Chameleons

D1.2 List of Inter-sectoral Courses /Modules Available Across the Consortium

WP1 Determining the Gap

Project Documentation

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Table of Contents

1. Introduction

The overall objective of CHAMELONS is to develop new and innovative educational interventions to improve the learning experience offered by higher education with the intention of shaping more adaptable, entrepreneurial and employable graduates, ready to meet the challenges of the future. Work package 1 of CHAMELEONS sets out to determine the gap between what is needed in terms of intersectoral and interdisciplinary doctoral education; and what already exists. Deliverable 1.1 of this work package conducted a systematic literature review and two surveys of early career researchers and PhD module designers to identify what is needed. This deliverable, Deliverable 1.2 responds to the second element of the gap analysis – ascertaining what already exists across the CHAMELEONS consortium in terms of PhD modules that broaden student perspectives beyond academia. It provides a listing of modules that are available to PhD students to prepare them for careers in both industry and academia. Together, deliverables 1.1 and 1.2 will help us to ascertain the gap between what is needed and what already exists.

2. Methodology

This report is the result of two data gathering exercises:

1. Consortium questionnaire: A survey of all members of the consortium was undertaken to identify inter-sectorally designed and/or delivered courses/modules which are available to PhD/Postdoctoral students. Through online questionnaire, consortium members were asked to identify courses developed with stakeholders outside academia and/or delivered outside the academic sector. Respondents have been asked to particularly focus on courses/modules which address the results identified in the needs analysis.

2. Wider surveys: Two surveys were conducted – amongst PhD and early postdoctoral students; and those involved in developing PhD modules - ascertaining their attitudes towards, and requirements from, courses/modules that offer and prepare them for cross-sectoral perspectives. The aim was to identify modules or courses that the participants attended (students) or created (developers), that may help PhD students to promote their career. One output from these surveys was the development of a list of modules identified within the responses.

3. Results from Consortium Questionnaire

Table 1: Relevant PhD modules provided by CHAMELEONS consortium

	Host	Course Title	Web Link	ECTS	Duration	Fee (Euro)	Industry involved
1	OULU	Basics in eHealth	https://weboodi.oulu.fi/oodi/opintjakstied.jsp?OpinKohd=23549363&haettuOpas=-1	5	5 weeks	15 per ECTS	No
2	OULU	Software for Intelligent Systems and Artificial Intelligence	https://weboodi.oulu.fi/oodi/opettaptied.jsp?OpetTap=62959046&html=1	5	5 weeks	15 per ECTS	No
3	OULU	Digitalization and innovation	https://www.oulu.fi/avoinyliopisto/node/202451	5	5 weeks	15 per ECTS	No
4	OULU	Basics of statistics	https://www.oulu.fi/avoinyliopisto/node/202469		5 weeks	15	No
5	OULU	Managing multinationals	https://www.oulu.fi/avoinyliopisto/node/200946	1	5 weeks	15 per ECTS	No
6	OULU	Medical information search	https://www.oulu.fi/avoinyliopisto/node/202467	5	5 weeks	15	No
7	OULU	Internationalisation	https://www.oulu.fi/avoinyliopisto/node/202320	1	5 weeks	15 per ECTS	No
8	OULU	Business writing	https://www.oulu.fi/avoinyliopisto/node/201561	5	5 weeks	15	No
9	UCD	Creative Thinking & innovation (5 ECTS)	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40430	4	1 week	2,600 for 3 Modules	No
10	UCD	IA40460 Design your Purposeful Life	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40460	5	1 week	2,600 for 3 Modules	No
11	UCD	Exploring Intellectual Property	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40280	5	1 week	TBC	No
12	UCD	Communication for Impact	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40120	5	1 week	TBC	No
13	UCD	Entrepreneurship: Application & Mindset (5 ECTS)	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40470	5	1 week	TBC	No
14	UCD	Design Thinking for Innovation (5 ECTS)	https://sisweb.ucd.ie/usis/!W_HU_MENU.P_PUBLISH?p_tag=MODULE&MODULE=IA40420	5	1 week	TBC	Google, IBM, Arnotts, PWC, Deloite, Brown Thomas, Musgrave Group,
15	MU	Social Entrepreneurship: Making a Real Difference	http://apps.maynoothuniversity.ie/courses/?TARGET=MODULE&MODE=VIEW&MODULE_CODE=GST6&YEAR=2021#ANCHOR_SEARCH	5	8 hrs	0	No

