fields.

We set up EM3E in 2011 in a bid to bring together areas of membrane science that would otherwise be spread across different curricula. In short, membrane engineering is all about separation processes, using synthetic membranes to allow or block the passage of substances between two media. Several operations are currently performed using membranes in industrial processes, and they are considered to play an essential role in more sustainable growth.

The first semester is dedicated to materials science or chemical engineering, depending on the students' background. Technologies and modelling are then addressed during the second semester. The third semester is dedicated to the application of membrane technologies to a more specific domain (reclaimed water, renewable energy, nanoscience, and biotechnology, to name a

few). The fourth semester is devoted to a master thesis in an industrial company or in an academic research laboratory. The objective down the line is to establish a global network of EM3E graduates with responsibilities and functions in universities and companies.

Every year, up to 20 students are enrolled from more than 35 countries all over the world.

Our Master programme provides high-level, valuable competences and outcomes for graduate students, whether for future academic or professional careers.

FACTBOX

EM3E is a full-time, two-year course which bridges different scientific domains including material science, chemical engineering, and modelling, while keeping a focus on relevant applications of membranes.

Partners:

- University of Montpellier, France.
- University Paul Sabatier, Toulouse III, France.
- University of Chemistry and Technology, Prague, Czech Republic.
- Universidade Nova de Lisboa, Portugal.
- University of Zaragoza, Spain.
- University of Twente, Netherlands.

Website: <http://em3e-4sw.eu>



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Dr Roel Jonkers
Associate Professor in Linguistics
University of Groningen
Netherlands

EMCL+

European Master's Program in Clinical Linguistics

EMCL is a programme centred on language and speech disorders arising from brain damage in adults or in children as a congenital deficit.

Our starting point was to make our teaching more widely available, particularly with students from other parts of the world, including less developed countries in Asia and Africa.

We have worked together as a network of linguists within Arts faculties since 1997. But when we put the course together we involved study content and teaching from other walks of life too. For example, we developed language tests to use on patients during neurosurgery when tumours are being removed, to ensure that damage to active brain tissue is minimised. So, while the focus of the course remains language science, we invite neurosurgeons and radiologists to come to teach based on their experiences.

The first two editions of EMCL focused primarily on preparing students for a PhD. Further research continues to be the objective for some 70% of graduates. But the latest version of our course caters much more for students who are looking for clinical experience or possibilities in Research and Development, and we have a number of associate partners who provide the opportunities for this both within and outside Europe, in Australia, the

United States and Russia; here, an alumnus of our programme is now an associate providing placements for clinical experience. We have also had doctors among our student body who go back to their practice with new language therapy techniques.

We ourselves benefit and learn greatly from the presence of students from a wide range of countries. Our experience had been based on existing research and literature mainly from Germanic languages, such as German, Dutch and English. We learn from students about how theory and therapy can be developed for other languages. For example, we have recently developed an app that can test for aphasia. Thanks to our students we now have 40 different language versions!

Our experience had been based on existing research and literature mainly from Germanic languages, but thanks to our students, our aphasia-testing app is now available in 40 different languages!



FACTBOX

EMCL offers students a full-time interdisciplinary programme providing integrated training in experimental linguistics, neurolinguistics, psycholinguistics and clinical linguistics. Students will be prepared for work both in academic research and in the clinical sector.

Partners:

- University of Groningen, Netherlands.
- University of Potsdam, Germany.
- University of Eastern Finland, Finland.

Website: www.emcl.eu





Professor Dr.-Ing. Wolfgang Kunz
EMECS General Coordinator
University of Kaiserslautern
Germany

EMECS

Erasmus Mundus Joint Master Degree in Embedded Computing Systems

Our Master programme provides students with the tools to drive the next generation of academic and industrial development.

EMECS programme is designed to educate graduates to become experts in the field of embedded computing systems - highly complex computer-controlled systems whose core is a microprocessor, programmed to perform specific tasks. Typical examples are modern automobiles and mobile phones, composed of several processors which use sophisticated structures to communicate between themselves.

One particular feature of this course is that it can be pursued at any two of the three higher education institutions involved. During the first year, students are taught the "core programme" of the course to then be able to move to one of the other participating institutions. In the second year, the "elective programme" provides training in specialised areas of embedded computing systems, reflecting the respective strengths of each partner institution.

To be eligible, applicants must hold a Bachelor degree (or equivalent) with particularly good transcript of records in Electrical Engineering, Computer Engineering, Computer Science or a related program.

Every year, more than 900 applications are submitted to the electronic platform the partners have set up. Generally, we have 20-30 students enrolled in the Joint Master course, of which 15-20 are scholarship holders. Over the

past few years, the trend shows an increasing number of applications from Asian, Middle-Eastern, and Latin American countries.

As partner institutions still see themselves as on a "learning curve", particular attention is now given to ways to track graduates and maintain communication between students and alumni of EMECS programme.

Over the past few years, the trend shows an increasing number of applications from Asian, Middle-Eastern, and Latin American countries.



FACTBOX

Students participating in this program will be trained in three major areas: *Hardware Architectures of Embedded Systems; System-on-Chip Design; and System Software, spending one year each at two of the three universities and receiving a joint degree from the respective institutions.*

Partners:

- University of Kaiserslautern, Germany.
- University of Southampton, United Kingdom.
- Norwegian University of Science and Technology, Norway.

Website: <http://emecs.eu>



EMLE

European Master in Law and Economics

Professor Dr. Alessio M. Paces
 Professor of Law and Finance
 Director, European Master in Law and Economics
 Erasmus University Rotterdam
 Netherlands

This Joint Master programme has been formed by a consortium made up of nine partners, with the Erasmus University Rotterdam as the coordinator. The rationale behind the design and structure of this course was the fact that law and economics as a combined discipline was not reflected in higher education, despite the fact that the interface between the two disciplines is of great interest to both lawyers and economists. We saw the need to start an interdisciplinary course, putting together expertise spread around Europe, and the original programme was designed in 1990, preceding Erasmus Mundus by many years.

We work together through twice-yearly management board meetings, attended by local coordinators from each partner university. Issues covering management, quality assurance, financing, application, strategy, adaptation, curriculum development and evaluation are reported centrally. Moreover, every year, we hold a Teachers' Summer Meeting to coordinate the coursework offered in the first two terms at different partner universities.

Our course has benefited from previous sponsorship programmes, including from non-European partners, and is heavily based on the networks that we built. We are extremely careful in selecting our partners; we test their resources, knowledge and long-term commitment. In addition, high-level academics from top institutions are able to visit through our various networks, creating synergies between law and economics education and cutting-edge research.

Students on the course are provided with exclusive perspectives, and it is a unique experi-

ence that offers not only teaching and research, but also transversal skills. We cater for 21st century professionals, for whom working across borders – in terms of knowledge, geography, and culture – is part and parcel of their career; this gives the programme a large competitive advantage.

