EU CONEXUS
European University for Smart Urban Coastal Sustainability

Co-funded by the European Union

EU-CONEXUS

Micro-credentials in Smart Urban Coastal Sustainability

Catalogue

D3

T2.1 Development and implementation of a Minor programme in SmUCS through micro-credentials

WP2 - Strengthening Complementarity of Bachelor Studies on SmUCS Topics

Delivery date*: 29th of January 2024*

WP leader: Catholic University of Valencia

Contributors: LRUniv, AUA, UCV, KU, UNIZD, UTCB, SETU, FredU, EU-CONEXA

Dissemination level: Public

Executive summary/abstract:

Work Package 2, entitled Strengthening Complementarity of Bachelor Studies on SmUCS Topics, focuses on increasing the employability and SmUCS expertise of Bachelor students through micro-credentials, challenge-based projects and Minor programmes, providing a truly flexible and student-centred curriculum as well as strengthening the link of undergraduate study programmes to research and innovation, and their outreach towards society and economy. EU-CONEXUS Catalogue of the Minor programme in SmUCS “Micro-credentials in Smart Urban Coastal Sustainability” (D3) provides a brief explanation of the EU-CONEXUS project and the EU-CONEXUS European framework and includes the study guide for students and the guidelines for professors, both designed to give students and professors a thorough understanding of the objectives and importance of micro-credentials for society as well as the methodologies that will be used in this new academic offer. The micro-credential courses which will be offered in this first phase (Spring 2024 – Autumn 2024) are included in this deliverable. This content catalogue will be updated according to the most recent labour market trends, to provide learners with the most relevant skills demanded by companies and organisations, and contribute to reduce the skills gap in the labour markets of the countries participating in the Alliance.

For more information on EU-CONEXUS micro-credential offer, please visit our website: https://www.eu-conexus.eu/en/micro-credentials-2/.

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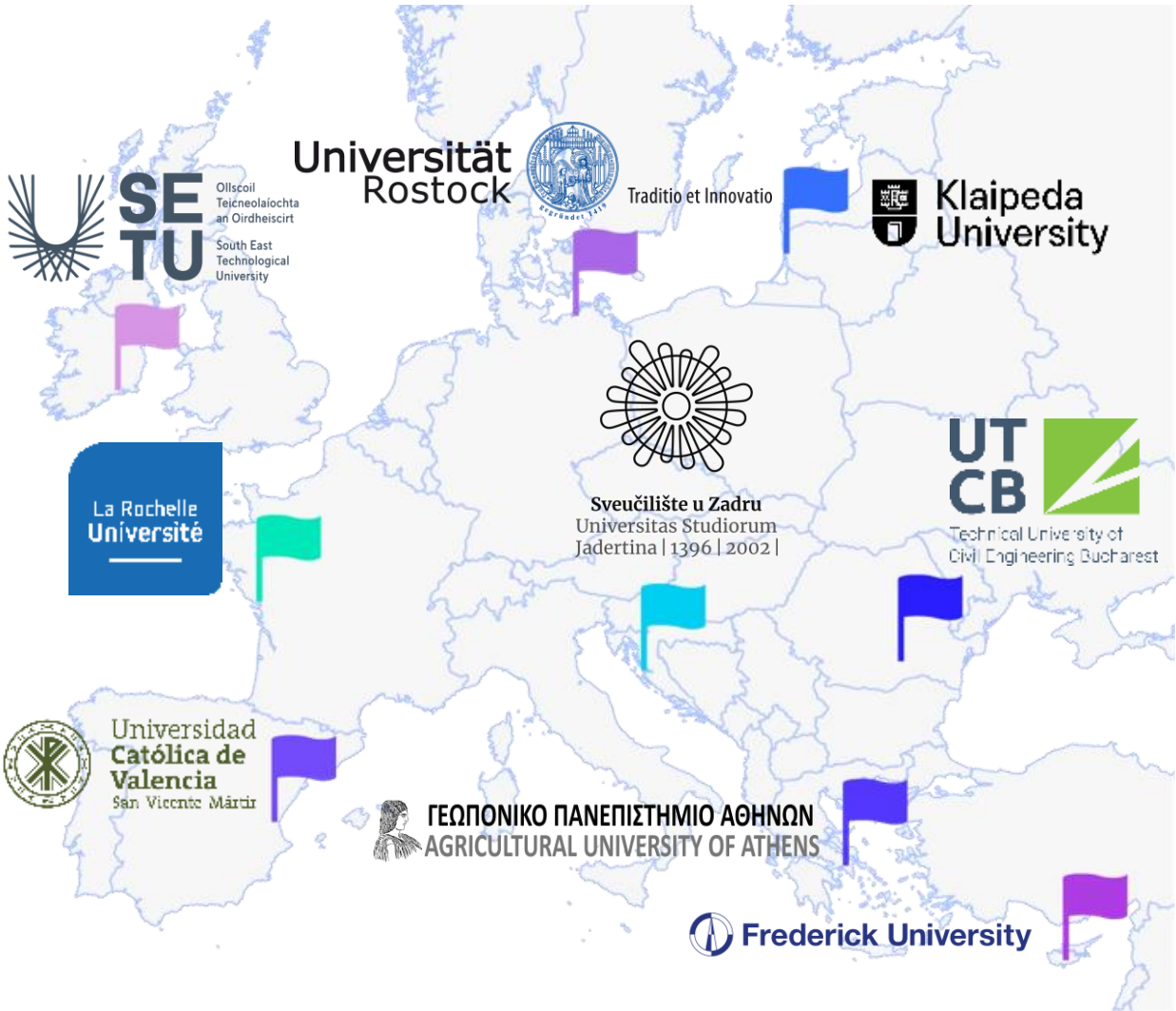
Introduction to EU-CONEXUS

The European University for Smart Urban Coastal Sustainability (EU-CONEXUS) is a transnational European higher education and research institution that covers the smart urban sustainable coastal development from a global point of view.

EU-CONEXUS is formed by 9 European universities located in France, Greece, Spain, Lithuania, Croatia, Romania, Ireland, Germany and Cyprus:

- La Rochelle Université (LRUniv),
- Agricultural University of Athens (AUA),
- Universidad Católica de Valencia (UCV),
- Klaipeda University (KU),
- University of Zadar (UNIZD),
- Technical University of Civil Engineering Bucharest (UTCB),
- South East Technological University (SETU),
- University of Rostock (UROS),
- Frederick University (FredU).



EU-CONEXUS focuses on urban and semi-urban coastlines because they are increasingly densely populated areas and very important for trade, aquaculture and fisheries, energy, tourism. At the same time, these coastlines are the most vulnerable areas regarding the consequences of climate change.

Universities and research institutions have a central role to play in promoting the ‘Blue Economy and Growth’ and to contribute to the skills and competences of the graduates who can work in a complex and challenging labour market. A new approach is needed concerning the organisation of studies and research. Therefore, 9 universities joined together to merge their strength and know-how in interdisciplinary short-term and degree programmes and to offer students the possibility of studying at international inter-campus European University.

Studying at any of above-mentioned universities, you can also study at EU-CONEXUS. Choose international courses, joint short-term and degree programmes, benefit from academic and cultural exchange, and receive not only up-to-market knowledge and competences but also enriched curricula, which will be reflected in your European degree and Diploma Supplement.