16	MU	Creative Thinking & Problem Solving (GST5)	http://apps.maynoothuniversity.ie/courses/?TARGET=MODULE&MODE=VIEW&MODULE_CODE=GST5&YEAR=2021#ANCHOR_SEARCH	5	15 hrs	0	No
17	MU	Innovation & Research Commercialisation (GST10)	http://apps.maynoothuniversity.ie/courses/?TARGET=MODULE&MODE=VIEW&MODULE_CODE=GST10&YEAR=2021#ANCHOR_SEARCH	5	3 days	0	Yes
18	UP	Self-Organisation & Time Management	https://sigarra.up.pt/feup/en/ucurr_geral.ficha_uc_view?pv_ocorrencia_id=466882	1.5	11 hrs	100€/ hr	No
19	UP	Transferable Skills for Engineering: Assertive Communication & Presentation Techniques	https://sigarra.up.pt/feup/en/cur_geral.cur_view?pv_ano_lectivo=2020&pv_origem=CUR&pv_tipo_cur_sigla=UFC&pv_curso_id=7241	1.5	14 hrs	100€/ hr	No
20	IEEE EMBS	Annual International Conference of the IEEE Engineering in Medicine & Biology Society	https://embc.embs.org/2021/	Not Applicable	1 week	TBC	Medical Device or Medical software industries often have booth and workshop
21	AUTH	Scientific Programming for Medical Data Analysis	https://qa.auth.gr/en/class/1/600133408	7.5	13 weeks	TBC	No
22	AUTH	Modern & integrated Techniques for Medical Information Management	https://qa.auth.gr/en/class/1/600176758	8	13 weeks	TBC	Between CERTH researchers and various speakers
23	AUTH	Advanced Statistics	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No
24	AUTH	Systematic Review and Meta-analysis	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No
25	AUTH	Computational Medical Research	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No
26	AUTH	Data Mining	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No
27	AUTH	Advanced Techniques in Medical Research	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No
28	AUTH	Qualitative Research	https://mrm.med.auth.gr/courses/	4	6 Weeks	600 Euro	No

29	UP	Digital Media in Health Communication and literacy	https://web.fe.up.pt/~hackeugloh/	3	10 weeks	TBC	No
30	EASP	Key elements of research methodology for the elaboration of a scientific-technical report.	http://www.easp.edu.es/programadocente/	1.76	8 Hours	TBC	Yes
31	EASP	Databases and descriptive statistics	http://www.easp.edu.es/programadocente/	0	10 Hours	TBC	Yes
32	EASP	Scientific writing, critical reading and publication process.	http://www.easp.edu.es/programadocente/	0	20 Hours	TBC	Yes
33	EASP	Design and application of questionnaires	http://www.easp.edu.es/programadocente/	0	15 Hours	TBC	Yes
34	SCMA	Time Management	https://www.misericordia-amadora.pt	0	25 Hours	125	No
35	SCMA	Projects Management & Networking	https://www.misericordia-amadora.pt	0	20 Hours	100	No
36	SCMA	Negotiation Strategies	https://www.misericordia-amadora.pt	0	25 Hours	125	No
37	SCMA	Emotional Intelligence	https://www.misericordia-amadora.pt	0	25 Hours	125	No
	IPPOSI	None	No courses are offered by IPPOSI				Not Applicable
	Beacon Hospital	None	No courses are offered by the Beacon hospital				Not Applicable
	SALU	None	No courses are offered by Salumedia				Not Applicable

*Details on how to apply to these modules are included in Appendix II.

**All modules are currently delivered virtually due to Covid-19. Details of usual delivery mode included in Appendix II.

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4. Results from Wider Surveys

4.1 Modules Identified from Survey

Fifteen modules were identified from the questionnaire in total. Twelve were identified by young researchers and three by program directors. These courses are described in detail in Tables 2 and 3 respectively.

Table 2: Courses Identified by Young researchers

No	Course Title	Description	Availability
1	Developing and Managing an Academic Career	The workshop aim was to provide IAM members with a range of professional and career development activities across the key strands of academic posts (Teaching, Research & Service). The focus was on career paths and development and involved panel discussions around the variety of career paths available to early career scholars; along with teasing out the benefits, drawbacks, opportunities and challenges of the different options. It also offered guidance on how best to develop and manage an academic career and academic/research network.	Available only in a passed time period
2	Creative Thinking & Innovation	-	Available among students of a certain faculty
3	Inclusive Physical Education - Making physical education inclusive and open to all.	The contents of the course covered a range of opportunities in order to create an inclusive environment for children with special educational needs and disabilities during the physical education classes. Alongside expert academics there also were a few non-academic professionals who outlined the job opportunities outside Education (school or third level education), namely in non-governmental organizations.	Available only in a passed time period
4	Python and Django Full Stack Web Developer Bootcamp	It is a tutorial for learning the Django full-stack web development framework.	yes
5	Career development for scientists	-	-
6	Opportunities for PhDs in Industry	Discuss how to transition between academia and industry, differences and similarities, types of organizations that exist in between such as individual research organizations that are not Universities, guest speakers presented information about why they left academia and the pressures they felt.	-
7	Any languages	-	-
8	Running Injuries	Epidemiology of running injuries Mechanism of Injuries. Management of Running Related Injuries	-
9	Exploring Intellectual Property	The course explored various aspects of intellectual property and highlighted various documents and policies that may be of use. The course very much revolved around learning by doing with lots of individual and team tasks to complete. Attendees also had the opportunities to engage with guests who were involved in creating or protecting intellectual property.	Available among students of a certain faculty
10	Python for Environmental Science	Introduction to Python programming language for environmental data analysis and visualization.	-
11	Programming for non-programmers	Programming language python.	-
12	Data Analysis in Systems Medicine	Realistic hands-on network data analysis in multiscale medicine / Network analysis on real data.	Available only in a passed time period

Table 3: Courses Identified by Program Directors

No	Course Title	Description	Access
1	Critical appraisal of the literature	Formulation of the research question Formulation of research question, formulation of search strategy,	Available among

		bibliographic databases Searching bibliography principles	students of a certain faculty
2	Collaborative Writing	Forming writing groups of students from the multiple disciplines that contribute to connected health research and facilitating discussions to generate common research topics that may lead to an academic paper.	-
3	Interdisciplinary learning through problem-based learning in the Clinical Environment.	The course presents interdisciplinary student groups with opportunities to discuss specific patient cases. Each of the individuals within the group brings their own disciplinary knowledge to the table.	-

4.2 Additional Material

On top of these modules identified through the survey, we have gathered a variety of educational lectures from IEEE members in five specific categories, related to the interests inside CHAMELEONS project. These lectures are all publicly available in IEEEtv platform. The categories are presented in detail in Table 4.