While the course has existed for 27 years, it remains dynamic: last year we made a change to the curriculum in how law and economics perform across the disciplines. We introduced a new course named "Empirical Legal Studies" which has been a big success, measured in terms of students' performance and satisfaction. The EMLE now includes both a theoretical and an empirical dimension, responding to new trends and demands of the labour and the academic market alike. Thanks to the EMLE, lawyers develop the communication skills required to explain legal concepts to those working in the financial industry, and vice versa. After graduating from the EMLE, lawyers may work

in financial institutions, while the economists may enter legal firms. This is where the course's unique value lies.

We saw the need to start an interdisciplinary course and now cater to 21st century professionals, for whom working across borders is part and parcel of their career; this gives the programme a large competitive advantage.



FACTBOX

This course is designed to provide students with advanced knowledge in the economic analysis of law; using a comparative approach to evaluate the strengths and weaknesses of alternative legal rules from an economic perspective. Since differences between national laws have been at the core of European policy making, this Masters course offers unique value concerning the EU's central ambitions.

Partners:

- Erasmus University Rotterdam, Netherlands.
- University of Aix-Marseille III Paul Cézanne, France.
- University of Bologna, Italy.
- Ghent University, Belgium.
- University of Haifa, Israel.
- University of Hamburg, Germany.
- Indira Gandhi Institute of Development Research, India.
- University of Vienna, Austria.
- Warsaw School of Economics, Poland.

Website: www.emle.org





EMM-Nano

Erasmus Mundus Joint Master Degree of Nanoscience and Nanotechnology

Professor Guido Groeseneken
 Programme Director and Coordinator
 KU Leuven
 Belgium

This consortium was built from scratch in 2004 and started in 2005 with a clear eye for the complementary strengths of each partner in chemistry, physics, electronics, material science and biotechnology as applied to nanoscience. EMM-Nano has now seen more than 10 cohorts of Erasmus Mundus students rotate through the partners

At the beginning of the partnership, students started in one of the four universities and then had a free choice of their second university. The problem was that some students never saw each other and they didn't necessarily feel like they belonged to a cohesive programme. We realised that if we started them all in one university we could give them a core foundation programme which would then prepare them for specialisation and the thesis project in the second year in a wide variety of disciplines, including nanochemistry, nanophysics, nanoelectronics, biophysics and nanobiotechnology.

Since 2009, each new student starts in Leuven and then picks one of the other partners at which to complete their Masters, gaining a joint degree from the two universities at the end of the course. As well as our three partner universities, our students also have the choice of three associated research institutes at which to complete an internship, some project work or their thesis project, and which may provide them with future employment opportunities.

I'm very enthusiastic about the students who come from the widest possible variety

of backgrounds; we receive applications from many engineering undergraduates but also chemists, physicists, biotechnologists and the occasional mathematician. We have the luxury of being able to pick the best students from the hundreds who apply.

The biggest challenge of the program has been to align all partner universities to some common rules and regulations. Legislation is different in each country, and the universities themselves are fairly rigid organisations when it comes to deviations from their own regulations. We encountered challenges when looking for common rules on pass/fail criteria, scoring systems, selection and admission procedures, and so on. But, with the support of all academic authorities, we came to agreement.

The two-year, 120 ECTS Joint Master Course provides a broad, high-quality, multidisciplinary education in the fields of nanoscience and nanotechnology, coupled with an individual top-level specialisation.

For me, it's clear that it is this diversity of backgrounds and nationalities that make the course so successful and the graduates such a force to be reckoned with.



FACTBOX

This two-year course provides a broad multidisciplinary education in the emerging field of nanoscience and nanotechnology, coupled with an individual top-level specialization in one of five defined areas of nanoscience and nanotechnology: nanophysics, nanochemistry, nanoelectronics, biophysics or nanobiotechnology.

Partners:

- KU Leuven, Belgium.
- Chalmers Tekniska Högskola, Göteborg, Sweden.
- Technische Universität Dresden, Germany.
- Université Grenoble Alpes, France.

Website:
www.emm-nano.org



Dr Robert Wagenaar
Coordinator of Euroculture
University of Groningen
Netherlands

EURO CULTURE

Erasmus Mundus Master's Course in Euroculture: Society, Politics and Culture in a Global Context

The topic of our Master's Degree is more important now than ever. We address how people can live together and thrive: not in spite of, but because of our cultural, religious and political differences.

Our consortium dates from the late 1990s and it's extremely international, with eight partners from all over Europe and additional universities from India, Japan, Mexico and the United States. We've received funding from Erasmus Mundus since 2005.

Broadly our students can follow two tracks. The first is a research track which offers the opportunity to deepen the student's theoretical knowledge, skills and understanding, and relates to the student's MA thesis topic. Undertaken in the third semester, the students have a choice between the consortium partners in Europe and beyond.

The other track is a professional track which links theoretical knowledge, skills and understanding with practical experience via a substantial work placement with employers, including large public and private sector organisations and a variety of NGOs.

Many of these employers take part in a job fair that we organise each year with companies and course alumni, which I think is particularly appreciated by our students.

I'm not sure what our typical student looks like, as we've had nearly 70 nationalities on the course, but they are all passionate and socially active and that's what we need in our societies.

FACTBOX

Euroculture is a two-year, multi-university Joint Master programme focused on the study of contemporary European society, culture and politics in a global context.

The programme equips students with the tools to understand the vital interplay between culture and politics in European society/ies and beyond by focussing on the role of identities, values and heritage in society.

Partners:

- University of Groningen, Netherlands.
- Palacky University of Olomouc, Czech Republic.
- Université de Strasbourg, France.
- Georg August University of Göttingen, Germany.
- Savitribai Phule Pune University, India.
- University of Udine, Italy.
- Osaka University, Graduate School of Letters, Japan.
- National Autonomous University of Mexico, Mexico.
- Jagiellonian University, Poland.
- University of Deusto, Spain.
- Uppsala University, Sweden.
- Indiana University Purdue University Indianapolis, USA.