EU-CONEXUS OPENS UP OPPORTUNITIES TO INTERNATIONAL CURRICULA, CAREER AND EXPERIENCE

Definition and characteristics of micro-credentials

A micro-credential is a proof of the learning outcomes that a learner has acquired following a short learning experience (EC, 2020). The EC defines micro-credentials as "the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria. Learning experiences leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, and cultural or labour market needs. Micro-credentials are owned by the learner, can be shared and are portable. They may be stand-alone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity."

As the EU-CONEXUS Framework for Micro-credentials states, while differences exist across emerging definitions of micro-credentials notwithstanding the European Commission's definition, there are also some common factors. In the majority of definitions, the duration of the education programme associated with micro-credentials is described as "short" or the volume of learning associated with the credential as "small".

UNESCO (2021) adds to the above EU definitions suggesting 'a micro-credential is a record of focused learning achievement verifying what the learners know, understand or can do; includes assessment based on clearly defined standards and is awarded by a trusted provider; has stand-alone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning; and meets the standards required by quality assurance'.

Many definitions mention micro-credentials as being targeted in nature, focusing on the acquisition of specific knowledge on one topic of study, or the accomplishment of one skill. This contrasts with the holistic nature of degree programmes, which are designed to provide learners with a well-rounded and complementary set of knowledge and skills in a particular field of study.

Learners may enrol in micro-credential programmes as a stepping stone to achieving a degree, but may also do so for enjoyment, as a means to further an interest or a skill not related to their career, or in order to develop professionally. Moreover, these purposes often overlap, particularly for adult learners who have already been in the workplace for many years or have previously attained higher education.

Micro-credentials in SmCUS Structural Framework

The task force ‘New Minor in SmUCS’ analysed the following surveys/reports:

— Transversal Skills (UNESCO, 2016),

— EU-CONEXUS Skills map (2020),

— Future Citizenship Skills (McKinsey & Company, 2021),

— The Future of Jobs Report (World Economic Forum, 2020)

to define the skills and competences which are demanded by the global labour market and came up with a proposal that could be defined as a ‘signature’ academic offer for Bachelor students to acquire specific competences and be more competitive in the labour market in the Smart Urban Coastal Sustainability field.

The academic offer “Micro-credentials in SmUCS” is grouped in 6 sectors: European, university, smart, urban, coastal and sustainability. Each sector offers several short learning units, being each micro-credential equivalent to 1 ECTS (20-27 effort hours following the recommendations of the EU-CONEXUS Framework for Micro-credentials).

Those small learning units have been designed by EU-CONEXUS academic staff under thematic areas (see table below), which were offered based on consultations with experts and students, and on discussions within the partner universities.

Thematic areas for 1 ECTS

European	University	Smart	Urban	Coastal	Sustainability
European identity and its transformation	Smart Learning	Games and gamification	Near Zero Energy Building (NZEB)	Coastal tourism	SDGs
International standardisation	Research and Innovation Thinking	Industry 4.0	Green mobility and transport	Ecosystem services	Social entrepreneurship and commitment
Equitable and inclusive civic engagement	Enviromental and Science Education	Artificial intelligence in office work	IoT	Smart ports	Technologies for Sutainable Development
Blue Economy	Ethics/Bioethics	Cognitive systems and neuroscience	Modernisation and Heritage protection	Business in coastal areas	Green skills
Intercultural communication/	Personal Leadership Development	Digital Marketing and Communication	Smart Green cities	Anatomy of coastal areas	Climate change and resilience
European initiatives for youth	Research transfer	Digital humanities	Urban environmental challenges	Waste management in coastal areas	Sustainable consumption
European funding instruments	Professional communication and Academic Writing	Big Data Science	Healthy cities	Coastal risks & protection	English for Sustainability
European Environmental policies	Information literacy	Sustainable IT	Responsible consumption and production	Water management	Sustainable management

Micro-credentials in SmUCS Programme Learning Outcomes

Upon successful completion of this learning experience, students will be able to:

European sector

- Explain the evolution of the European identity and summarize its core values.
- Identify the European policies developed for the environment.
- Summarize the European initiatives towards sustainable development.
- Discuss the European actions relevant to intercultural communication.

University sector

- Articulate the importance of research and innovation methods in their field of study.
- Apply a basic range of agile research transfer methods related to their field of study.
- Identify a basic range of oral and written academic communication strategies.
- Discuss how Education can impact sustainability at local, regional and European levels.

Smart sector

- Describe a basic range of innovative and sustainable solutions to achieve the best possible results related to Smart Urban Coastal Sustainability.
- Illustrate the applications of AI in their fields of study.
- Summarize the main big data applications in their fields of study.
- Apply state-of-the-art digital tools and strategies at a basic level in their fields of study.

Urban sector

- Describe the concept of a green city and identify the most relevant means of green transport (in a city).
- Discuss the approaches towards healthier, resilient, and sustainable cities.
- Explain ‘climate neutrality’ concept.
- Appraise proven practices on socially inclusive cities and settlements.

Coastal sector

- Explain the most pressing natural and human-caused hazards in urban coastal areas and compare proposed preservation solutions.
- Identify the environmental challenges of maritime human activities on coastal areas and examine the smart means developed to limit it.
- Discuss the potential economic resources and limitations of coastal areas.

- Detail and apply state-of-the-art resilience and nature-based solutions to human coastal activities.

Sustainability sector

- Differentiate the Sustainable Development Goals and illustrate sustainability (goals) at local, European, and global level.
- Articulate how to support the overall objective of resilience to climate change.
- Explore entrepreneurship concepts and the main lifestyle shifts needed towards a resilient world.
- Examine the impact of human activities on the environment and propose sustainable solutions.

Guidelines for students

1. Micro-credentials in SmCUS for Bachelor Students

Why should you choose to follow our EU-CONEXUS Micro-credentials in SmUCS? We have designed this academic offer to provide you with entrepreneurial, ecological and digital skills to enhance your future insertion in the labour market. All topics have been chosen based on an analysis of the most relevant reports on future trends and needs in the labour market. You will enrich your C.V. with state-of-the-art skills on high demand in the 21st century labour market.

The EU-CONEXUS micro-credential offer is organised in 6 sectors, each of which offers several short learning units from which you can choose. Each micro-credential is equivalent to 1 ECTS (20-27 effort hours), offering maximum flexibility for you to combine it with other study programmes or work. Our Micro-credentials in SmUCS present you with opportunities to access multidisciplinary and cross-disciplinary learning such as a new skill or competence. You can find an overview of our sectors, thematic areas, and short learning units in annex 2.

2. Itinerary options and certification

In order to receive a certificate, you can follow different paths:

• Choose 1 micro-credential and you will get a certificate for that specific micro-credential.

• Choose 1 micro-credential from each of the sectors, a total of 6, and you will receive a certificate in Micro-credentials in SmUCS.

• Choose 6 micro-credentials from one of the sectors, and you will receive a certificate of Micro-credentials in that specific sector.

Due to the existence of different levels of micro-credential legal frameworks at each country, each university will acknowledge the students' successful completion of any chosen itinerary according to their own legal framework.

3. Learning – teaching process

Each of the short learning units offered here is worth 1 ECTS. The number of effort hours for 1 ECTS differs across EU-CONEXUS partners. The EU-CONEXUS Framework for Micro-credentials proposes 25 effort hours per 1 ECTS. Notwithstanding, this number may slightly vary according to national legislative requirements.

These micro-credentials will meet online weekly following an established timetable. As the EU-CONEXUS Framework for Micro-credentials explains, the number of contact hours is flexible and may depend on the nature of the micro-credential. The synchronous sessions will be recorded to give you some flexibility if you cannot attend one of those synchronous sessions for compelling reasons. Since the synchronous classes will be recorded, all micro-credential participants will be asked to accept/ not accept a GDPR consent.

