



'Moving towards innovative education for research- based and sustainable management of marine and freshwater ecosystems'

CORRIENTE XXI

Educational toolkit

Transferable skills

The importance of transferable skills in Msc. Programmes

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THE IMPORTANCE OF TRANSFERABLE SKILLS IN MSC. PROGRAMMES

Why are transferable skills so important? (by Diana Di Nitto, VUB)


WHAT ARE TRANSFERABLE SKILLS?

Transferable skills, also known as "portable skills" are qualities that can be transferred from study to work or from one job to another

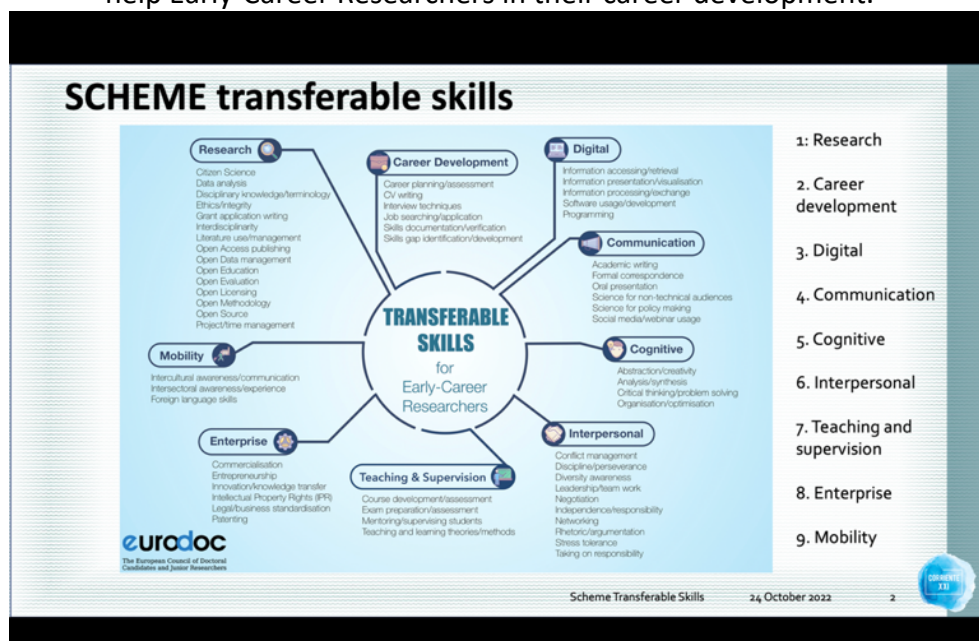
«learning-by-doing»

Hard skills + soft skills

IMPORTANT: employment landscape is increasingly intersectoral, international and interdisciplinary



- The diversity of transferable skills illustrated by means of the scheme for Early-Career Researchers of The European Council of Doctoral Candidates and Junior Researchers – Eurodoc. This scheme shows a range of skills in each section (1: Research, 2. Career development, 3. Digital, 4. Communication, 5. Cognitive, 6. Interpersonal, 7. Teaching and supervision, 8. Enterprise and 9. Mobility) which can help Early-Career Researchers in their career development.



- In addition, the importance of transferable skills for cooperation within CORRIENTE XXI was also highlighted.
- Overview of the transferable skills resulting from the surveys from the Workshop portfolio of competences and learning outcomes (QUITO- 20-24/01/2020) was summarized.

Customized surveys for four stakeholders groups

Google forms:
ENG/SP

- 1) Students
- 2) Former students
- 3) Employers
- 4) Lecturers

MAIN GOAL: to identify skills and competences lacking in current educational set-up of Master programmes

Survey results 1 October 2020 5

Encuesta para graduados

34 antwoorden

HOW IMPORTANT ARE THE FOLLOWING SKILLS....TOP 5

Employers	Graduates	Lecturers	Students
Teamworking skills	Developing research projects	Exploring the most recent scientific insights	Formulating relevant research questions and hypotheses
Ability to adapt to and act in new situations	Fieldwork skills	Analytical and problem-solving skills	Collecting and analysing information / Problem-solving skills
Good reading/writing skills	Collecting and analysing information	Good reading/writing skills	Interact and work in collaborative groups (with specialists & non-specialists)
Analytical and problem-solving skills	Problem-solving skills	Critically assessing the validity of (scientific) information sources	Critically assessing the validity of (scientific) information sources
Ethical & social awareness skills	Effectively use my scientific & technical skills to motivate and guide others	Ethical & social awareness skills	Effectively use my scientific & technical skills to motivate and guide others

Survey results 1 October 2020 7

- Importance of the transferable skills in the learning outcomes of your Master programme: Educational Matrix + example of MSc programme 'Oceans and Lakes', VUB.

