



EU-CONEXUS Micro-credentials in SmUCS Catalogue

Spring 2024/2025

version 3.0

The table below presents all the courses that will be offered in a synchronous teaching mode in Spring semester of academic year 2024/2025.

| Sector | Thematic area | Micro-credential title | Starting month | ECTS | Application dates | Delivery mode | Host university |
|----------|-----------------------------------|---|----------------|------|-------------------|---------------|---|
| Coastal | Coastal tourism | Underwater cultural heritage as a tourist resource | March 2025 | 1 | 13/01-12/02/2025 | Online | University of Zadar, Croatia |
| | Anatomy of coastal areas | Build with nature – techniques for sandy coasts | April 2025 | 1 | 13/01-12/03/2025 | Online | Klaipeda University, Lithuania |
| | Coastal risks and protection | Spatial planning and climate risk mitigation for resilient coastal areas | April 2025 | 1 | 13/01-12/03/2025 | Online | Frederick University, Cyprus |
| | Waste management in coastal areas | Sustainable (municipal) waste management in urban coastal city | May 2025 | 1 | 13/01-03/04/2025 | Online | La Rochelle Université, France |
| | Water management | Environmental monitoring and indicators | May 2025 | 1 | 13/01-03/04/2025 | Online | Agricultural University of Athens, Greece |
| | Ecosystem services | Marine ecosystem services and the impact of the Invasive Alien Species in the Mediterranean Sea | May 2025 | 1 | 13/01-03/04/2025 | Online | Agricultural University of Athens, Greece |
| European | Blue economy | Entrepreneurship in Blue Economy | March 2025 | 1 | 13/01-12/02/2025 | Online | University of Rostock, Germany |
| | European environmental policies | Towards a green European industrial policy | April 2025 | 1 | 13/01-12/03/2025 | Online | Catholic University of Valencia, Spain |
| | European funding instruments | Funding opportunities for young researchers: From idea to funding | May 2025 | 1 | 13/01-03/04/2025 | Online | Agricultural University of Athens, Greece |

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|----------------|---|---|------------|---|------------------|--------|--|
| European | European identity and its transformation | Visual culture | May 2025 | 1 | 13/01-03/04/2025 | Online | Frederick University, Cyprus |
| | European initiatives for youth | How to get international experience without leaving home | May 2025 | 1 | 13/01-03/04/2025 | Online | La Rochelle Université, France |
| | Intercultural communication/multilingualism | Landscapes for exploring language and culture | May 2025 | 1 | 13/01-03/04/2025 | Online | Catholic University of Valencia, Spain |
| Smart | Cognitive systems and neuroscience | Neuroscience and artificial intelligence | March 2025 | 1 | 13/01-12/02/2025 | Online | Catholic University of Valencia, Spain |
| | Games and gamification | Games and gamification | March 2025 | 1 | 13/01-12/02/2025 | Online | University of Zadar, Croatia |
| | Digital humanities | Using AI when working with very large document collections: opportunities and risks | May 2025 | 1 | 13/01-03/04/2025 | Online | La Rochelle Université, France |
| | Sustainable IT | UAS principles, data modelling and analysis | May 2025 | 1 | 13/01-03/04/2025 | Online | Technical University of Civil Engineering Bucharest, Romania |
| Sustainability | Green skills | Green competences 4 all | March 2025 | 1 | 13/01-12/02/2025 | Online | Frederick University, Cyprus |
| | Sustainable development goals | SDGs - The Blue Print for the Sustainable Development | Abril 2025 | 1 | 13/01-12/03/2025 | Online | Technical University of Civil Engineering Bucharest, Romania |
| | Technologies for sustainable development | Traditional timber houses carpentry in seismic and coastal areas | April 2025 | 1 | 13/01-12/03/2025 | Online | Technical University of Civil Engineering Bucharest, Romania |

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| Sustainability | Sustainable fashion | Making sustainable fashion trendy | April 2025 | 1 | 13/01-12/03/2025 | Online | Catholic University of Valencia, Spain |
| | Social Entrepreneurship and Commitment | Social Entrepreneurship and Commitment in SmuCs | May 2025 | 1 | 13/01-03/04/2025 | Online | University of Rostock, Germany |
| | Sustainable management | Management strategies of plan diversity for sustainable development | May 2025 | 1 | 13/01-03/04/2025 | Online | Catholic University of Valencia, Spain |
| University | Research and innovation thinking | Research and Innovation Thinking | April 2025 | 1 | 13/01-12/03/2025 | Online | University of Rostock, Germany |
| | Professional communication and academic writing | AI and Academic Writing Skills: Never the Twain Shall Meet? | April 2025 | 1 | 13/01-12/03/2025 | Online | University of Zadar, Croatia |
| | Professional communication and academic writing | Ludic Chinese language learning method with tactile HYP A keyboard | April 2025 | 1 | 13/01-12/03/2025 | Online | La Rochelle Université, France |
| | Information literacy | Information literacy | May 2025 | 1 | 13/01-03/04/2025 | Online | University of Zadar, Croatia |
| | Environmental and science education | Environmental literature | May 2025 | 1 | 13/01-03/04/2025 | Online | University of Zadar, Croatia |
| | Ethics/Bioethics | Animal welfare in research labs | May 2025 | 1 | 13/01-03/04/2025 | Online | Agricultural University of Athens, Greece |
| | Personal leadership development and networking | Principles of Leadership, Teamwork and Communication | May 2025 | 1 | 13/01-03/04/2025 | Online | Agricultural University of Athens, Greece |
| Urban | Near zero energy building (NZEB) | Theoretical skills for PV systems installers | March 2025 | 1 | 13/01-12/02/2025 | Online | Frederick University, Cyprus |
| | Urban environmental challenges | Innovations for sustainable urban development | March 2025 | 1 | 13/01-12/02/2025 | Online | Frederick University, Cyprus |

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| Urban | Green mobility and transport | Rail at the European scale in regard with the society transitions | April 2025 | 1 | 13/01-12/03/2025 | Online | La Rochelle Université, France |
| | Healthy cities | Change your mind to change your health | April 2025 | 1 | 13/01-12/03/2025 | Online | Agricultural University of Athens, Greece |
| | Smart green cities | Smart green cities: An introduction | May 2025 | 1 | 13/01-03/04/2025 | Online | Technical University of Civil Engineering Bucharest, Romania |

[Apply here](#) 😊

Below you will find **Micro-credential Cards** that include descriptions of each one of them together with the **timetables**.

They are arranged according to the date of starting the classes.

Neuroscience and artificial intelligence

[\(link to the website and registration platform available here\)](#)

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|---|---|
| Professor's name, university & email | Carmen Moret-Tatay, Catholic University of Valencia (Spain) mariacarmen.moret@ucv.es |
| Sector | Smart |
| Thematic area | Cognitive systems and neuroscience |
| <u>EQF level</u> | Level 6 (Bachelor) |
| <u>ISCED-F field</u> | 0313 Psychology - cognitive sciences |
| ESCO skills & competences | <p>K068 – knowledge - inter-disciplinary programmes and qualifications involving information and communication technologies (icts)</p> <p>K091 – knowledge - health</p> <p>T2.3 – transversal skills and competences - dealing with problems</p> <p>T2.4 – transversal skills and competences - thinking creatively and innovatively</p> <p>S5.6 – skills - using digital tools for collaboration, content creation and problem solving</p> |
| Proposed dates of the classes | 07/03, 14/03, 21/03, 28/03, 04/04, 13:00-15:00 (CET) |
| One hour for tutoring consultations | 21/03, 15:00-16:00 (CET) |
| Date of the exam/ final assessment | 04/04, 13:00-15:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | This course explores the intersection of neuroscience and artificial intelligence (AI), examining how insights from the brain inspire advancements in neuroscience concepts applied to the health field. |
| Description of the content | <p><u>Unit 1. A Fruitful Reciprocity in Neuroscience-AI Connection (2 hours)</u></p> <p>Main goals:</p> <ol style="list-style-type: none"> 1. To explore the foundational principles of neuroscience and artificial intelligence (AI), aiming to elucidate the underlying mechanisms of information processing in both biological and computational systems. 2. To examine the symbiotic relationship between neuroscience and AI, identifying mutual benefits and potential synergies for advancing understanding, innovation, |

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| | <p>and application in fields such as neuroprosthetics, brain-computer interfaces, and cognitive enhancement technologies.</p> <p>3. To foster interdisciplinary collaboration and critical thinking skills among students, encouraging them to integrate knowledge from neuroscience and AI to address complex challenges and ethical considerations in the development and implementation of neurotechnologies.</p> <p><u>Unit 2. Introduction to NLP (2 hours)</u></p> <p>Main goals:</p> <p>1. To introduce fundamental concepts and techniques in Natural Language Processing (NLP), providing students with a comprehensive understanding of how computers can comprehend and generate human language.</p> <p>2. To explore various applications of NLP across industries such as healthcare, finance, customer service, and social media analysis, emphasizing the transformative impact of NLP on information retrieval, sentiment analysis, machine translation, and dialogue systems.</p> <p>3. To engage students in hands-on activities and projects to develop practical skills in text preprocessing.</p> <p><u>Unit 3. Identification of language components through NLP (2 hours)</u></p> <p>Main goals:</p> <p>1. To approach to the components of natural language through the lens of Natural Language Processing (NLP), focusing on linguistic features such as syntax, semantics, pragmatics, and discourse structure.</p> <p>2. To have some basic knowledge about interpret linguistic data from diverse sources such as text corpora, social media platforms, and spoken conversations, facilitating insights into python and orange resources</p> <p><u>Unit 4. NLP components to detect cognitive impairment (2 hours)</u></p> <p>Main goals:</p> <p>1. Investigate the integration of NLP components such as sentiment analysis, semantic similarity, and discourse coherence analysis with cognitive assessment protocols, enabling the development of automated screening tools for detecting subtle cognitive changes indicative of neurodegenerative diseases like Alzheimer's and dementia.</p> <p>2. Collaborate with healthcare professionals and researchers to validate NLP-based approaches for detecting cognitive impairment using AI solutions.</p> |
| <p>Importance for society</p> | <p>Natural Language Processing (NLP) for Health Science is important for society due to its potential to revolutionize various aspects of healthcare and medical research. NLP refers to the technology that enables computers to understand, interpret, and</p> |

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| | <p>generate human language in a way that is valuable. When applied to the field of health science, NLP offers several crucial benefits</p> <p>Overall, NLP's ability to enhance data processing, support medical research, and improve patient outcomes makes it a vital technology in advancing healthcare, ultimately benefiting society by promoting better health and well-being for all.</p> | | | |
| Skills (hard and soft skills) | <p>Hard skills: AI for Neuroscience Research & Ethics</p> <p>Soft skills: Teamwork & Problem-solving</p> | | | |
| SDGs | <p>SDG3. Good health and well-being</p> <p>SDG5. Gender quality</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Demonstrate the fundamentals of Natural Language Processing | In-class presentation, exercise in groups | Assistance and individual assignments | Acquiring basic knowledge about the variety of underwater cultural heritage, exposition | Supervised online or onsite with identity verification |
| Apply NLP basics to spontaneous language | Individual study case | Exercise where students must apply a code | Assignment and in class presentation | Supervised online or onsite with identity verification |
| Bibliography | <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Asgari, M., Kaye, J., & Dodge, H. (2017). <i>Predicting mild cognitive impairment from spontaneous spoken utterances</i>. <i>Alzheimer's & Dementia: Translational Research & Clinical Interventions</i>, 3(2), 219-228. 2. Bird, S., Klein, E., & Loper, E. (2009). <i>Natural language processing with Python</i>. O'Reilly Media. 3. Boyd, R. L., & Schwartz, H. A. (2021). <i>Natural language analysis and the psychology of verbal behavior: The past, present, and future states of the field</i>. <i>Journal of Language and Social Psychology</i>, 40(1), 21-41. 4. Calzà, L., Gagliardi, G., Favretti, R. R., & Tamburini, F. (2021). <i>Linguistic features and automatic classifiers for identifying mild cognitive impairment and dementia</i>. <i>Computer Speech & Language</i>, 65, 101113. 5. Dehghani, M., & Boyd, R. L. (Eds.). (2022). <i>Handbook of language analysis in psychology</i>. Guilford Publications. <p>Websites:</p> <p>https://www.nltk.org/</p> | | | |

Games and Gamification

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Josip Ćirić, University of Zadar (Croatia) jciric@unizd.hr http://djelatnici.unizd.hr/~jciric/index_en.html |
| Sector | Smart |
| Thematic area | Games and gamification |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 018 Inter-disciplinary programmes and qualifications involving education |
| ESCO skills & competences | K0288 – knowledge - arts and humanities - inter-disciplinary programmes and qualifications involving arts and humanities K0211 – knowledge - arts and humanities - audio-visual techniques and media production – digital game genres S1.11.0 - skills - communication, collaboration and creativity – designing systems and products – designing systems and products - apply gaming psychology S2.1 – skills - information skills - conducting studies, investigations and examinations |
| Proposed dates of the classes | 14/03, 21/03, 28/03, 04/04, 11/04, 06/06, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 11/04, 12:30-13:30 (CET) |
| Date of the exam/ final assessment | 06/06, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 12 h Asynchronous hours & self-directed learning: 13 h |
| General description | <p>Gaming industry is not only growing steadily, but it has also become one of the largest entertaining industries in the world, considering both production investment, and number of players. A considerable social influence deriving from the gamer culture is evident.</p> <p>Transforming educational activities into game-like experience has proven to be a positively perceived experience. In this course students will have the opportunity to learn some of the most frequent game mechanics in video games and how using the same principles they may transform courses. Basic principles of gamification are to be presented, understood and applied in exercises. A pilot project will be part of the course, and it will serve as a grading base also.</p> |

| Description of the content (week by week) | <p>Unit 1. Introduction (1 hour)</p> <p>Unit 2. Anthropology and psychology of gaming (3 hours)</p> <ul style="list-style-type: none"> • Caillois and Huizinga • Applying psychological theories to gaming experience • Psychological principles of game design <p>Unit 3. Game mechanics (2 hours)</p> <ul style="list-style-type: none"> • Key elements of game mechanics: rules, objectives, and systems • Case studies of effective game designs <p>Unit 4. Game-based learning experience (1 hour)</p> <ul style="list-style-type: none"> • Educational games: an overview • Designing gamified learning environment <p>Unit 5. Gamification principles (2 hours)</p> <ul style="list-style-type: none"> • Gamification strategies in business and education: an overview • Point systems, badges, and leaderboards <p>Unit 6. Implementing games in the classroom (1 hour)</p> <ul style="list-style-type: none"> • How to integrate games into the course curricula • Overcoming implementational challenges | | | | |
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| Importance for society | <p>Understanding both more productive and more motivational approach to education is important insight if we're to provide relevant and up-to-date educational experience. Relying on win-win approach in the game theory, students, institutions, and in the long run, society profits from motivated, informed and enthusiastic participants in the educational process.</p> | | | | |
| Skills (hard and soft skills) | <p>Hard skills: Computer software use</p> <p>Soft skills: Problem solving, Creativity and innovation</p> | | | | |
| Sustainable Development Goals | <p>SDG4. Quality education</p> | | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment | |
| Identify and describe main gamification strategies | <p>Lectures, individual activities, discussions</p> | <p>Written exam</p> | <p>Acquiring basic knowledge about gamification, reading materials available on Moodle platform</p> | <p>Supervised online or onsite with identity verification</p> | |
| List and describe the basic principles, methods and | <p>Lectures, individual activities, discussions</p> | <p>Assignment evaluation</p> | <p>Students will perform gamification process on a lecture from a course of their own choosing; a short</p> | <p>Supervised online or onsite with identity verification</p> | |

| techniques used in a gamifying process | | | written report is to be provided | |
|--|--|--|-------------------------------------|--|
| Bibliography | <p>Books:</p> <ol style="list-style-type: none"> 1. Kapp, Karl M. (2014) <i>The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education</i>. Pfeiffer, (selected chapters) 2. Farber, Matthew (2017) <i>Game-Based Learning in Action: How an Expert Affinity Group Teaches With Games</i>. Peter Lang Inc., International Academic Publishers (selected chapters) 3. Griliopoulos, Daniel; Webber, Jordan Erica (2017) <i>Ten Things Video Games Can Teach Us: (about life, philosophy and everything)</i>. Little, Brown Book Group. 4. Ma, Minhua et. Al. (2011) <i>Serious games and edutainment applications</i>. Springer-Verlag London. (selected chapters) <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Erenli, Kai (2012) <i>The Impact of Gamification A Recommendation of Scenarios for Education</i>. IEEE. DOI: 10.1109/ICL.2012.6402106 2. De Sousa Borges, S. et. al. (2014) <i>A Systematic Mapping on Gamification Applied to Education</i>. Proceedings of the 29th Annual ACM Symposium on Applied Computing DOI: 10.1145/2554850.2554956 3. Nah, F. F. H. et al. (2013) <i>Gamification of Education Using Computer Games</i>. Lecture Notes in Computer Science. DOI: 10.1007/978-3-642-39226-9_12 | | | |

Underwater cultural heritage as a tourist resource

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Irena Radic Rossi, University of Zadar (Croatia) irradic@unizd.hr |
| Sector | Coastal |
| Thematic area | Coastal tourism |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0222 History and archaeology |
| ESCO skills & competences | T2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts K0288 – knowledge – arts and humanities – inter-disciplinary programmes and qualifications involving arts and humanities S4.3.3 – skills – management skills – allocating and controlling resources – allocating and controlling physical resources |
| Proposed dates of the classes | 14/03, 21/03, 28/03, 04/04, 11/04, 18/04, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 04/04, 12:00-13:00 (CET) |
| Date of the exam/ final assessment | 18/04, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 12 h Asynchronous hours & self-directed learning: 13 h |
| General description | The course introduces the students to the variety of the underwater cultural heritage, its importance and touristic potential. It raises awareness of the importance of cultural resources in the coastal and marine areas, and teaches how to participate in their protection, presentation and preservation. New policies should arise based on the new knowledge. |
| Description of the content (week by week) | Unit 1. Introduction on underwater cultural heritage in coastal and marine areas (2 hours) Unit 2. Types of underwater cultural heritage sites and their state of preservation (1 hour) Unit 3. Examples and treatment of well-preserved sites around Europe (1 hour) Unit 4. Case-study 1 (1 hour) |

| | Unit 5. Case-study 2 (1 hour) Unit 6. Case-study 3 (1 hour) Unit 7. Group work (1 hour) Unit 8. New ideas and proposals (1 hour) Unit 9. Conclusion (1 hour) | | | |
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| Importance for society | The society should become aware of the importance of cultural resources in the coastal and marine areas, and learn how to participate in its protection, presentation and preservation. New policies should arise based on the new knowledge. | | | |
| Skills (hard and soft skills) | Hard skills: Project Management & Interpreting data Soft skills: Communication & Critical thinking | | | |
| Sustainable Development Goals | SDG4. Quality education SDG14. Life below water | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Classify underwater cultural heritage, and its potential for tourist presentation | Lectures | Discussion on the acquired knowledge | Acquiring basic knowledge about the variety of underwater cultural heritage | supervised online or onsite with identity verification |
| Identify underwater cultural heritage sites for potential tourist presentation | Group work | The evaluation of the performed analysis of the available data | The students will search for the potential examples of sites to be presented to the general public | supervised online or onsite with identity verification |
| Bibliography | <p>Books:</p> <ol style="list-style-type: none"> 1. A. Bowens (ed.), 2009. <i>Underwater Archaeology; The NAS Guide to Principles and Practice</i>. Portsmouth, Nautical Archaeology Society and Blackwell Publishing. 2. <i>The UNESCO Convention on the Protection of the Underwater Cultural Heritage</i>. Paris, UNESCO – Secretariat of the 2001 Convention on the Protection of the Underwater Cultural Heritage. <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. M. Stefanile, 2016. Underwater Cultural Heritage, Tourism and Diving Centers: The case of Pozzuoli and Baiae (Italy). In <i>IKUWA V Proceedings of the 5th International Congress on Underwater Archaeology, A heritage for mankind, Cartagena, October 15th-18th, 2014</i>. Madrid, Ministerio de educación, cultura y deporte: 213-224. 2. A. Manglis, A. Fourkiotou, D. Papadopoulou, 2022. A Roadmap for the Sustainable Valorization of Accessible Underwater Cultural Heritage Sites. In F. Bruno et al., <i>Dive in Blue Growth – Protection and Promotion</i> | | | |

of Accessible Underwater Cultural Heritage Sites, [Heritage, Special Issue]. <https://www.mdpi.com/2571-9408/4/4/259>.