Table 4: Additional material

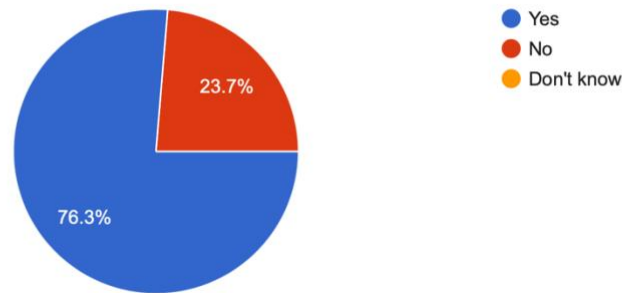| Category	Course Title
Big Data	Data and Algorithmic Bias in the Web - Ricardo Baeza-Yates - WCCI 2016
	Bias in the Age of the Algorithm
	Mathematical Evolution of Human Behaviors - Osama Salah Eldin
	Fragility of Interconnected Cyber-Physical Systems - Marios M. Polycarpou - WCCI 2016
	Big Data: Big Data in Medicine & Biology
	Big Data Meets Big Compute - 2018 IEEE Industry Summit on the Future of Computing
Conferences	Virtual Content | Entrepreneurial Program
	Career Day 2020 » IEEE GREECE SECTION
	Call for Mentors » IEEE GREECE SECTION
	IEEE Region 8 Virtual Student and Young Professional Congress (IEEE R8 vSYP) - DCU IEEE Student Branch
	2021 | VivaTechnology (VivaTech)
	2021 | 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)
Management	From Engineer to Manager: Mastering the Transition (Part 1)
	From Engineer to Manager: Mastering the Transition (Part 2)
	Key Insights to Career Management
Entrepreneurship	https://entrepreneurship.ieee.org/video-library/
	Frontline: Playing the Market Right
	IEEE WIE E-Tea Talks – Inspiring Entrepreneurs Webinar
	Co-creation: Human Centered Design/ Design Thinking
	Failure Analysis and Rewinds
	Neuropreneurs and the Waves they Ride: A HPC-driven Future
Ethics in Tech Society	A Conversation About Ethics Education
	Designing Without the -Isms: How Tech Inclusion Benefits Society
	New Technologies, Ethics & Policy Engagement for Sustainable Development: Health & Human Well-Being | Session 1: New Technology Presentations
	More Than Tech: How Ethics, Law and Policy Play a Major Role in Technology Development
	COVID-19 & the Rise of Telehealth: Examining the Social Impacts
	Ethical Considerations 200 Years After Frankenstein
	Ethical Considerations: A Key to Technological Advancement
	Engineering Social Good: Technology and Moral Responsibility
	Modern Standardization: Meet the Author
	Standards Education: Strategic Standardization (English)
	Standards Education: An Introduction (English)
Occupation	Gender-Based Occupational Stereotypes: New Behaviors, Old Attitudes - Carolyn Matheus & Elizabeth Quinn
	Learning How to Learn: Powerful Mental Tools to Help You Master Tough Subjects

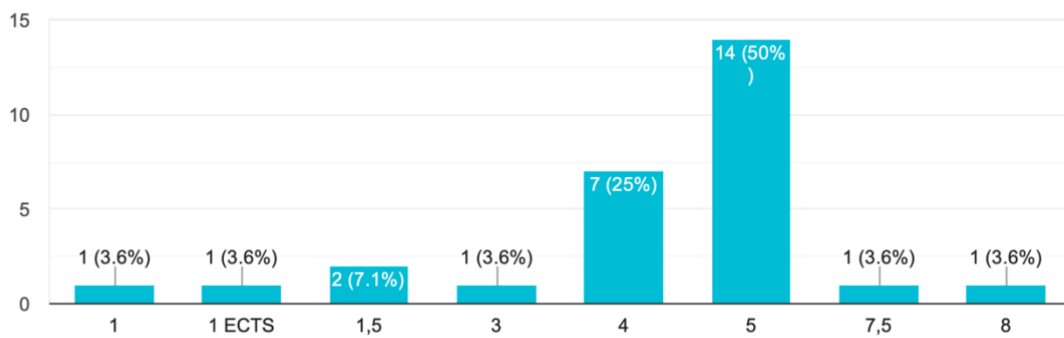|	
	Humility and Leadership: Can they go hand in hand? - Roshan Roeder at IEEE WIE Forum USA East 2017
	Unearth the Unknown: Tapping Your Inner Potential
	The Fantastic Five: 5 Soft Skills That Every Technical Professional Should Have - Student Activities Webcast
	Unleash Your Potential: There Is an Innovator in All of Us - Lorraine Herger & Mercy Bodarky, IBM Research
	Why Digital Literacy Matters
Publications	Citing Sources Appropriately
	Choosing the Right Publication
	The Lifecycle of a Journal Article: an IEEE Author Education Course
	Writing Your Article for Journal Publication
	Reviewing an Article: IEEE Author Education
	Enabling the Reproducibility of Your Research
	Tips for Responding to Reviewers' Comments
	Article Posting Policy: IEEE Author Education
	Art and Challenges of Writing Papers for IEEE Transactions