Learning outcomes - Educational matrices

Programme: Master Program in Marine Sciences - UPCH

Learning outcome 1	Knowledge in the field of marine sciences, advanced knowledge in one of the subdisciplines and in the interaction of the various subdisciplines within the broader field of application.		
Learning outcome 2	The ability to delineate, recognise and situate biological or geological elements in the context of the scientific domain, in particular in relation to aquatic and marine ecosystems.		
Learning outcome 3	The ability to formulate a relevant research question concerning a complex problem in the field of marine and aquatic studies, and to formulate a corresponding hypothesis to develop a scientific research following the scientific method.		
Learning outcome 4	The ability to activate and link acquired knowledge from different disciplines to analyse and solve a scientific problem.		
Learning outcome 5	Advanced and thorough practical skills in field research, experimental research, research in a laboratory context and in processing data, in order to solve scientific questions.		
Learning outcome 6	Advanced organisational skills in relation to research (e.g. teamwork, task division, development and logistics of a research approach).		
Learning outcome 7	Communicative skills regarding (personal) research results to specialists as well as nonspecialists, using various adapted media and formats.		
Learning outcome 8	A critical attitude with respect to the value, reliability and usefulness of non-selfgenerated data, with advanced skills in data-mining, analysis of data files, analysis of sources and literature study.		
Learning outcome 9	The ability to formulate a proposal for a scientific project and/or to search the necessary financial resources.		
Learning outcome 10	The ability to elaborate an original scientific research manuscript.		

Course units

XXX (e.g. Master year 1/master year 2) (drop out)
XX Cont

Educational matrix 24 October 2022 13

Good practices in the MSc 'Oceans and Lakes' (by Liesbeth Pinti, Karolien Van Puyvelde, Nico Koedam) – testimonies by Alumni- of the MSc programme 'Oceans and Lakes', VUB.

- MSc 'Oceans and Lakes', VUB: overview of the transferable skills in selected MSc 'Oceans and Lakes' courses (structured according to the Eurodoc scheme: Transferable skills for Early-Career Researchers).
- **Transferable skills in 'Oceans & Lakes':**

Where in the Learning Outcomes of O&L ?

<p>LO 5 5. The ability to assume a responsible role in a pluridisciplinary team and, with overarching knowledge and insight, to develop collaboration with various sectors of society including the corporate sector (e.g. the harbour industry, tourism, fisheries, aquaculture).</p> <p>7 7. Advanced organisational skills in relation to research (teamwork, task division, development and logistics of a research approach).</p> <p>8 8. Communicative skills regarding (personal) research results to specialists as well as nonspecialists, using various adapted media and formats.</p> <p>9 9. A critical attitude with respect to the value, reliability and usefulness of non-selfgenerated data, with advanced skills in data-mining, analysis of data files, analysis of sources and literature study.</p> <p>11 11. The ability to translate scientific views and results into a feasible and realistic management plan or to give an expertise-based contribution to a governance plan in (inter)national perspective.</p> <p>13 13. The ability to function within an international professional environment keeping in mind the values of a multicultural society.</p> <p>14 14. The ability to situate scientific insight, results of scientific research and technical achievements in a social perspective, against a political-historical (especially for the development-oriented finality), economical and governance-related background.</p>	<p>...responsible pluridisciplinary...</p> <p>...organisational...</p> <p>...communicative... ...non-specialists... ...critical attitude...</p> <p>...governance...</p> <p>...values of multicultural society... ...social perspective... ...development-oriented</p>
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1. Communication skills

- Academic writing

- Oral presentation
- Science for non-discipline audiences
- Science for policymaking
- Social media usage in several courses, presentations,...
- “Seminars: Case Studies on Biodiversity Management”, “Monsoon School” in the MSc programme ‘Oceans and Lakes’, VUB.