Websites:

1. <https://www.baiasommersa.it/>
2. <https://sporadesdiving.gr/diving-sites/peristera-shipwreck/>
3. <https://sanctuaries.noaa.gov/>

Green competences 4 all

[\(link to the website and registration platform available here\)](#)

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|--|---|
| Professor's name, university & email | Chrysanthi Kadji, Frederick University (Cyprus) pre.kch@frederick.ac.cy |
| Sector | Sustainability |
| Thematic area | Green skills |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0099 Generic programmes and qualifications not elsewhere classified |
| ESCO skills & competences | T2 – transversal skills and competences - thinking skills and competences T6 – transversal skills and competences - life skills and competences T6.2 – transversal skills and competences – life skills and competences - applying environmental skills and competences T6.3 – transversal skills and competences – life skills and competences - applying civic skills and competences |
| Proposed dates of the classes | 17/03, 31/03, 07/04, 28/04, 05/05, 09:00-11:00 (CET) |
| One hour for tutoring consultations | 29/04, 09:00-10:00 (CET) |
| Date of the exam/ final assessment | 05/05, 09:00-10:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 11 h Asynchronous hours & self-directed learning: 14 h |
| General description | This micro-credential course is designed to develop sustainability competences focusing on SDG13 (Climate Action). It integrates the European GreenComp model to cultivate critical thinking, empathy, leadership, and decision-making, skills essential for addressing climate challenges in personal and professional contexts. Through practical activities like simulations and group projects, participants gain hands-on experience in reducing carbon footprints, promoting sustainable resource use, and aligning with ESG standards. This course enhances employability while fostering a sustainable mindset, empowering students to contribute to a greener and more responsible future. |
| Description of the content (week by week) | Unit 1. Introduction to climate science and the current state of climate (2 hours) Unit 2. Impacts of Climate Change on Natural and Human Systems (2 hours) |

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| | Unit 3. Climate Policy and International Agreements (2 hours) Unit 4. Mitigation, Adaptation, and the Path Forward (2 hours) Unit 5. Professionalisation for Climate Action (2 hours) | | | |
| Importance for society | <p>The specific micro-credential on sustainability competences, addresses top priority topics: Climate crisis and most importantly building foundational, cross-disciplinary understanding of sustainability issues and competences among university students, regardless of their field or career path. Some of the key reasons why Green Competences 4 all may have a positive societal impact include:</p> <ol style="list-style-type: none"> 1. Promotes Societal Awareness and Responsibility 2. Develops Sustainability-Skilled professionals 3. Supports Achievement of Global Sustainability Goals 4. Encourages Systemic Thinking and Cross-Disciplinary Collaboration 5. Empowers Future Leaders and Change Agents | | | |
| Skills (hard and soft skills) | <p>Hard skills:</p> <ul style="list-style-type: none"> - Environmental monitoring and data analysis - crucial as it provides a foundation for understanding and addressing environmental issues, - Knowledge of sustainability frameworks (like GreenComp and SDGs) - offers a structured approach to implementing sustainable practices. <p>Soft skills:</p> <ul style="list-style-type: none"> - Analytical thinking - enables students to critically evaluate climate related data, interpret environmental impacts, and make informed decisions, essential for tackling complex ecological issues), - Leadership skills - allows students to advocate for sustainable practices, influence others, and drive positive change within communities and organizations. | | | |
| Sustainable Development Goals | SDG13. Climate action | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
| Discuss the sustainability of different practices in real-world scenarios, applying the knowledge on the climate change | Presentation, personal study, group discussion, | Self-assessment quiz | - | Unsupervised with no identity verification |

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| mechanism and impacts. | role play on given scenario, case-study | | | |
| Propose sustainable solutions in collaborative settings applying critical thinking and problem-solving. | Group work Case-study project | Group project and presentation | <p>Short scale survey project:</p> <p>Work in groups of four to conduct a small-scale survey amongst their peers about climate crisis and their ideas and attitudes towards the issue, using a short questionnaire.</p> <p>The outcomes of their survey will be presented to the plenary on the final meeting of the micro-credential course.</p> <p>The evaluation of the work will follow an evaluation rubric.</p> <p>Students will be given:</p> <ul style="list-style-type: none"> - the questionnaire - the evaluation rubric so as to be informed about the evaluation criteria - The template of their presentation | Supervised online or onsite with identity verification |
| Bibliography | <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Australian Academy of Sciences (2015) The Science of Climate Change. Questions and Answers. https://www.climatechangeauthority.gov.au/sites/default/files/2020-06/submissions/2015/Australian%20Academy%20of%20Science%20-%20attachment.pdf 2. GreenComp. The European Sustainability Competence Framework. https://publications.jrc.ec.europa.eu/repository/handle/JRC128040 3. Leopoldina Nationale Akademie der Wissenschaften (2021). Climate change: causes, consequences and possible actions. https://www.leopoldina.org/fileadmin/redaktion/Publikationen/Infomaterialia/Factsheet_Klimawandel_1.1_EN_web.pdf 4. Climate change and the GHGs https://unstats.un.org/unsd/environment/envpdf/unsd_EAC_Workshop/Session%208b_Anand%20Climate%20change%20and%20GHGs.pdf <p>Websites:</p> <ol style="list-style-type: none"> 1. Causes of Climate Change https://climate.ec.europa.eu/climate-change/causes-climate-change_en 2. SDG13 Climate Action https://sdgs.un.org/goals/goal13 | | | |

Entrepreneurship in Blue Economy

[\(link to the website and registration platform available here\)](#)

| | |
|---|---|
| Professor's name, university & email | Wieland Müller, University of Rostock, Germany wieland.mueller@uni-rostock.de |
| Sector | European |
| Thematic area | Blue Economy |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0413 Entrepreneurship |
| ESCO skills & competences | <p>K0413 – knowledge – business, administration and law – business and administration - management and administration</p> <p>S2.7.4 – skills – information skills – analysing and evaluating information and data - analysing business operations</p> <p>S4.1.1 – skills – management skills – developing objectives and strategies - identifying opportunities</p> <p>T2.4 – transversal skills and competences – thinking skills and competences - thinking creatively and innovatively</p> |
| Proposed dates of the classes | 17/03, 24/03, 31/03, 07/04, 14/04, 13:00-15:00 (CET) |
| One hour for tutoring consultations | The individual consultations hours will be adapted to students' timetables |
| Date of the exam/ final assessment | Deadline for submitting the exam (EU-CONEXUS Moodle): 21/04, 23:59 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>This micro-credential addresses the field of Blue Economy entrepreneurship and provides participants with the knowledge and skills to develop sustainable business models. The Blue Economy has rapidly gained momentum as a key driver of economic growth and environmental sustainability, attracting the attention of investors, policy makers and entrepreneurs alike. This growing interest is fuelled by the increasing recognition of the oceans' enormous potential for innovation and economic development, as well as the growing awareness of the urgent need to protect marine ecosystems. Students studying this subject will be well prepared to take advantage of the emerging opportunities in this dynamic sector, drive innovation and contribute to a more sustainable future for our oceans.</p> |

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| Description of the content (week by week) | Unit 1. Introduction to the Blue Economy and Sustainable Entrepreneurship (2 hours) Unit 2: From an idea to a sustainable company (2 hours) Unit 3: Research and Market Analysis (2 hours) Unit 4: Sustainable Business Model Canvas (1/2) (2 hours) Unit 5: Sustainable Business Model Canvas (2/2) (2 hours) | | | |
| Importance for society | This micro-certificate enables students to develop sustainable business models in the fast-growing blue economy sector. Participants will gain the knowledge and skills to tackle pressing environmental challenges while taking advantage of the economic opportunities our oceans offer. | | | |
| Skills (hard and soft skills) | Hard skills: Business Model Canvas, Market and SWOT Analysis Soft skills: Teamwork, Communication | | | |
| Sustainable Development Goals | SDG8. Decent work and economic growth SDG9. Industry, innovation and infrastructure SDG13. Climate action SDG14. Life below water | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Recognise problems and opportunities related to the blue economy, develop creative solutions and conduct a market analysis to understand target groups and the competitive landscape. | Lectures, Discussion, Group Work, Individual Work, Presentations | Attendance, Evaluation of assignments | Group work, Individual work | Unsupervised with no identity verification |
| Develop creative solutions to identified problems and create a sustainable business model using the Sustainable Business Model Canvas. | | | | |

Bibliography

Books:

1. Borriello, Antonio, et al. "The EU blue economy report 2024." (2024).
2. Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. John Wiley & Sons.
3. Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value Proposition Design: How to Create Products and Services Customers Want. John Wiley & Sons.
4. Pauli, G. (2010). The Blue Economy: 10 years, 100 innovations, 100 million jobs. Paradigm Publications.
5. Froese, R., & Pauly, D. (Hrsg.). (2019). Blue growth: Innovation for a sustainable ocean economy. Cham: Springer.

Theoretical skills for PV systems installers
[\(link to the website and registration platform available here\)](#)

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|--|--|
| Professor's name, university & email | Nicholas Christofides, Frederick University (Cyprus) n.christofidees@frederick.ac.cy |
| Sector | Urban |
| Thematic area | Near Zero Energy Building (NZEB) |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0713 Electricity and energy |
| ESCO skills & competences | K0713 - knowledge – engineering, manufacturing and construction – engineering and engineering trades - electricity and energy – solar energy S2.4 - skills – information skills - processing Information S2.7 - skills – information skills - analysing and evaluating information and data T.2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts |
| Proposed dates of the classes | 19/03, 26/03, 02/04, 09/04, 23/04, 07/05, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 30/04, 10:00-11:00 (CET) |
| Date of the exam/ final assessment | 07/05, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 12 h Asynchronous hours & self-directed learning: 13 h |
| General description | The learning unit addresses the most fundamental and critical elements governing the design and installation of residential photovoltaic systems. National schemes for the promotion and encouragement of the use of renewable energy sources adopted in various countries as part of the EU-CONEXUS program will be compared and contrasted. The students will have the opportunity to develop skills associated with theoretical, technical, legislative and practical aspects of grid connected photovoltaic systems. |
| Description of the content (week by week) | Unit 1: Introduction to PV systems, PV phenomenon, components of PV systems, differentiation between grid-connected and off-grid systems, fundamental parameters, symbols and units. (2 hours) |

| | <p>Unit 2: Concept and analysis of net metering and net billing schemes, demonstration of on-line real time system monitoring, analysis of real electricity bills. (2 hours)</p> <p>Unit 3: PV technologies and basic electrical parameters, PV module efficiency determination, differentiation between power and energy output, factors affecting PV output power and correlation with real systems. (2 hours)</p> <p>Unit 4: Example of net metering system sizing, fundamental considerations and cost-benefit analysis. (2 hours)</p> <p>Unit 5: comparison and contrast of PV systems performance in different countries, in-class assignment. (2 hours)</p> | | | |
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| Importance for society | <p>The Energy transition and greenhouse gas emission (decarbonisation) is top priority of the European commission. Society's involvement towards this transition is of paramount requirement and citizens should be aware of the general requirements towards this energy transition. PV systems are the main renewable energy source that the EU relies on for the energy transition. Knowledge of basic ways to monitor the operation of such systems is therefore critical for maintaining these systems in health operation and preventing long term outages.</p> | | | |
| Skills (hard and soft skills) | <p>Hard skills: Photovoltaic systems design, installation and maintenance of PV systems, energy efficiency analysis</p> <p>Soft skills: Problem solving, adaptability to regulatory frameworks, technical communication, team collaboration</p> | | | |
| Sustainable Development Goals | <p>SDG4. Quality Education</p> <p>SDG7. Affordable and Clean Energy</p> <p>SDG8. Decent work and economic growth</p> <p>SDG9. Industry, Innovation and Infrastructure</p> <p>SDG11. Sustainable cities and communities</p> <p>SDG13. Climate action</p> <p>SDG15. Life on land</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Determine PV system performance depending on geographical location | Personal study Group discussion Case Study | Presentation, oral support of work. | Presentation in front of the colleagues | supervised online or onsite with identity verification. |

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| Perform cost-benefit analysis of residential grid-connected PV systems | Personal study Case Study Group discussion | Assignment on a case study | Individual assignment | unsupervised with no identity verification |
| Bibliography | Websites: <ol style="list-style-type: none"> 1. https://joint-research-centre.ec.europa.eu/photovoltaic-geographical-information-system-pvgis_en 2. https://www.pveducation.org/ 3. http://www.pvtrin.eu/home/index.html | | | |

Innovations for sustainable urban development
[\(link to the website and registration platform available here\)](#)

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|--|---|
| Professor's name, university & email | Paris A Fokaides, Frederick University (Cyprus) eng.fp@frederick.ac.cy |
| Sector | Urban |
| Thematic area | Urban environmental challenges |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0732 Building and civil engineering |
| ESCO skills & competences | <p>S1.4 – skills – communication, collaboration and creativity - presenting information</p> <p>S1.9 – skills – communication, collaboration and creativity - solving problems</p> <p>S4.9 – skills – management skills - making decisions</p> <p>T2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts</p> <p>T2.3 – transversal skills and competences - thinking skills and competences - dealing with problems</p> |
| Proposed dates of the classes | 19/03, 26/03, 02/04, 09/04, 23/04, 07/05, 15:00-17:00 (CET) |
| One hour for tutoring consultations | 30/04, 16:00-17:00 (CET) |
| Date of the exam/ final assessment | 07/05, 15:00-17:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 12 h</p> <p>Asynchronous hours & self-directed learning: 13 h</p> |
| General description | <p>The course focuses on sustainable urban development, addressing global trends in urbanization, resource management, and smart city technologies. Over recent years, the integration of renewable energy systems, circular economy principles, and data-driven decision-making has advanced rapidly, making smart cities a pivotal solution for climate change and urban challenges. This is a trending topic due to growing urban populations and the urgent need for environmentally responsible infrastructure. Gaining knowledge in this field equips students with the skills to shape resilient, efficient, and sustainable urban environments, meeting both current and future societal demands.</p> |
| Description of the content (week by week) | <p>Unit 1: Introduction to Smart Cities and Sustainability (2 hours)</p> <ul style="list-style-type: none"> Overview of smart cities and global megatrends in urbanization and technology. |

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| | <ul style="list-style-type: none"> • Introduction to relevant SDGs, including SDG 7 (Affordable and Clean Energy) and SDG 11 (Sustainable Cities and Communities). <p>Unit 2: Sustainable Urban Planning and Infrastructure (2 hours)</p> <ul style="list-style-type: none"> • Principles of sustainable urban planning. • Integration of renewable energy systems in urban environments. <p>Unit 3: Data-Driven Solutions for Urban Systems (2 hours)</p> <ul style="list-style-type: none"> • Role of data analytics and IoT in managing smart cities. • Case studies on circular economy practices in urban settings. <p>Unit 4: Innovative Smart City Solutions (2 hours)</p> <ul style="list-style-type: none"> • Emerging trends in sustainable building technologies and transportation. • Collaborative group work: Smart city innovation proposal. <p>Unit 5: Final Assessment and Presentations – overview (2 hours)</p> <ul style="list-style-type: none"> • Group presentations of smart city proposals. • Reflection and Q&A on future challenges and opportunities. <p>Unit 6. Exam (2 hours)</p> |
| Importance for society | <p>The topic of "Smart Cities: Innovations for Sustainable Urban Development" holds critical importance for society, as it:</p> <ol style="list-style-type: none"> addresses rapid urbanization by highlighting the importance of sustainable urban growth to manage population increases and resource demands, focuses on reducing carbon emissions and building urban resilience against climate-related risks, emphasizes the role of urban development in achieving SDG 7 (Affordable and Clean Energy) and SDG 11 (Sustainable Cities and Communities), promotes renewable energy by advocating for integrating renewable energy systems into urban planning and infrastructure, uses IoT, data analytics, and smart technologies to improve urban efficiency and sustainability, educates on the environmental impact of traditional urban practices and introduce sustainable alternatives, raises awareness about governance and policies needed for sustainable urban initiatives, develops critical thinking on long-term urban challenges, inspiring proactive and innovative responses. |
| Skills (hard and soft skills) | <p>Hard skills:</p> <ul style="list-style-type: none"> • Renewable energy system integration, • Data analysis for smart cities, • Circular economy principles. <p>Soft skills:</p> <ul style="list-style-type: none"> • Interdisciplinary collaboration, • Adaptability and ethical awareness. |

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| Sustainable Development Goals | SDG7. Affordable and clean energy SDG9. Industry, innovation and infrastructure SDG11. Sustainable cities and communities | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| <p>Utilize data analytics and IoT technologies to analyse urban systems and support informed decision-making for smart cities.</p> <p>Collaborate effectively in interdisciplinary teams to propose and implement strategies for sustainable urban development.</p> | <p>Lectures: Providing foundational knowledge and concepts.</p> <p>Workshops: Hands-on sessions to explore real-world applications.</p> <p>Case Study Analysis: Practical insights through analysis of successful smart cities.</p> <p>Individual/Group Assignments: Collaborative and individual projects focusing on course topics.</p> <p>Blended Learning: A mix of online and in-person resources for flexibility and engagement</p> | <p>Projects: Students will design and propose innovative solutions for smart city challenges, demonstrating their ability to apply course concepts.</p> <p>Oral presentations of projects or case study analyses to assess communication and analytical skills.</p> <p>Short quizzes.</p> <p>Written exam.</p> <p>Group discussions and debates.</p> | <p>Individual Assignments: Weekly or bi-weekly assignments on topics like sustainable planning and smart infrastructure.</p> <p>Group Projects: Collaborative projects focusing on case studies or hypothetical urban planning scenarios.</p> <p>Case Study Analysis: Detailed analysis and presentation on real-world smart city examples.</p> <p>Final Project or Exam: A comprehensive assignment or exam that evaluates the student's overall understanding and ability to apply the concepts learned.</p> | Supervised online or onsite with identity verification. |
| Bibliography | <p>Publications:</p> <ol style="list-style-type: none"> 1. The European Green Deal 2. The Urban Agenda for the EU 3. Directives on energy efficiency (such as the Energy Efficiency Directive) 4. The Renewable Energy Directive 5. The Smart Cities and Communities European Innovation Partnership (EIP SCC) 6. The EU Strategy for Sustainable and Smart Mobility <p>Websites:</p> <ol style="list-style-type: none"> 1. EUR-Lex | | | |

Build with nature - techniques for sandy coasts
[\(link to the website and registration platform available here\)](#)

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|---|---|
| Professor's name, university & email | Loreta Kelpšaitė-Rimkienė, Klaipėda University (Lithuania) loreta.kelpsaite-rimkiene@ku.lt |
| Sector | Coastal |
| Thematic area | Anatomy of coastal areas |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0521 Environmental sciences |
| ESCO skills & competences | <p>K052 – knowledge – natural sciences, mathematics and statistics – environment - environmental sciences - coastal management</p> <p>S1.11.0 – skills - communication, collaboration and creativity - designing systems and products – designing systems and products</p> <p>T2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts</p> <p>T2.3 – transversal skills and competences – thinking skills and competences - dealing with problems - identify and solve problems</p> |
| Proposed dates of the classes | 02/04, 09/04, 16/04, 23/04, 30/04, 13:00-15:00 (CET) |
| One hour for tutoring consultations | 29/04, 13:00-15:00 (CET) |
| Date of the exam/ final assessment | 30/04, 13:00-15:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>Coastal erosion is a natural process that can cause significant damage to coastal communities, including flooding, property loss, and infrastructure damage. According to Eurostat, in 2020, approximately 119 million people or 23% of the EU population, lived in Coastal areas and directly are affected by coastal erosion. One approach to mitigating the effects of coastal erosion is to use "Build with Nature" techniques, which involve working with natural processes to enhance coastal resilience.</p> <p>In this course, you will get knowledge about:</p> |

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| | <ul style="list-style-type: none"> • Natural processes that shape sandy coasts: This involves learning the dynamics of waves, tides, and currents, as well as the role of sediment transport in shaping beaches and dunes. • Coastal hazards and vulnerabilities: This involves learning how to identify coastal areas at risk from erosion, flooding, and other threats and assess the potential impacts on human communities and natural ecosystems. • Designing and implementing "Build with Nature" solutions: This involves learning about different techniques for enhancing coastal resilience, such as beach nourishment, dune restoration, wetland creation, and oyster reef construction. |
| Description of the content (week by week) | <p>Unit 1. Introduction, Fundamentals of Coastal Processes (1 hour)</p> <p>Unit 2. Waves, Tides, Currents, and Sediment Transport in Coastal Zones (1 hour)</p> <p>Unit 3. Coastal Hazards: Identifying Vulnerable Areas (1 hour)</p> <p>Unit 4. Introduction to "Build with Nature" Techniques (1 hour)</p> <p>Unit 5. Title (number of hours) Beach Nourishment: Techniques, Benefits, and Limitations (1 hour)</p> <p>Unit 6. Dune Restoration and Wetland creation the Role of Vegetation in Coastal Defence (1 hour)</p> <p>Unit 7. Principles of Sustainable Coastal Development (1 hour)</p> <p>Unit 8. Stakeholder Engagement in Coastal Management (1 hour)</p> <p>Unit 9. Monitoring and Adaptive Management for Coastal Projects (1 hour)</p> <p>Unit 10. Exam (1 hour)</p> |
| Importance for society | <p>A course on "Build with Nature" techniques for sandy coast erosion mitigation is crucial for individuals and employers and holds significant importance for society. Here are several reasons why such a course is valuable for society. It enhances coastal resilience, protects communities, conserves ecosystems, promotes sustainable development, fosters stakeholder inclusivity, supports climate adaptation, preserves cultural heritage, ensures economic stability, and encourages global cooperation.</p> |
| Skills (hard and soft skills) | <p>Hard skills: Researching, Information processing, Interpreting</p> <p>Soft skills: Critical thinking, Problem-solving, Time management</p> |
| Sustainable Development Goals | <p>SDG6. Clean water and sanitation</p> <p>SDG9. Industry, innovation and infrastructure</p> <p>SDG11. Sustainable cities and communities</p> <p>SDG12. Responsible consumption and production</p> <p>SDG13. Climate actions</p> <p>SDG14. Life below water</p> <p>SDG15. Life on land</p> |

| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
|--|---|--|--|---|
| Describe main coastal processes and recognise coastal risks to support sustainable resilience strategies. | Lectures | Written Exam (quiz) | Final exam, individual test | Supervised online or onsite with identity verification. |
| Collect and analyse data, develop effective problem-solving techniques with integration ethical and sustainable approaches to the coastal management practices. | Project-Based Learning (case study analysis), Discussions and Debates during the case study analysis presentation. | Based on the participation in discussions and Presentation of the group and/or individual work | Learners will collaborate in groups to complete projects or presentations. Deliverables may vary, including written reports, presentations, or multimedia. | Unsupervised with no identity verification |
| Bibliography | <p>Books:</p> <ol style="list-style-type: none"> 1. <i>Coastal Dynamics Open Textbook</i> Authored by Judith Bosboom and Marcel Stive, source: https://www.tudelft.nl/citg/over-faculteit/afdelingen/hydraulic-engineering/sections/coastal-engineering/coastal-dynamics-open-textbook 2. Dean RG, Dalrymple RA. <i>Coastal Processes with Engineering Applications</i>. Cambridge University Press; 2001. <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Vikolainen, V., Bressers, H. & Lulofs, K. A Shift Toward Building with Nature in the Dredging and Port Development Industries: Managerial Implications for Projects in or Near Natura 2000 Areas. <i>Environmental Management</i> 54, 3–13 (2014). https://link.springer.com/article/10.1007/s00267-014-0285-z 2. Korbee, D., Mol, A. P. J., & Van Tatenhove, J. P. M. (2014). Building with Nature in Marine Infrastructure: Toward an Innovative Project Arrangement in the Melbourne Channel Deepening Project. <i>Coastal Management</i>, 42(1), 1–16. https://www.tandfonline.com/doi/abs/10.1080/08920753.2013.863722 3. van Zetten, R., van der Meulen, F. and IJff, S. (2023), Building with Nature at the coast. <i>Nordic Journal of Botany</i>, 2023: e03663. https://nsojournals.onlinelibrary.wiley.com/doi/10.1111/njb.03663 4. Salet, W. (2014). Building with Nature. <i>disP - The Planning Review</i>, 50(1), 4–5. https://www.tandfonline.com/doi/abs/10.1080/02513625.2014.925714 5. van der Meulen, F., IJff, S. and van Zetten, R. (2023), Nature-based solutions for coastal adaptation management, concepts and scope, an | | | |

overview. Nordic Journal of Botany, 2023: e03290.