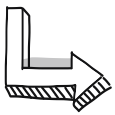
Website: www.euroculturemaster.eu



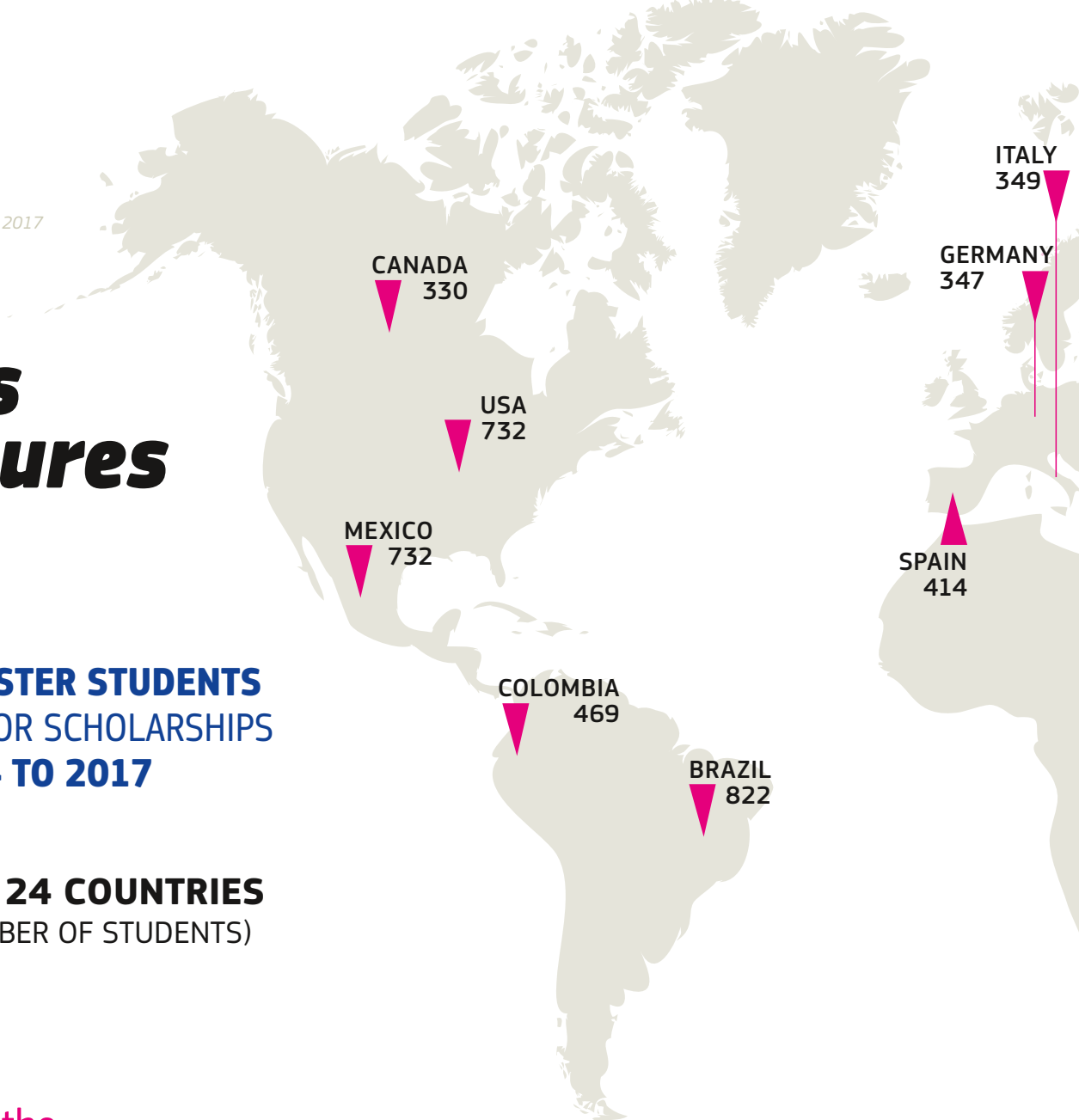
Source: EC-DG EAC
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Facts & figures

20,000 MASTER STUDENTS SELECTED FOR SCHOLARSHIPS FROM 2004 TO 2017



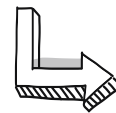
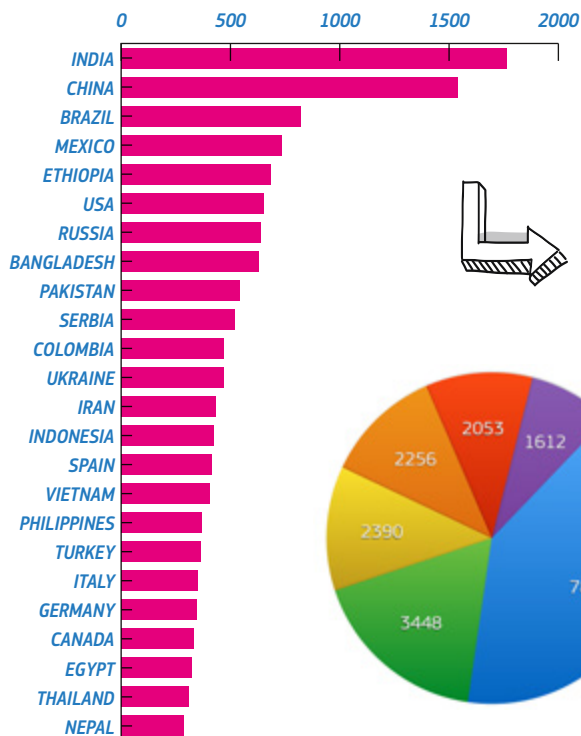
TOP 24 COUNTRIES (NUMBER OF STUDENTS)



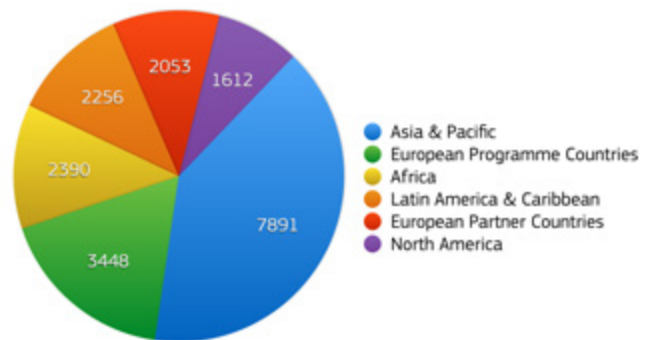
Where are the students from?