‘Transferable Skills’ in the MSc ‘Oceans and Lakes’, working session at VUB, June 6th, 2022 by Liesbeth Pinti, Karolien Van Puyvelde and Nico Koedam.

2. Mobility

Intercultural awareness / communication

- part of daily life in Oceans & Lakes
- extra-curricular activities, e.g. Forum Opinionum² (FO²).
- Fritto misto: social evening at the beginning of the academic year where the student and lecturers get to know each other by a *pecha kucha* type of presentations.



Talking about a world conflict (World War I) and reflection to societal issues today: discussion with the museum director

Mobility

- Intercultural awareness / communication
 - part of daily life in Oceans & Lakes
 - extra curricular activities, e.g. "Forum Opinionum²"
 - *Fritto misto*
- Intersectoral awareness experience
 - in course "Governance and Policy in Development and Cooperation"

Meeting the European Commission Directorate-General "Europeaid"

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3. Interpersonal skills

Interpersonal skills

Interpersonal:

- Conflict management
 - by daily life in Oceans & Lakes, as a student ☺
- Discipline/Perseverance
 - O&L is a very heavy programme, students definitely learn to persevere
- Diversity Awareness
- Leadership/team work
 - through group works in the courses
- Independence/Responsibility
- Networking
 - OORI event, Monsoon School
- Rhetoric, argumentation
- Stress tolerance
 - daily life in Oceans & Lakes ;)

René Magritte

https://artlive.com/renemagritte/works/333476-The_Lovers

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4. Research skills



Research and research management

- Interdisciplinarity/Interdisciplinary master programme
- Literature use/management: MSc thesis, several assignments for courses
- Project management: "Monsoon School"
- Intellectual Property Rights: in course "Governance and Policy in Development and Cooperation–part II"

5. Digital skills

Digital skills

- Information accessing/retrieval
- Information presentation/visualisation
 - Several presentations for several courses
- Software usage
 - "Introduction to data mining"
 - "Advanced applied statistics"
 - "Environmental modelling"

Pierre Alchinsley

https://www.oceansandlakes.be/oori/... Force de la main droite pierre Alchinsley de la main gauche
RECOURNEMENTS/RECHERCHES

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6. Cognitive skills

- Abstraction/creativity
- Analysis/synthesis
- Critical thinking/problem solving
- Organisation/optimisation

7. Career development

Career Development

Alumni events

- *Oceans of Opportunities, Rivers of Ideas* (Dec, 2018) - alumni networking event
- Keynote speeches, pitch presentations, round table discussions
- Goal:
 - to connect alumni and students
 - to give students idea of internships, job opportunities of aquatic scientist
 - to help create network and opportunities
- Live streaming + recordings (alumni @ home)
- More info: <https://www.oceansandlakes.be/oori>




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- OORI: Oceans of Opportunities, Rivers of Ideas
- Alumni students speed date
- VUB Career Coaching
- Summer School evaluation



Picture 1: Working session at Vrije Universiteit Brussel 'Transferable Skills', presented by Liesbeth Pinti (career development). June 6th, 2022.

8. Testimonials by alumni of the MSc 'Oceans and Lakes'

- Cristina Mino Arias: *Blue Innovation Officer at VLIZ, Ostend, Belgium.*
- Haris Paliogiannis: *Policy Officer at Mediterranean Information Office for the Environment, Culture and Sustainable Development (MIO-ECSDE), Greece.*
- Arida Fauziyah: *PhD student at Institut Teknologi Bandung, Indonesia.*
- Coralie Verhaegen: *Communication officer at Belgian Biodiversity Platform, Brussels, Belgium.*
- Rey Harvey E. Suello: *Ecosystem Management Research Group (ECOBIE) PhD researcher University of Antwerp, Belgium.*



Working session at Vrije Universiteit Brussel 'Transferable Skills'. Testimonials by alumni of the MSc 'Oceans and Lakes' (both on-campus and online, see list speakers in text). June 6th, 2022.