Appendix I: Overview of modules profile from the Consortium Questionnaire

Are there European Credit Transfer System (ECTS) credits associated with this course
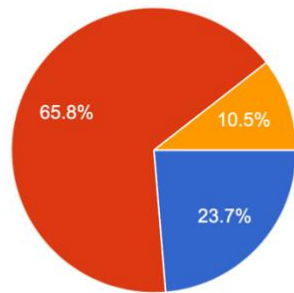
38 responses

- Yes
- No
- Don't know

23.7%

76.3%

If yes how many ECTS

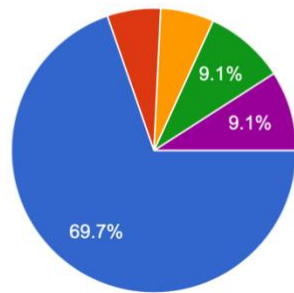28 responses

How is the course NORMALLY delivered?
38 responses

- Virtually
- In Person
- A combination of virtually and in person
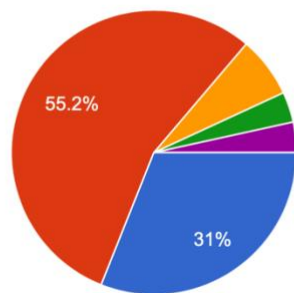
65.8%
10.5%
23.7%

How is the course CURRENTLY being delivered?
33 responses

- Virtually
- In Person
- A combination of virtually and in person
- It is not being delivered
- I don't know

9.1%
9.1%
69.7%

Is the course delivered
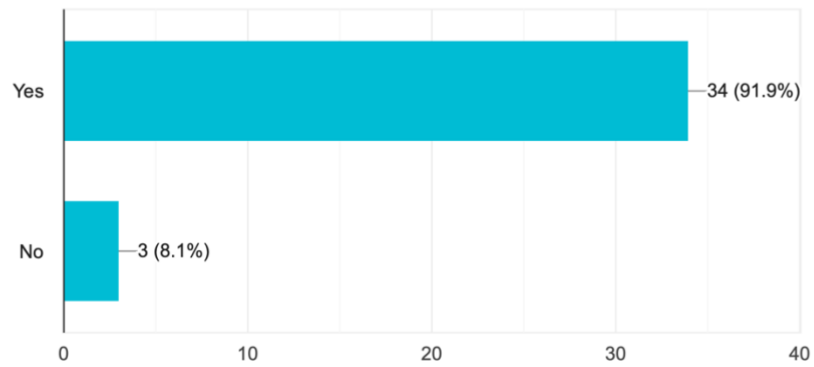29 responses

- In a one week block
- Over a number of weeks
- According to the needs
- year long
- 2 days

55.2%
31%

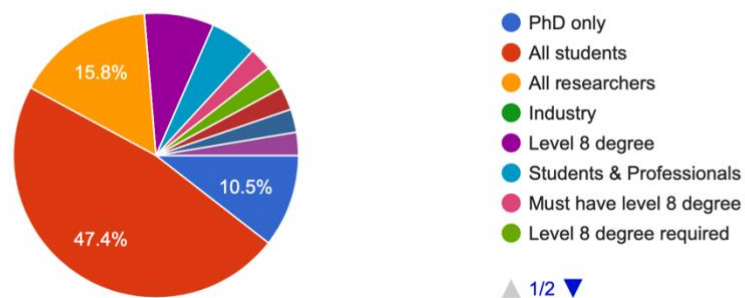## Is there a course fee?

37 responses

Who is the Target audience?

38 responses

Legend:
- PhD only
- All students
- All researchers
- Industry
- Level 8 degree
- Students & Professionals
- Must have level 8 degree
- Level 8 degree required

1/2

Appendix II: Details of all Courses Offered by the CHAMELEONS Consortium

Basics in eHealth

This course is being offered by University of OULU and it carries 5 ECTS (European Credit Transfer System). The course can be applied for in WebOodi through Open University.

The course aims at developing subject specific skills.

Upon completion of the course:
- The student can define central information and communication technology (ICT) terms and solutions in healthcare and can list respective applications in healthcare services and training.
- The student can evaluate the societal and economic significance of information and communication technology in healthcare.
- The student can understand the position of eHealth and telemedicine solutions as a part of the national health care information system.
- The student receives an initial view of future health ICT trends from clinical perspective and possibilities to contribute to these with his/her professional background.

The course will be delivered virtually, will have a duration of 5 weeks beginning in the spring semester (starting in January) and will carry a fee of 15 euro / ECTS.