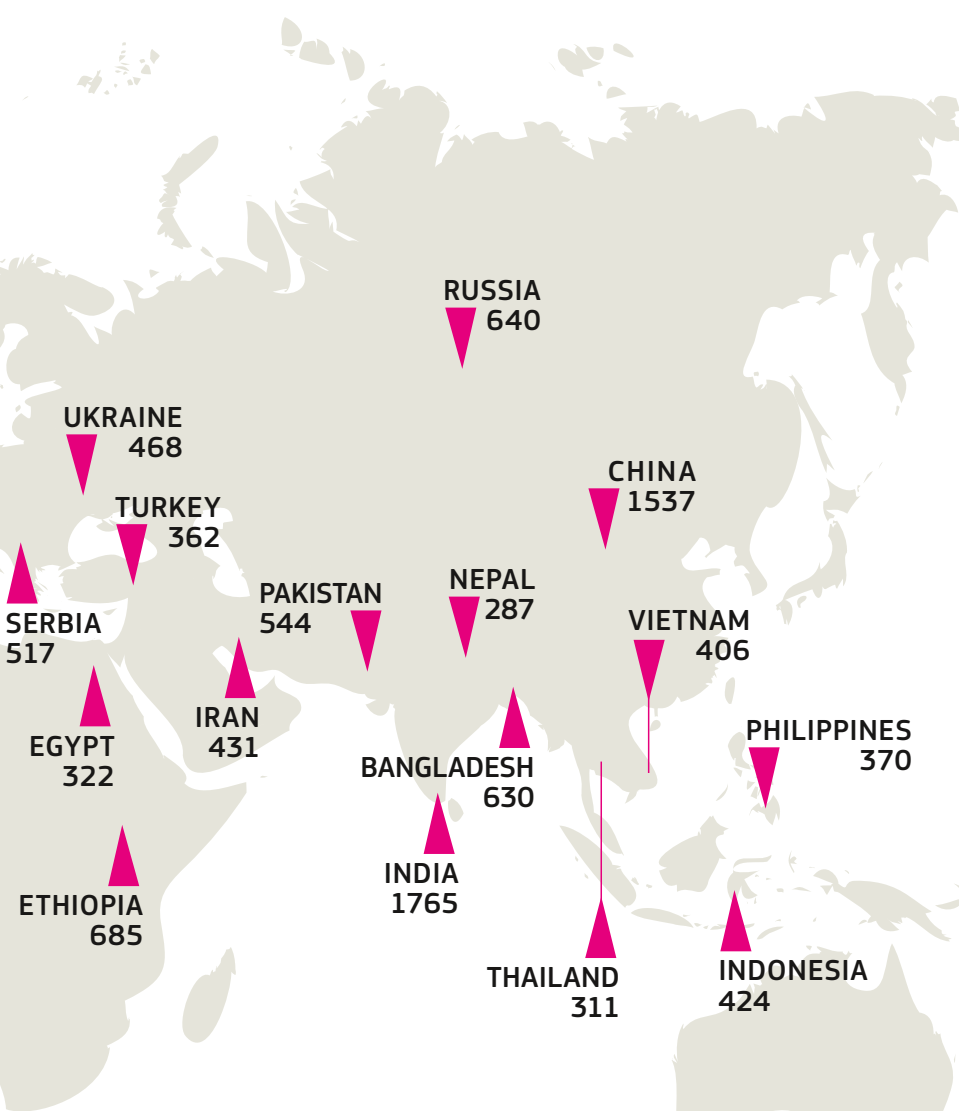
The charts show the nationality of the more than 20,000 master students selected for scholarships from 2004 to 2017. It picks out the top twenty-four countries. When looking at the figures, bear in mind that:

- A clear priority is given to applications from Partner countries. In the first phase of the programme, scholarships were not available for students from Europe (i.e. Programme countries). Since 2009 they have been available, but may make up no more than 25% of scholarships.
- Erasmus Mundus is often able to award additional scholarships in certain regions of the world, where higher education cooperation is built into the EU's cooperation programmes. These additional scholarship 'windows' have regularly featured since 2006 – for example in Asia and the EU's neighbourhood – boosting the numbers from these regions.



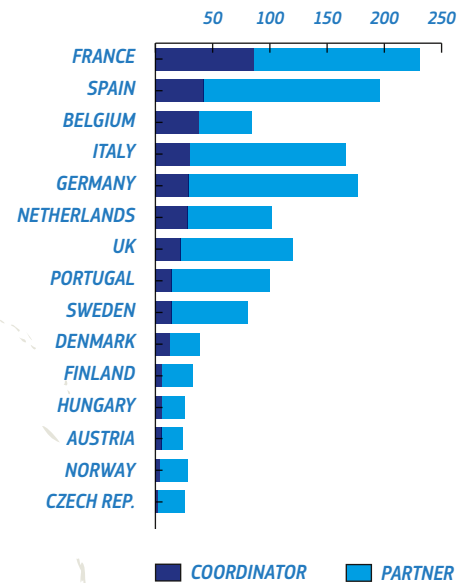
OTHERS: 7488





Where are the coordinators from? (top 15 countries)

Coordinators of Erasmus Mundus Joint Master Degrees have to be based in a Programme Country. Since 2004, France has provided the largest number of consortium partners, and the most project coordinators.



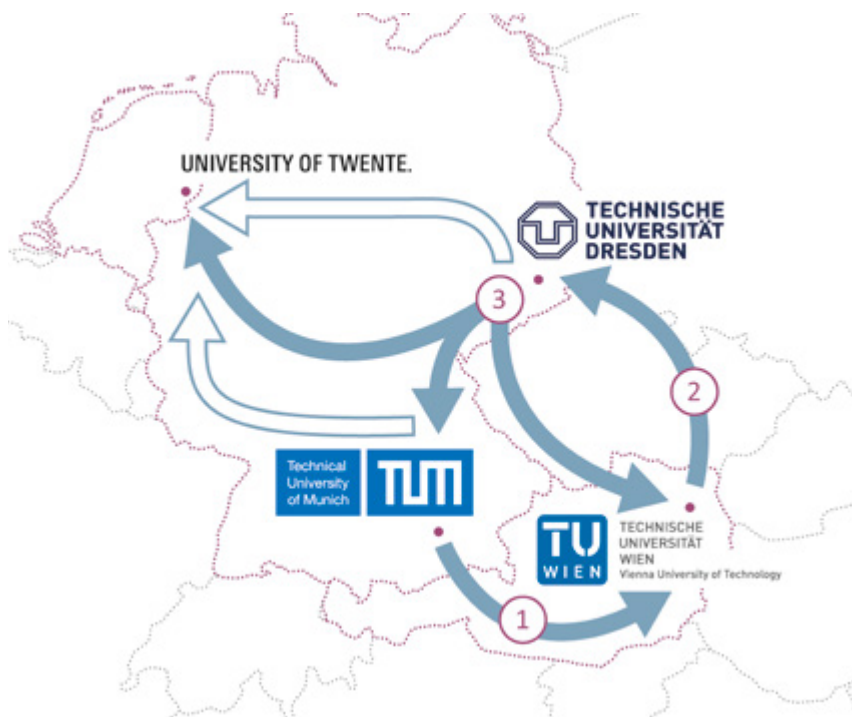
How does a mobility track work?

A student studies in a mobility track that takes them to different universities in the consortium.

How this works depends on the consortium. Some programmes keep all their students together as one cohort: they move as a group to the different universities involved.

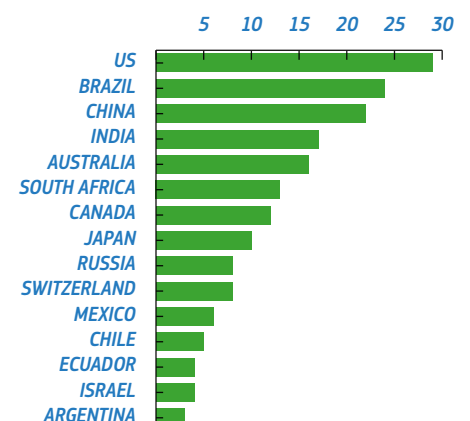
In other programmes students will start together, then later visit different universities as a result of their chosen specialisations. Research work, placements and thesis supervision can also be a reason for moving to a different university. The options are clearly explained on the programme's website so a student knows before applying what the options are.