<https://doi.org/10.1111/njb.03290>

6. Morris RL, Konlechner TM, Ghisalberti M, Swearer SE. From grey to green: Efficacy of eco-engineering solutions for nature-based coastal defence. Glob Change Biol. 2018; 24: 1827–1842.

<https://onlinelibrary.wiley.com/doi/10.1111/gcb.14063>

Websites:

1. <https://www.ecoshape.org/en/the-building-with-nature-philosophy/>
2. <https://boskalis.com/about-us/company-profile/building-with-nature>
3. <https://www.iadc-dredging.com/subject/environment/building-with-nature/>

Rail at the European scale in regard with the society transitions

[\(link to the website and registration platform available here\)](#)

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|--|---|
| Professor's name, university & email | Juan Creus, La Rochelle Université (France) juan.creus@univ-lr.fr |
| Sector | Urban |
| Thematic area | Green mobility and transport |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 053 Physical sciences |
| ESCO skills & competences | K07 – knowledge - engineering; manufacturing and construction K104 – knowledge - transport services S2.5 – skills – information skills - measuring physical properties S2.8 – skills – information skills - monitoring, inspecting and testing |
| Proposed dates of the classes | 03/04, 10/04, 17/04, 24/04, 15/05, 12:00-14:00 (CET) |
| One hour for tutoring consultations | 24/04, 14:00-15:00 (CET) |
| Date of the exam/ final assessment | 15/05, 12:00-14:00 (CET) – time limited written assessment 22/05, 23:59 (CET) – Individual Project submission. |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | <p>This course covers the evolution of the European rail system including rolling stock, infrastructure, stations, and their sub-systems in regard with the energetic and environmental transitions.</p> <p>The decarbonisation of diesel trains, noise and vibration reduction, energy saving, circular economy, resource consumption, resilience to climate change, attractiveness of passenger trains are underlined during this talk.</p> <p>It will be discussed the European sustainable transport policies, such as the Smart and Sustainable Mobility Strategy. It will provide the needed scientific and technical solutions increasing the environmental performance of the railway system.</p> |
| Description of the content (week by week) | <p>Unit 1. The rail system in France (2 h)</p> <p>Unit 2. Decarbonisation: strategy (2 h)</p> <p>Unit 3. Energy saving and environmental transitions (2 h)</p> <p>Unit 4. Future in rail systems (2 h)</p> |

| Importance for society | Rail transport attractiveness permits to limit the CO ₂ emissions. Smart and sustainable mobility is important through environmental transition (cycle life analyses) but also to improve the rail transport network in Europe. | | | |
|--|---|---------------------------|---|--|
| Skills (hard and soft skills) | <p>Hard skills: Knowledge and abilities in environmental and energetic transitions applied for rail transport</p> <p>Soft skills:</p> <p>Critical and creative thinking: Through exploring sustainability challenges, students will develop the ability to solve problems</p> <p>Design of future rail transport: Through exploring cycle of life and eco-design, students will develop the ability to promote the rail transport</p> | | | |
| Sustainable Development Goals | <p>SDG3. Good health and well-being</p> <p>SDG7. Affordable and clean energy</p> <p>SDG9. Industry, innovation and infrastructure</p> <p>SDG11. Sustainable cities and communities</p> <p>SDG12. Responsible consumption and production</p> <p>SDG13. Climate actions</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Describe the energetic and environmental transition – decarbonisation | Lecture, discussions, individual work | Written assessment | Individual work | Supervised online with identity verification |
| Point out the Innovation technologies for the future nonpolluting and decarbonized rail transport | Lecture, group discussions, individual research, individual project work | Individual project | Individual project in the form of a 5-6 slides presentation devoted to: smart and sustainable mobility and/or decarbonized energy | Unsupervised online with identity verification |
| Bibliography | <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. L. Dincer & al. Journal of natural gas science and engineering. 28 (2016) 461-478. 2. N. Ahsan & al. Renewable and sustainable energy reviews. 186 (2023) 113621. 3. M. Cipek & al. Energy 232 (2021) 121097. 4. O. Olugbenga & al. Environmental research letters. 14 (2019) 123002. | | | |

Traditional timber houses carpentry in seismic and coastal areas

[\(link to the website and registration platform available here\)](#)

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|---|--|
| Professor's name, university & email | Andreea Căsuță (Duțu), Technical University of Civil Engineering (Romania) andreea.dutu@utcb.ro |
| Sector | Sustainability |
| Thematic area | Technologies for sustainable development |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0732 Building and civil engineering |
| ESCO skills & competences | S7.0 – skills – constructing - constructing K073 – knowledge – engineering, manufacturing and construction - architecture and construction T4.3 – transversal skills and competences – social and communication skills and competences - collaborating in teams and networks |
| Proposed dates of the classes | 07/04, 14/04, 21/04, 28/04, 05/05, 09:00-11:00 (CET) |
| One hour for tutoring consultations | 30/04, 09:00-10:00 (CET) |
| Date of the exam/ final assessment | 05/05, 09:00-11:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | <p>The traditional houses represent a part of the cultural identity of each country, adapted to the local climate and material availability. The course aims to present the main materials that were used for traditional houses, structural layout and construction technology secrets and wisdom transferred to us from long time ago by our ancestors who learned in time what details are better and how to adapt to local environment.</p> <p>Recent tendencies, especially after the pandemics, are to move to the countryside and live healthier. And many properties include old traditional buildings, which owners wish to adapt to current needs.</p> <p>How to sustainability build/maintain traditional houses in coastal areas will be explained, as a smart way to provide tourism industry a housing solution which keeps the local identity, while adapted to the current market.</p> |

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| Description of the content (week by week) | Unit 1. Traditional house types around the world and their features (2 hours) Unit 2. Behaviour of traditional houses in earthquakes: real life and experimental proofs (2 hours) Unit 3. Environmental issues for traditional houses in coastal areas (1 hours) Unit 4. Building and maintenance construction techniques for different types of traditional houses (2 hours) Unit 5. The science of timber carpentry: how to carpentry and why (1 hours) Unit 6. Let's make teams, choose a traditional house near you and talk about it! (1 hour) Unit 7. Exam – present your chosen traditional house and tell me what you see/learned when looking at it (1 hour) | | | |
| Importance for society | Regain the wisdom of master carpenters, adapt and use it in the current worldwide context. There are many situations when we learn from local past wisdom, and we can grow by transposing it into the future. | | | |
| Skills (hard and soft skills) | Hard skills: Recognize structural characteristics of traditional timber houses, Identify what interventions an existing traditional house needs Soft skills: Organisation & Collaboration, Prioritization | | | |
| Sustainable Development Goals | SDG3. Good health and well-being SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG15. Life on land | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Understand the taxonomy of existing traditional houses | Case studies | Presentations prepared by students | Group work | Supervised online |
| Identify the different construction details in terms of impact in the seismic/coastal climate resistance | Group work | Scientific paper analysis, dialogue or conversations | Work in pairs, presentation in front of the colleagues | Supervised online |
| Bibliography | Books: 1. Dutu, A., & Yamazaki, Y. (2024) <i>Seismic Resistance of Vernacular Timber Frames with Infills: Case Studies from Japan and Romania (1st ed.)</i> . CRC Press. https://doi.org/10.1201/9781003405375 | | | |

2. Brown, A. (2013) *The genius of Japanese Carpentry. Secrets of an Ancient Woodworking craft (Revised)*. Tuttle Publishing.
3. Dutu, Andreea, (2021) *Book Chapter 14th: An engineering view on the traditional timber frames with infills in Romania, Masonry Construction in Active Seismic Regions*, 1st Edition, Elsevier, Editors: Rajesh Rupakhety Dipendra Gautam, Paperback ISBN: 9780128210871, Imprint: Woodhead Publishing

Publications/articles:

1. Dutu, Andreea, Mihai Niste, Iolanda-Gabriela Craifaleanu, and Marina Gingirof. (2023). *Construction Techniques and Detailing for Romanian Paiantă Houses: An Engineering Perspective*, Sustainability 15, no. 2: 1344. <https://doi.org/10.3390/su15021344>
2. Dutu A., Niste M., Spatarelu I., Dima D.I., Kishiki S., (2018) *Seismic evaluation of Romanian traditional buildings with timber frame and mud masonry infills by in-plane static cyclic tests*, *Engineering Structures*, Volume 167, pages 655-670
3. Dutu, A., Sakata, H., Yamazaki, Y., and Shindo, T. (2015) *In-Plane Behavior of Timber Frames with Masonry Infills under Static Cyclic Loading*, J. Struct. Eng., 10.1061/(ASCE)ST.1943-541X.0001405 , 04015140.
4. Qu Z., Dutu A., Zhong J., and Sun J. (2015) *Seismic Damage to Masonry-Infilled Timber Houses in the 2013 M7.0 Lushan, China, Earthquake*. *Earthquake Spectra*: August 2015, Vol. 31, No. 3, pp. 1859-1874.

Websites:

1. <https://tfmro.utcb.ro/>

Research and Innovation Thinking

[\(link to the website and registration platform available here\)](#)

| | |
|--|--|
| Professor's name, university & email | Wieland Müller, University of Rostock, Germany wieland.mueller@uni-rostock.de |
| Sector | University |
| Thematic area | Research and Innovation Thinking |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0413 Entrepreneurship |
| ESCO skills & competences | S1.0 – skills - communication, collaboration and creativity – communication, collaboration and creativity S2.1 – skills - conducting studies, investigations and examinations T2.4 – transversal skills and competences – thinking skills and competences - thinking creatively and innovatively T4.1 – transversal skills and competences – social and communication skills and competences - communicating |
| Proposed dates of the classes | 16/04, 23/04, 30/04, 07/05, 14/05, 13:00-15:00 (CET) |
| One hour for tutoring consultations | The individual consultations hours will be adapted to students' timetables |
| Date of the exam/ final assessment | Deadline for submitting the exam (EU-CONEXUS Moodle): 21/05, 23:59 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | This micro-credential provides participants with essential skills in the areas of research and innovation, enabling them to manage the complexity of generating new knowledge and translating it into effective solutions. In recent years, rapid technological advances and changing societal needs have increased the demand for innovative approaches in various sectors, including the blue economy. These micro-credentials provide a foundation for understanding research methods, fostering creativity and driving innovation processes, empowering students to become agents of change in a rapidly evolving world. |
| Description of the content (week by week) | Unit 1. Research and innovation methods (2 hours) Unit 2: Understanding innovation: Fundamentals and principles (2 hours) Unit 3: Critical Thinking and Problem-Solving (2 hours) |

| | Unit 4: Creativity and Idea Generation (2 hours) Unit 5: Communication of Innovation (2 hours) | | | |
|--|--|---------------------------------------|---|--|
| Importance for society | This topic raises awareness and attention to critical issues related to sustainability, innovation and problem solving. By highlighting the interconnectedness of research, innovation and the blue economy, it encourages individuals to think critically about the challenges facing our oceans and to develop creative solutions for a more sustainable future. | | | |
| Skills (hard and soft skills) | Hard skills: Research methodologies, Innovation techniques Soft skills: Critical thinking, Communication | | | |
| Sustainable Development Goals | SDG8. Decent work and economic growth SDG9. Industry, innovation and infrastructure SDG13. Climate action SDG14. Life below water | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Identify different types of innovations (product, process and business model innovations), assess their relevance for the blue economy sector and communicate these findings in a structured and target group-orientated way. | Lectures, Discussion, Group Work, Individual Work, Presentations | Attendance, Evaluation of assignments | Group work, Individual work | unsupervised with no identity verification |
| Use creative methods such as brainstorming and SCAMPER to develop solutions to complex challenges and present them in a structured and convincing way. | | | | |

Bibliography

Books:

1. Flick, U. (2017). *Introducing Research Methodology: A Beginner's Guide to Doing a Research Project*. London: Sage Publications.
2. Elder, L., & Paul, R. (2008). *The miniature guide to critical thinking: Concepts and tools*. Dillon Beach, CA: Foundation for Critical Thinking.
3. Brown, T. (2009). *Change by design: How design thinking transforms organizations and inspires innovation*. New York: Harper Business.
4. Pauli, G. (2010). *The Blue Economy: 10 years, 100 innovations, 100 million jobs*. Paradigm Publications.
5. Froese, R., & Pauly, D. (Hrsg.). (2019). *Blue growth: Innovation for a sustainable ocean economy*. Cham: Springer.

Towards a green european industrial policy
[\(link to the website and registration platform available here\)](#)

| | |
|--|---|
| Professor's name, university & email | Juan Sapena, Catholic University of Valencia (Spain) juan.sapena@ucv.es |
| Sector | European |
| Thematic area | European environmental policies |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0311 Economics |
| ESCO skills & competences | <p>T2.1 transversal skills and competences - thinking skills and competences - processing information, ideas and concepts - think critically</p> <p>S1.0 skills - communication, collaboration and creativity - advising and consulting</p> <p>K 03.11 Knowledge - social sciences, journalism and information - social and behavioural sciences - economics - development economics</p> <p>K 03.11 knowledge - social sciences, journalism and information - social and behavioural sciences – economics - environmental economics</p> |
| Proposed dates of the classes | 16/04, 23/04, 30/04, 07/05, 14/05, 15:00-17:00 (CET) |
| One hour for tutoring consultations | To be announced |
| Date of the exam/ final assessment | 14/05, 15:00-17:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | The course is aimed to study the challenges of European industrial policy to enhance competitiveness of European industries in the context balancing the necessary competitiveness of European industries in a globalized economy, aligned with the development of a green economy. |
| Description of the content (week by week) | <p>Unit 1. Economic development and the role of industrial policy (2 hours)</p> <p>Unit 2. The stages of European integration and the roots of an European industrial policy (2 hours)</p> <p>Unit 3. Industrial policies across the world: The strategic game of competitiveness (2 hours)</p> |

| | | | | |
|--|--|---|---|--|
| | Unit 4. The Green Challenge of Industrial Policy: Promoting Competitiveness and Structural Transformation (2 hours) Unit 5. The challenge of Europe's Open Strategic Autonomy (2 hours) | | | |
| Importance for society | Awareness of globalization trends and European position. | | | |
| Skills (hard and soft skills) | Hard skills: Researching Soft skills: Critical thinking & Decision-making | | | |
| Sustainable Development Goals | SDG1. No poverty SDG8. Decent work and economic growth SDG9. Industry, innovation and infrastructure SDG11. Sustainable cities and communities | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Understand economic growth and global competition, and the importance of global value chains | Real case studies, lectures, groups discussions and reflective examples | Quiz, case study, debates, discussion board and research assignment | To be evaluated: Participation or not (at least one complete opinion) Originality of the ideas Connecting comments to the previous content of the course Presentations Format: Title page, Introduction, Brand Background, Sustainability Practices, Analysis, Recommendations, Conclusion, References. | supervised online or onsite with identity verification. |
| Evaluate Industrial Policy tools and their potential impact on the desired outcomes, as unintended consequences | Colleagues' assignment | Research assignment | Quality of content (relevant and current or not) Depth of analysis (briefly touching the topic – extended analysis) Citation and referencing (Existing or not) Originality (unique own perspective and thoughts or just sharing what it's found) | supervised online or onsite with identity verification. |

Bibliography

1. Aiginger, K., & Rodrik, D. (2020). *Rebirth of industrial policy and an agenda for the twenty-first century*. *Journal of industry, competition and trade*, 20, 189-207. url: <https://link.springer.com/article/10.1007/s10842-019-00322-3>
2. Baldwin, R., & Ito, T. (2021). *The smile curve: Evolving sources of value added in manufacturing*. *Canadian Journal of Economics/Revue canadienne d'économie*, 54(4), 1842-1880.
3. Lauridsen, L. S. (2021). *Industrial policy in the twenty-first century: Competing perspectives*. In H. Zafarullah, & A. S. Huque (Eds.), *Handbook of Development Policy* (1 ed., pp. 238-248). Edward Elgar Publishing.
4. Rodrik, D. (2022). *An industrial policy for good jobs*. Hamilton Project, Brookings Institution.
5. Tagliapietra, S., & Veugelers, R. (2023). *Chapter 1: Industrial policy in Europe: past and future*. In: Tagliapietra, S., & Veugelers, R. (Eds.), *Sparkling Europe's New Industrial Revolution*, Bruegel Blueprint Series, p.12-28.
6. Terzi, A., Singh, A., & Sherwood, M. (2022). *Industrial policy for the 21st century: lessons from the past*. European Economy Discussion Papers, N. 157 (January), Publications Office of the European Union. The document can be downloaded at https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en

AI and Academic Writing Skills: Never the Twain Shall Meet?

[\(link to the website and registration platform available here\)](#)

| | |
|--|--|
| Professor's name, university & email | Anna Martinović, University of Zadar (Croatia) amartino@unizd.hr |
| Sector | University |
| Thematic area | Professional communication and academic writing |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0231 – Language acquisition |
| ESCO skills & competences | S1.13.3 – skills – communication, collaboration and creativity – writing and composing - technical or academic writing T4.1 – transversal skills and competences - social and communication skills and competences – communicating L1 – language skills and knowledge - languages - English - academic English L1 – language skills and knowledge - languages - English - write English |
| Proposed dates of the classes | 24/04, 01/05, 15/05, 22/05, 29/05, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 22/05, 12:00-13:00 (CET) |
| Date of the exam/ final assessment | 29/05, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | The course will equip students with writing skills necessary to function at the university level as well as beyond the academic domain. It will encourage critical thinking with regard to using AI. Furthermore, it will help students organise ideas and present them in a coherent manner. |
| Description of the content (week by week) | Unit 1. Introduction to academic writing and research skills (1 hour) Unit 2. Using evidence to support your ideas (1 hour) Unit 3. Summarising information from texts (1 hour) |

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|--|---|---------------------------------|--|--|
| | Unit 4. Sourcing information for your paper (1 hour) Unit 5. Developing your paper – Avoiding plagiarism (1 hour) Unit 6. Writing introductions, conclusions (1 hour) Unit 7. Writing the main body of your paper (1 hour) Unit 8. Incorporating data and referencing (1 hour) Unit 9. Preparing for presentations (1 hour) Unit 10. Student Presentations (Final seminar paper) (1 hour) | | | |
| Importance for society | <p>Enabling individuals to develop clear and effective communication in both spoken and written form is a key asset for any organization. Moreover, it will develop learners' English language skills, which is especially important for organizations since English is the world's international language.</p> <p>High levels of literacy are important in order to function in today's complex society.</p> | | | |
| Skills (hard and soft skills) | <p>Hard skills: Writing skills, research skills</p> <p>Soft skills: Analytical thinking skills, learning strategies</p> | | | |
| Sustainable Development Goals | SDG4. Quality education | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Produce seminar papers and show ability to summarize, paraphrase, and interpret various texts, as well as create a summary of the findings. | Class discussions, group work, individual work | Peer reviewing Seminar paper | Students will be required to discuss their ideas with colleagues. They will be required to write a final seminar paper at the end of the course. | Supervised online |
| Design a presentation and illustrate the main ideas of the seminar paper. | Individual work, group work | Presentation | Students will be required to present their paper to colleagues. | Supervised online |
| Bibliography | <p>Books:</p> <p><u>Required reading:</u></p> <p>McCormack, J., Slaght, J. (2012). <i>English for Academic Study: Extended Writing and Research Skills</i>. Reading: Garnet Publishing Ltd.</p> | | | |

Additional reading:

1. Bailey, S. (2015). *Academic Writing. A Handbook for International Students* (4th edition). Abingdon, Oxon: Routledge.
2. De Chazal, E., Rogers, L. (2013). *Oxford EAP – A Course in English for Academic Purposes* (Intermediate). Oxford: Oxford University Press.
3. Kruse, O., Rapp, C., Anson, C., Benetos, K., Cotos, E., Devitt, A., Shibani, A. (2023). *Digital Writing Technologies in Higher Education*. Springer International Publishing.
4. McCarthy, Michael, O'Dell, Felicity. (2016). *Academic Vocabulary in Use*. Cambridge: Cambridge University Press.
5. Paterson, Ken, Wedge, Roberta. (2013). *Oxford Grammar for EAP*. Oxford: Oxford University Press.