As a student, you are strongly encouraged to attend all the synchronous classes. The attendance rules will be established by each professor following their home university regulations. At EU-CONEXUS level, at least 3 out of 5 synchronous sessions require your obligatory participation ('obligatory synchronous sessions'). We want to make sure that you enjoy the internationalisation and intercultural exchange embedded in the micro-credential. You will be informed about which of the sessions will be obligatory at the start so that you can plan accordingly. Besides, to solve your doubts, teaching professors will provide their students with 1 hour for consultations.

4. How to apply

The EU-CONEXUS Micro-credentials in SmUCS are offered by most of the EU-CONEXUS universities. All you need to do is check the information about our offer (description, start dates, study methods, etc.) in the EU-CONEXUS website, choose the ones you are more interested in, and fill in the application via the following link: https://apply.eu-conexus.eu/admin/courses.

The procedure is simple and quick, we follow a "first come, first served" policy. This means that the application system will register the exact date and time when each student applied for a micro-credential, which will tell us who signed up first. In the event of a tie, priority will be given to students from higher years of study, and to the less represented gender. In case of existing national quotas regulating enrolment priorities in any given country, that information will appear in the system during the application process.

You can officially enrol in up to 3 micro-credentials per semester to easily combine them with your study programme. If you choose more than 3 micro-credentials, the "first come, first served" policy will be applied to determine which 3 you selected first. To make the most out of this academic experience, you need to be able to communicate at a B2 level of English.

Don't miss the chance to be part of this new offer. For more information, you can also contact the corresponding Institutional Contact at your home university, who will be willing to help you with any question you may have.

Guidelines for professors

Preamble

These guidelines for professors have been developed to harmonise teaching standards and practices for the EU-CONEXUS initiative “Micro-credentials in SmUCS”.

1. Micro-credentials concept

The EU-CONEXUS micro-credentials will be implemented both in Spring and Autumn semester.

Each micro-credential is worth 1 ECTS. Following the EU-CONEXUS Framework for Micro-credentials, we propose 25 effort hours per 1 ECTS. Regarding the number of contact hours, as our Framework for Micro-credentials states, that number is flexible and may depend on the nature of the micro-credential. Nevertheless, we recommend 10 contact hours and 15 hours of autonomous work.

The recommendation for the duration of the micro-credential is 5-6 weeks. It is recommended to have 5 synchronous sessions per micro-credential, with a maximum duration of 2 consecutive hours per synchronous session. The final decision will be taken by each professor depending on the micro-credential specificities and its learning outcomes.

In the event of local public holidays and/or professors’ holidays coinciding with the calendar of synchronous classes, the students shall be informed in advance. The professors may provide the teaching materials for the corresponding topic in an asynchronous way to avoid delays or gaps in the delivery of the content.

2. Teaching mode (synchronous/asynchronous)

Micro-credentials will be held weekly following the established timetable.

The synchronous sessions should be recorded so that those students who cannot attend have the opportunity of reviewing the recordings in their own time. The recorded classes shall be uploaded to EU-CONEXUS Moodle within 2 working days after the class. Students will be asked to accept/ not accept a GDPR consent.

Students are strongly encouraged to attend all the synchronous classes. The attendance rules shall be established by the professor following their home university regulations. At EU-CONEXUS level, at least 3 out of 5 synchronous sessions must require participation of all students (‘obligatory synchronous sessions’) to ensure internationalisation and intercultural exchange embedded in the micro-credential. The students will be timely informed about which of the sessions will be the obligatory ones.

When organising the ‘obligatory synchronous sessions’, the following shall be considered:

Obligatory synchronous session means that all students registered in the micro-credential must attend this class.

The date and time for each obligatory synchronous session shall be agreed between the professor and the students at the beginning.

The dates for the obligatory synchronous sessions should be included in the micro-credential card and uploaded to the EU-CONEXUS Moodle.

National public holidays in the countries of participating students should be respected when establishing the schedule of these classes.

The professor is encouraged to use the obligatory synchronous sessions for experience exchange, feedback, group work, discussions, among others.

All enrolled students are strongly recommended to have their cameras switched on during the classes.

3. Online learning environment

Micro-credentials are taught via EU-CONEXUS Smart Campus:

All pedagogical material (documents, links for the classes, etc.) as well as organisational information has to be uploaded to the Moodle platform.

Big Blue Button or Microsoft Teams platforms can be used for virtual synchronous classes.

Streaming platform POD can be used to upload recordings of the classes. POD videos can be then uploaded to Moodle.

EU-CONEXUS Smart Campus trainings and manuals can be found on EU-CONEXUS Moodle in ´Teacher's Toolbox´.

Technical questions can be sent to helpdesk@eu-conexus.eu.

4. Protection of intellectual rights for teaching materials and recorded sessions

Any material developed by the teaching professors for a specific micro-credential is protected by Intellectual Property Rights. It is illegal to violate the Intellectual Property Rights. To protect their Intellectual Property Rights, professors can prevent the recorded classes from being downloaded from the EU-CONEXUS Moodle (when the content is uploaded, there is a possibility to include this restriction). For further information on how to best protect the recorded classes, professors can contact, helpdesk@eu-conexus.eu.

5. Enabling internationalisation and intercultural exchange

Apart from the synchronous classes, it is strongly recommended that the professor encourages communication and interaction between the students of various nationalities, home universities and study fields, both at the synchronous classes and for asynchronous assignments. The latter could be achieved by assigning group tasks in which the students work on joint reports, projects, problems, etc. during their individual studying hours.

This shall encourage the development of soft skills such as teamwork, flexibility, internationalisation, intercultural communication, etc.

6. Tutoring/Consultations

One hour per micro-credential for students´ consultations should be scheduled by each professor, preferably before the final assessment. The consultation hour shall be communicated to the students at the beginning. Students are not obliged to attend the consultation.

7. Involvement of experts from industry

If possible, to strengthen the link with the labour market, the professors are recommended to invite professionals from the field, i.e. private sector experts, to share their expertise with the students.

8. Guidelines for quality assurance

8.1. Before and at the beginning of the micro-credential

Each professor shall fill in the micro-credential card (see the template in Annex 1). The micro-credential card should be sent to the institutional contact at the home university and uploaded to the EU-CONEXUS Moodle (https://moodle.eu-conexus.eu/) one month before the start.

During the first session, the professor shall clearly present and explain the following information:

- Micro-credentials content, learning outcomes, skills and related SDGs,
- Timetable of synchronous classes,
- Agreement on obligatory synchronous sessions,
- Timetable of tutoring
- Study methods
- Assessment methods and grading system,
- Assessment date(s),
- Communication platforms, connection, etc.,
- Contact details of the professor.

8.2. During implementation

The professor shall establish clear communication rules with their students. It is advised to respond to students' emails (within 48 hours, if possible). Students shall be informed if their professor is out of office (business trip, teachers' holiday, etc.).

Given the specific characteristics of these short learning units, it is strongly recommended to use innovative, student-centred teaching methods and technologies and get students from various universities engaged collaborating in group debates, projects, etc.

8.3. Final assessment and grades announcement

The professor shall announce the date of the final assessment, and retake of final assessment, or when to submit a final deliverable, before the start of the micro-credential in the card.

If the final assessment date and time clashes with another final assessment of a student at their home institution, the professor should agree directly with that student on another day and time for the final assessment. In the event of multiple students finding themselves in such a situation, the professor will offer to all of them options to find one that suits them. If a student cannot attend the final assessment session for force majeure reasons, s/he needs to provide official written documentation.