Here's an example mapped out by CARTO, the EM Master about map-making.



What about partners from other countries? (top 15 countries)

Since 2009, Erasmus Mundus has allowed higher education institutions from partner countries to play a full role as a project partner in selected consortia. The table shows that these partners tend to be from industrialised countries: there is also a relatively strong showing from Latin America.





Dr Barbara Rega
 Assistant Professor
 Paris Institute of Technology for Life
 Food and Environmental Sciences (AgroParistech)
 France

FIPDes

Erasmus Mundus Joint Master Degree in Food Innovation and Product Design

FIPDes was created in 2011, and our idea was to provide a holistic vision of food innovation. We have set the very ambitious objective of seeking to cover the entire value chain of the food industry, from flavouring, through consumer health, to food packaging.

This multidisciplinary approach called for a large degree of cooperation between complementary partners. While hailing from different backgrounds, these partners share a common vision of food innovation: to provide students with the skillset to meet the challenges of

tomorrow. Since its inception, this common vision has been the main driving force behind the curriculum development process. FIPDes students not only acquire scientific knowledge, they also develop management skills and creativity, for example in the context of “culinary innovation”.

As a consequence, the vast majority of FIPDes graduates go straight into the labour market after completing their Joint Master degree. We also have a small number who go into PhD research, for example on management methods for innovation or the use of adapted biopolymers.



After only 5 years, FIPDes is fast becoming the worldwide reference in its field with a visibility spread over more than 100 countries, students & alumni of more than 50 different nationalities and a global network of socio-economic and research partners from the 5 continents.

FACTBOX

FIPDes is the first course created to tackle the global challenges of food innovation along with product design and packaging. FIPDes trains a new generation of food professionals capable of working across borders, with an inclusive vision of innovation to create sound, sustainable and healthy food solutions for future generations.

Partners:

- Paris Institute of Technology for Life Food and Environmental Sciences (AgroParistech), France.
- Dublin Institute of Technology, Ireland.
- Università Degli Studi di Napoli Federico II, Italy.
- Lunds Universitet, Sweden.

Website: www.fipdes.eu





IMAESC

Erasmus Mundus International Master in Adult Education for Social Change

Dr. Bonnie Slade
Programme Leader
University of Glasgow
United Kingdom

We developed a programme in adult education for two reasons: our keen interest in social change and our belief that adult education is the key to progressive social change in society. In this programme we not only teach students about adult education, but also educate them about how to be active citizens and how to make their voices heard in society. Furthermore, adult education comes fourth in the United Nations' 17 sustainability goals for 2030.

Although we had a well-established adult education course at the University of Glasgow, we wanted to collaborate with other universities and found our partners in 2013. We then started work on creating the programme, which does become complicated across four institutions in four countries. Needless to say, there were many administrative hoops to jump through but, after numerous development meetings between all the partners, we were able to form the curriculum we have today.

Our programme is unique as each institution has its own specialization. In Glasgow,

for example, we are very interested in community development and community learning. Students can teach English to migrants in Malta, while students located in Tallinn learn professionalization and accreditation skills for the adult educator. We also offer an optional summer course in Malaysia in Peace and Sustainability Studies.

As professors, we learn from our students just as much as they learn from us, due to their diverse backgrounds. We currently have students from 18 different countries, including Nepal, Ethiopia and the United States. Applications are high, at around 175 students, but we are only able to offer 23 scholarships at present. We also leverage the expertise of visiting scholars and have a very interesting lecture programme, including talks by the current President of the International Council for Education and the OECD among other organisations.

Our programme is practical as well as theoretical. With a specialized focus on social change, we aim to provide students with hands-on community work experience in NGOs and businesses based on their interests and backgrounds.



FACTBOX

Our programme is unique in its focus on adult education for social change. IMAESC aims to build on each learner's interest in adult education to deepen and broaden their knowledge and understanding of adult education in a globalizing world. It engages with and responds to key issues of our time, such as social inequality, migration and intercultural cooperation and collaboration.

Partners:

- University of Glasgow, United Kingdom.
- University of Malta, Malta.
- Tallinn University, Estonia.
- Open University of Cyprus, Cyprus.

Website:

www.gla.ac.uk/postgraduate/erasmusmundus/imaesc





IMQP

Erasmus Mundus Joint Master Degree in Quaternary and Prehistory

Dr Marta Arzarello
Professor
Università degli Studi di Ferrara
Italy

When selecting students we look for a solid background in science, preferably in anthropology and prehistory, so they can quickly learn the methodologies we teach them. The majority of applications we have received have come from students from these scientific backgrounds, but we have recently started to receive applications from students from all backgrounds; we believe this is because the Erasmus Mundus programme is very popular among students in general.

We receive applications from all over the world, but most of our students are European. When we select candidates we evaluate both their motivation letters and any past publications, as we have learned that recommendation letters are not always the most reliable way to select candidates.

When the students graduate they become specialists in prehistory, with a focus on a specific field in this subject. To help students after their academic studies, we always try to encourage them to publish articles or research papers online, as we know from experience that this will be good for their CVs. Our European graduates usually continue their work in academia, but many go on to work in museums, enterprises, or the Ministry of Culture in their respective countries. The non-European students usually have a different background, and many already have a job in their home country. For them, the Joint Master programme secures their position and helps them boost their career.

To complement theory with practice, the students are offered an excavation course during the summer. The location of the excavation site can be in any of our partner countries,

and the students can decide autonomously where they wish to go. This usually lasts between one and three months, and can be combined with theoretical studies. Since all the participants live in the same place during their course, they also get an excellent opportunity to bond with other students and professors.

We benefit greatly from student contributions during the programme. Last year, our student alumni in China suggested the creation of a course called "Prehistory of Asia", which we organized. This involved us going on a study trip to China with students from the programme. The visit was a great success, which inspired us to continue this aspect of the course; this year, we are organizing a trip to Indonesia. Our Indonesian alumni have created a "South-East Asia Prehistory" course, which we will attend with up to 30 students from our programme. The trips are entirely funded by us, so students that are selected do not have to pay anything.

As well as summer courses and field trips to Asia, we also organize an intense cultural course each year in Portugal, to improve levels of integration with the local environment. For this course, students are asked to prepare a group essay outside of their field of research. We aim to challenge them to think outside of the box.

When we select candidates we evaluate both their motivation letters and any past publications, as we have learned that recommendation letters are not always the most reliable way to select candidates.



FACTBOX

This full-time, two-year course bridges different scientific domains including Prehistory, Anthropology, Human Palaeontology, Chronology, Evolution of Fauna and Flora, Archaeometry and Quaternary Geology.