Spatial planning for resilient coastal areas
[\(link to the website and registration platform available here\)](#)

| | |
|--|--|
| Professor's name, university & email | Byron Ioannou, Frederick University (Cyprus) b.ioannou@frederick.ac.cy |
| Sector | Coastal |
| Thematic area | Coastal risks and protection |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0731 Architecture and town planning |
| ESCO skills & competences | K0731 - knowledge - architecture and town planning - urban planning - spatial planning S4.1 - skills – management skills - developing objectives and strategies S2.7 – skills – information skills - analysing and evaluating information and data T2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts |
| Proposed dates of the classes | 28/04, 05/05, 12/04, 19/05, 26/05, 18:00-20:00 (CET) |
| One hour for tutoring consultations | 20/05, 19:00-20:00 (CET) |
| Date of the exam/ final assessment | 26/05, 18:00-20:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | Spatial planning has a long tradition, especially in Europe as an institutional process of manifesting and coordinating development and resources of cities and regions. The current status of overdevelopment in coastal zones, along with the emerging climate crises has turned formal planning into a decisive parameter for economic and social robustness, as well as environmental conservation. Any expert interested in working at the public or governance sector needs to be aware of the barriers and enablers spatial planning may impose to the sustainable coastal areas perspective. |
| Description of the content (week by week) | Unit 1. What is Spatial Planning? (2 hours) Unit 2. Planning and development challenges and risks for coastal areas (2 hours) Unit 3. Typology and content of plans for coastal areas (2 hours) Unit 4. Comprehension a coastal plan resilience/ workshop (2 hours) Unit 5. Final assessment (2 hours) |

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|---|---|---|--|--|
| Importance for society | Societies and local governments are usually emphasizing in short term actions and remedies for every aspect of their reality. Spatial planning as a long-term scope is often neglected or undecimated. Most of the barriers that sustainable coastal development phases have to do with the absence of proactiveness and long-term planning. | | | |
| Skills (hard and soft skills) | Hard skills: Plan Assessment, Sustainability Comprehension Soft skills: Critical Thinking and Creativity, Analytical Skills | | | |
| Sustainable Development Goals | SDG3. Good health and well-being SDG8. Decent work and economic growth SDG10. Reduced inequalities SDG11. Sustainable cities and communities SDG13. Climate action SDG14. Life below water SDG15. Life on land | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
| Recognise the typology and the impact of institutional spatial planning for coastal areas | Personal study Case Study Group discussion | Assignment on a case study | Individual work | Unsupervised with no identity verification |
| Explain how a specific spatial plan for addresses the issues of resilient coastal area in an integrated/wholistic approach | Personal study Case Study Group discussion | Oral support of the report in the class | Presentation in front of the colleagues | Unsupervised with no identity verification |
| Bibliography | Books: <ol style="list-style-type: none"> Hall, P. (1994) Urban & Regional Planning, 5th, edn. London: Routledge. Publications/articles: <ol style="list-style-type: none"> Sørdahl, P.B., Kvalvik, I. When all you have is a hammer - integration challenges in coastal zone planning. Maritime Studies 23, 39 (2024). Bonatz, H., Reimann, L. & Vafeidis, A.T. Comparing built-up area datasets to assess urban exposure to coastal hazards in Europe. Sci Data 11, 499 (2024). Santamouris, M., Vasilakopoulou, K. (2024). Urban Climate and Heat Mitigation in Coastal Cities. In: Rassia, S.T. (eds) The Blue Book. Springer, Cham. | | | |

Websites:

1. Coastal Zone Management Plans <https://iwrmaactionhub.org/learn/iwrmtools/coastal-zone-management-plans>
2. European Commission – Marine Environments https://environment.ec.europa.eu/topics/marine-environment_en
3. European Environmental Agency – Marines and Coasts <https://www.eea.europa.eu/en/topics/in-depth/seas-and-coasts>
4. Department of Environment/ Cyprus – Integrated Coastal Zone Management https://www.moa.gov.cy/moa/environment/environmentnew.nsf/page11_en/page11_en?OpenDocument
5. ESPON - Comparative Analysis of Territorial Governance and Spatial Planning Systems in Europe <https://archive.espon.eu/planning-systems>

Ludic Chinese language learning method with tactile HYPA keyboard

[\(link to the website and registration platform available here\)](#)

| | |
|---|--|
| Professor's name, university & email | Pierre- Henry de Bruyn, La Rochelle Université (France) phbruyn@univ-lr.fr |
| Sector | University |
| Thematic area | Professional communication and academic writing |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0231 Language acquisition |
| ESCO skills & competences | <p>L1 – language skills and knowledge – languages – Chinese – interact verbally in Chinese</p> <p>L1 – language skills and knowledge – languages – Chinese – understand written Chinese</p> <p>S1.0.0. – communication, collaboration and creativity – communication, collaboration and creativity - use communication techniques</p> |
| Proposed dates of the classes | 29/04, 6/05, 13/05, 20/05, 27/05, 09:00-11:00 (CET) |
| One hour for tutoring consultations | 20/05, 11:30-12:30 |
| Date of the exam/ final assessment | 27/05, 09:00-11:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>Experiment the possibility of a same writing for all languages by learning Chinese language in an innovative way with HYPA (Hyper Pinyin Alphabet) tools invented at La Rochelle University.</p> <p>After an introduction to those innovative tools, this micro-credential will concentrate to a first guidance step in practical phonetic exercises in Mandarin Chinese. Those exercises which will be proposed to be done in parallel with encoding specific gestures on those HYPA tools. In conclusion, the translation of those gestures in the languages of the different members attending those micro-credits courses, will help the participants to perceive more concretely the power of the basic paradigm of the Chinese writing system which is a same writing for different languages. The Chinese intuition that a common writing system for many different languages is so much unknown by Westerners that they do not even imagine what could be a Europe sharing a same writing system, as Chinese do. The training would help students to get just a first concrete glimpse of this intuition.</p> |

| Description of the content (week by week) | Unit 1. Basic Principles to learn to write as Chinese do (2 hours) Unit 2. Phonetic initials in Mandarin Chinese (2 hours) Unit 3. Notion of homophones in Chinese language (2 hours) Unit 4. Phonetic finals (2 hours) Unit 5. Tools to go further (2 hours) | | | |
|--|--|---|--|--|
| Importance for society | By discovering how Chinese society is based on the principle of a common writing system for many different oral languages, students will be aware of the specificity of the Chinese civilisation's specificity and, by contrast, will get new ideas to contribute to build European unity. | | | |
| Skills (hard and soft skills) | Hard skills: Oral comprehension, Mastering digital tools Soft skills: Creative thinking, Communication | | | |
| Sustainable Development Goals | SDG4: Quality education SDG10: Reduced inequalities SDG11: Sustainable Cities and Communities | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Show a basic knowledge of Chinese language | A part of the knowledge acquired by this micro-unit credit will prepare students to international Chinese language exams (HSK). | Ability to write in pinyin some basic Chinese characters with the HYPA tools in specific sentences. | To assess student performance, some of those sentences will be proposed online in a final oral exam of ten minutes by student. He/she will be required to be able: 1) to translate immediately the sentence heard; 2) to recognize in the sentence the character emphasized among others; 3) explain eventually some grammatical element relative to this sentence. | Supervised online or onsite with identity verification |
| Demonstrate a first level of oral proficiency | Chinese phonetic initiation | Ability to pronounce some basic Chinese phonemes Practical registration of repetition of Chinese sentences shared online | Ability to pronounce some basic Chinese phonemes Practical registration of repetition of Chinese sentences shared online | Supervised online or onsite with identity verification |

Bibliography**Publications:**

1. Wang, Q., & Andrews, J. F. (2021). *Chinese Pinyin*. American Annals of the Deaf, 166(4), 446-461.
2. Chen, L., & De Bruyn, P. H. (2023). *HYPA, un outil d'innovation en linguistique appliquée. Didactique gestuelle du lexique en Langues-Cultures*. Recherches en didactique des langues et des cultures. Les cahiers de l'Acedle, (21-2).

Links:

1. <http://www.hypacosmos.com/>
2. Hypakeyboard (play store or Apple store)
3. Hypagame (play store by Google search only)

Healthy cities: Change your mind to change your health

[\(link to the website and registration platform available here\)](#)

| | |
|--|---|
| Professor's name, university & email | Aimilia Papakonstantinou, Agricultural University of Athens (Greece) emiliap@aua.gr |
| Sector | Urban |
| Thematic area | Healthy cities |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0900 Health and welfare |
| ESCO skills & competences | K099 – knowledge – health and welfare - health and welfare not elsewhere classified S1 – skills - communication collaboration and creativity S2 – skills - information skills T2 – transversal skills and competences - thinking skills and competences T6 – transversal skills and competences - life skills and competences |
| Proposed dates of the classes | 29/04, 06/05, 13/05, 20/05, 27/05, 10/06 (Exam date), 12:00-14:00 (CET) |
| One hour for tutoring consultations | 2/06, 12:00-13:00 (CET) |
| Date of the exam/ final assessment | 10/06, 12:00-13:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 11 h Asynchronous hours & self-directed learning: 14 h |
| General description | By 2050, the global population will reach 10 billion, creating significant challenges for food systems amidst rising EU elderly populations, declining birth rates, and increasing life expectancy. Trends toward healthier, sustainable, and natural diets are growing, while 30% of food is wasted annually, and food production consumes 70% of global freshwater. These pressing issues make food systems innovation critical, balancing consumer demands with environmental protection and climate change adaptation. Students need this knowledge to lead in sustainable food innovation and address global challenges effectively. |
| Description of the content (week by week) | Unit 1. Introduction to sustainable nutrition and health (2 hours) Unit 2. New technologies for novel food production and sustainable nutrition following the farm to fork guidelines – group work (2 hours) Unit 3. Dietary guidelines and food labelling, obstacles and opportunities (2 hours) |

| | Unit 4. Translating sustainable nutrition to everyday practices – group work (2 hours) Unit 5. Climate change and health: thought, solution, a view to the future (2 hours) | | | |
|--|--|---|--|--|
| Importance for society | Sustainable nutrition and health literacy | | | |
| Skills (hard and soft skills) | Hard skills: Knowledge of functional ingredients and foods and understanding dietary guidelines and food labeling Soft skills: Collaboration and teamwork and critical thinking and problem-solving | | | |
| Sustainable Development Goals | SDG2. Zero hunger SDG3. Good health and well-being SDG8. Decent work and economic growth SDG9. Industry, innovation and infrastructure SDG10. Reduced inequalities SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG13. Climate action SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Explain the scientific basis and interdisciplinary approaches used in the study of Sustainable Food Systems | Lectures, small group assignments and practical exercises, individual study | Written exam which includes multiple choice questions | Self-evaluation/reflection report from each individual and evaluation of team members for their contribution to the group work Requirements: work in small groups, presentation in front of colleagues, essay | Unsupervised with no identity verification |
| Demonstrate practical skills in the food system based on sustainability practices | Lectures, small group assignments and practical exercises, individual study | Written exam which includes multiple choice questions | Self-evaluation/reflection report from each individual and evaluation of team members for their contribution to the group work Requirements: work in small groups, presentation in front of colleagues, essay | Unsupervised with no identity verification |
| Bibliography | Books: <ol style="list-style-type: none"> <i>Sustainable Healthy Diets: Guiding Principles</i> by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO). This | | | |

document provides a holistic approach to diets, considering nutrition recommendations, environmental impacts, and socio-economic contexts.

2. *Sustainable Diets: Linking Nutrition and Food Systems* edited by Barbara Burlingame and Sandro Dernini. It offers a transdisciplinary perspective, integrating health, agriculture, and environmental issues to comprehensively explore sustainable diets

Publications/articles:

1. *Sustainable Healthy Diets: Guiding Principles* by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO). This document provides a holistic approach to diets, considering nutrition recommendations, environmental impacts, and socio-economic contexts.
2. *The Role of Healthy Diets in Environmentally Sustainable Food Systems* by the International Confederation of Dietetic Associations (ICDA). This paper reviews how transitions to healthier diets can advance environmental targets and contribute to sustainable food systems
3. *Sustainable Nutrition and Human Health as Part of Sustainable Development* by Magdalena Gibas-Dorna and Wioletta Zukiewicz-Sobczak. This article discusses the concept of sustainable nutrition, focusing on health-promoting diets that are culturally acceptable, accessible, and environmentally friendly.

Websites:

1. The Nutrition Source – Sustainability: Hosted by the Harvard T.H. Chan School of Public Health, this resource offers insights into the relationship between diet, health, and environmental sustainability. <https://nutritionsource.hsph.harvard.edu/sustainability/>
2. International Panel of Experts on Sustainable Food Systems (IPES-Food): This organization provides reports and publications on sustainable food systems, addressing the political economy and environmental impacts of food production and consumption. <https://ipes-food.org/>
3. Food + Planet: Cultivating a Sustainability Revolution. This platform offers resources and insights aimed at empowering health professionals to advocate for sustainable food systems, providing tools and information to integrate sustainability into nutrition practice. <https://foodandplanet.org/>

SDGs - The Blue Print for the Sustainable Development

[\(link to the website and registration platform available here\)](#)

| | |
|---|---|
| Professor's name, university & email | Violeta Simionescu, Technical University of Civil Engineering (Romania) violeta.simionescu@utcb.ro |
| Sector | Sustainability |
| Thematic area | Sustainable development goals |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0413 Management and administration |
| ESCO skills & competences | <p>K0412 – knowledge – business, administration and law – finance, banking and insurance finance, banking and insurance - global standards for sustainability reporting</p> <p>S1.9.0 – skills – communication, collaboration and creativity - solving problems – solving problems</p> <p>S4.1.0 – skills – management skills – developing objectives and strategies - developing objectives and strategies - develop strategy to solve problems</p> <p>T2.1 – transversal skills and competences – thinking skills and competences - processing information, ideas and concepts – think critically</p> |
| Proposed dates of the classes | 29/04, 06/05, 13/05, 20/05, 27/05, 12:00-14:00 (CET) |
| One hour for tutoring consultations | To be announced |
| Date of the exam/ final assessment | 27/05, 12:00-14:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>The Sustainable Development Goals (SDGs), established by the United Nations, provide a comprehensive roadmap for addressing some of the most pressing global challenges, including poverty, inequality, climate change, and environmental degradation. In recent years, the urgency to tackle these issues has grown considerably due to increasing climate-related events, socioeconomic inequalities, and global health crises, highlighting the interconnectedness of global systems. This course explores the SDGs as a transformative framework for sustainable development, emphasizing their role as a guideline for fostering global resilience, equity, and environmental sustainability.</p> |

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| | <p>The relevance of SDGs has expanded beyond policy into business, economics, and civil society, becoming a core focus for industries, governments, and organizations worldwide. Consequently, the SDGs serve as both a blueprint and a benchmark for creating sustainable, resilient business models and operations.</p> <p>The aim of the course is to equip students with knowledge and operational tools in order to develop their professional career in the sustainability arena: comprehensive understanding of SDGs, awareness of global challenges, and understanding of the importance of integrating sustainability into economic activities/business models for the benefit of society.</p> | | | |
| Description of the content (week by week) | <p>Unit 1. Introduction to the micro-credential (1 hour), Introduction to the SDGs (1 hour)</p> <p>Unit 2. The relationship between sustainability and economic growth in the present-day economic structure and practices - integrating SDGs into the social systems (2 hours)</p> <p>Unit 3. Engaging with social systems: governance of the sustainable development and SDGs at global, European, national level and organisation level (2 hours)</p> <p>Unit 4. Compliance and reporting on SDGs at global, European, national level and organisation level (2 hour)</p> <p>Unit 5. The evolving role of SDGs in shaping the future of sustainability and closing of the course (1 hour), Teamwork presentations in plenary - examination (1 hour)</p> | | | |
| Importance for society | Sustainability literacy is empowering learners to engage with various social systems, actively contributing to required shift in mindset, behaviour and economic activity along more sustainable lines. | | | |
| Skills (hard and soft skills) | <p>Hard skills: Sustainability reporting and compliance</p> <p>Soft skills: Systems thinking & Problem solving</p> | | | |
| Sustainable Development Goals | <p>SDG4. Quality education</p> <p>SDG8. Decent work and economic growth</p> <p>SDG12. Responsible consumption and production</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Demonstrate a critical understanding of sustainability (goals) at local, European and global level | Lectures and Presentations | Quizzes | Questions testing the learner's ability to list the SDGs, map key elements/targets around SDGs and recall/recognize elements of governance and reporting within various social systems | Supervised online with identity verification. |

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| Illustrate incorporation of specific SDGs at organisation level | Lectures and Presentations + case studies, individual and plenary reflections | Team presentation (3 learners): addressing a specific sustainability challenge and reporting in a social system | Team work Requirements: preparation of presentation, presentation in front of the colleagues | Supervised online with identity verification. |
| Bibliography | <p>Recommended readings and resources will be provided throughout the course, and includes:</p> <p>Course notes:</p> <p>V. Simionescu - Course notes - SDGs – THE BLUEPRINT FOR THE SUSTAINABLE DEVELOPMENT, 2025</p> <p>Book:</p> <p>Monkelbaan, J. (2019). Governance for the Sustainable Development Goals: Exploring an Integrative Framework of Theories, Tools, and Competencies. Governance for the Sustainable Development Goals, DOI https://doi.org/10.1007/978-981-13-0475-0</p> <p>Websites:</p> <ol style="list-style-type: none"> 1. Sustainable Development Goals https://sdgs.un.org/ (specific references and content selected by the lecturer) 2. European Union - Sustainable Development- https://commission.europa.eu/strategy-and-policy/sustainable-development-goals_en (specific references and content selected by the lecturer) 3. OECD - Sustainable Development Goals (SDGs) - https://www.oecd.org/dac/sustainable-development-goals.htm 4. Our World in Data – Sustainable Development Goals - https://ourworldindata.org/sdgs (specific references and content selected by the lecturer) 5. Global standards for reporting on environmental, social, and economic impacts https://www.globalreporting.org/ (specific references and content selected by the lecturer) 6. Sustainability due diligence https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en 7. Corporate sustainability reporting - https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en | | | |

Making sustainable fashion trendy

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Andreea Apetrei-Kalveram, Catholic University of Valencia (Spain) andreea.apetrei@ucv.es |
| Sector | Sustainability |
| Thematic area | Sustainable fashion |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0414 Marketing and advertising |
| ESCO skills & competences | <p>S.2.1.1. - skills - information skills - conducting academic or market research</p> <p>K0319 - knowledge - social sciences, journalism and information - social and behavioural sciences - social and behavioural sciences not else classified</p> <p>K0410 - knowledge - business, administration and law - business and administration not further defined</p> <p>T.6.2. - transversal skills and competences - life skills and competences - applying environmental skills and competences</p> |
| Proposed dates of the classes | 30/04, 07/05, 14/05, 21/05, 28/05, 12:00-14:00 (CET) |
| One hour for tutoring consultations | 21/05, 14:00-15:00 (CET) |
| Date of the exam/ final assessment | 28/05, 12:00-14:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>The fashion industry is the second most polluting sector in the world, following oil. From production and design to the moment our clothes reach our homes, the process requires immense amounts of water and land, while generating significant CO2 emissions. Additionally, millions of workers in this industry lack essential labour protections. In the last 5 years, the topic of sustainable fashion became popular and trendy. There are now NGOs, influencers, documentaries and events trying to raise awareness about the issues of fast fashion. As a result, consumers are increasingly looking for eco-friendly and ethically made clothes. Brands are taking notice, adopting practices like using organic materials and reducing waste. But at the same time, too many companies adopted unethical practices such as greenwashing. It is crucial to recognize the consequences of fashion production and consumption, and to take meaningful steps toward a more sustainable lifestyle.</p> |

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| Description of the content (week by week) | Unit 1. Introduction: The concept of business model (2 hours) <ul style="list-style-type: none">Explaining the fast fashion business modelWhat is a sustainable business model? Unit 2. Fast fashion versus sustainable fashion (2 hours) <ul style="list-style-type: none">Most and least sustainable companies - examplesAssumptions about sustainable fashion Unit 3. The impact of the sector on the global environment (2 hours) <ul style="list-style-type: none">Human capital<ul style="list-style-type: none">Who makes our clothes and what is their way of work?What can be done to improve their working conditions?Natural capital<ul style="list-style-type: none">SoilTextiles: past and future Unit 4. Marketing mix for sustainable fashion businesses (2 hours) <ul style="list-style-type: none">GreenwashingSustainable 4Ps (Product, Price, Promotion and Place) Unit 5. Conclusions: New mindset for the fashion client (as conclusions) (2 hours) <ul style="list-style-type: none">Consumer behaviourChanges towards a new type of consumer | | | |
| Importance for society | The course aims to raise awareness with regard to the impact of clothing and textiles on the people involved in the sector and our planet. The course will explain how fashion companies are being managed, how the natural and human resources are being used by the fashion companies. It will also highlight the strategies used by companies to persuade clients to constantly buy clothes. Once these practices are known by the consumers, behavioural changes are easier to be made. | | | |
| Skills (hard and soft skills) | Hard skills: Researching & Problem solving Soft skills: Decision making & Critical thinking | | | |
| Sustainable Development Goals | SDG1: No poverty SDG8: Decent work and economic growth SDG10: Reduce inequalities SDG12: Responsible consumption & production | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Identify and explain the impact of fast fashion and | Lectures and Case studies The impact of fast fashion big | Attendance to classes Participation to the conversations | Participation to the conversations based on the colleagues' presentations | Supervised online or onsite with identity verification. |