Software for Intelligent Systems and Artificial Intelligence (AI)

This course is being offered by University of OULU and it carries 5 ECTS (European Credit Transfer System). The course can be applied for through Open University.

The course aims at developing subject specific skills.

After completing the course, the students will be able to:
- reflect and critically assess the role of AI in software intensive services,
- reflect and discuss issues related to design of software intensive services using AI, as well as
- develop a project using the methods and theory learned throughout the course.

The course is usually delivered using a combination of virtual and in person teaching but is currently being delivered virtually and will have a duration of 5 weeks beginning in the spring semester (starting in January). This course will carry a fee of 15 euro / ECTS and is targeted at all students.

Digitalization and innovation

Offered by University of OULU this course carries 5 ECTS (European Credit Transfer System). The course can be applied for through Open University.

It aims at developing subject specific skill.

After completing the course, the student will be able to:
- identify and describe what is digitalisation and why it is happening,
- describe how information systems and digitalisation are connected,
- describe the role of emerging technologies in the society,
- form an overview and describe how innovation takes place, particularly in IT, as well as
- identify opportunities and challenges of future technologies.

The course objective is also subject specific.
- Its focus is also to build an overview of organisational/enterprise information systems.

The course is usually delivered using a combination of virtual and in person teaching but is currently being delivered virtually and will have a duration of 5 weeks beginning fall semester. This course will carry a fee of 15 euro / ECTS and is targeted at all researchers.

Basics of Statistics

Offered by University of OULU this course carries 1 ECTS (European Credit Transfer System). The course can be applied for through Open University. It aims at developing subject specific skill.

- Statistics

The course will cost 15 euro / ECTS, is delivered virtually and is targeted at all researchers.

Managing Multinationals

Offered by University of OULU this course carries 5 ECTS (European Credit Transfer System). The course can be applied for through Open University.

It aims at developing subject specific skill.

- Management

The course is delivered virtually and will have a duration of 5 weeks beginning Summer semester. This course will carry a fee of 15 euro / ECTS and is targeted at all students.

Medical Information Search

Offered by University of OULU this course carries 1 ECTS (European Credit Transfer System). The course can be applied for through Open University.

It aims at developing a transferable skill.

- Information search skills

The course will cost 15 euro / ECTS, is delivered virtually and is targeted at all researchers.

Internationalisation

Offered by University of OULU this course carries 5 ECTS (European Credit Transfer System). The course can be applied for through Open University.

The course objective is Developing a transferable skill and developing subject specific skills.

- International business

The course is delivered virtually, will carry a fee of 15 euro / ECTS and is targeted at all students.

Business Writing

Offered by University of OULU this course carries 4 ECTS (European Credit Transfer System). The course can be applied for through Open University.

The course objective is Developing a transferable skill.

- Writing, language and communication

The course is usually delivered in person but is currently being delivered virtually. This course will carry a fee of 15 euro / ECTS and is targeted at all students.

Creative Thinking & Innovation

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System).

It aims at developing a transferable skill.

The aim of this module is to help PhD students to access their innate ability for independent creative thinking and innovation in its broadest sense and to help them discover the potential for the development of their new ideas in a multidisciplinary team environment.

This module encompasses four different areas of skill development and learning for research students:
- Developing confidence in creative thinking initially targets the student as an individual. The objective is to introduce the student to the inherent risk of failure in creative thinking but also the latent learning for the next cycle. This will take place through activity-based exercises.
- Evolution of innovative ideas in multidisciplinary teams introduces team working in a creative context. Here, openness to new ideas and passion for ideas presented come into creative conflict. Examples of organisations such as IDEO will form an introduction to group activities carried out both inside and outside the seminar room.
- How to translate ideas into value creation brings the preceding two topics together. The definition of 'value' will be explored in the context of the objectives and the perceptions of the various stakeholders and will encompass economic, social, environmental and cultural.

The course objective is also subject specific.
- Its focus is also to build an overview of organisational/enterprise information systems.

The course is usually delivered in person but will now be delivered virtually and will have a duration of 5 weeks beginning fall semester. This course will carry a fee of 2,600 for 3 modules and students who apply must have a level eight degree.

This module is one week, full-time and will run on the following dates: Intake 1: 7th – 13th October (weekdays only) 2020; Intake 2: 10th – 14th May 2021 Intake 3: 24th – 28th May 2021.

Design your Purposeful Life

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System). It aims at developing a transferable skill.

The aim of this module is to enable students to plan and reflect upon their learning, career and life goals using Design Thinking and other approaches.

Design Thinking is a human-centric creative problem-solving process. It offers a proven methodology and repeatable approach that can be used to identify new opportunities, solve problems, and develop innovative solutions. While it has usually been applied to the development of products and services, in this module, participants will apply the approach to design their own career and life goals.

This module is one week, full-time and is not scheduled for the 2020/21 Academic Year.

This course is normally delivered in person but it's not being delivered at this time.
The course fee is 2,600 for 3 modules and students who apply must have a level eight degree.

Exploring Intellectual Property

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System).

The course objective is subject specific.

This module introduces students to the issues and actions associated with quality, value, identification and protection of intellectual property. This includes an exploration of copyright, patenting, trademarks, industrial design and know-how as well as ways to derive value from the 'protectable' and the 'unprotectable'.