The professor shall announce the grades to the students (via Moodle or personally) within two working days after the day of the final assessment. If a student does not agree with the grade, she/he shall inform the professor within two working days after the grade was announced. In such a case, the host university regulations will apply to the corresponding process.

After the student accepts the grade (no objection from the student means acceptance), the professor shall inform the institutional contact of the host university within two working days. The local institutional contact will, then, send the grades to the home institutional contact.

9. Contacts

9.1. General Coordinator

The general coordinator is responsible for:

- Overall implementation of the micro-credentials in SmUCS,
- Preparing micro-credentials catalogue of the programme (including/ eliminating micro-credentials, assembling of final catalogue, coordination among the academic staff for content, etc.) and reporting to the Academic Council,
- Initiation, review and update of the Micro-credential programme offer, upon the agreement of all members,
- Coordination between sectors,
- Quality assurance and follow-up,
- Coordination for joint decisions.

Every academic year, there would be an end-of-year meeting managed by the General coordinator with all the micro-credential academic staff to analyse the implementation of the corresponding academic offer.

Coordinator of the Micro-credentials in SmUCS

Micro-credentials in SmUCS	University	Name	Email
WP2 leader	UCV		

9.2. Institutional Contacts

The institutional contacts have an administrative role in fulfilling the following tasks:

- To present and promote micro-credentials among the students at local university level: added value, requirements, mobilities,
- To organise general admissions for the micro-credentials (general requirements, language requirements),
- To perform the administrative work related to the coordination of the micro-credentials and communication between the partners, the teaching staff and the students,
- To coordinate the information transmission regarding class timetables and exams,
- To track statistics, supervise the students to complete the requisites of the micro-credentials,
- To organise the orientation day and the monitoring of the studies,
- To draft reports and reviews for the stakeholders (teachers, students, administration).

Annex 1: Micro-credential card

Micro-credential title

Professor' name, university & email			
EQF	Level 6 (Bachelor)		
Proposed dates of the classes	Please put the days and times as per the timetable For example, 1st session: Tuesday the 2nd of April from 15.30 to 17.30 (CET) 2nd session: Tuesday the 9th of April from 15.30 to 17.30 (CET) 3rd session: Tuesday the 16th of April from 15.30 to 17.30 (CET) 4th session: Tuesday the 23rd of April from 15.30 to 17.30 (CET) 5th session: Tuesday the 30th of April from 15.30 to 17.30 (CET)		
One hour for tutoring consulations	For example: Monday the 13th of May from 15.30 to 16.30 (CET)		
Date of the exam			
Description of the content	For example Unit 1. XXX Unit 2. XXX Unit 3. XXX		
Importance for society			
Skills (hard and soft skills)			
SDGs			
Learning outcomes	**Study methods**	**Assessment methods**	**Assignments. Requirements/format**
LO 1			
LO 2			
Bibliography			

Annex 2: Micro-credentials offered in Spring – Autumn 2024

Spring Semester 2024

European Sector		
Thematic Area	**Micro-credential Name**	**University**
European Environmental policies	Towards a Green European Industrial Policy	Catholic University of Valencia
Intercultural communication/ Multilingualism	Landscapes for exploring language and culture	University of Zadar
University Sector		
Thematic Area	**Micro-credential Name**	
Smart learning	Tools for data analytics	Klaipeda University
Enviromental and Science Education	Environmental Literature	University of Zadar
Professional Communication and Academic Writing	Ludic Chinese language learning method with tactile HYPA keyboard	La Rochelle Université
Smart Sector		
Thematic Area	**Micro-credential Name**	
Cognitive systems and neuroscience	Neuroscience and artificial intelligence	Catholic University of Valencia
Digital Humanities	Using AI when working with very large document collections: opportunities and risks	La Rochelle Université
Digital Marketing & Communication	Introduction to film literacy and filmmaking	University of Zadar
Digital Humanities	UAS Principles, Data Modeling and Analysis	Technical University of Civil Engineering of Bucharest
Urban Sector		
Thematic Area	**Micro-credential Name**	

Modernisation and Heritage protection	Innovative Heritage Resorts as sustainable ecosystems	Klaipeda University
Smart Green cities	Sustainable and smart cities. An introduction	Technical University of Civil Engineering of Bucharest
Coastal Sector		
Thematic Area	**Micro-credential Name**	
Coastal tourism	Underwater cultural heritage as a tourist resource	University of Zadar
Sustainability Sector		
Thematic Area	**Micro-credential Name**	
Sustainable Fashion	Making Sustainable Fashion Trendy	Catholic University of Valencia
Sustainable Management	Management strategies of plant diversity for sustainable development	Catholic University of Valencia
SDGs	SDGs – The Blue Print for the Sustainable Development	Technical University of Civil Engineering of Bucharest
Technologies for Sustainable Development	Traditional timber houses carpentry in seismic and coastal areas	Technical University of Civil Engineering of Bucharest

Autumn Semester 2024

European Sector		
Thematic Area	**Micro-credential Name**	**University**
Intercultural communication/ Multilingualism	Visual Culture	Frederick University
International standardisation	Durable, Sustainable, Resilient	Technical University of Civil Engineering of Bucharest
University Sector		
Thematic Area	**Micro-credential Name**	
Research transfer	Translating Research into Action: Strategies for Effective Research Transfer	Frederick University
Research and Innovation Thinking	Innovative thinking	La Rochelle Université
Smart Sector		
Thematic Area	**Micro-credential Name**	
Digital Humanities	Systems thinking and system dynamics modeling	Klaipeda University
Urban Sector		
Thematic Area	**Micro-credential Name**	
Smart Green cities	Smart Green Cities: Innovations for Sustainable Urban Development	Frederick University
Coastal Sector		
Thematic Area	**Micro-credential Name**	
Smart Ports	Cybersecurity for Smart Ports & Shipping organizations	Klaipeda University
Anatomy of coastal areas	"Build with Nature" techniques for sandy coasts	Klaipeda University
Sustainability Sector		

Thematic Area	Micro-credential Name	
Green Skills	Green Competences 4 all	Frederick University
Climate change and resilience	Climate Adaptation Engineering	La Rochelle Université

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VISUAL CULTURE

Sector: European	**Thematic area:** Intercultural communication/Multilingualism
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

A course that will introduce students into an interdisciplinary field of inquiry that employs a variety of approaches to analyze and interpret visual images. The aim of the course and core objectives are to recognize, identify, and date the significance of the various art and design movements and related theories, gain a broader understanding of how art and design is affected by culture and vice versa, develop an awareness of art and design history and how it relates to professional practices by identifying important artists and designers, and their works associated with the periods and styles covered.

LEARNING OUTCOMES:

1. Demonstrate an understanding of how and why fine, applied, and decorative arts, and visual and material cultures are produced, mediated, and consumed;
2. Acquire the ability to differentiate between and employ a variety of historical and contemporary cross- and inter-disciplinary theories and methods, and have applied them to the critical analysis of the history of art and design.

SUSTAINABLE DEVELOPMENT GOALS:

4. Quality education

HARD SKILLS:

Research skills

Critical thinking

SOFT SKILLS:

Problem solving

Team work

Study format: Online	**Study methods:** Seminars, tutorials, student presentations and workshops.
Study period: Autumn 2024	**Synchronous contact hours:** 20 **Asynchronous hours & self directed learning:** 5
Entry requirements: Communication in English at a B2 level	**Assessment:** Continuous array of assessments used to help students learn. In-class participation discussion: 25%, Short Answer Quiz Midterm: 20%, Presentations: 25%, Final Paper: 30%
Provider: Frederick University	**Stage of accreditation:** Pending on national legislation

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DURABLE, SUSTAINABLE, RESILIENT?