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| fashion consumption for the planet | players in the world based on research data and real examples. Analysis of top companies of the industry for example: Zara, H&M, Shein, GAP, Primark. | created by the professor | To be evaluated: quality of content, depth of analysis, citation and referencing, originality, participation (at least one complete opinion), originality of the ideas, ability to connect comments to the previous content of the course. | |
| Analyse the sustainability practices within the fashion industry | Research Project and its presentation Based on research on practices of a chosen company, presenting findings through a report (analysis of a sustainable brand, its business model, production methods and marketing strategies). | Presentation prepared and presented by the student Case study: selecting a sustainable fashion brand, conducting a detailed examination of brand's sustainability practices. Presenting findings about impact and propose innovative strategies for further improvement. | Individual project and its presentation Requirement: presentation during the last class of the course in front of colleagues and professor Format: presentation with visual tool (Power Point / Canva / video etc) | Supervised online or onsite with identity verification. |
| Bibliography | Books: <ol style="list-style-type: none"> Bravo, Lauren (2020). How To Break Up With Fast Fashion: A guilt-free guide to changing the way you shop – for good, Headline Brooks, A. (2015). Clothing poverty: The hidden world of fast fashion and second-hand clothes. London UK, Zed Books. Cline, Elizabeth (2012). Overdressed: The Shockingly High Cost of Cheap Fashion. Penguin Publishing Martin, D., & Schouten, J. (2012). Sustainable marketing. Pearson College Division. Articles: <ol style="list-style-type: none"> Apetrei, A., Constantin, M., Deaconu, E. M., Dinu, M., Pătărlăgeanu, S. R., & Petrescu, I. E. (2024). Eco-chic or trendy-chic? Decoding consumer preferences in sustainable and fast fashion across the EU. <i>Management & Marketing</i>, 19(2), 179-210. Alexa, L., Apetrei, A., & Sapena, J. (2021). <i>The COVID-19 lockdown effect on the intention to purchase sustainable brands</i>. Sustainability, 13(6), 3241. Alexa, L., Apetrei, A., & Pîslaru, M. (2021, November). <i>Fast Fashion – An Industry at the Intersection of Green Marketing with Greenwashing</i>. In <i>Proceedings of the 7th International Symposium “Technical Textiles—Present and Future”</i>, Iasi, Romania (pp. 263-268). Websites: | | | |

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| | <ol style="list-style-type: none">1. https://www.statista.com/topics/6088/fast-fashion-in-europe/#dossierSummary__chapter12. https://www.eea.europa.eu/publications/textiles-in-europes-circular-economy/textiles-in-europe-s-circular-economy3. https://www.youtube.com/watch?v=YglyHzvBqpA4. https://news.un.org/en/story/2019/03/1035161 |
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Information literacy

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Alica Kolarić, University of Zadar (Croatia) akolaric20@unizd.hr |
| Sector | University |
| Thematic area | Information literacy |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0322 Library, information and archival studies |
| ESCO skills & competences | <p>T6.3 - transversal skills and competences - life skills and competences - applying civic skills and competences critically evaluate information and its sources (evaluate and analyse information and its sources, have a critical understanding of media in democratic societies)</p> <p>K0322 – knowledge - social sciences, journalism and information - journalism and information - library, information and archival studies - source criticism</p> <p>S2.7 – skills - information skills - analysing and evaluating information and data - analysing and evaluating information and data</p> |
| Proposed dates of the classes | 25/04, 02/05, 09/05, 16/05, 23/05, 13/06, 11:00-13:00 (CET) |
| One hour for tutoring consultations | 23/05, 13:00-14:00 (CET) |
| Date of the exam/ final assessment | 13/06, 11:00-13:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 12 h</p> <p>Asynchronous hours & self-directed learning: 13 h</p> |
| General description | <p>The course introduces students to the basics of information literacy. It is suitable for anyone interested in the topic, regardless of prior knowledge.</p> <p>Information literacy has been a subject of study for the past 50 years, gaining increasing relevance due to the rapid and significant changes in the modern information environment. The issue of accessing, evaluating, and effectively and ethically using information continues to grow in importance. The development of AI technologies poses new challenges that information users should be able to handle. Information literacy is essential for developing effective information users.</p> |

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| Description of the content (week by week) | Unit 1. Information literacy: the concept. Information literacy in contexts: everyday life, citizenship, education, workplace, health. Orientation in the information environment. (2 h) Unit 2. Identifying information needs (2 h) Unit 3. Seeking information. Affective dimension. (2 h) Unit 4. Evaluation of information (2 h) Unit 5. Ethical use of information. Creating and sharing information. (2 h) | | | |
| Importance for society | Information literacy enables people to understand the information world around them, form informed opinions, and make informed decisions. Information-literate individuals can challenge assumptions and authorities, recognize bias and misinformation, and engage actively in democratic life. It is crucial for an informed and active citizenry in a democratic society. | | | |
| Skills (hard and soft skills) | Hard skills: research skills, critical evaluation Soft skills: critical thinking, ethical awareness | | | |
| Sustainable Development Goals | SDG4. Quality education | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Explain the information environment, including different information sources and formats. | Lecture, discussions, individual work, group work. | Quiz, debate, evaluation of assignments, presentations. | Individual work, group work. Work in pairs, essay. | Supervised with no identity verification. |
| Formulate research problem and inquiry, identify and recognize the information needs. | Lecture, discussions, individual work, group work. | Quiz, debate, evaluation of assignments, presentations. | Individual work, group work. Work in pairs, essay. | Supervised with no identity verification. |
| Bibliography | Books: <ol style="list-style-type: none"> Horton, F. W. (2008). <i>Understanding information literacy: a primer; an easy-to-read, non-technical overview explaining what information literacy means, designed for busy public policy-makers, business executives, civil society administrators and practicing professionals. Selected chapters.</i> https://unesdoc.unesco.org/ark:/48223/pf0000157020?posInSet=4&queryId=5054a075-b154-415e-9943-41e93fb693c3 | | | |

Publications/articles:

1. CILIP (2018). *CILIP Definition of Information Literacy*.
https://www.cilip.org.uk/resource/resmgr/cilip/information_professional_and_news/press_releases/2018_03_information_lit_definition/cilip_definition_d oc_final_f.pdf
2. IFLA (2017). *How to spot fake news*.
<https://blogs.ifla.org/lpa/files/2017/01/How-to-Spot-Fake-News.pdf>
3. Sabzalieva, E., & Valentini, A. (2023). *ChatGPT and artificial intelligence in higher education: quick start guide*. URL:
https://eduq.info/xmlui/bitstream/handle/11515/38828/ChatGPT-Artificial-Intelligence-in-higher-education-Quick-Start-guide_UNESCO-2023.pdf?sequence=2&isAllowed=y

Websites:

1. UNESCO (2023). *Information Literacy*.
<https://www.unesco.org/en/ifap/information-literacy>
2. UNESCO (2023). *Five Law of media and Information Literacy*.
<https://www.unesco.org/en/media-information-literacy/five-laws>
3. UNESCO (2021). *7 minutes to understand AI*.
<https://www.youtube.com/playlist?list=PLWuYED1WVJIPHJLk84wWQbzeZcWlt5rwU>
4. *Study Toolbox: Searching Online Databases*. Southern Institute of Technology (SIT) (Sep 12, 2024).
https://sitacnz.libguides.com/Study_Toolbox/Searching_Databases

UAS principles, data modelling and analysis
[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Ana-Cornelia Badea, Dragos Badea, Technical University of Civil Engineering Bucharest (Romania) ana.badea@utcb.ro ; dragos.badea@utcb.ro |
| Sector | Smart |
| Thematic area | Sustainable IT |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0521 Environmental sciences |
| ESCO skills & competences | <p>T1.3 - transversal skills and competences – core skills and competences - working with digital devices and applications</p> <p>T2.2 – transversal skills and competences – thinking skills and competences - planning and organising</p> <p>T4.3 – transversal skills and competences – social and communication skills and competences - collaborating in teams and networks</p> <p>S5.5 – skills – working with computers - accessing and analysing digital data</p> <p>S1.4.2 - skills – communication, collaboration and creativity – presenting information – presenting research or technical information</p> |
| Proposed dates of the classes | 02/05, 09/05, 16/05, 23/05, 30/05, 17:00-19:00 (CET) |
| One hour for tutoring consultations | 23/05, 19:00-20:00 (CET) |
| Date of the exam/ final assessment | 30/05, 17:00-19:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <ul style="list-style-type: none"> • Concepts of UAVs, Flight Planning, Aerial imaging, LiDAR <ul style="list-style-type: none"> ○ Classification of drones ○ Photogrammetric data acquisition ○ Theoretical and practical elements before flying the UAS • Geospatial Data Processing using Dedicated Software <ul style="list-style-type: none"> ○ Different types of software for modeling ○ Different types of problems analyzed based on UAS images ○ Possibilities of 3D modeling based on UAS images |

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| Description of the content (week by week) | Unit 1. Classification of drones (2 hours) Unit 2. Photogrammetric data acquisition (2 hours) Unit 3. Theoretical and practical elements before flying the UAS (1 hour) Unit 4. Different types of software for modelling (1 hour) Unit 5. Different types of problems analysed based on UAS images (2 hours) Unit 6. Possibilities of 3D modelling based on UAS images (2 hours) | | | |
| Importance for society | UAS Principles, Data Modeling and Analysis has been used in various fields such as medicine, engineering, mapping, architecture, manufacturing, police investigation, cultural heritage, and geology. One of the most common uses of photogrammetry is creating maps out of aerial photos. It has proven to be accurate and cost-effective and accurate, allowing planning entities like architects, local governments and construction workers to make clear, informed decisions about their projects without spending months scouring the landscape | | | |
| Skills (hard and soft skills) | Hard skills: Technology use, Technological literacy Soft skills: Analytical thinking, Curiosity | | | |
| Sustainable Development Goals | SDG4: Quality education SDG9: Industry, Innovation and Infrastructure SDG11: Sustainable cities and communities SDG15: Life on land | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirement s/format | Supervision and identity verification during assessment |
| Demonstrate knowledge on flying procedures, data expectancy, UAS pre-flight requirements, identifying steps about UAS data acquisition | 1-Lectures 2-Case studies & discussions (Laboratory) 3-Tutorials | 1-Time-constrained online quizzes 2-Discussions 3-Evaluation of practical skills | group work | Supervised online with identity verification |
| Analysing and modelling data by specific tools | 1-Lectures 2-Case studies & discussions (Laboratory) 3-Tutorials | 1-Time-constrained online quizzes 2-Team presentation 3-Discussions | group work | Supervised online with identity verification |

Bibliography

Books:

1. McGlone, C. (2013). *Manual of Photogrammetry - Sixth Edition* ISBN 10: 1570830991 ISBN 13: 9781570830990, ASPRS
2. Wright, D., Harder, C. (2020). *GIS for Science: Applying Mapping and Spatial Analytics*, Volume 2, ISBN: 9781589485877, ESRI Press

Publications/Articles:

1. A. A. Arfakhshad, A. N. Rahman, L. Kinanti, A. A. Awwalur Rizqi and H. N. Muhammad, "Unmanned Aerial Vehicle (UAV) Data-Driven Modeling Software with Integrated 9-Axis IMU-GPS Sensor Fusion and Data Filtering Algorithm," 2023 15th International Conference on Information Technology and Electrical Engineering (ICITEE), Chiang Mai, Thailand, 2023, pp. 167-173, doi: 10.1109/ICITEE59582.2023.10317781
2. Badea, A. C., Badea, G. - An Overview of Geoprocessing and Export Options for Creating 3D GIS Models Using Drone2Map, RevCAD 28/2020, pg. 7-14, http://revcad.uab.ro/upload/49_761_badeaa_badea.pdf
3. Badea, A. C., Badea, G. - Aspects about Spatial Information Management to optimize Spatial Planning and Sustainable Development, Workshop Joint FIG Commissions 3 and 8, 20-21 July 2021, Prato, Italy, https://www.fig.net/resources/proceedings/2021/2021_07_Comm83.asp

Websites:

1. <https://www.isprs.org/>
2. <https://www.asprs.org/>
3. <https://www.esri.com/en-us/home>

Smart green cities: An introduction

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Oana Luca, Technical University of Civil Engineering Bucharest (Romania) oana.luca@utcb.ro |
| Sector | Urban |
| Thematic area | Smart green cities |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0731 Architecture and town planning |
| ESCO skills & competences | <p>K073 – knowledge – engineering, manufacturing and construction - architecture and construction</p> <p>S1.4.1 – skills – communication, collaboration and creativity – presenting information – presenting general information</p> <p>S1.8.1 – skills – communication, collaboration and creativity – working with others – working with teams</p> <p>T2.1 – transversal skills and competences – thinking skills and competences – processing information, ideas and concepts</p> |
| Proposed dates of the classes | 05/05, 12/05, 19/05, 26/05, 02/06, 16:00-18:00 (CET) |
| One hour for tutoring consultations | 02/06, 18:00-19:00 (CET) |
| Date of the exam/ final assessment | 09/06, 16:00-17:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>In recent years, the topic of sustainable and smart cities has evolved due to rapid urbanization, advancements in technology, and the growing urgency to combat climate change. It has become a trending topic as cities worldwide face increasing pressure to reduce carbon emissions, improve energy efficiency, and enhance the quality of urban living. For students, gaining knowledge about this topic is crucial as it equips them with the skills and understanding needed to address the complex challenges of future urban development. Understanding smart city strategies prepares them to lead innovations in urban sustainability, energy, mobility, and circular economy.</p> |

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| Description of the content (week by week) | <p>Unit 1. Introduction and definitions (1 hour)</p> <p>Unit 2. Principles and benefits of sustainable and smart strategies. Challenges and barriers. Case studies (1 hour).</p> <p>Unit 3. Renewable energy sources. Case studies (1 hour)</p> <p>Unit 4. Energy efficiency strategies. Challenges and successes in sustainable energy implementation. Good practices (1 hour)</p> <p>Unit 5. Urban Mobility Challenges. Intelligent infrastructure. Integration of Sustainable Transportation Modes with Intelligent Infrastructure (1 hour)</p> <p>Unit 6. Policy and Regulatory Frameworks for Promoting Sustainable Mobility. Future trends. Case studies (1 hour)</p> <p>Unit 7. Key concepts and strategies. Business models. Policy and Regulatory Frameworks (1 hour)</p> <p>Unit 8. Technological Innovations in circular economy. Circular economy in practice. Future trends and opportunities (1 hour)</p> <p>Unit 9. Nature based solutions in smart cities (1 hour)</p> <p>Unit 10. Project presentation (1 hour)</p> |
| Importance for society | <p>The topic of sustainable and smart cities is significant for society because it addresses the urgent need to create urban environments that are more resilient, efficient, and capable of supporting future generations. As cities grow and urban populations increase, the challenges related to resource management, pollution, traffic congestion, energy consumption, and waste disposal become more pronounced. Sustainable and smart city strategies provide innovative solutions to these challenges, promoting economic growth, environmental preservation, and social well-being.</p> <p>This topic raises awareness about the importance of integrating sustainable practices into urban planning and development. It highlights the need for cities to adopt smart energy systems that reduce reliance on non-renewable resources and enhance energy efficiency. Additionally, it emphasizes the role of sustainable mobility—such as electric public transportation and shared mobility services—in reducing emissions and improving air quality. The inclusion of circular economy principles and nature-based solutions further demonstrates the interconnectedness of urban systems, encouraging cities to minimize waste, recycle resources, and leverage natural ecosystems for better air and water quality. Raising awareness about these topics also promotes the adoption of cutting-edge technologies like smart grids, IoT (Internet of Things), and AI, which help manage resources more efficiently and improve the quality of life for residents. Ultimately, this awareness pushes society to rethink how cities are designed and operated, fostering a shared responsibility for building more sustainable, resilient, and livable urban environments. It draws attention to the need for both immediate and long-term strategies, inspiring policymakers, businesses, and citizens to collaborate in shaping a smarter, greener future.</p> |

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| Skills (hard and soft skills) | Hard skills: 1. Analysing solutions on sustainable energy and transport. 2. Analysing policies for smart and sustainable cities Soft skills: 1. Cooperation 2. Problem thinking | | | |
| Sustainable Development Goals | SDG4. Quality education SDG6. Clean water and sanitation SDG7. Affordable and clean energy SDG9. Industry, innovation and infrastructure SDG10. Reduced inequalities SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG13. Climate action | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Demonstrate the core principles of sustainable and smart cities | Presentation, discussions, group work, individual work, project. | projects, presentations prepared by students, evaluation of assignments, debates | Group work, projects. Work in pairs, presentation in front of the colleagues. | Supervised online or onsite with identity verification |
| Discuss the role of energy efficiency and RES in smart cities, analyse sustainable transportation options, explore and create smart mobility solutions, examine and generate green infrastructure solutions. | Presentation, discussions, group work, individual work, project. | projects, presentations prepared by students, evaluation of assignments, debates | Group work, projects. Work in pairs, presentation in front of the colleagues. | Supervised online or onsite with identity verification |
| Bibliography | Books: 1. Smart Cities, Lock-in, Path-dependence and Non-linearity of Digitalization and Smartification, edited by <i>Anna Visvizi and Anna Godlewska – Majkowska</i> , 1st Edition, First Published 2024, Imprint Routledge, eBook ISBN 9781003415930, https://doi.org/10.1201/9781003415930 | | | |

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1. Luca, Oana, Florian Gaman, and Emanuel Răuță (2021) *Towards a National Harmonized Framework for Urban Plans and Strategies in Romania*. Sustainability 13.4: 1930.
2. Luca, Oana, et al. (2023) *Unveiling the Hidden Effects of Automated Vehicles on “Do No Significant Harm” Components*. Sustainability 15.14: 11265.
3. O'Dwyer, Edward, et al. (2019) *Smart energy systems for sustainable smart cities: Current developments, trends and future directions*. Applied energy 237: 581-597.
4. Kim, Hakpyeong, et al. (2021) *A systematic review of the smart energy conservation system: From smart homes to sustainable smart cities*. Renewable and sustainable energy reviews 140: 110755.
5. Oral, Hasan Volkan, et al. (2020) *A review of nature-based solutions for urban water management in European circular cities: a critical assessment based on case studies and literature*. Blue-Green Systems 2.1: 112-136.

Websites:

1. <https://www.bable-smartcities.eu/home.html>
2. <https://www.smart-cities.eu>
3. <https://smart-cities-marketplace.ec.europa.eu/projects-and-sites>

Environmental literature

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Mirna Sindičić, University of Zadar (Croatia) msindici@unizd.hr |
| Sector | University |
| Thematic area | Environmental and science education |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0232 Literature and linguistics |
| ESCO skills & competences | <p>S1.3.1 – Skills – communication, collaboration and creativity – teaching and training – teaching academic or vocational subjects – teach principles of literature</p> <p>K0232 – Knowledge – arts and humanities – languages - literature and linguistics – literary theory</p> <p>K0314 – Knowledge – social sciences, journalism and information – social and behavioural sciences - sociology and cultural studies</p> |
| Proposed dates of the classes | 05/05, 12/05, 19/05, 26/05, 02/06, 09/06, 14:00-16:00 (CET) |
| One hour for tutoring consultations | To be announced |
| Date of the exam/ final assessment | 09/06, 14:00-16:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 12 h</p> <p>Asynchronous hours & self-directed learning: 13 h</p> |
| General description | <p>Environmental humanities are among the most dynamic subfields in literary and cultural studies today. This course on environmental literature, situated within the framework of environmental humanities, provides guidance in reading and analyzing climate fiction and environmental literature. Through the study of selected fictional texts, students will explore nature/society dualisms and the relationship between humans and the natural environment. Reading literature offers numerous benefits beyond entertainment and personal growth. It enriches vocabulary, develops empathy, enhances communication skills, and fosters analytical and critical thinking. Importantly, it also raises awareness of climate change and underscores the need for a more sustainable way of living. The aim of this course is to examine why literary fiction matters in the context of climate change discussions, investigate how literary and cultural forms shape perceptions of and relationships with the environment, and understand how writers express their environmental concerns within broader debates on climate change. Ultimately, the course seeks to demonstrate how fictional texts can</p> |

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| | raise awareness about climate change and suggest new ways of thinking about this critical issue. | | | |
| Description of the content (week by week) | <p>Unit 1. Course introduction. What are the Environmental humanities? What is the Anthropocene? Responding to the Environmental crisis (2 hours)</p> <p>Unit 2. Literature and the Anthropocene. Ecocriticism and Ecopoetics. Does Climate fiction make a difference? (2 hours)</p> <p>Unit 3. Early ecological fiction and Nature Writing. (2 hours)</p> <p>Unit 4. Climate change and 20th and 21st Century Literature. (2 hours)</p> <p>Unit 5. Imagining extinction. Concluding remarks. (2 hours)</p> | | | |
| Importance for society | <ul style="list-style-type: none"> Increases awareness on environmental issues. Humanizes climate change and provokes empathy. Provokes ethical reflections and critical thinking about environment, ecology, climate change and sustainability. Inspires action and change. | | | |
| Skills (hard and soft skills) | <p>Hard skills: Writing skills, Communication skills</p> <p>Soft skills: Analytical & Critical thinking, Active listening</p> | | | |
| Sustainable Development Goals | <p>SDG4. Quality education</p> <p>SDG5. Gender equality</p> <p>SDG10. Reduced inequalities</p> <p>SDG11. Sustainable cities and communities</p> <p>SDG12. Responsible consumption and production</p> <p>SDG13. Climate action</p> <p>SDG17. Partnerships for the goals</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Analyse the assigned environmental literature | Lecture and discussion | Presentation prepared by student | Individual work on final essay | Supervised online |
| Interpret literary and cultural texts within wider debates and discourses on environment and climate change | Case studies | Evaluation of assignment | Attendance and class participation | Supervised online |

Bibliography**Books:**

1. Jean Giono, *The Man who Planted Trees*
2. Paolo Cognetti, *The Eight Mountains*
3. J. G. Ballard, *The Drowned World*
4. Maja Lunde, *The History of bees*

Publications/articles:

1. Clark, Timothy (2011), *The Cambridge Introduction to Literature and the Environment*, Cambridge University Press.
2. Emmet, R. S., Nye, D. E. (2017), *The Environmental Humanities. A Critical Introduction*, The MIT Press
3. Parham, John (ed.) (2021), *The Cambridge Companion to Literature and the Anthropocene*, Cambridge University Press.