Partners:

- Università degli Studi di Ferrara, Italy.
- Muséum National d'Histoire naturelle, France.
- Universitat Rovira i Virgili, Spain.
- Instituto Politécnico of Tomar, Portugal.
- Universidade de Trás-os-Montes and Alto Douro, Portugal.
- University of the Philippines Diliman, Philippines.

Website:

<https://sites.google.com/a/unife.it/quaternary-prehistory/>





Professor Bruno Rubino
Programme Coordinator
University of L'Aquila
Italy

MATHMODS

Mathematical Modelling in Engineering: Theory, Numerics, Applications

Companies are keen to hire people with skills in mathematical modelling, as this can be a much less costly option than real experiments; it is this interface between theory and application that is at the heart of the MATHMODS course. Students spend the first year together in Italy and Germany, before specialising in one of the branches of modelling in their second year at one of the five consortium members.

We also have agreements with around 20 companies who, while not formal partners, agree to host students during the fourth semester. All our students therefore have both an academic and a work-based adviser – particularly helpful when researching their thesis.

Our consortium is based on the successful networking that took place under an EU-funded R&D network.

Over a period of nine years, we have seen around 200 students graduate from 60 different countries. Some two-thirds of graduates go on to do a PhD, which is often an industrial doctorate. Those who choose to enter the workforce after graduating usually take key roles in company R&D teams, where they are able to speak the languages of both mathematics and engineering. Our consortium, in fact, is based on the successful networking that took place under an EU-funded R&D network.

FACTBOX

“Mathematical modelling” refers to the use of mathematics and related computational tools to bring real-world, challenging and important socio-economic and industrial problems into a form simple enough so that a good solution can be found in a reasonable time, while keeping the relevant features of the problem.

Partners:

- University of L'Aquila, Italy.
- University of Nice - Sophia Antipolis, France.
- University of Hamburg, Germany.
- Gdansk University of Technology, Poland.
- Autonomous University of Barcelona, Spain.

Website:

www.mathmods.eu





Professor Ionan Marigomez
Professor of Cell Biology and Director Research Centre Expert Marine Biology and Biotech (PiE-UPV/EHU) Universidad del País Vasco/ Euskal Herriko Unibertsitatea Spain

MEREMMC

European MSc in Marine Environment and Resources

We wanted to offer a Joint Master from the beginning. In 2003/04 we got together with the University of Southampton – a world leader in this field – to set up a joint degree programme. Both institutions had good contacts with the University of Bordeaux, and we launched a three-party programme in 2006; the University of Liège joined us in 2010.

We therefore had several years of experience in running a joint programme before we were selected to be part of Erasmus Mundus in 2012. The EM status has helped the programme acquire much more international visibility to promote the course worldwide. Now, around half our students are from outside Europe – including a number of self-funded students.

Our consortium and the programme are based on the strong trust and long-standing personal relationships between the partners, who largely complement each other. South-

ampton has a very wide coverage of all aspects of this discipline, and the other institutions bring their own areas of specialisation – marine biology and diversity, coastal management etc. Each university also has its own geographical focus – at home and in other continents.

As well as these four core partners, MEREMMC works closely with our “extended consortium”, which involves a further 15 associate partners, many of whom come on board as guest lecturers. We need to provide some 30 research places per year, and this is largely the job of the associates. They also help design, promote and teach the programme. This is a circle that is expanding. In June 2016, we celebrated our tenth anniversary and invited our graduates back to Plentzia. We were delighted that more than half (135 out of 250) took up our invitation, from as far afield as Chile. We took advantage of their presence to set up an alumni network. This shows us that about 80% are in jobs directly related to their studies with us. Of these, half are in

Around 80% of our former students are now in jobs directly related to their studies with us.

pure research, with the other half working for agencies, NGOs, or in research management.

We find that the course has been a great academic success, but we’ve had to tackle some challenges. One of these was managing a joint degree – for example, up to now, only three of the four partners can sign a single joint degree certificate. We also faced some difficulty getting staff to teach in English, and to cope with a multinational student cohort, but we have been able to train and motivate our staff in both respects.

FACTBOX

MEREMMC provides students with competences and skills in integrated coastal zone management; protection of marine and estuarine environments; adaptation to global climate change; assessment of marine ecosystem health; conservation of biodiversity and natural heritage; and management of fisheries and other marine resources.

- Partners:**
- Universidad del País Vasco/Euskal Herriko Unibertsitatea, Spain.
 - Universite de Liège, Belgium.
 - Université de Bordeaux 1, France.
 - University of Southampton, United Kingdom.

Website: www.merconsortium.eu





MITRA

Erasmus Mundus Master's Course in Intercultural Mediation – Identities, Mobilities and Conflicts

Professor Isabelle Surun
MITRA Coordinator
Université de Lille 3-SHS
France

From its beginning in 2012, this truly global Erasmus Mundus Masters' programme has benefited from a dynamic and enterprising student and alumni community. Some of our graduates who had remained in Lille had set up an alumni association called MITRAJECTOIRES. Through their association, they had started doing volunteer work in humanitarian organisations and NGOs caring for migrants in the Lille and Calais areas and, in so doing, they had created a large network of connections with the third sector in the region.

Our first-year students were also enrolling in the alumni association and some were spending every weekend volunteering in Calais! This enabled our new students to have hands-on experience right from the beginning of their studies, with the support and guidance of our alumni. When MITRAJECTOIRES approached us for support, we couldn't just stand idly

by. It was important for us to recognise the advantages of this inter-generational connection for our students and the access to informal learning they were being provided. Although we had not anticipated this, it has been of huge benefit for the students.

We decided to start awarding credits for half-days spent volunteering with these organisations, which would be assessed on the basis of written and oral feedback at the end of the semester. Our alumni community has become such an important resource. They advise and help out potential applicants, and they provide assistance with some of the more practical questions on, for example, the experience of living and studying abroad. They often help our students find accommodation, and

help out where some of the host universities cannot.

We were surprised and delighted to find that our students had set up projects and initiatives outside the course. For us it was important to recognise and support this informal learning as far as possible.



FACTBOX

MITRA participates in the creation and development of a new generation of experts in the field of conflict and crisis resolution, management of diversity, and breakthrough construction of cultural and political strategies over restructured territories. It is meant to respond to the acute needs in intercultural mediation triggered by contemporary international and transnational migration.

Partners:

- Université Lille 3-SHS, France.
- KU Leuven, Belgium.
- University of Wrocław, Poland.
- Babeş-Bolyai University, Romania.
- University College Cork, Ireland.
- Université Cheikh Anta Diop, Senegal.
- Universidade Federal do Rio de Janeiro, Brazil.
- Universidad Nacional Autónoma de México, Mexico.

Website:

<http://mastermitra.univ-lille3.fr>



Lorenzo Sanchez
Project Officer, Erasmus Mundus Office
Universidad de Oviedo
Spain

STEPS

Sustainable Transportation and Electrical Power Systems

Working on the administrative side of this Joint Master course has been both challenging and rewarding. It has been a real pleasure for me to personally get to know the different students and their cultures.