Sector: European	**Thematic area:** International standardisation
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Official documents at all levels (university, working place, public administration at local, regional, and national level, EU, UN institutions, etc.) as well as media and social media are nowadays full of concepts like hazard, risk, durable, sustainable, resilient, disaster, etc. Appropriate use of such concept is essential since the UN SDG's are more and more part of professional and social realities.
Through this course, participants will understand the concepts and their correct use in different circumstances through case studies.

LEARNING OUTCOMES:

1. Define and describe the concepts of hazard, risk, durable, sustainable, resilient;
2. Distinguish and explain the use of the concepts in social and institutional environment.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG11: Sustainable cities and communities
- SDG17: Partnerships for the Goals

HARD SKILLS:

Understand and properly use the concepts for elarobating documents

SOFT SKILLS:

Critical thinking

Communication

Study format: Online	**Study methods:** Lectures notes, individual study, public presentation and discussions
Study period: Autumn 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Quiz, discussions, individual report and presentation.
Provider: Technical University of Civil Engineering Bucharest	**Stage of accreditation:** Part of a Bachelor program accredited by UTCB and by Romanian Agency for Quality Assurance in Higher Education (ARACIS)

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TOWARDS A GREEN EUROPEAN INDUSTRIAL POLICY

Sector: European	**Thematic area:** European Enviromental policies
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The aim of the course is to understand the need and pillars of European Industrial policy to enhance competitiveness of European industries in the context of current trends of globalization. Students will comprehend the impact of competition inside global value chains, implementing alternative business models.

LEARNING OUTCOMES:

1. Understand Economic growth and global competition, and the importance of global value chanis;
2. Evaluate Industrial Policy tools and their potential impact on the desired outcomes, as unintended consequences

SUSTAINABLE DEVELOPMENT GOALS:

- SDG8. Decent work and economic growth.
- SDG9: Industry, innovation and infrastructure.

HARD SKILLS:

Researching

SOFT SKILLS:

Critical thinking

Decision-making

Study format: Online	**Study methods:** Real case studies, lectures, groups discussions and reflective examples
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Quiz, case study, debates, discussion board and research assignment
Provider: Catholic University of Valencia	**Stage of accreditation:** Internally validated by the UCV Governing Council

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LANDSCAPES FOR EXPLORING LANGUAGE AND CULTURE

Sector: European	**Thematic area:** Intercultural communication/Multilingualism
Volume (ECTS): 1 (25h)	**Language:** English

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.

LEARNING OUTCOMES:

1. Define expressions that belong to the linguistics of space;
2. Relate these expressions with intercultural knowledge (through language contact, metaphorical concepts, cultural specificity).

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4. Quality of education
- SDG8: Decent work and economic growth

HARD SKILLS:

Work with corpus

Linguistic knowledge

SOFT SKILLS:

Cooperation

Oral presentations

Study format: Online	**Study methods:** Lectures, discussions, groups and individual work
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Continual assesment, quizz, search of expressions and final presentation
Provider: University of Zadar	**Stage of accreditation:** Institutional accreditation

EU CONEXUS

Co-funded by the European Union

TRANSLATING RESEARCH INTO ACTION STRATEGIES FOR EFFECTIVE RESEARCH TRANSFER

Sector: University	**Thematic area:** Research transfer
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The course "Translating Research into Action: Strategies for Effective Research Transfer" is designed to equip participants with the necessary knowledge and skills to bridge the gap between research findings and practical applications. In today's fast-paced world, it is crucial to ensure that valuable research is effectively transferred into actionable solutions that benefit society.

LEARNING OUTCOMES:

1. Differentiate between and describe various research transfer forms, including knowledge transfer, technology transfer, and policy transfer.
2. Describe the variables that affect the transfer of research.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG3: Good health and well-being
- SDG4: Quality of education

HARD SKILLS:

Research transfer

Intellectual property (IP) management

SOFT SKILLS:

Problem solving

Collaboration

Study format: Online	**Study methods:** Workshops, seminars, presentations, reflections, group work
Study period: Autumn 2024	**Synchronous contact hours:** 6 **Asynchronous hours & self directed learning:** 19
Entry requirements: Communication in English at a B2 level	**Assessment:** Quizzes, presentations, exercises, reflective essays
Provider: Frederick University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

INNOVATIVE THINKING

Sector: University	**Thematic area:** Research and Innovation Thinking
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The course will use the permaculture method as a way to experiment with innovative thinking.
Permaculture is based on meticulous observation and imitation of ecosystems and natural cycles. The course isn't about gardening, but it will use this relatively new concept of the nurturing garden to apply it to innovative thinking. In a context of accelerated urbanisation and climate change and resource scarcity, analytical thinking and innovation is critical. The course will promote critical thinking and analysis

LEARNING OUTCOMES:

1. Identify agility based on a grounded approach to current problems;
2. Determine a plan of the actual and ideal garden.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG3: Good health and well-being
- SDG12: Responsible consumption and production

HARD SKILLS:

Organising a project schematics

Observation

SOFT SKILLS:

Innovative thinking

Understanding your environment

Study format: Online	**Study methods:** Discussions, inductive and metaphorical approach, observation´s data
Study period: Autumn 2024	**Synchronous contact hours:** 0 **Asynchronous hours & self directed learning:** 25
Entry requirements: Communication in English at a B2 level	**Assessment:** Written reports, individual project
Provider: La Rochelle Université	**Stage of accreditation:** As part of the Diploma Supplement

EU CONEXUS

Co-funded by the European Union

TOOLS FOR DATA ANALYTICS

Sector: University	**Thematic area:** Smart learning
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

In a digital world, almost anything can be data. Data is an endless resource, and knowing how to turn data into useful and valid information can create added value for business and public sector. Analytical processes make raw data useful by translating those attributes into intelligence with purpose.
This course will equip talents from all disciplines with innovative research skills to meet the challenges of today's and tomorrow's world.

LEARNING OUTCOMES:

1. Demonstrate an understanding of innovative research methods.
2. Apply innovative research skills to tackle both todays and tomorrow's world challenges

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4: Quality in education

HARD SKILLS:

Statistical analysis

Text analysis

SOFT SKILLS:

Problem solving

Creativity

Study format: Online	**Study methods:** Lectures, practice with software, individual project development
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Individual feedback
Provider: Klaipeda University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

ENVIRONMENTAL LITERATURE

Sector: University	**Thematic area:** Enviromental and Science Education
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Climate action, preservation of life on land and below water, transition to clean energy and responsible consumption are a necessity in today's world.
The aim of this course is to consider why does literary fiction matter in the context of discussions on climate change, investigate on how literary and cultural forms shape the ways in which people see and relate to the environment, understand how writers express their concerns about the environment within broader debates and discourses about it and see how fictional texts can help raising awareness and suggest new ways for thinking about climate change.