Websites:

1. <https://climateimagination.asu.edu/everything-change/>
2. <https://www.dailymotion.com/video/xw69i5>
3. <https://www.imdb.com/title/tt14641542/>

Animal welfare in research labs

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Emmanouil Malandrakis, Agricultural University of Athens (Greece) emalandrak@aua.gr |
| Sector | University |
| Thematic area | Ethics/Bioethics |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0899 Agriculture, forestry, fisheries and veterinary not elsewhere classified |
| ESCO skills & competences | K0920 – knowledge – health and welfare – welfare - welfare not further defined K0831 – knowledge – agriculture, forestry, fisheries and veterinary – fisheries - fisheries S6.9.0 – skills – handling and moving - handling animals – handling animals |
| Proposed dates of the classes | 05/05, 12/05, 19/05, 26/05, 02/06, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 27/05, 10:00-11:00 (CET) |
| Date of the exam/ final assessment | 02/06, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | After the successful completion of the Program, the students will be able to demonstrate responsibility for implementing, monitoring, and maintaining the right conditions for Experimental Animals. |
| Description of the content (week by week) | Unit 1. Introduction - Stress and Welfare in Experimental Animals (2 hours) Unit 2. National and international legislation regarding the handling of laboratory animals (2 hours) Unit 3. Fundamental knowledge of laboratory animal care (2 hours) Unit 4. Statistical analysis and data processing of animal experimental data (2 hours) Unit 5. Written exams (2 hours) |
| Importance for society | This micro-credential is expected to yield substantial social, economic, and environmental benefits, promoting sustainable production practices and ensuring the welfare of the animals involved. |

| Skills (hard and soft skills) | Hard skills: <ul style="list-style-type: none"> Fish care in laboratory conditions, Legislation about animal experimentation (European and national) Statistical analysis for fish experimentation (power analysis, Analysis of variance etc.). Soft skills: <ul style="list-style-type: none"> Oral and written communication skills, Critical thinking skills, Problem-solving skills. | | | |
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| Sustainable Development Goals | SDG4. Quality education SDG9. Industry, innovation and infrastructure SDG14. Life below water | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Analyze fundamental concepts of fish stress physiology | Lecture, presentations, discussions | Written exams | Students will be required to discuss their ideas with colleagues. | Supervised online with identity verification. |
| Plan fish handling and experimentation in the lab | Lecture, presentations, discussions | Written exams | Students will be required to discuss their ideas with colleagues. | Supervised online with identity verification. |
| Bibliography | Books: <ol style="list-style-type: none"> <i>The Welfare of Fish</i>, 2020. Kristiansen S. Tore, Fernö Anders, Pavlidis A. Michalis, Hans van de Vis. Springer Publications/articles: <ol style="list-style-type: none"> M. Toni, A. Manciocco, E. Angiulli, E. Alleva, C. Cioni, S. Malavasi, (2019) <i>Review: Assessing fish welfare in research and aquaculture, with a focus on European directives</i>, <i>Animal</i>, 13 (1):161-170 Paul J. Ashley (2007) <i>Fish welfare: Current issues in aquaculture</i>, <i>Applied Animal Behaviour Science</i>, 104, (3–4): 199-235 Websites: <ol style="list-style-type: none"> https://www.efsa.europa.eu/en/topics/topic/fish-welfare https://fishfromgreece.com/en/nea/approval-of-the-mediterranean-fish-welfare-as-national-guide/ https://www.fao.org/family-farming/detail/en/c/1068913/ | | | |

How to get international experience without leaving home

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Jean-François Berthevas, La Rochelle Université (France) jean-francois.berthevas@univ-lr.fr |
| Sector | European |
| Thematic area | European initiatives for youth |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0314 - Sociology and Cultural Studies <i>[Note: this classification covers education related to understanding and analysing cultural diversity and societal structures, aligning with the emphasis on intercultural communication and global citizenship]</i> |
| ESCO skills & competences | S1.8. - skills – communication, collaboration and creativity - working with others T4.1 - transversal skills and competences – communicating – communication skills T6.4. transversal skills and competences – applying cultural skills and competences – demonstrate cultural awareness |
| Proposed dates of the classes | 05/05, 12/05, 19/05, 26/05, 02/06, hours to be announced |
| One hour for tutoring consultations | To be announced |
| Date of the exam/ final assessment | To be completed by 02/06/2025 |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | This micro-credential course explores the concept of <i>Internationalisation at Home</i> (IaH), providing students with the tools and perspectives needed to foster global engagement within local academic and social contexts. Through four interconnected units, participants will examine the foundations of IaH, cultural diversity, intercultural communication, and sustainable global collaboration. The course is designed to enhance students' understanding of how to engage with global issues and diverse cultures in ways that promote inclusivity, mutual respect, and global citizenship. |
| Description of the content (week by week) | Unit 1. Introduction to internationalisation at home (2 hours) Unit 2. Cultural diversity and intercultural communication (2 hours) Unit 3. Intercultural practices for global citizenship (2 hours) Unit 4. Sustainable global collaboration (2 hours) |

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| | Unit 5. Assessment (2 hours) | | | |
| Importance for society | <p>This micro-credential is significant in that it is designed to support learners to foster and enhance the necessary skills and knowledge required to evolve within intercultural settings. The knowledge, skills and competencies that are inherent in the module are crucial for fostering mutual understanding, respect, and collaboration in an increasingly globalised world. Through the development of these competencies, individuals should be better placed to navigate cultural differences, build inclusive communities, work collaboratively thereby enhancing social cohesion.</p> <p>Additionally, these skills are vital in professional and academic contexts, where diverse teams are the norm, and effective communication across cultural boundaries leads to innovation and problem-solving. These skills are universal in nature, and, given the profile of the learner on the micro-credential, this will add to the interdisciplinary dimension of the module. In that regard, graduates should be better placed to make a meaningful contribution to society and should feel more connected with their peers, thereby further supporting them to be global citizens.</p> | | | |
| Skills (hard and soft skills) | <p>Hard skills:</p> <ul style="list-style-type: none"> • Language Skills; • Scoping and Planning; • Reporting & Documentation. <p>Soft skills:</p> <ul style="list-style-type: none"> • Intercultural skills; • Awareness of international perspectives and diverse opinions; • Increased understanding of global challenges. | | | |
| Sustainable Development Goals | <p>SDG 4. Quality education</p> <p>SDG 10. Reduced Inequalities</p> <p>SDG 17. Partnerships for the goals</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Demonstrate an understanding of cultural diversity by applying strategies for effective intercultural communication and collaboration within local, virtual, and global contexts. | There will be a range of teaching and learning approaches adopted, inter alia: presentations, group discussions, activities, MCQs, case | <p>One deliverable as follows:</p> <p>Pair-based Critical Conversation:</p> <p>Title: <i>Analysing Learning, Reflecting and Future Applications</i> – 100%</p> | <p>This is <i>both an individual and paired assignment</i>, in that the preparation for the assignment will be completed on an individual basis, but the assignment itself will be <i>a dialogue-based, critical conversation conducted in pairs</i>.</p> <p>The learners will be assessed on an</p> | Online but with identity verification |

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| <p>Integrate international perspectives into professional and academic settings, fostering inclusivity and global citizenship.</p> | <p>scenarios, etc.</p> | | <p>individual basis. The conversation will be hosted and recorded on a suitable platform, such as MS Teams, Zoom, etc. The critical conversation will consist of two students engaging in a 6-minute recorded conversation, where each student critically analyses and reflects on their learning from the module.</p> | |
| <p>Bibliography</p> | <p>Essential:</p> <ul style="list-style-type: none"> • Global Impact Institute (2018). <i>Internationalisation at home in 60 seconds</i>. YouTube. Available at: https://www.youtube.com/watch?v=wNXnTeF_BOo • World Council on Intercultural and Global Competence. (2021). <i>Developing Intercultural Competence: Understand, Resist, (Re)Structure, (Un)Learn, and Negotiate Culturally and Linguistically Diverse Learning Environment</i>. Available at: https://iccglobal.org/2021/11/28/developing-intercultural-competence-understand-resist-restructure-unlearn-and-negotiate-culturally-and-linguistically-diverse-learning-environment/ • Evans, H. (2016). <i>What does it mean to be a citizen of the world?</i> Hugh Evans. YouTube. Available at: https://www.youtube.com/watch?v=ODLg_00f9BE • Veronica (2024). <i>Intercultural Communication podcast</i>. Spotify. Available at: https://open.spotify.com/show/3wA8jCTWeueQNBzjmBI2P9 <p>Desirable/Optional:</p> <p>Harrison, N. (2015). Practice, problems and power in 'internationalisation at home': critical reflections on recent research evidence. <i>Teaching in Higher Education</i>, 20(4), pp.412–430. doi: https://doi.org/10.1080/13562517.2015.1022147</p> <ul style="list-style-type: none"> • University World News. (2023). <i>A new kind of internationalisation to help achieve SDGs</i>. [online] Available at: https://www.universityworldnews.com/post.php?story=20231031125854458 | | | |

APPENDIX A

Micro-credential: Internationalisation @ Home

Assignment Brief

Assignment Title: Critical Conversation: Analysing Learning, Reflecting and Future Applications

| Assignment Details | |
|-----------------------|--|
| Nature of assignment: | Dialogic Conversation [individual reflection preparation followed by recorded discussion in pairs] |
| Weighting: | 100% |
| Length: | 6-minute recorded dialogue on a suitable platform, e.g. MS Teams, Zoom, etc. |
| Submission Deadline: | tbc |
| Submission Platform: | to be submitted through Moodle [or another VLE/LMS if required] |

Aim of assignment

The purpose of this assignment is to reflect on and assess your ability to critically engage with the concepts, strategies, and practices explored in the micro-credential *Internationalisation @ Home*. As a learner, you are required to reflect on your learning journey throughout the module, demonstrating how your understanding has evolved and how you plan to apply the knowledge within your current or future context. This assignment should capture evidence of your engagement with key topics and activities from across the module.

Alignment with Learning Outcomes

This assignment is aligned with the following learning outcomes:

- Demonstrate an understanding of cultural diversity by applying strategies for effective intercultural communication and collaboration within local, virtual, and global contexts.
- Consider and integrate international perspectives into professional and academic settings, fostering inclusivity and global citizenship.

Assignment Aims

Through completion of this assignment, the learner should be able to:

- Demonstrate a critical understanding of the concept of internationalisation at home and its relevance in your current and/or future context.
- Reflect on your learning and identify key insights gained throughout the module.
- Consider international perspectives in a variety of personal and professional contexts.
- Propose actionable steps to enhance inclusivity and intercultural competence in your environment.

Nature of Assignment

This is both an individual and paired assignment, in that the preparation for the assignment will be completed on an individual basis, but the assignment itself will be a dialogue-based, critical conversation conducted in pairs. The learners will be assessed on an individual basis. The conversation will be hosted and recorded on a suitable platform, such as MS Teams, Zoom, etc. The critical conversation will consist of two students engaging in a 6-minute recorded conversation, where each student critically analyses and reflects on their learning from the module.

The recorded conversation should:

- Demonstrate critical engagement with module content.
- Analyse key themes and concepts from at least two topics within the module.
- Relate the module learning to future academic, professional, or personal contexts.
- Provide examples and contexts to support the discussion.

Assignment Grading

Each learner will be assessed individually within these critical conversations. The micro-credential will be assessed on a Pass/Fail basis. Each learner will be assessed individually within these critical conversations.

Re-assessment Strategy

Learners will have the possibility to re-submit the assignment should they not be successful.

Guidance for Inclusion

The conversation should demonstrate a balanced and meaningful exchange of ideas, with both participants contributing equally. Together, learners will reflect on *at least* two key topics covered in the module, analyse their significance, and discuss how their learning can be applied to future contexts, particularly within their own discipline areas. The conversations should be supported with relevant examples.

The recorded conversation should:

- **Demonstrate critical engagement** with module content.
- **Analyse key themes and concepts** from at least two topics within the module.
- **Relate the module learning** to future academic, professional, or personal contexts.
- **Provide examples and contexts** to support the discussion.

Assessment Guidelines

1. Preparation

- You will be assigned a partner for this assignment. It is your responsibility to contact your partner and to arrange a time that suits you both to meet up.
- In your pairs, agree on *at least* two topics from the module to focus on (e.g., internationalisation at home, intercultural communication, inclusivity, global citizenship, or strategies for internationalisation).
- Reflect individually on your learning from the module and how it connects to your own discipline or context and how it may connect to personal and professional contexts.
- Plan key points and examples you wish to discuss, ensuring the conversation is natural and balanced.
- Practise defending your position before the recorded piece.

2. Content Requirements

Your conversation should include:

- **Critical Analysis:**
 - A discussion of *at least* two module topics, critically analysing their relevance and implications.
 - Reflections on how your perspectives may have evolved during the module.
- **Future Application:**
 - How you plan to apply your learning to your academic, professional, or personal contexts.
 - Connections to your discipline, field of study, or future context.
- **Use of Examples:**
 - Specific examples or scenarios to illustrate your points.
 - References to module materials, activities, or discussions where appropriate [*Note: these can be readings, viewings, listenings, from the essential and/or optional support resources*]
- **Balanced Contributions:**
 - Ensure equal participation and contribution from both partners throughout the conversation.

3. Recording and Submission

- Record your conversation using MS Teams, Zoom, or another suitable platform.

- Check your audio and video before recording and ensure that the quality of both audio and video is clear and that you are both visible. You may wish to blur your background. At the beginning of the recording, you should say your name and hold up your student photo identity card for verification purposes.
- Save the recording, check it and once you are happy with it, upload it via your VLE/LMS (Moodle). Technical support on how to upload the recording will be provided to all learners.

Assignment Rubric

Assignment Title: Critical Conversation Analysing Learning, Reflecting and Future Applications

Student Number: _____

Date: _____

| Criteria | Achieving (Excellent) | Developing (Good) | Emerging (Needs improvement) | Beginning (Unsatisfactory) |
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| Critical Analysis (40%) | Demonstrates deep and insightful analysis of module topics, with clear connections to learning and future contexts. Example: Analyses the challenges of intercultural communication and links them to their field of study. | Discusses module topics with some critical analysis, though connections to future contexts are less detailed. Example: Discusses inclusivity but generalises its application. | Provides basic analysis of module topics but lacks depth or clear connections to future contexts. Example: Describes content but avoids critical discussion. | Limited or superficial discussion of module topics, with no critical analysis or future connections. Example: Repeats module material without reflection. |
| Future Application (30%) | Explores practical and relevant applications of learning to academic, professional, or personal contexts. Example: Proposes specific strategies for applying inclusivity in academic or workplace settings. | Identifies potential applications of learning but lacks detail or practicality. Example: Suggests general future use without specific strategies. | Mentions possible applications of learning but offers little detail or relevance to their context. Example: Vaguely connects learning to future contexts. | Provides no clear application of learning to future contexts. Example: Does not discuss how learning might be used beyond the module. |
| Balance and Collaboration (20%) | Both participants contribute equally, exchanging ideas and building on each other's points. Example: Each partner offers examples and analyses key themes in a balanced manner. | Contributions are mostly balanced, though one participant may dominate slightly. Example: Both partners participate, but one leads the discussion disproportionately. | Contributions are uneven, with one partner contributing significantly more. Example: One partner dominates while the other adds minimal input. | Little to no collaboration, with one participant doing most or all of the talking. Example: One partner leads entirely, with little input from the other. |
| Use of Examples (10%) | Examples are specific, relevant, and support the discussion effectively. Example: Cites a group activity and explains how it informed their understanding of global citizenship. | Examples are relevant but not always specific or fully developed. Example: Refers to a reading but doesn't explain its impact in detail. | Limited use of examples, with some relevance but minimal development. Example: Mentions a concept vaguely without connecting it to their context. | No use of examples or irrelevant examples that do not support the discussion. Example: Does not provide any concrete examples to support points. |

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| Feedback from instructor: | | | | |
| What went well? | | | | |
| Considerations for future growth? | | | | |
| Comments on feedback and plans for future action (<i>to be completed by the learner</i>) | | | | |

Environmental monitoring and indicators

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Sofia Mavrikou, Agricultural University of Athens (Greece) sophie_mav@aua.gr Assistant Professor: Chrysi Papadimitriou, cpapadim@aua.gr |
| Sector | Coastal |
| Thematic area | Water management |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0521 Environmental sciences |
| ESCO skills & competences | S1.4.2 - presenting research or technical information S2.2.1 - preparing financial documents, records, reports, or budgets T1.3 - working with digital devices and applications |
| Proposed dates of the classes | 06/05, 13/05, 20/05, 27/05, 03/06, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 28/05, 10:00-11:00 (CET) |
| Date of the exam/ final assessment | 03/06, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | Training in the science of environmental monitoring and methods for identifying relevant indicators, including but not limited to the acquisition of environmental data over time to observe or detect changes in key variables. Such monitoring typically focuses on environmental management objectives and, by extension, on assessing potential harmful effects of human impacts, biodiversity and changes in ecological quality over time. |
| Description of the content (week by week) | Unit 1. The Water Framework Directive (1 hour) Unit 2. Standard classification of rivers (0,5 hour) Unit 3. Criteria for the selection of reference areas and definition of reference conditions (0,5 hour) Unit 4. Introduction to environmental indicators (0,5 hour) Unit 5. Characteristics for the development of indicators (0,5 hour) |

| | Unit 6. Main types & selection of indicators (0,5 hour) Unit 7. Indicators of the aquatic environment (0,5 hour) Unit 8. Sampling methods and design (1 hour) Unit 9. Data analysis (1 hour) Unit 10. Species-based indicators (0,5 hour) Unit 11. Indicators for river ecological status studies (0,5 hour) Unit 12. Organisms used (0,5 hour) Unit 13. Necessities, periodicity and regulations (0,5 hour) Unit 14. Exam (2 hour) | | | |
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| Importance for society | This micro-credential will have a significant social, economic and environmental impact and will contribute to achieving an appropriate type of environmental monitoring and further analysis to draw statistically sound conclusions. The proposed programme is fully in line with the 17 UN Sustainable Development Goals as it covers areas that include primarily social (environmental awareness, provision of education, remote and multilingual training with practical application) and environmental sustainability (maintaining ecological quality, biodiversity conservation, protection of water resources) and secondarily economic sustainability (training individuals in modern environmental monitoring methods). | | | |
| Skills (hard and soft skills) | Hard skills: Promoting environmental awareness, Develop skills in environmental tools for assessing ecological quality Soft skills: Critical thinking skills, Problem-solving skills. | | | |
| Sustainable Development Goals | SDG3. Good health and well-being SDG4. Quality education SDG6. Clean water and sanitation SDG10. Reduced inequalities SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG13. Climate action SDG14. Life below water SDG15. Life on land SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Use indicators for the assessment of environmental and ecological quality | Lecture, presentations, discussions | Exams | Presentation in front of the colleagues | Supervised online or onsite with identity verification |

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| Design and implement an integrated environmental and ecological quality monitoring system | Lecture, presentations, discussions | Exams | Presentation in front of the colleagues | Supervised online or onsite with identity verification |
| Bibliography | <p>Book:</p> <p>Günther, O., Radermacher, F.J., & Riekert, W. (1995). <i>Environmental monitoring: Models, methods and systems</i>.</p> <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Anuj, K., Hiesik, K., and Gerhard, P.H. <i>Environmental Monitoring Systems: A Review</i>, 2013, IEEE SENSORS JOURNAL, 13, 4. 2. Šećerov, I. , Dolinaj, D. , Pavić, D. , Milošević, D. , Savić, S. , Popov, S. and Živanov, Ž. (2019) <i>Environmental Monitoring Systems: Review and Future Development</i>. <i>Wireless Engineering and Technology</i>, 10, 1-18. doi: 10.4236/wet.2019.101001. 3. Puig, M., Darbra, R.M., <i>Innovations and insights in environmental monitoring and assessment in port areas</i>, 2024, Current Opinion in Environmental Sustainability, 70, 101472, doi:10.1016/j.cosust.2024.101472. | | | |

Using AI when working with very large document collections: opportunities and risks