This module is one week, full-time and will run from 10th – 14th May 2021. The course is normally delivered in person but is currently delivered virtually.

Applicants must have a level 8 degree.

Communication for Impact

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System).

- The objective of this course is to develop transferable skills. The purpose of this module is to enable students to effectively communicate their ideas, project, research or potential venture to a broad range of audiences both in person and online.

Students will be introduced to entrepreneurial tools and skills such as Empathy Mapping, Pitching, Storytelling and the Value Proposition Canvas, and learn distil their ideas to their essence, to gain an in-depth understanding of their audience and to engage with their ideas in a creative and effective way.

This module is one week, from 24th – 28th May 2021 (Intake 2) and is normally delivered in person but is currently delivered virtually. Applicants must have a level 8 degree.

Entrepreneurship: Application and Mindset

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System).

- The objective of this course is to develop transferable skills.The purpose of this module is to develop your entrepreneurial mindset - helping you see the world, think and act in a more entrepreneurial manner - either for starting your own business or for leading initiatives within an organisation.

This module is one week, full-time and is normally delivered in person but is not scheduled for the 2020/21 Academic Year. Applicants must have a level 8 degree.

Design Thinking for Innovation

Offered by University College Dublin (UCD) this course carries 5 ECTS (European Credit Transfer System).

- The objective of this course is to develop transferable skills. This module is designed to provide the participant with a comprehensive and in-depth experience of Design Thinking, culminating in the presentation of a creative, innovative solution to a complex real-world challenge of an external host.

In the past there has been involvement from industry: Google; IBM; Arnotts, Heat Merchants Group; Musgrave Group; Brown Thomas, Deloitte, Lust for Life, UCD Students Union and PwC.

This course duration is one week and is normally delivered in person but is not currently being delivered. Applicants must have a level 8 degree.

Social Entrepreneurship: Making A Real Difference

Offered by Maynooth University (MU) this course carries 5 ECTS (European Credit Transfer System). Instructions on how to apply are available on the Maynooth University Graduate Studies website: https://www.maynoothuniversity.ie/graduate-studies/modules-research-students.

- The objective of this course is to develop transferable skills. Understand the nature of social entrepreneurship and its application in various organisational settings.
- Recognise the elements needed to identify social problems, co-create within communities and create innovative solutions to challenging problems.

This course duration is 8 hours, delivered over a week and is normally delivered in person. Applicants must have a level 8 degree. Applicants must have a PhD.

Creative Thinking & Problem Solving

Offered by Maynooth University (MU) this course carries 5 ECTS (European Credit Transfer System). Instructions on how to apply are available on the Maynooth University Graduate Studies website: https://www.maynoothuniversity.ie/graduate-studies/modules-research-students.

The objective of this course is to develop transferable skills.
- Understand the different models of creativity.
- Appreciate the difference between individual and group creativity.
- Experiment with different models of problem solving.
- Appreciate the role of divergent and convergent thinking in creativity and problem solving.
- Be conversant with the steps in the process of problem solving.
- Be fluent in the use of the six-step model: The six steps include: problem identification, problem delineation, information gathering, idea generation, idea evaluation and refinement, and idea implementation.

This course duration is 15 hours, is delivered year long and is normally delivered in person. Applicants must have a level 8 degree. Applicants must have a PhD.

Innovation and Research Commercialisation

Offered by Maynooth University (MU) this course carries 5 ECTS (European Credit Transfer System). Instructions on how to apply are available on the Maynooth University Graduate Studies website: https://www.maynoothuniversity.ie/graduate-studies/modules-research-students.

The objective of this course is to develop transferable skills.
- Identify and discuss the key players involved (State, University, Industry/NGO's), and the systems/interactions required to commercialise research.
- Evaluate the potential impact of research/knowledge and its potential value proposition.
- Demonstrate an awareness of IP issues relating to research.
- Articulate the legal obligations of the University and the research student, as well as the legal constraints in relation to dissemination of research and confidential information.
- Articulate the implications for research when entering into contracts with different funding agencies.
- Develop a business plan and present it to potential investors and structure a funding transaction.
- Distinguish market research options and channel partners for commercially viable research.
- Characterise the anatomy of an industrial organization and/or NGO and industry needs and drivers. Negotiate and function as part of an effective team.

This module is 3 days, in semester 2 and is normally delivered in person but don't know if it is currently being delivered. Applicants must have a PhD.

Self-Organisation and Time Management

Offered by University of Porto (UP) this course carries 1,5 ECTS (European Credit Transfer System). Students should register directly in the CHAMELEONS secretariat - the course will be delivered upon request of the project.

The objective of this course is to develop transferable skills.
- Effective self and time management. Strengthen and practice methods that participants can use to optimise their scheduling.

The course duration is 11 hours, delivery dates will be in agreement with the need of the CHAMELEONS project and is normally delivered in person. The course cost is 100€/hour and is open to all researchers.

Transferable Skills for Engineering: Assertive Communication and Presentation Techniques

Offered by University of Porto (UP) this course carries no ECTS (European Credit Transfer System). Students should register directly in the CHAMELEONS secretariat - the course will be delivered in agreement with the needs of the CHAMELEONS project.