Most of all, it is encouraging to see how active the students are in the course, which consists of a wide partnership including not only universities, but also global companies in the energy and transportation sectors as associate members. Students have good opportunities to participate in internships and placements to help them understand more about the practical side of the course. We work closely

with our associate member companies to encourage them to offer such internships, and most students who choose to stay in Spain are able to begin these internships immediately after their studies.

The consortium itself was formed after two of the coordinators worked together on a previous project, before deciding to collaborate again on STEPS. Students need a degree in electrical - or related - engineering to enrol into our programme, and it is certainly an advantage to have practical working experience, have been published in a journal or have studied related subjects when it comes to the selection process. The coordinators gather once or twice a year to establish the joint selection team, and they then conduct online interviews via Skype. Prior experience is not necessary, but of course helps!

Some students pay for the course themselves, while others receive a scholarship to cover their entire costs;

the benefit of our scholarship programme is that it is not limited to one geographic region. We provide students with a wide range of support to help them settle into their new environments, such as assistance with finding accommodation and dealing with landlords; tackling visa issues; opening bank accounts; and meeting with previous cohorts of students. We also try to be there for students who may face linguistic or cultural barriers to success. Students take varying paths after the course, including working for well-respected brands such as Tesla and General Electric, or continuing to pursue academia by beginning a doctorate programme.

FACTBOX

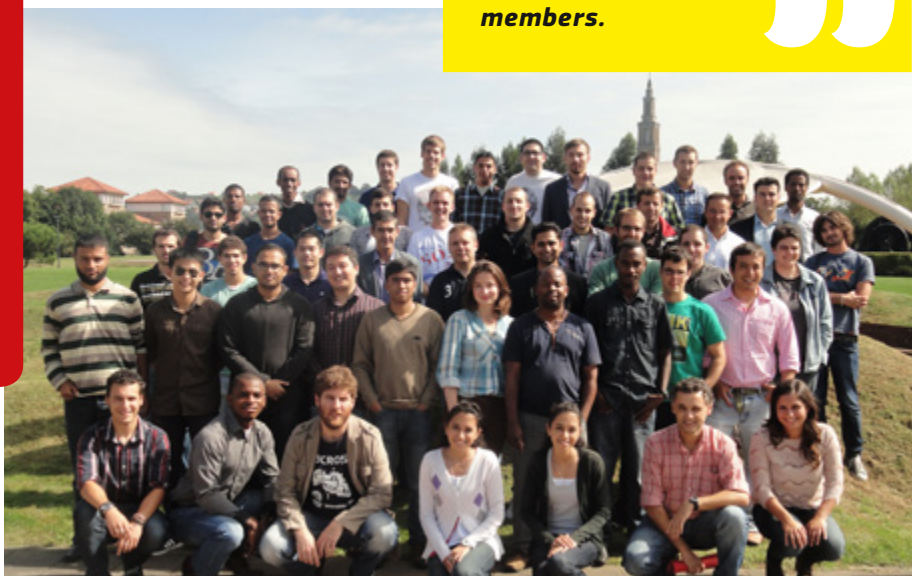
STEPS has been designed to respond to the main challenges faced by the energy sector of today: to master new energy sources and their implications to power systems; to reduce CO2 emissions by increasing energy efficiency and the share of clean energies; and to gradually incorporate electrical transportation as an alternative to vehicles using combustion engines.

Partners:

- University of Oviedo, Spain.
- Sapienza University of Rome, Italy.
- Polytechnic Institute of Coimbra, Portugal.
- University of Nottingham, United Kingdom.

Website: www.emjmdsteps.eu

The course consists of a wide partnership including not only universities, but also global companies in the energy and transportation sectors as associate members.





Martin Lindner
TEOS Coordinator
Philipps-Universität Marburg
Germany

TEOS

Erasmus Mundus Master's Course in Transcultural European Outdoor Studies

Outdoor studies have gained tremendous significance in Europe in recent years, as countries have developed different practices depending on both the national and cultural context – for example, Outdoor Education in the UK, Friluftsliv in Norway, and Abenteuer- und Erlebnispädagogik in Germany.

In designing this unique programme, Martin and his team met with their Norwegian and British partners to find out more about these different national concepts to examine both what they had in common and what sets them apart. We realised that this was an important research topic that had not yet been explored. Our objective, when we started in 2011, was to bring together two key elements – the outdoors, and the notion of transculturality.

The students take a journey together – a peregrinatio academica – starting in Cumbria, moving to Oslo, and ending up in Marburg, taking two modules from each national course to understand the different national practices. Through the journey into different cultures, we link the transcultural content of the course to the form of the study programme. In this way, our students develop a transcultural sensitivity which they value above all else.

Although the course is taught in English, students also take German and Norwegian language classes to deepen their understanding of both cultures. As a research project during

their studies, our students are expected to explore landscapes and talk to the people there about their relation to nature and the outdoors.

A second strand of the course design is organised as three joint modules and looks at the overarching concept of transculturality. This is taught collaboratively – our students travel, and so do we, as we teach together at the partner universities. This joint teaching is in itself an experiment – we discuss everything together, we get contributions and feedback from our partners and from the students. It's a learning process for everyone involved – and it's very stimulating!



In designing this unique programme, the German team met with their Norwegian and British partners to find out more about the different national concepts to examine both what they had in common and what sets them apart.

FACTBOX

The course embraces the accumulated knowledge of the three central traditions of the philosophy of outdoor pedagogics – the Norwegian Friluftsliv, the English Outdoor Education and the German Erlebnispädagogik, while also developing a transcultural sensitivity which allows students to discern the cultural transitions and open borders between the three national concepts.

Partners:

- Philipps-Universität Marburg, Germany.
- Norwegian School of Sport Science, Norway.
- University of Cumbria, United Kingdom.

Website: www.erasmusmundus-teos.eu



VINIFERA

European Master of Science of Viticulture and Oenology

Patrice Lallemand
 Vinifera Project Manager
 National Institute for Higher Education
 in Agricultural Sciences, Montpellier
 France

We try in our course to cover all the fields in wine and vine sciences. This means mainly wine-making, but also includes the business side of marketing and vineyard management. It's innovative as it makes this expertise available to a much more international audience – in English – than current French, Spanish or Italian courses do.

We offer a global view of wine science. Typically there are two major approaches to this; one involves a focus on the craft of making wine on smaller, often family-run estates relying on tourism, while the other treats wine as a drinks business, with a particular focus on brands and marketing. We invite participants from all over the world to experience both approaches and to draw their own conclusions about how they want to use their new-found knowledge, so we have a truly global classroom; this year we have 32 first-year students from 20 different countries. It's a very popular course, as we have 400 applicants per year. We want to ensure our student population is as diverse as possible, including candidates from countries such as Albania and Ethiopia as well as Chinese and American students. We offer our own scholarship system paid out of the savings we make on the management of the programme.