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Antoine Doucet, La Rochelle Université (France) antoine.doucet@univ-lr.fr |
| Sector | Smart |
| Thematic area | Digital humanities |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0688 Inter-disciplinary programmes and qualifications involving Information and Communication Technologies (ICTs) |
| ESCO skills & competences | <p>K0619 – knowledge – information and communication technologies (icts) – information and communication technologies (icts) – information and communication technologies not elsewhere classified – principles of artificial intelligence</p> <p>S2.7 – analysing and evaluating information and data</p> <p>T2.1 – transversal skills and competences – thinking skills and competences – processing information, ideas and concepts – think analytically</p> <p>T2.4 – transversal skills and competences – thinking skills and competences – thinking creatively and innovatively – think innovatively</p> |
| Proposed dates of the classes | <p>First obligatory synchronous session: Wednesday, 07/05/2025, 09:00-11:00 (CET)</p> <p>After that, 4 asynchronous units will be made available weekly on Mondays, from Monday, 12/05/2025 to Monday, 02/06/2025</p> |
| Two hours for tutoring consultations | <p>Friday, 09/05, 11:00-12:00 (CET)</p> <p>Wednesday, 04/06, 10:00-11:00 (CET)</p> |
| Date of the exam/ final assessment | To be completed asynchronously by <u>(date to be announced)</u> |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 2</p> <p>Asynchronous hours & self-directed learning: 23 h</p> <p>Online office hours will be provided</p> |

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| General description | <p>Artificial Intelligence (AI) is a key development of the digital transformation that considerably affects all of our lives. In this course, we will see how AI can be used to apprehend large collections of documents (among other opportunities) and what risks this actually poses, in particular in the context of digital humanities. Key skills to be learnt in the course are the following:</p> <ol style="list-style-type: none"> 1. Know what you are dealing with and know what you are doing with it: working on being aware of the limits of automated approaches (e.g. since optical character recognition is imperfect, a search engine keyword query will not necessarily provide all the matching documents, thus causing the risk that a large portion of the relevant information is completely missed, causing false interpretations based on incomplete data). It is essential for DH students to get a good understanding of how the algorithms for document analysis function, in order to get an informed understanding of their capacities and limits. 2. Use of digital libraries (DL): The NewsEye platform as an example of a self-contained digital library including a tool box and meaning to export collections and subcollections. As all DLs share common properties, learning to use one is very helpful to using others in the future 3. Develop critical thinking when using tools and datasets and understand hermeneutics. 4. Learn to be involved in collaborative interdisciplinary work: concentration on work with small interdisciplinary tasks in groups, engaging students of different backgrounds to combine their skills, work with each other and learn from each other. Learning to collaborate with specialists of other disciplines is a critical aspect of any work in digital humanities, as no one can ever become a specialist of all the disciplines involved. |
| Description of the content (week by week) | <p>Unit 1. Introduction (5 hours, including homework)</p> <p>Unit 2. Presentation of the NewsEye platform (5 hours, including homework)</p> <p>Unit 3. Understanding how such a platform works (5 hours, including homework)</p> <p>Unit 4. Information extraction and document understanding (5 hours, including homework)</p> <p>Unit 5. Final project work (5 hours, including homework)</p> |

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| Importance for society | Make people more aware of what using AI implies, what it can do, what it cannot, and what happens behind the curtain. | | | |
| Skills (hard and soft skills) | Hard skills: Understanding NewsEye project & Using digital libraries Soft skills: Critical thinking & Cross-cultural collaboration | | | |
| Sustainable Development Goals | SDG4: Quality education SDG9: Industry, innovation and infrastructure | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
| Demonstrate a critical thinking in using tools and datasets and understanding hermeneutics | Online material and lectures, independent work | Quizz | Quizz | Unsupervised with no identity verification |
| Show knowledge of the concept of digital humanities | Online material and lectures, independent work | Quizz and project | Quizz and project | Unsupervised with no identity verification |
| Bibliography | <ul style="list-style-type: none"> – Material: <ul style="list-style-type: none"> ○ https://teach.dariah.eu/course/view.php?id=71 – Background <ul style="list-style-type: none"> ○ https://www.newseye.eu/ ○ A Doucet et al., (2020) <i>NewsEye: A digital investigator for historical newspapers</i>, Digital Humanities ADHO (link) ○ C. Suire et al., (2023) <i>An OER on digital historical research on European historical newspapers with the NewsEye platform</i>, Journal of Education for Information, vol. 39, no. 2, pp. 139-153 (link) ○ S. Oberbichler et al., (2022) <i>Integrated interdisciplinary workflows for research on historical newspapers: Perspectives from humanities scholars, computer scientists, and librarians</i>, Journal of the Association for Information Science and Technology 73(2): 225-239 (link) | | | |

Marine ecosystem services and the impact of the Invasive Alien Species in the Mediterranean Sea

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Stefanos Kalogirou, Agricultural University of Athens (Greece) stefanos.kalogirou@aua.gr |
| Sector | Coastal |
| Thematic area | Ecosystem services |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0521 Environmental sciences |
| ESCO skills & competences | K0521 - knowledge – natural sciences, mathematics and statistics – environment - environmental sciences K0522 - knowledge – natural sciences, mathematics and statistics – environment - natural environments and wildlife T6.2 – transversal skills and competences – life skills and competences - applying environmental skills and competencies |
| Proposed dates of the classes | 07/05, 14/05, 21/05, 28/05, 04/06, 10:00-12:00 (CET) |
| One hour for tutoring consultations | 27/05, 10:00-11:00 (CET) |
| Date of the exam/ final assessment | 04/06, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | This micro-credential offers an in-depth exploration of marine ecosystem services and the impacts of invasive species, emphasizing their ecological importance. The topic has evolved with a growing understanding of ecological interactions and the critical services marine ecosystems provide, driven by climate change, biodiversity loss, and public awareness. Understanding these concepts equips students with the skills to contribute to sustainable management practices and policies, opening diverse career opportunities. The course fosters critical thinking and problem-solving abilities, preparing students to engage with global conservation efforts. |
| Description of the content (week by week) | Unit 1. Introduction to marine ecosystems and their functioning - ecosystem services (2 hours) |

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| | Unit 2. Marine ecosystem services and their functioning - Ecology to study Invasive Alien Species (2 hours) Unit 3. In-depth study of invasive alien species and their impact on marine ecosystem services in the Mediterranean Sea. Case studies of invasive species (2 hours) Unit 4. Case studies of invasive species (2 hours) Unit 5. Exam session (2 hours) | | | |
| Importance for society | The significance for society lies in understanding the essential services marine ecosystems provide that invasive species can disrupt, leading to significant ecological and socioeconomic changes. This topic highlights the need for proactive conservation efforts, informed policy-making, and community engagement to protect marine environments. Increased attention to these issues fosters a sense of responsibility and encourages actions toward sustainability and resilience. | | | |
| Skills (hard and soft skills) | Hard skills: <ul style="list-style-type: none"> • Knowledge of basic concepts related to marine ecosystems and ecosystem services • Knowledge of basic concepts related to marine invasive species • Identification of key invasive species • Impacts of key invasive species Soft skills: <ul style="list-style-type: none"> • Critical thinking: Students will enhance their ability to approach problems from multiple perspectives and make informed decisions. • Collaboration: Students will improve their skills in working effectively with others, including interdisciplinary teams and stakeholders. | | | |
| Sustainable Development Goals | SDG13. Climate action SDG14. Life below water SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
| Explain the processes and the ecosystem services of Mediterranean marine ecosystems. | Presentations, Group work, Exams | Presentation (50%) Written Exams (50%) | Students will be required to discuss their ideas with colleagues | Supervised online with identity verification |
| Outline the concepts related to Invasive Alien Species (IAS) | Presentations, Group work, Exams | Presentation (50%) Written Exams (50%) | Students will be required to discuss their ideas with colleagues | Supervised online with identity verification |

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| <p>and recognize the most common ones; Discuss the impact of the alien invasive species on native endemic organisms, the ecosystem, and ecosystem services.</p> | | | | |
| <p>Bibliography</p> | <p>Books:</p> <p>Fifty Years of Invasion Ecology: The Legacy of Charles Elton, 2010. David M. Richardson, Blackwell Publishing Ltd</p> <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Katsanevakis S., Wallentinus I., Zenetos A., Leppäkoski E., Çinar M. E., Oztürk B., Grabowski M., Golani D. and Cardoso A. C. (2014). <i>Impacts of invasive alien marine species on ecosystem services and biodiversity: a pan-European</i>. Review: Aquatic Invasions Volume 9, Issue 4: 391–423 2. Liqueste, C., Piroddi, C., Macías, D. et al. (2016). <i>Ecosystem services sustainability in the Mediterranean Sea: assessment of status and trends using multiple modelling approaches</i>. Sci Rep 6, 34162 (2016). 3. Basconi, L., Rova, S., Stocco, A., & Pranovi, F. (2023). Ecosystem services for supporting coastal and marine resources management, an example from the Adriatic sea (Central Mediterranean sea). <i>Ocean & Coastal Management</i>, 235, 106486. <p>Websites:</p> <ol style="list-style-type: none"> 1. https://easin.jrc.ec.europa.eu/easin | | | |

Management strategies of plant diversity for sustainable development

[\(link to the website and registration platform available here\)](#)

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|---|--|
| Professor's name, university & email | Jorge Juan Vicedo, Catholic University of Valencia (Spain) jorge.juan@ucv.es |
| Sector | Sustainability |
| Thematic area | Sustainable Management |
| <u>EQF level</u> | Level 6 (Bachelor) |
| <u>ISCED-F field</u> | 0522 Natural environments and wildlife; 0810 Agriculture |
| ESCO skills & competences | T4.1 – transversal skills and competences - communicating K0522 - knowledge - natural environments and wildlife - natural areas maintenance S1.9.0 – skills - solving problems S2.3.0 – skills - managing information - manage data |
| Proposed dates of the classes | 7/05, 14/05, 21/05, 28/05, 30/05, 15:30-17:30 (CET) |
| One hour for tutoring consultations | 28/05, 18:00-19:00 (CET) |
| Date of the exam/ final assessment | 30/05, 15:30-16:30 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | <p>This learning unit will offer a general, and interdisciplinary approach, on the current strategies for the management of wild plants as a resource for sustainable economic development. This includes the updated legal frameworks, the ongoing world actions, and the advances in Biotech applied to the plant resources management.</p> <p>This background will provide the principles of plant diversity management to face important current challenges such as the global food security, preservation and use of genetic resources for industries, and Biodiversity conservation, under the principles of the UN Sustainable Development Goals.</p> |
| Description of the content | <p>Unit 1. Introduction to Plant Diversity (2 hours):</p> <ul style="list-style-type: none"> - Plant Diversity. - Wild plants, crop plants and wild crop relatives. |

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| | <ul style="list-style-type: none"> - Sustainable development and the need of plant diversity management <p>Unit 2. Economic value of plant diversity and plant genetic resources (2 hours)</p> <ul style="list-style-type: none"> - Crop plants, and wild crop relatives with economic value. - Wild plants as a reservoir of resources for economic development. <p>Unit 3. International Standards for Plant Management (2 hours):</p> <ul style="list-style-type: none"> - Global actions in plant diversity management. - Legal frameworks for plant diversity management. <p>Unit 4. Plant diversity management (2 hours).</p> <ul style="list-style-type: none"> - Current strategies for crop plants management. - Wild plants management and plant diversity conservation. - Tutoring and consultation. <p>Unit 5. Assessment session (2 hours)</p> <ul style="list-style-type: none"> - Final assessment. - Overview of the course. | | | |
| Importance for society | To increase the awareness on the current opportunities that plant management strategies offer to society for the industry, and the conservation of nature, to ensure food security, and sustainable development. | | | |
| Skills (hard and soft skills) | <p>Hard skills: Plant diversity management, Data analysis</p> <p>Soft skills: Communication, Problem solving</p> | | | |
| SDGs | <p>SDG1. No poverty</p> <p>SDG2. Zero hunger</p> <p>SDG12. Responsible consumption and production</p> <p>SDG15. Life on land</p> | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Comprehend the current strategies in plant diversity management | Lectures and case-study exercises | Multiple choice test, case study exercises | Individual works: exercises to be submitted in the platform | Supervised online with identity verification |
| Identify the most suitable plant resource or strategy for development, and innovation in some fields of applications | Lectures and case-study exercises | Multiple choice test, case study exercises | Individual works: exercises to be submitted in the platform | Supervised online with identity verification |

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Books:

1. Nigel Maxted, Danny Hunter, Rodomiro Ortiz Ríos. **2020**. Plant Genetic Conservation. Cambridge University Press.
2. Kerry Ten Kate, Sarah A Laird. **2019**. The Commercial Use of Biodiversity. Routledge Taylor & Francis Group.

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1. Barba-Espin, G.; Acosta-Motos, J.R. Crop Genetic Resources: An Overview. *Agronomy* **2022**, *12*, 340.
<https://doi.org/10.3390/agronomy12020340>
2. Borelli, T.; Hunter, D.; Powell, B.; Ulian, T.; Mattana, E.; Termote, C.; Pawera, L.; Beltrame, D.; Penafiel, D.; Tan, A.; et al. Born to Eat Wild: An Integrated Conservation Approach to Secure Wild Food Plants for Food Security and Nutrition. *Plants* **2020**, *9*, 1299.
<https://doi.org/10.3390/plants9101299>
3. Gordon M. Hickey, Mariève Pouliot, Carsten Smith-Hall, Sven Wunder, Martin R. Nielsen, Quantifying the economic contribution of wild food harvests to rural livelihoods: A global-comparative analysis. *Food Policy* **2016**, *62*, 122-132, <https://doi.org/10.1016/j.foodpol.2016.06.001>.
4. Gras, A.; Garnatje, T.; Marín, J.; Parada, M.; Sala, E.; Talavera, M.; Vallès, J. The Power of Wild Plants in Feeding Humanity: A Meta-Analytic Ethnobotanical Approach in the Catalan Linguistic Area. *Foods* **2021**, *10*, 61. <https://doi.org/10.3390/foods10010061>
5. Salgotra, R.K.; Chauhan, B.S. Genetic Diversity, Conservation, and Utilization of Plant Genetic Resources. *Genes* **2023**, *14*, 174.
<https://doi.org/10.3390/genes14010174>
6. Shelef O, Weisberg PJ and Provenza FD. **2017**, The Value of Native Plants and Local Production in an Era of Global Agriculture. *Front. Plant Sci.* 8:2069. doi: 10.3389/fpls.2017.02069

Websites:

1. <https://www.fao.org/plant-treaty/en/>
2. <https://www.croptrust.org/work/svalbard-global-seed-vault/>
3. <https://ser-sid.org/>
4. <https://wfoplantlist.org/>

Visual culture

[\(link to the website and registration platform available here\)](#)

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|---|---|
| Professor's name, university & email | Costas Mantzalos, Frederick University (Cyprus) c.mantzalos@frederick.ac.cy |
| Sector | European |
| Thematic area | European identity and its transformation |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0213 Fine arts |
| ESCO skills & competences | <p>S1.0 – skills - communication, collaboration and creativity - communication, collaboration and creativity</p> <p>S1. 12 – skills - communication, collaboration and creativity - creating artistic, visual or instructive materials</p> <p>S1.9 – skills - communication, collaboration and creativity - solving problems</p> <p>T6.4 – transversal skills and competences – life skills and competences - applying cultural skills and competences</p> |
| Proposed dates of the classes | 07/05, 14/05, 21/05, 28/05, 04/06, 18/06, 15:00-17:00 (CET) |
| One hour for tutoring consultations | 11/06, 16:00-17:00 (CET) |
| Date of the exam/ final assessment | 18/06, 15:00-17:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 11 h</p> <p>Asynchronous hours & self-directed learning: 14 h</p> |
| General description | <p>European identity and its transformation: Europe as a cultural community of shared values (cultural identity); Europe as a political community of shared democratic practices (political identity). EU values are such as human dignity, freedom of movement, democracy, equality, rule of law, human rights.</p> <p>Intercultural communication/multilingualism: By enhancing communication skills. and understanding other people's perspectives, this will prove to be a driver for good communication, allowing empathy and caring through diverse opinions and behaviours.</p> <p>Information literacy: This will provide opportunities and a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information</p> |

| | Modernization and heritage protection: The reinvention and the updating of our heritage in the 21 st century which will provide a new dimension and will deal with actions or processes that are aimed at safeguarding the character-defining elements of a cultural resource to retain its heritage value and extend its physical life. | | | |
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| Description of the content (week by week) | Unit 1: Defining Global Visual Culture, Visual Presentations (2 hours) Unit 2: Globalization and Hybridism (2 hours) Unit 3: Consumers / Producers in a Global Network (2 hours) Unit 4: Rethinking the Nation, again: The Nation as Brand (2 hours) Unit 5: The Local and the Global (2 hours) | | | |
| Importance for society | Visual culture highlights shared values like democracy, human dignity, and cultural heritage, promoting unity and understanding in diverse European societies. It enhances intercultural communication by transcending language barriers, visual media fosters empathy, inclusivity, and appreciation for diverse perspectives. Additionally, it empowers critical media literacy by encouraging individuals to critically evaluate visual information, combating misinformation and understanding context and intent as well as it drives social and political awareness as it serves as a tool for advocacy and reflection, inspiring dialogue on human rights, equality, and societal challenges. | | | |
| Skills (hard and soft skills) | Hard skills: Visual media analysis, Heritage preservation techniques Soft skills: Intercultural Communication, Critical thinking and decision making | | | |
| Sustainable Development Goals | SDG1. No poverty SDG2. Zero hunger SDG3. Good health and well-being SDG4. Quality education SDG5. Gender quality SDG8. Decent work and economic growth SDG10. Reduced inequalities SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG13. Climate action SDG16. Peace, justice and strong institutions SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Critically examine visual media to identify | Combination of lectures, seminars, | Self-assessment quizzes, oral | In-class participation discussions, short answer quizzes, | |

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| cultural bias or misinformation | tutorials, group presentations, workshops, and written assessments. | presentations, case studies analysis, group discussions/ debates. | presentations, final exam with presentation | Supervised online or onsite with identity verification. |
| Compare visual representations of cultural heritage across different European regions to explore commonalities and differences | | | | |
| Bibliography | <p>Books:</p> <ol style="list-style-type: none"> 1. Shamita Sharmacharja, A manual for the 21st century Art Institution, Koenign Books, 2009 2. Nicolas Bourriaud, Relational Aesthetics, Les Presse Du Reel, Franc 1998 3. Jean-François Lyotard, The postmodern condition, University of Minesota 1984 4. Bhaba Homi, The Location of Culture, Routledge, 1994 5. John Berger, Ways of Seeing, Penguin 1977 <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Costas Mantzalos, Documenta fifteen: The 15th edition of Documenta, curated by the 'ruangrupa' collective, Kassel, Germany, 18 June–25 September 2022. International Journal of Education Through Art, Volume 19, Issue Art, Sustainability and Partnerships, Mar 2023, p. 135 – 140 2. Eliane Glaser, Bring back ideology: Fukuyama's 'end of history' 25 years on, The Guardian, Fri 21 Mar 2014 <p>Websites:</p> <ol style="list-style-type: none"> 1. https://www.vam.ac.uk/articles/art-nouveau-an-international-style 2. https://www.moma.org/interactives/exhibitions/2009/futurism/ 3. https://www.metmuseum.org/toah/hd/bauh/hd_bauh.htm 4. https://www.metmuseum.org/toah/hd/dsgn3/hd_dsgn3.htm | | | |

Social Entrepreneurship and Commitment in SmUCS

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Johann-Christian Pöder, johann-christian.poder@uni-rostock.de Ulrike Schröder, ulrike.schroeder2@uni-rostock.de Stefan Dienstbeck, stefan.dienstbeck@uni-rostock.de University of Rostock (Germany) |
| Sector | Sustainability |
| Thematic area | Social Entrepreneurship and Commitment |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0223 Philosophy and ethics |
| ESCO skills & competences | K.0223 – knowledge – arts and humanities – philosophy and ethics T.6.2 – transversal skills and competencies – applying environmental skills and competences T.6.4 – transversal skills and competencies – applying cultural skills and competencies T.4.3 – transversal skills and competencies – collaborating in teams and networks – demonstrate intercultural competence |
| Proposed dates of the classes | 09/05, 16/05, 23/05, 30/05, 06/06, 20/06, 10:00-12:00 (CET). |
| One hour for tutoring consultations | 13/06, 10:00-11:00 (CET) |
| Date of the exam/ final assessment | 20/06, 10:00-12:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 12 h Asynchronous hours & self-directed learning: 13 h |
| General description | This course examines the rapidly evolving field of social entrepreneurship and the ethics of sustainability and explores how to create social impact by integrating ethical principles and sustainable practices into entrepreneurial strategies. With a focus on sustainability, this course equips students with the tools to promote environmental stewardship and social justice, from religious as well from secular perspectives. With an emphasis on developing interfaith and intercultural skills, this course prepares students to engage respectfully and effectively with diverse communities. Through case studies and critical discussion, students will explore innovative social entrepreneurship and ethical strategies that promote a culture of sustainability, inclusivity and global awareness. |

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| Description of the content (week by week) | Unit 1. What is social entrepreneurship? Ethical and social commitments (2 hours) Unit 2. Ethics of sustainability in social entrepreneurship (2 hours) Unit 3. The humanistic foundations of sustainability (2 hours) Unit 4. World religions and sustainability (2 hours) Unit 5. Sustainable action and leadership: Case Studies (2 hours) | | | |
| Importance for society | The social importance of this micro-credential for society lies in exploring the vital link between social entrepreneurship and the ethics and practice of sustainability, highlighting the essential role of social and religious entrepreneurship in addressing global challenges, and equipping students with skills to create meaningful social impact. | | | |
| Skills (hard and soft skills) | Hard skills: Communication skills, Research skills Soft skills: Analytical & critical thinking, Ethical and religious awareness | | | |
| Sustainable Development Goals | SDG4. Quality education SDG9. Industry, innovation and infrastructure SDG11. Sustainable cities and communities SDG12. Responsible consumption and production SDG13. Climate action SDG16. Peace, justice and strong institutions SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements /format | Supervision and identity verification during assessment |
| Explain & critically evaluate ethical theories and religious frameworks of social entrepreneurship and sustainability thinking in global perspective | presentations lectures group work individual work homework (tasks) | attendance and class participation quizz | student presentation | supervised online or onsite with identity verification |
| Collaborate or lead in ethically responsible and religiously aware decision making in culturally diverse settings | presentations lectures group work individual work homework (tasks) | attendance and class participation quizz | written assignment | supervised online or onsite with identity verification |