The objective of this course is to develop transferable skills.
- Identify key aspects of assertiveness, the characteristics of the different modes of communication and the advantages of an effective presentation, with particular emphasis on events linked to the development of the PhD. Use an assertive communication profile and utilize procedures to prepare, implement and defend a successful presentation in order to master the communication interactions inherent in the PhD, including participation in meetings, congresses, conferences and presentation/defence of his thesis. Be aware of changes to be made to ensure increasing effectiveness of the ability to communicate assertively and continuous improvement of the basic skills to perform with high mastery academic and/or professional presentations in the engineering areas.

The course duration is usually delivered in person but is currently being delivered virtually. The course cost is 100€/hour and is open to all researchers.

Digital Media in Health Communication and Literacy

Offered by University of Porto (UP) this course carries no ECTS (European Credit Transfer System). Students should register directly in the CHAMELEONS secretariat - the course will be delivered in agreement with the needs of the CHAMELEONS project.

Priority will be given to achieve a balance between scientific fields, as well as a balance of gender. Also, special priority will be given to students with special needs.

Additionally, the candidates will be selected according to the following criteria:
- Analysis of CV / portfolio.
- Written motivation for participating in the course.
- English level (inferred by the answer on the application).

All applications will be submitted on the official University of Porto Platform (SIGARRA).

The objective of this course is to develop transferable skills.
- Problem Solving, Analytical Reasoning, Communication, Multidisciplinary teamwork, Creativity, Project Management, Adaptability, Decision making.

The course duration is 81 hours throughout 10 weeks, with 32 hours of synchronous and 49 of asynchronous hours of work. Course fee is TBD. It is open to all researchers.

Annual International Conference of the IEEE Engineering in Medicine and Biology Society

This course carries no ECTS (European Credit Transfer System). Students should register directly in the CHAMELEONS secretariat - the course will be delivered upon request of the project.

Students should apply by submitting a paper, present work in a pitch, present paper/poster, participate in workshops and symposiums.

The objective of this course is to develop transferable skills, such as:
- Present scientific work, networking in the scientific community, familiarise with stakeholders.

The course objective is also subject specific.
- The disciplinary focus being Engineering in medicine and biology, with some interdisciplinary focus.

The course is delivered annually its duration is a week in 2021 – October 31- November 4. The course normally has a combined delivery of virtual and in person method and is open to all researchers.

Scientific programming for Medical Data Analysis

Offered by University of AUTH this course carries 7.5 ECTS (European Credit Transfer System). The course is managed by the Interdepartmental Programme in Medical Informatics, AUTH. Registration of graduate students has to be done in agreement with the programme managers.

The objective of this course is to develop transferable skills, such as:
- Teamwork, including collaboration between engineers and medical doctors in a project.

The course objective is also subject specific.
- The disciplinary focus being data science in medicine.

The course duration is 13 weeks and will be held in the winter semester. It is normally delivered in person but is currently being delivered virtually. Fee TBD. The course is open to all students.

Modern and Integrated Techniques for Medical Information Management

Offered by University of AUTH this course carries 8 ECTS (European Credit Transfer System).The lessons are managed by the interdepartmental program in Medical Informatics.

The objective of this course is to develop transferable skills, such as:
- Complete, report and present a digital health project.

The course objective is also subject specific.
- The disciplinary focus being to deepen knowledge in a digital health direction.

The course is coordinated by CERTH researchers and has various speakers.

The course duration is 13 weeks and will be held in the winter semester. It is normally delivered in person but is currently being delivered virtually. Fee TBD. The course is open to all students.

Key Elements of Research Methodology for the Elaborationof Scientific Reports

This Course is Offered by EASP and carries 1.76 ECTS (European Credit Transfer System)
The Objective of this course is to develop transferable skills,such as:
- Develop skills in research for the creation of scientific reports.
The course objective is also subject specific.
- The disiplinary focus being to deepen knowledge of Health research methodology.
The duration of the course is 8 hours and will be held in Granada from 28-29 June 2021 and will be delivered in person. The course Fee has not yet been announced. The Course is open to all students.

Data Bases and Descriptive Statistics

Offered by EASP, the course carries 0 ECTS (European Credit Transfer System)
The Objective of this course is to develop transferable skills,such as:
- Form skills in Data Base development and Statistics.
The course objective is also subject specific.
- The disciplinary focus being to deepen knowledge of Health research methodology.
The course duration is 10 hours and will be held in Granada from 21 June to the 04 July 2021 and will be delivered virtually. The course fee has not yet been issued. The course is open to all students.

Scientific Writing Critical Thinking and Publication Process

Offered by EASP, the course carries 0 ECTS (European Credit Transfer System)
The Objective of this course is to develop transferable skills,such as:
- Develop skills in scientific writing and critical reading.
The course objective is also subject specific.
- The disiplinary focus being to deepen knowledge of Health research methodology.
The course duration is 20 hours and will be held in Granada from 08 Nov – 5 Dec 2021 and will be delivered virtually and is open to all students. The course fee has not yet been disclosed.

Design and Application of Questionnaires

Offered by EASP, the course carries 0 ECTS (European Credit Transfer System)
The Objective of this course is to develop transferable skills,such as:
- Develop skills in Design and application of questionnaires.
The course objective is also subject specific.
- The disiplinary focus being to deepen knowledge of Health research methodology.