LEARNING OUTCOMES:

1. Recite and analyse climate fiction;
2. Use literary and cultural texts within wider debates and discourses on environment and climate change.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG13: Climate action
- SDG14: Life below water
- SDG15: Life on land

HARD SKILLS:

Presentation skills

Spoken languages

SOFT SKILLS:

Analytical & critical thinking

Active listening

Study format: Online	**Study methods:** Lectures, discussions, individual work.
Study period: Spring 2024	**Synchronous contact hours:** 8 **Asynchronous hours & self directed learning:** 17
Entry requirements: Communication in English at a B2 level	**Assessment:** Classrooms discussions, attendance and participation, final essay
Provider: University of Zadar	**Stage of accreditation:** Institutional accreditation

EU CONEXUS

Co-funded by the European Union

LUDIC CHINESE LANGUAGE LEARNING METHOD WITH TACTILE HYPA KEYBOARD

Sector: University	**Thematic area:** Professional Communication & Academic Writing
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

On shore cities are very often linguistic mixed societies. EU-Conexus also is such international institution.
By participating in this course, the students will learn not only important basis of Chinese language but also will do it in a ludic way allowing them to learn also sequences of meaningful gestures.

LEARNING OUTCOMES:

1. Show a basic knowledge of Chinese language;
2. Demonstrate a first level of oral proficiency.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4: Quality education
- SDG10: Reduced inequalities
- SDG11: Sustainable Cities and Communities

HARD SKILLS:

Oral comprehension

Mastering digital tools

SOFT SKILLS:

Creative thinking

Communication

Study format: Online	**Study methods:** Phonetic initiation, writing, vocabulary and common gestures learning
Study period: Spring 2024	**Synchronous contact hours:** 0 **Asynchronous hours & self directed learning:** 25
Entry requirements: Communication in English at a B2 level	**Assessment:** Basic writing, translations, characters encoded indentification, practical registration
Provider: La Rochelle Université	**Stage of accreditation:** As part of the Diploma Supplement

EU CONEXUS

Co-funded by the European Union

NEUROSCIENCE AND ARTIFICIAL INTELLIGENCE

Sector: Smart	**Thematic area:** Cognitive systems and neuroscience
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Natural Language Processing (NLP) can aid in identifying patterns in unstructured medical data, such as symptoms, diagnoses, treatment outcomes, and patient experiences. In the context of cognitive impairment detection, NLP algorithms can analyze speech patterns, written language, and electronic health records to identify linguistic markers that indicate cognitive decline. This has the potential to revolutionize early diagnosis and intervention strategies for conditions like Alzheimer's disease and dementia.
The course aims to equip students with the knowledge, skills, and practical expertise necessary to effectively utilize NLP techniques in the field of health science for the purpose of early and accurate detection of cognitive impairment in individuals

LEARNING OUTCOMES:

1. Demonstrate the fundamentals of Natural Language Processing;
2. Apply NLP basics to spontaneous language.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG3: Good health and well-being
- SDG5: Gender equality

HARD SKILLS:

AI for Neuroscience Research

Ethics

SOFT SKILLS:

Teamwork

Problem-solving

Study format: Online	**Study methods:** Study cases, presentations, group work
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Exercises, assignments, presentation
Provider: Catholic University of Valencia	**Stage of accreditation:** Internally validated by the UCV Governing Council

EU CONEXUS

Co-funded by the European Union

SYSTEMS THINKING AND SYSTEM DYNAMICS MODELING

Sector: Smart	**Thematic area:** Digital Humanities
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Rapid changes in all spheres of our lives complicate the world. As recent WEF reports highlight, megatrends such as the emergence of a global economy, rapid urbanization, technological breakthroughs, climate change, and resource scarcity are shaping a whole new set of global risks for which our society must be better prepared.
Systems thinking is often referred to as the "cognitive skill of the 21st century" because it is important to learn a new way of thinking about this ever-changing, increasingly complex world and equip students with the skills they need to succeed in their future lives.

LEARNING OUTCOMES:

1. Demonstrate fresh knowledge of systems analysis principles and a deeper understanding of system dynamics methodology, including elements of causal loops and stock and flow diagrams, system archetypes and typical steps of simulation model development procedure;
2. Design system dynamics models of typical real-life situations, implement them in a computer-based simulation system, interpret and evaluate their results.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4 (Quality education), SDG8 (Decent work and economic growth) & SDG11 (Sustainable cities and communities)

HARD SKILLS:

System dynamics diagramming methods

Design & application of simulation models

SOFT SKILLS:

Creative & critical thinking

Problem solving

Study format: Online	**Study methods:** Lectures, discussions, debates, causal loops and stock and flow diagramming, simulation of real-life situations, problem-based learning
Study period: Autumn 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Problem-solving tasks, models presentation, debates, final written exam.
Provider: Klaipeda University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

USING AI WHEN WORKING WITH VERY LARGE DOCUMENT COLLECTIONS: OPPORTUNITIES AND RISKS

Sector: Smart	**Thematic area:** Digital Humanities
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

In the context of the digital transformation and subsequent technological breakthrough, the advent of AI and mass digitization provide us with access to a wealth of documents that were either out of reach or simply too numerous to grasp. While this is undeniable progress, it is important to note that advances due to AI and computer science should not be taken blindly, as they come with specific risks.
This course will focus on understanding the impact and risks of using digitised documents collections and/or automatically analysed collections for studies and research.

LEARNING OUTCOMES:

1. Demonstrate a critical thinking in using tools and datasets and understanding hermeneutics;
2. Show knowledge of the concept of digital humanities.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4: Quality education
- SDG9: Industry, innovation and infrastructure.

HARD SKILLS:

Understanding NewsEye project

Using digital libraries

SOFT SKILLS:

Critical thinking

Cross-cultural collaboration

Study format: Online	**Study methods:** Online material and lectures, independent work
Study period: Spring 2024	**Synchronous contact hours:** 0 **Asynchronous hours & self directed learning:** 25
Entry requirements: Communication in English at a B2 level	**Assessment:** Online test and individual reports
Provider: La Rochelle Université	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

INTRODUCTION TO FILM LITERACY AND FILMMAKING

Sector: Smart	**Thematic area:** Digital Marketing & Communication
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

In recent years, private and public communication and digital marketing have largely been based on the creation, sharing and viewing of films of various contents and purposes. Covid-19 pandemic strengthened this trend, when many individuals and organizations for the first time started to communicate with people through films which they made themselves. However, in order to communicate through films, those who have aspirations and needs to take on the role of filmmakers should possess different knowledge, skills and competences to create informative, educational, convincing and entertaining films. This micromodule will introduce participants to basic elements of film literacy and filmmaking.

LEARNING OUTCOMES:

1. Perform shooting and editing of films at the basic level;
2. Describe and demonstrate an understanding of the possibilities of different technologies used in filmmaking.

SUSTAINABLE DEVELOPMENT GOALS:

All 17 goals of the UN could be described and explained in detail, as well as convincingly advocated and promoted with various types of films.

HARD SKILLS:

- Basic film shooting skills
- Basic film editing skills

SOFT SKILLS:

- Problem solving
- Creativity

Study format: Online	**Study methods:** Lectures, practical activities and group dicussions
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Assignments related to filmmaking and knowledge test
Provider: University of Zadar	**Stage of accreditation:** Institutional accreditation

EU CONEXUS

Co-funded by the European Union

UAS PRINCIPLES, DATA MODELING AND ANALYSIS

Sector: Smart	**Thematic area:** Digital Humanities
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Digital space has evolved from pixelated representations of real-world objects to exact photorealistic digital copies. The methods to create digital objects and scenery has evolved as well. To design a single realistic digital object of life-like quality often requires hours and hours of modeling and texturing. What if there was another way? What if the object could instead be scanned into the computer, capturing its exact shape and texture? Data Modeling helps to solve complex problems and affects all aspects of life.
This course will equip students with knowledge and operational tools in order to develop their professional career in UAS Principles and Data Modeling and Analysis.