Our consortium is built around six main partners from agronomy or horticulture faculties, who met under the auspices of the OIV (International Wine & Vine Organisation). During the first year all students stay together as one cohort in France, and are taught by staff from the six partner universities.

The consortium also works with 17 partner associations or HEIs around the world and, at

present, these organisations supply the bulk of the guest lecturers. The idea for a future version of Vinifera is for partners from Argentina, South Africa and New Zealand to host students for a semester, so that students can take part in two harvests per year.

We're now in our tenth year, and have recently celebrated our eighth annual graduation ceremony with some 160 graduates. All our graduates go either into the wine business or academic research – about 20% go on to do a PhD. About 60% get further experience by becoming a Flying Winemaker: this is a global scheme allowing young graduates the chance to travel from harvest to harvest, in the North and the South.

Each year we produce a special cuvee on our university estate. The current students produce the wine, and our alumni manage and promote the vintage. We stay in close touch with them, either through LinkedIn or through our own tracing system, and often get together at the big wine events like Vinexpo in Bordeaux or Prowein in Germany.

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FACTBOX

Vinifera EuroMaster offers a gateway to positions worldwide for executives and managers in vine and wine sectors. It covers all the fields of wine and vine sciences, including wine-making, the business side of marketing, and vineyard management.

Partners:

- Montpellier Supagro (National Institute for Higher Education in Agricultural Sciences), France.
- Hochschule Geisenheim University, Germany.
- University of Turin, Italy.
- University of Udine, Italy.
- University of Lisbon, Portugal.
- Polytechnic University of Madrid, Spain.

Website:

<http://vinifera-euromaster.eu>





WINTOUR

Erasmus Mundus Master Course on Wine Tourism Innovation

Cinta Sanz-Ibáñez
WINTOUR Administrative Coordinator
Universitat Rovira I Virgili
Spain

This young Erasmus Mundus programme started in 2015 with the ambitious goal of providing the wine tourism industry with multidisciplinary and international experts. The universities in the consortium are renowned across Europe for their know-how in tourism and oenology, delivering Bachelor and Master degrees in the field.

Although you can train oenologists to work in cellars, they might lack marketing and business skills. Conversely business and tourism experts may know little about the wine production process. We identified this knowledge gap and saw an opportunity to create a programme that would develop this expertise, thereby aiding the sector's profitability and level of service.

In the wine tourism industry, there is a need for professionals who understand the different sectors as a whole and see the synergies between them.



The students start in Tarragona, before moving to Bordeaux and finishing their studies in Porto. In each of these world-famous wine regions, they will learn about how wine is made and marketed, and develop an appreciation of the area's wine heritage and wine tourism development.

During their studies, students have the opportunity to gain practical experience through field trips and visits in which students develop and apply their knowledge by exploring wine tourism case studies in-person. The program also includes two short internships during the second year, one aimed to gain expertise in wine-making (6 weeks), and another in marketing and sales (3 weeks). Finally, in their fourth semester, students carry out a 4-5 month internship with one of our associated partners from a very diverse and growing list of European and non-European wine producers, wine hotels, museums, and public administrations.

In keeping with this truly multi-disciplinary programme, we welcome students from diverse backgrounds, including, for instance, tourism, oenology, economics, international relations and marketing, with the motivation to learn and grow professionally in the wine tourism sector. We have seen great interest in WINTOUR, having received 155 applications for only 27 places in the first year alone.

FACTBOX

WINTOUR covers specific management and entrepreneurial training, applied to wine and tourism; wine and cultural heritage, focusing on the local characteristics of the three regions; and an ambitious program of internships in a non-academic environment.

Partners:

- University Rovira I Virgili, Spain.
- University of Bordeaux, France.
- University of Porto, Portugal.

Website:

www.wintour-master.eu





Professor José M. Peiró Silla
Project Coordinator
Universitat de Valencia
Spain

WOP-P

Erasmus Mundus Joint Master Degree in Work, Organisational and Personnel Psychology

Theory in human resources management is very much led by North American research and teaching. And yet there are big differences in the way these are managed in different regions. WOP-P wanted to develop a European approach in this domain. We also wanted to make the most of the participation of students and lecturers from all over the world: our teaching and our work is enriched by their presence. We force our students to work together in multicultural teams: they have to cooperate to achieve common objectives!

We've made innovations to improve our teaching. We aim to give students a unique role as co-creators of the course they will study, so they are better prepared for what they will learn over the two years. We ask students when they first arrive to assess what society needs from organisational psychologists: from their point of view and from the perspective of the country they come from.

Then students assess themselves against a list of teaching content – what do they know and where are the gaps in their knowledge? This shows the student the knowledge, skills and attitudes that they'll become familiar with during the first three semesters, and which they'll put into practice during their fourth semester.

Together, these elements provide students with a clear map of the learning matter and of the competences they have to master –

basic, professional and enabling. This guides them through their studies. At the end of each course there is an important feedback process with professors, where students report on the progress they are making.

During their internships, students work on their competences in a practical setting and investigate the company's real human resources needs over the coming years. This gives us 40-50 reports per year on real market needs.

Above all, WOP-P is proud of its students. We're confident that we can endorse them and recommend them to the labour market.

It has been a revolution for us: we've learned a lot about what to teach and how to teach it.



FACTBOX

WOP-P differentiates between and encompasses the three fields of the discipline: work, organizational, and personnel psychology. It distinguishes between activities emphasizing the "explanatory scientific" approach to human behaviour and contexts, and those emphasizing intervention.

Partners:

- Universitat de Valencia, Spain.
- Fundacao Universidade de Brasilia, Brazil.
- University of Guelph Non-Profit Corporation, Canada.
- University of Puerto Rico, Puerto Rico.
- Florida Institute of Technology, United States.
- Illinois Institute of Technology, United States.
- University System of Maryland, United States.
- Universitat de Barcelona, Spain.
- Alma Mater Studiorum - Universita di Bologna, Italy.
- Universidade de Coimbra, Portugal.

Website: www.erasmuswop.org



More information



Erasmus Mundus Joint Master Degrees: Part of Erasmus+

<http://europa.eu/IQK93cm>



The Erasmus Mundus Joint Master Degree catalogue

Each year a list of the Erasmus Mundus Joint Master Degrees awarding scholarships is posted on the website of the Education, Audiovisual and Culture Executive Agency EACEA

<http://europa.eu/Igx99hB>



Publications on Erasmus Mundus

Read a series of policy papers on different aspects of EM Joint Master Degrees

<http://europa.eu/lxf96Yt>



Erasmus Mundus Student and Alumni Association

EMA supports and networks students before, during and after their Erasmus Mundus studies

www.em-a.eu



More facts and figures

<http://europa.eu/IJv83Dh>