The course duration is 15 hours, will be held in Granada from 20 Sept- 10 Oct 2021, will be delivered virtually and is open to all students. The course fee has not yet been issued.

Time Management

This course is offered by SCMA and carries 0 ECTS (European Credit Transfer System).
It's objective is to develop transferable skills, such as:
- Critical Thinking, Communication, Creativity.

Upon completion of this course the student will be proficient in maximising time management and personal organization; Applying individual time management techniques; Mitigating the impact of time wasters; Planning the work schedule, whether manual or digital.

The course duration is 25 hours and will be held from Oct 2021 onwards. It is normally delivered in person but is currently being delivered virtually. The fee for this course is 125 euro. The course is open to all students and Professionals.

Projects Management & Networking

This course is offered by SCMA, and carries 0 ECTS (European Credit Transfer System).
The course objective is to develop transferable skills, such as:
- Technical, Communication, Critical Thinking, Multitasking, Teamwork Creativity Leadership.

This course presents and develops methodologies, techniques and tools currently considered as the best practices in the market, minimizing risks and enhancing the effective execution of projects.

The course duration is 20 hours and will be held from Oct 2021 onwards. It is normally delivered in person but is currently being delivered virtually. The fee for this course is 100 euro. The course is open to all students and Professionals.

Negotiation Strategies

This Course is offered by SCMA, and carries 0 ECTS (European Credit Transfer System).
The objective of this course is to develop transferable skills, such as:
- Communication, Critical Thinking, Teamwork, Creativity, Leadership.

Upon completion of this course the student will be able to Identify and analyse the success/failure factors inherent to the different situations of professional negotiation at an intra and inter institutional level; Use interaction techniques and apply negotiation strategies, simultaneously developing the necessary skills to increase effectiveness in the preparation, management and control of negotiation processes; Self-diagnose individual evolving needs and identify the respective changes to be promoted, ensuring the continuous improvement of results in different negotiation situation.

The course duration is 25 hours and will be held from Oct 2021 onwards. It is normally delivered in person but is currently being delivered virtually. The fee for this course is 125 euro. The course is open to all students and Professionals.

Emotional Intelligence

This course is offered by SCMA, and carries 0 ECTS (European Credit Transfer System).
The objective of this course is to develop transferable skills, such as,
- Communication Teamwork, Creativity

Upon completion of this course the student will possess a degree of emotional intelligence to successfully manage social and professional relationships, Develop emotional awareness, Improve communication, Acquire the necessary tools for implementing emotional intelligence in professional environments and know how to use your emotional intelligence
The course duration is 25 hours and will be held from Oct 2021 onwards. It is normally delivered in person but is currently being delivered virtually. The fee for this course is 125 euro. The course is open to all students and Professionals.

Stand-alone Elective Courses

The MSc in "Medical Research Methodology", one of the most popular MSc programs of the Medical School at the Aristotle University of Thessaloniki, is offering for the first time the option to attend any of its elective courses as stand-alone modules. Applications will be assessed on a *first-come-first-served basis*.

Elective courses offered as stand-alone modules during the academic year 2020 – 2021 include (course info at: https://mrm.med.auth.gr/courses/):

E1 - Advanced Statistics	4 ECTS
E2 - Systematic Review and Meta-analysis	4 ECTS
E3 - Computational Medical Research	4 ECTS
E4 - Data Mining	4 ECTS
E5 - Advanced Techniques in Medical Research	4 ECTS
E6 - Qualitative Research	4 ECTS
E7 - Clinical Trials	4 ECTS

All courses are delivered online through an advanced Learning Management System and their curriculum spans across six (6) weeks, with the first week allocated to course-specific introductory and preparatory activities. The following four (4) weeks develop self-contained course units (one for each week, released week by week), followed by one (1) week of personal study and regular Q&A sessions. Finally, course participants are requested to submit a final assignment or take a final assessment quiz.

Admisson Criteria:

To apply for any of the courses you should:
- be a University graduate
- have professional work experience in the health service or a health-related field
- have a good working knowledge of e-mail, internet and Microsoft Office® applications (for communications with course members, course team and administration)
- show evidence of the ability to commit time to study, complete course work and attend course.

Applicants for Advanced Statistics, Systematic review and meta-analysis, Data Mining and Clinical Trials are also required to meet the following additional entry requirements:
- competence in basic statistics: concepts of p-values, confidence intervals, hypothesis tests
- a high level of computer literacy. Programming experience is not required but readiness to use the R language is essential.

Course Dates: April or June 2021, exact dates to be announced in due course.

Chameleons

Submission Deadline: 1st April 2021 (modules E1 and E5) and 1st June 2021 (modules E2, E3, E4, E6, and E7)

Course duration: Six (6) weeks.

Certificate of attendence:

The attendees will be awarded a certificate of attendance, following the successful completion of each elective course.

Fees: 600 euros (€) per course or 1,500 euros (€) for three (3) courses.

For more information, please, contact the MSc secretariat, Dr. Alexandra Karagianni, e-mail: info-mrm@auth.gr or visit the MSc website: https://mrm.med.auth.gr/contact-us/