LEARNING OUTCOMES:

1. Demonstrate knwoledge on operating a UAS and flying procedures, data expectancy and analysing by specific tools.
2. Identify UAS pre-flight requirements, designing the UAS flight planning, identifying steps about UAS data acquisition.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG4: Quality education
- SDG9: PIndustry, innovation and infrastructure

HARD SKILLS:

Technology use

Technological literacy

SOFT SKILLS:

Analytical thinking

Curiosity

Study format: Online	**Study methods:** Lectures, case studies, dicussions, tutorials, presentations
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Independent research, quizzes, team presentations, group project
Provider: Technical University of Civil Engineering Bucharest	**Stage of accreditation:** Part of a Bachelor program accredited by UTCB and by Romanian Agency for Quality Assurance in Higher Education (ARACIS)

EU CONEXUS

Co-funded by the European Union

SMART GREEN CITIES: INNOVATIONS FOR SUSTAINABLE URBAN DEVELOPMENT

Sector: Urban	**Thematic area:** Smart green cities
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The course aims to explore the intersection of technology, sustainability, and urban planning to equip participants with the skills and insights needed to contribute to sustainable urban solutions.

LEARNING OUTCOMES:

1. Demonstrate the core principles of urban planning and the integration of smart infrastructure technologies within urban settings.
2. Acquire familiarity with the application of renewable energy systems in the development of sustainable cities.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG 7: Affordable and Clean Energy
- SDG 11: Sustainable Cities and Communities
- SDG 13: Climate Action

HARD SKILLS:

Technological integration

Energy management

SOFT SKILLS:

Critical thinking

Adaptability

Study format: Online	**Study methods:** Lectures, workshops, case study analysis
Study period: Autumn 2024	**Synchronous contact hours:** 3 **Asynchronous hours & self directed learning:** 22
Entry requirements: Communication in English at a B2 level	**Assessment:** Individual/group assignments
Provider: Frederick University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

INNOVATIVE HERITAGE RESORTS AS SUSTAINABLE ECOSYSTEMS

Sector: Urban	**Thematic area:** Modernisation and Heritage protection
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The idea of innovation is not only based on digitalization but also on shared (networked) governance. Creatively generated innovative ideas can be implemented as creative industries that both will improve the sustainability of the resort and help to compete with resorts alike.

This course will provide knowledge and skills on the sustainable development and innovations (social and digital) for heritage resorts that can increase the value and attractiveness of these resorts through becoming modern and sustainable ecosystems

LEARNING OUTCOMES:

1. Demonstrate a deeper understanding of the concept of sustainable development in the context of 21st century governance;
2. Discuss the creative industry's sub-sectors as a potential for innovative services and interpret them in a sample resort.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG9: Industry, innovation and infrastructure
- SDG11:Sustainable cities and communities

HARD SKILLS:

Focus group or World café methods

Concept mapping

SOFT SKILLS:

Consensus building in networking

Decision making

Study format: Online	**Study methods:** Active listening, discussions presentations, ideas design, readings
Study period: Spring 2024	**Synchronous contact hours:** 15 **Asynchronous hours & self directed learning:** 10
Entry requirements: Communication in English at a B2 level	**Assessment:** Reports, presentations, assignments
Provider: Klaipeda University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

SUSTAINABLE AND SMART CITIES. AN INTRODUCTION

Sector: Urban	**Thematic area:** Smart Green cities
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

In an era of rapid urbanisation and unprecedented global challenges, the concept of smart and sustainable cities has emerged as a bright and hopeful spot. Cities are not just centres of commerce and culture; they are at the forefront of tackling some of humanity's most pressing problems.
This course will provide learners with a foundational understanding of key concepts and principles related to urban sustainability and smart city technologies.

LEARNING OUTCOMES:

1. Demonstrate the core principles of sustainable and smart cities;
2. Discuss the role of energy efficiency and RES in smart cities, analyze sustainable transportation options, explore and create smart mobility solutions, examine and generate green infrastructure solutions.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG8: Decent work and economic growth
- SDG9: Industry, innovation and infrastructure
- SDG11:Sustainable cities and communities

HARD SKILLS:

Analysing solutions on sustainable energy and transport

Analysing policies for smart and sustainable cities

SOFT SKILLS:

Cooperation

Problem thinking

Study format: Online	**Study methods:** Lectures, case studies, interactive learning, visual aids.
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Exercises, presentations, case study analysis, creative solutions
Provider: Technical University of Civil Engineering Bucharest	**Stage of accreditation:** Part of a Bachelor program accredited by UTCB and by Romanian Agency for Quality Assurance in Higher Education (ARACIS)

EU CONEXUS

Co-funded by the European Union

CYBERSECURITY FOR SMART PORTS & SHIPPING ORGANIZATIONS

Sector: Coastal	**Thematic area:** Smart Ports
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The cybersecurity landscape is fast evolving, driven by a reinforcing feedback loop of increasingly sophisticated attacks and defences. On top of their asymmetrical "attacker's advantage", threat actors have matured their organizational structures to facilitate information sharing, specialized techniques, and dark markets for buying or selling exploits, vulnerabilities, services, and training on how to circumvent detection or defence systems.
This course will train a next generation of professionals that will advance cybersecure digitalization for sustainable smart ports and maritime industries.

LEARNING OUTCOMES:

1. Demonstrate a good level of knowledge of cybersecurity jargon, tools and methodologies;
2. Assess organization (Port/Maritime) security posture, plan & execute stable, compliant & cybersafe operations.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG9: Industry, innovation and infrastructure

HARD SKILLS:

Security posture analysis

Identified threats mitigation

SOFT SKILLS:

Decision making

Critical thinking

Study format: Online	**Study methods:** Debates, formal lectures, hands-on lab tasks
Study period: Autumn 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Quizzes, individual/group research, presentations
Provider: Klaipeda University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

BUILD WITH NATURE - TECHNIQUES FOR SANDY COASTS

Sector: Coastal	**Thematic area:** Anatomy of coastal areas
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The course "Build with Nature" techniques for sandy coasts will provide students with a range of technical, legal, and professional competences such us analytic thinking, complex problem solving, critical thinking and analysis, reasoning, problem solving. These competences include GIS, environmental law and policy, project planning and management, and social and cultural considerations.

LEARNING OUTCOMES:

1. Demonstrate a deep understanding of coastal processes and assessment of coastal risks;
2. Present innovative solutions for coastal enviroment protection and managment.

SUSTAINABLE DEVELOPMENT GOALS:

- SD13: Climate action
- SDG15: Life on land
- SDG4: Quality education

HARD SKILLS:

Data analysis

Research and reporting

SOFT SKILLS:

Problem solving

Creative & critical thinking

Study format: Online	**Study methods:** Debates, lectures, project-based learning
Study period: Autumn 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Tests, deliverables, presentation, final exam
Provider: Klaipeda University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

UNDERWATER CULTURAL HERITAGE AS A TOURIST RESOURCE

Sector: Coastal	**Thematic area:** Coastal tourism
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Europe's rich underwater cultural heritage is a valuable tourist resource, which has not been sufficiently exploited. Underwater sites belong to different periods, from prehistory to modern age, and are usually very attractive for underwater or land presentation.
The aim of the course is to teach students how to recognize the potential of the underwater cultural heritage, and how to include it in the tourist offers in various situations and under various conditions.