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Books:

1. Nicholls, A. (2006). *Social Entrepreneurs – New Models of Sustainable Social Change*, Oxford University Press.
2. Langergaard, L. L., Dupret, K., & Eschweiler, J. (Eds.) (2023). *Learning about Social Entrepreneurship and Management in Times of Social Transformation*. Springer.
3. Bornstein, D. (2007). *How to Change the World*, Oxford University Press.
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5. Becker, C. U. (2023). *Sustainability Ethics and Sustainability Research*, Springer.
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Websites:

1. <https://sdgs.un.org/>
2. <https://trellis.net>
3. <https://plos.org/>
4. <https://religiousfreedomandbusiness.org/about-our-work>

Sustainable (municipal) waste management in urban coastal city

[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Guillaume Delalieux with the support of PhD Student Alexandre Camino, La Rochelle Université (France) guillaume.delalieux@univ-lr.fr alexandre.camino@univ-lr.fr |
| Sector | Coastal |
| Thematic area | Waste management in coastal areas |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 1021 Community sanitation (Waste management) |
| ESCO skills & competences | K – knowledge – business, administration and law - business and administration S4.0.0 – skills – management skills - management skills - management skills S4.1.0 – skills – management skills - developing objectives and strategies K – natural sciences, mathematics and statistics - environment S1.5.5 – skills - communication, collaboration and creativity – advising and consulting - advising on environmental issues |
| Proposed dates of the classes | 14/05, 21/05, 28/05, 04/06, 11/06, 15:00-17:00 (CET) |
| One hour for tutoring consultations | 04/06, 17:00-18:00 (CET) |
| Date of the exam/ final assessment | 11/06, 15:00-17:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | <p>Waste management has evolved rapidly over the last few decades, influenced by globalization, technological advances, and increasing urbanization. It is a trending topic as we face a growing "waste crisis" impacting global environmental and social systems, particularly in urban coastal regions. Recognizing the critical implications of waste management, students will gain knowledge about waste production, management processes, and sustainable solutions.</p> <p>This course prepares students to confront complex environmental challenges within their professional and personal lives. Understanding waste is essential to</p> |

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| | addressing planetary limits, supporting sustainable practices, and contributing to fairer ecological policies in a globalized world, in line with UN SDG 11 & 12 on sustainable cities and responsible production and consumption. |
| Description of the content (week by week) | <p>Unit 1. Introduction to waste: history, overview of waste definitions, historical context, types of waste (organic, plastic, electronic, hazardous) and their life cycle. (2 hours)</p> <p>Unit 2. Environmental and social impacts of waste (planetary limits, ecological injustices and domination related to waste management) and international responses (treaties and policies) with a focus on the European ones and urban coastal areas specificities. (2 hours)</p> <p>Unit 3. Actors, challenges, and barriers: identifying the key actors (governments, companies, communities) and examining challenges, resistance, and incentives for improved waste practices through case studies. (2 hours)</p> <p>Unit 4. Policy development interactive workshop: students develop waste management policies for a simulated coastal city, integrating knowledge from previous sessions. (2 hours)</p> <p>Unit 5. Project presentations and discussions: final project presentations in groups, followed by discussions and feedback from peers and instructors (2 hours)</p> |
| Importance for society | The micro-credential highlights society's need for greater awareness of waste's environmental and social impacts, encouraging students to consider the inequities involved in waste distribution and the ecological implications for urban coastal areas. Students will gain a nuanced perspective on waste as both a local and global issue, fostering a commitment to sustainable policies and practices, and shedding the light on the lever and lever and breaks in there adoption and deployment. |
| Skills (hard and soft skills) | <p>Hard Skills:</p> <ul style="list-style-type: none"> • Analysis of waste management legislation and policy. • Practical knowledge of sustainable waste management strategies. <p>Soft Skills:</p> <ul style="list-style-type: none"> • Critical thinking and problem-solving through case studies. • Collaboration and communication skills via group work and presentations. |
| Sustainable Development Goals | <p>SDG10. Reduced inequalities</p> <p>SDG11. Sustainable cities and communities</p> <p>SDG12. Responsible consumption and production</p> <p>SDG17. Partnerships for the goals</p> |

| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
|---|--|---|---|---|
| Interpret international and European policies on waste management. | Lecture, group discussions, case studies | Quiz and conversation during presentation | Individual for quiz, in group for presentation, followed by a discussion with the whole promotion | Supervised online or onsite with identity verification |
| Develop and implement sustainable waste management strategies. | Lecture, group discussions, case studies | Quiz and conversation during presentation | Individual for quiz, in group for presentation, followed by a discussion with the whole promotion | Supervised online or onsite with identity verification |
| Bibliography | <p>Books:</p> <ol style="list-style-type: none"> 1. Stowell et al. (2024), 'Waste Research from the Social Sciences and Humanities Perspectives: Reopening the Bin', Cambridge Scholars Publishing, https://www.cambridgescholars.com/product/978-1-0364-0638-7 2. Ek & Johansson (2020), 'Perspectives on Waste from the Social Sciences and Humanities: Opening the Bin', Cambridge Scholars Publishing, https://www.cambridgescholars.com/product/978-1-5275-4674-5 3. Buclet, N., & Godard, O. (Éds.). (2000). Municipal Waste Management in Europe (Vol. 10). Springer Netherlands. https://doi.org/10.1007/978-94-015-9476-9 <p>Publications/articles:</p> <ol style="list-style-type: none"> 1. Abdoli, M. A., Rezaei, M., & Hasanian, H. (2016). Integrated solid waste management in megacities. 2. Amasuomo, E., & Baird, J. (2016). The Concept of Waste and Waste Management. Journal of Management and Sustainability, 6(4), 88. https://doi.org/10.5539/jms.v6n4p88 3. Asmal, I., Walenna, M. A., Nas, W., & Ridwan. (2023). Application of local wisdom in handling waste in coastal settlements as an effort to minimize waste production. Environmental and Sustainability Indicators, 19, 100283. https://doi.org/10.1016/j.indic.2023.100283 4. Awasthi, A. K., Cheela, V. R. S., D'Adamo, I., Iacovidou, E., Islam, M. R., Johnson, M., Miller, T. R., Parajuly, K., Parchomenko, A., Radhakrishnan, L., Zhao, M., Zhang, C., & Li, J. (2021). Zero waste approach towards a sustainable waste management. Resources, Environment and Sustainability, 3, 100014. https://doi.org/10.1016/j.resenv.2021.100014 5. Coetzee, B. (s. d.). Why is Municipal Waste Management Reform so Difficult ? An Analysis of Dynamic and Social Complexities. | | | |

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8. Corvellec, H., Bramryd, T., & Hultman, J. (2012). The business model of solid waste management in Sweden – a case study of two municipally-owned companies. *Waste Management & Research: The Journal for a Sustainable Circular Economy*, 30(5), 512-518. <https://doi.org/10.1177/0734242X11427944>
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10. Corvellec, H., Stowell, A. F., & Johansson, N. (2022). Critiques of the circular economy. *Journal of Industrial Ecology*, 26(2), 421-432. <https://doi.org/10.1111/jiec.13187>
11. D'Alessandro, G., Gnoni, M. G., & Mummolo, G. (2012). Sustainable municipal solid waste management and recovery. In C. N. Madu & C.-H. Kuei, *Handbook of Sustainability Management* (p. 575-591). World scientific. https://doi.org/10.1142/9789814354820_0027
12. Di Foggia, G., & Beccarello, M. (2021). Market Structure of Urban Waste Treatment and Disposal : Empirical Evidence from the Italian Industry. *Sustainability*, 13(13), 7412. <https://doi.org/10.3390/su13137412>
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Coastal Landfills and Rising Sea Levels : A Challenge for the 21st Century. *Frontiers in Marine Science*, 8, 710342.

<https://doi.org/10.3389/fmars.2021.710342>

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<https://doi.org/10.46754/jssm.2021.04.018>

Websites:

- European commission
 1. [Waste and Recycling](#) (general)
 2. Waste and Recycling > [Waste Framework Directive](#)
 3. Waste and Recycling > [Waste law](#)
 4. Waste and Recycling > [Implementation Waste Framework Directive](#)
 5. [EUmonitor](#)
- Eurostat
 6. [Waste Statistics](#)
- Zero Waste Europe
 7. [Why a Zero Waste vision](#)
 8. [Resources: library](#)
 9. [Impact: testimonials](#)
 10. [Case studies](#)
- 11. [Breack free from plastic](#)
- 12. [UN plastic pollution treaty: submit in fifth session of the Intergovernmental Negotiating Committee in Buzan \(Corea\)](#)

Funding opportunities for young researchers: From idea to funding

[\(link to the website and registration platform available here\)](#)

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|---|--|
| Professor's name, university & email | Thomas Bartzanas, Agricultural University of Athens (Greece) t.bartzanas@aua.gr |
| Sector | European |
| Thematic area | European funding instruments |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0031 Personal skills |
| ESCO skills & competences | S1.13 – skills – communication, collaboration and creativity - writing and composting S1.8 – skills – communication, collaboration and creativity - working with others K0811 – knowledge – agriculture, forestry, fisheries and veterinary – agriculture - crop and livestock production T2.2 – transversal skills and competences – thinking skills and competences - planning and organising |
| Proposed dates of the classes | 15/05, 20/05, 23/05, 27/05, 06/06, 14:00-16:00 (CET) |
| One hour for tutoring consultations | 03/06, 14:00-15:00 (CET) |
| Date of the exam/ final assessment | 06/06, 14:00-16:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | Securing funding is essential for advancing high-quality research and innovation. However, many researchers face challenges in pursuing a research career due to limited funding opportunities and inadequate support. This course aims to empower young researchers by guiding them through each step of the funding process, from shaping their initial ideas to crafting and submitting a compelling proposal. It covers key areas such as identifying funding sources, writing effective proposals, developing realistic budgets, and maximizing funding potential. Participants will acquire practical skills to align their projects with funders' priorities, communicate their ideas clearly, and navigate common challenges in the application process. |

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| Description of the content (week by week) | <p>Unit 1: Funding opportunities: Main aspects to be considered (2h)</p> <ul style="list-style-type: none"> - Overview of the research funding landscape - Identifying Suitable Funding Opportunities - Is your idea suitable for a specific call? <p>Unit 2: Research idea and strategy (2h)</p> <ul style="list-style-type: none"> - How to turn an idea into a research question and outline - Setting realistic goals, creating a work plan, and establishing a project timeline - Finding core partners-creating the proposal core team <p>Unit 3: How to write a winning proposal (2h)</p> <ul style="list-style-type: none"> - Initial concept note - Consortium building - Structuring the proposal (excellence part, how to draft work packages) - Techniques for emphasizing your research's innovation, expected outcomes, an real-world impacts <p>Unit 4: Budget and other considerations (2h)</p> <ul style="list-style-type: none"> - Preparing a Realistic Budget and Financial aspects - Communicate the budget to the consortium partners - Open data, gender issues, risks & contingency Plans, Ethics - Dissemination plan and exploitation of the results <p>Unit 5: Submitting your proposal (1h)</p> <ul style="list-style-type: none"> - Dealing with the submission platform - Organising your proposal in the submission platform - Information to be collected from the consortium partners <p>Unit 6: Exams (1h)</p> |
| Importance for society | <p>The course is targeting to undergraduate students aiming to enter the research field with an interest in research funding and grantsmanship, after completing their studies. The course will assist them in enhancing their ability to secure external funding from European calls.</p> |
| Skills (hard and soft skills) | <p>Hard skills: Research proposal writing, Project management</p> <p>Soft skills: Communication, Networking, Critical thinking</p> |
| Sustainable Development Goals | <p>SDG4. Quality education</p> <p>SDG5. Gender quality</p> <p>SDG9. Industry, innovation and infrastructure</p> <p>SDG10. Reduced inequalities</p> <p>SDG17. Partnerships for the goals</p> |

| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
|--|---|---|---|---|
| Align research ideas with funding priorities | Presentations, lectures, case studies | Project presentations presented by students | Group work (work in pairs, presentation in front of the colleagues) | Supervised with no identity verification |
| Communicate research effectively | | | | |
| Bibliography | <p>Books:</p> <ul style="list-style-type: none">- Robert Trew, 2017. <i>Get Funded: An Insider's Guide to Building An Academic Research Program</i>, ISBN:9781107068322, 1107068320, Cambridge Academic Press- Ritser, Jansen, 2013. <i>Funding Your Career in Science: From Research Idea to Personal Grant</i>, ISBN:9781107435414, 1107435412, Cambridge Academic Press- Gerand Crawley, 2015. <i>Grant Writer's Handbook, The: How To Write A Research Proposal And Succeed</i>, ISBN:9781783267613, 1783267615, Imperial College Press <p>Publications/articles:</p> <ul style="list-style-type: none">- Horizon Implementation Day: Finding opportunities & submitting a proposal in Horizon Europe (link)- How to write a Horizon Europe Proposal (link)- Proposal writing strategy: writing research grants to funding agencies (link) <p>Websites:</p> <ol style="list-style-type: none">1. https://erc.europa.eu/homepage2. https://marie-sklodowska-curie-actions.ec.europa.eu/funding3. https://research-and-innovation.ec.europa.eu/funding_en | | | |

Landscapes for exploring language and culture
[\(link to the website and registration platform available here\)](#)

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| Professor's name, university & email | Anita Pavić Pintarić, University of Zadar (Croatia) apintari@unizd.hr |
| Sector | European |
| Thematic area | Intercultural communication/multilingualism |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0232 Literature and linguistics |
| ESCO skills & competences | K0232 - knowledge - arts and humanities - languages - literature and linguistics – linguistics L1 - Language skills and knowledge - languages S1.15.1 – skills – communication, collaboration and creativity – using more than one language – using foreign languages |
| Proposed dates of the classes | 21/05, 28/05, 04/06, 11/06, 18/06, 15:00-17:00 (CET) |
| One hour for tutoring consultations | 13/06, 09:00-10:00 (CET) |
| Date of the exam/ final assessment | 18/06, 15:00-17:00 (CET) |
| Synchronous & asynchronous hours | Synchronous contact hours: 10 h Asynchronous hours & self-directed learning: 15 h |
| General description | Talking about space we live in has become essential, among others due to climate change, sustainability, and migrations for various reasons. Learning about the linguistics of space can be one of the steps how to acknowledge and start seeking for solutions of various problems connected to the landscape. The aim of this course is to teach students how to identify expressions of space used when talking about landscapes connected to sea, how to use them in an intercultural setting, how to address contemporary challenges from the linguistic perspective. |
| Description of the content (week by week) | Unit 1: Introduction into the linguistics of space (2 hours) Unit 2: Expressions of space (4 hours) Unit 3: Expressions of movement (4 hours) Unit 4: Phrasemes (3 hours) |

| | Unit 5: Metaphors (3 hours) Unit 6: Loanwords (3 hours) Unit 7: Final Presentations (4 hours) Unit 8: Conclusion (2 hours) | | | |
|--|---|--|---|--|
| Importance for society | Societies are experiencing changes due to a number of economic and political reasons. It is therefore important for society members to develop language awareness, among other competences, in order to recognize developments in language concerning the way of life in a landscape. These could influence transferable skills and possibly practices for problem solving. Gradually, such knowledge can be implemented into different policies. | | | |
| Skills (hard and soft skills) | Hard skills: Work with corpus, Linguistic knowledge Soft skills: Cooperation, Oral presentations | | | |
| Sustainable Development Goals | SDG4: Quality of education SDG8: Decent work and economic growth | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Define expressions that belong to the linguistics of space | Lectures | Continual assessment of knowledge of basic terms and approaches presented in lectures | Acquiring basic knowledge about linguistics of space in the lecture, reading material in the Moodle | Supervised online with identity verification. |
| Relate the expressions with intercultural knowledge (through language contact, metaphorical concepts, cultural specificity) | Group work Individual work | Search for expressions for space and their analysis Final presentation in English of research done on their mother tongue | Students will search for space expressions in dictionaries and available databases or in interviews with their colleagues. They will describe the expressions according to their structure, meaning and concepts | Supervised online with identity verification. |
| Bibliography | Books: <ol style="list-style-type: none"> 1. Levinson, Stephen C. (2003). <i>Space in Language and Cognition. Explorations in Cognitive Diversity</i>. Cambridge: Cambridge University Press. | | | |

2. Pavić Pintarić, Anita; Škifić, Sanja (2021). *Prostor i kretanje u govorima zadarskoga kraja*. Zadar: Sveučilište u Zadru.

Publications:

1. Brown, Penelope (2015). Space: Linguistic expression of. U: Wright, James D. (ur.). *International Encyclopedia of the Social and Behavioral Sciences* (2. izd.) Vol. 23. Amsterdam: Elsevier, 89-93.
2. Higgins, Christina (2017). Space, place, and language. U: Canagarajah, Suresh (ur.). *The Routledge Handbook of Migration and Language*. London i New York: Routledge, 102-116.
3. Pavić Pintarić, Anita; Škifić, Sanja (2018). A Loanword as a Marker of Spatial Movement: The Case of Špancirfest. *Jezikoslovni zapiski*, 24,2, 113-130.
4. Pavić Pintarić, Anita (2019). Deutsche und kroatische Phraseme zum Ausdruck des Raumes. *Linguistica* 59 (1), 209-220.

Principles of Leadership, Teamwork and Communication

[\(link to the website and registration platform available here\)](#)

| | |
|--|---|
| Professor's name, university & email | Aikaterini Kandyliari, Agricultural University of Athens (Greece) kkandyliari@aua.gr |
| Sector | University |
| Thematic area | Personal leadership development and networking |
| EQF level | Level 6 (Bachelor) |
| ISCED-F field | 0031 Personal skills |
| ESCO skills & competences | <p>S1.0.0 – skills – communication, collaboration and creativity - communication, collaboration and creativity</p> <p>S1.4.0 – skills – communication, collaboration and creativity – presenting information - presenting information</p> <p>S1.8.1 – skills – communication, collaboration and creativity – working with others - working in teams</p> <p>S4.5 – skills – management skills - leading and motivating</p> |
| Proposed dates of the classes | 22/05, 29/05, 05/06, 12/06, 19/06, 12:00-14:00 (CET) |
| One hour for tutoring consultations | 16/06, 12:00-13:00 (CET) |
| Date of the exam/ final assessment | 19/06, 13:00-14:00 (CET) |
| Synchronous & asynchronous hours | <p>Synchronous contact hours: 10 h</p> <p>Asynchronous hours & self-directed learning: 15 h</p> |
| General description | <p>This micro-credential focuses on essential skills for effective collaboration and leadership in diverse environments. Over the past few years, the topic has evolved to incorporate remote teamwork and inclusive communication strategies, reflecting the changing dynamics of the modern workplace. This is a trending topic due to the increasing emphasis on soft skills in job markets and the rise of remote work, making strong leadership and teamwork more vital than ever. Gaining knowledge in this area is crucial for students, as it prepares them to navigate complex group dynamics and enhances their employability in a competitive landscape.</p> |
| Description of the content (week by week) | <p>Unit 1. Introduction to teamwork (3 hours)</p> <p>Unit 2. Roles in a team (2 hours)</p> <p>Unit 3. Foundations of leadership (3 hours)</p> |

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|---|--|-----------------------------------|--|--|
| | Unit 4. Communication skills (2 hours) | | | |
| Importance for society | This topic fosters collaboration, innovation, and effective problem-solving across various sectors. It raises awareness about the importance of inclusive leadership and clear communication, which are essential for building diverse teams that can address complex challenges. Additionally, it highlights the need for emotional intelligence and adaptability in leaders, promoting a culture of respect and understanding. By focusing on these skills, society can cultivate stronger, more resilient communities and organizations that thrive in an increasingly interconnected world. | | | |
| Skills (hard and soft skills) | Hard skills: Project Management and Presentation Skills Soft skills: Collaboration and Adaptability | | | |
| Sustainable Development Goals | SDG4. Quality education SDG5. Gender quality SDG8. Decent work and economic growth SDG10. Reduced inequalities SDG17. Partnerships for the goals | | | |
| Learning outcomes | Study methods | Assessment methods | Assignments. Requirements/format | Supervision and identity verification during assessment |
| Identify the characteristics of effective teams | Presentation, lecture, case studies and group work | Presentation prepared by students | Group and individual work, work in pairs and presentation in front of the colleagues | Supervised with no identity verification |
| Discuss the contribution of different skills to team success | Presentation, lecture, discussions, debates and group work | Discussions | Group and individual work, work in pairs and presentation in front of the colleagues | Supervised with no identity verification |
| Bibliography | Books/Publications/Articles: <ol style="list-style-type: none"> 1. Beebe, S. A., & Masterson, J. T. (2015). Communicating in small groups: Principles and practices (11th Ed.). Boston, MA: Pearson. 2. Pavitt, C. , & Curtis, E. (2001). Small group discussion: A theoretical approach (3rd ed.). 3. Poole, M.S., & Hollingshead, A.B. (2004). Theories of small groups: Interdisciplinary perspectives. 4. The Journal of Leadership Studies Websites: <ol style="list-style-type: none"> 1. Harvard Business Review (https://hbr.org/) 2. TED Talks (https://www.ted.com/) | | | |