LEARNING OUTCOMES:

1. Classify underwater cultural heritage, and its potential for tourist presentation;
2. Identify underwater cultural heritage sites for potential tourist presentation.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG5 : Gender equality
- SDG14 : Life below water

HARD SKILLS:

Project Management

Interpreting data

SOFT SKILLS:

Communication skills

Critical thinking

Study format: Online	**Study methods:** Lectures, group and individual work, discussions
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Discussions, presentations, group research
Provider: University of Zadar	**Stage of accreditation:** Institutional accreditation

EU CONEXUS

Co-funded by the European Union

MAKING SUSTAINABLE FASHION TRENDY

Sector: Sustainability	**Thematic area:** Sustainable Consumption
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The aim of the course is to raise awareness of the consequences of fashion production and consumption and to start taking steps towards a (more) sustainable lifestyle.

LEARNING OUTCOMES:

1. Identify and explain the impact of fast fashion and fashion consumption for the planet;
2. Analyze the sustainability practices within the fashion industry.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG12: Responsible consumption & production
- SDG1: No poverty
- SDG6: Reduce water & sanitation
- SDG2: Reduce inequalities

HARD SKILLS:

Researching

Problem-solving

SOFT SKILLS:

Decision making

Critical thinking

Study format: Online	**Study methods:** Group discussions, research project, case study, presentations
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Research project and its presentation
Provider: Catholic University of Valencia	**Stage of accreditation:** Internally validated by the UCV Governing Council

EUCONEXUS

GREEN COMPETENCES 4 ALL

Co-funded by the European Union

Sector: Sustainability	**Thematic area:** Green skills
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The aim of this unit is to develop green competences to participants regardless their background using competences of the European GreenComp framework. The course intends to help learners develop knowledge, skills and attitudes concerning the issue of climate change (SDG13), that promote ways to think, plan and act with empathy, responsibility, and care for our planet. The GreenComp competences this course focuses on are Systems thinking and futures thinking.

LEARNING OUTCOMES:

1. Identify and explain the causes of climate change and discuss the systemic connections - consequences on the environment, the society and the economy, locally and globally.
2. Suggest different possible solutions – scenarios and identify the most appropriate ones for climate change mitigation.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG12: Climate action
- SDG17: Partnerships for the goals

HARD SKILLS:

Monitoring & Evaluation

SOFT SKILLS:

Attention to detail

Creative & critical thinking

Study format: Online	**Study methods:** Discussions, role-plays, simulation activities
Study period: Autumn 2024	**Synchronous contact hours:** 4 **Asynchronous hours & self directed learning:** 21
Entry requirements: Communication in English at a B2 level	**Assessment:** Group project
Provider: Frederick University	**Stage of accreditation:** Pending on national legislation

EU CONEXUS

Co-funded by the European Union

MANAGEMENT STRATEGIES OF PLANT DIVERSITY FOR SUSTAINABLE DEVELOPMENT

Sector: Sustainability	**Thematic area:** Sustainable Management
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

This learning unit will offer a general, and interdisciplinary approach on the main strategies for the management of wild plants as a resource for sustainable economic development. This background will provide the principles of plant diversity management to achieve the global food security, preservation and use of genetic resources for industries, under the principles of the UN Sustainable Development Goals.

LEARNING OUTCOMES:

1. Comprehend the updated strategies in plant diversity management
2. Identify the most suitable resource or strategy for organization, development, and innovation in some fields of applications.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG1: No poverty
- SDG2: Zero hunger
- SDG12: Responsible consumption & production
- SDG15: Life on land

HARD SKILLS:

Plant diversity management

Data analysis

SOFT SKILLS:

Communication

Problem solving

Study format: Online	**Study methods:** Lectures and case-study exercises.
Study period: Spring 2024	**Synchronous contact hours: 10** **Asynchronous hours & self directed learning: 15**
Entry requirements: Communication in English at a B2 level	**Assessment:** Multiple choice test, case study exercise
Provider: Catholic University of Valencia	**Stage of accreditation:** Internally validated by the UCV Governing Council

EU CONEXUS

Co-funded by the European Union

TRADITIONAL TIMBER HOUSES CARPENTRY IN SEISMIC AND COASTAL AREAS

Sector: Sustainability	**Thematic area:** Technologies for Sustainable Development
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

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.

LEARNING OUTCOMES:

1. Understand the taxonomy of existing traditional houses;
2. Identify the different construction details in terms of impact in the seismic/coastal climate resistance.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG11: Sustainable cities and communities
- SDG12: Responsible consumption and production

HARD SKILLS:

Recognize structural characteristics of traditional timber houses

SOFT SKILLS:

Organisation

Collaboration

Study format: Online	**Study methods:** Reflective learning, group work
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Case study discussions, scientific paper analysis
Provider: Technical University of Civil Engineering Bucharest	**Stage of accreditation:** Part of a Bachelor program accredited by UTCB and by Romanian Agency for Quality Assurance in Higher Education (ARACIS)

EU CONEXUS

Co-funded by the European Union

SDGS - THE BLUE PRINT FOR THE SUSTAINABLE DEVELOPMENT

Sector: Sustainability	**Thematic area:** SDGs
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

Today our activities are increasingly complex and our context (economic, social, environmental, technological etc.) is constantly evolving. In addition to competencies associated to our specialization, we need to keep up with the pace of the context dynamics. 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.

LEARNING OUTCOMES:

1. Demonstrate a critical understanding of sustainability (goals) at local, European and global level;
2. Illustrate incorporation of specific SDGs at organisation level.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG 4 – Quality Education
- SDG 8 – Decent Work and Economic Growth

HARD SKILLS:

Sustainability reporting and compliance

SOFT SKILLS:

Systems thinking

Problem solving

Study format: Online	**Study methods:** Lectures, presentations, case-studies, plenary reflections
Study period: Spring 2024	**Synchronous contact hours:** 10 **Asynchronous hours & self directed learning:** 15
Entry requirements: Communication in English at a B2 level	**Assessment:** Tests, team presentation
Provider: Technical University of Civil Engineering Bucharest	**Stage of accreditation:** Part of a Bachelor program accredited by UTCB and by Romanian Agency for Quality Assurance in Higher Education (ARACIS)

EU CONEXUS

Co-funded by the European Union

CLIMATE ADAPTATION ENGINEERING

Sector: Sustainability	**Thematic area:** Climate change and resilience
Volume (ECTS): 1 (25h)	**Language:** English

DESCRIPTION:

The course explores the measures implemented to minimize vulnerability and enhance the resilience of built infrastructure. Students will learn about various strategies such as improving design standards, strengthening structures, utilizing innovative materials, and modifying inspection and maintenance practices, among others. The course delves into the impact of climate change variables on infrastructure and examines risk-management policies through the lens of real-world case studies. The instructor of this course also adopts a forward-thinking approach by addressing multiple facets of climate change. The content is presented in a manner that is easily understandable to students, emphasizing practical decision-making outcomes.

LEARNING OUTCOMES:

1. Recognise the risks posed by climate change to infrastructure:
2. Determine adaptation strategies for various infrastructures.

SUSTAINABLE DEVELOPMENT GOALS:

- SDG9: Industry, innovation and infrastructure
- SDG11: Sustainable cities and communities

HARD SKILLS:

Understanding the impact of climate change on the built environment

SOFT SKILLS:

Decision making

Problem solving

Study format: Online	**Study methods:** Online lectures, individual work
Study period: Autumn 2024	**Synchronous contact hours:** 0 **Asynchronous hours & self directed learning:** 25
Entry requirements: Communication in English at a B2 level	**Assessment:** Online tests, individual reports
Provider: La Rochelle Université	**Stage of accreditation:** Pending on national legislation