COURSE OUTLINE

(1) GENERAL

SCHOOL	Social Sciences		
ACADEMIC UNIT	Department of Cultural Technology and Communication		
LEVEL OF STUDIES	Postgraduate Studies		
COURSE CODE	UA-EC7	**SEMESTER**	2
COURSE TITLE	International Conference/Bootcamp on Digital Deep tech Driven Circular Economy		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, state the weekly teaching hours and the total credits*		**WEEKLY TEACHING HOURS**	**CREDITS**
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail in section (4).		3	6
COURSE TYPE *general background, special background, specialization, general education, skills development*	General Background, Skills Development		
PREREQUISITE COURSES	No		
LANGUAGE OF INSTRUCTION AND OF ASSESSMENT	English		
MODE OF TEACHING *in-person (%) synchronous distance learning (%) asynchronous distance learning (%) (In the case of synchronous distance learning, the total weekly duration of teaching is recorded)*	Attendance at the conference may take place either fully in person or fully through synchronous distance participation. Students are required to participate in the five-day conference for eight hours per day. At the end of the conference, students' presentations and the feedback session will be conducted both in person and through synchronous distance participation.		
AVAILABILITY TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	TBA		

(2) LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Brief Guide for drafting Learning Outcomes*

This course provides students with structured academic credit for participating in an international conference focused on digital deep-tech innovations driving the transition toward a circular and sustainable economy.

Through lectures, research presentations, and workshops, students explore how technologies such as AI, IoT, blockchain, robotics, and advanced materials enable circular business models, resource

efficiency, and system resilience. The course encourages students to engage critically with multidisciplinary perspectives linking digital transformation, sustainability, and industrial innovation.

Students will analyze case studies presented during the conference, connect technological insights with sustainability frameworks (e.g., the EU Circular Economy Action Plan), and reflect on the societal and ethical implications of deep-tech deployment.

By the end of the course, students will be able to:

- Explain the principles and emerging paradigms of the digital deep-tech–enabled circular economy.
- Critically evaluate research and industry contributions presented at the conference, identifying cross-sectoral innovations.
- Analyze the potential of digital tools (AI, IoT, data analytics, blockchain, etc.) to enhance material efficiency, product life cycles, and circular value chains.
- Synthesize conference insights into their own academic or professional context, demonstrating interdisciplinary understanding.
- Communicate findings and perspectives on sustainable digital transformation effectively in written and oral forms.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and are stated below), at which of the following does the course aim?

Search, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adaptability to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Other…*
	…….

The current course will enable students to acquire the following competences:

- Critical and Analytical Thinking
  - Ability to evaluate complex, multidisciplinary research and industry presentations.
  - Skill in synthesizing information from digital technologies, sustainability science, and economics.
- Communication and Presentation Skills
  - Effective written and oral communication of scientific ideas in an international setting.
  - Ability to articulate insights clearly to both specialist and non-specialist audiences.
- Intercultural and Interdisciplinary Collaboration
  - Capacity to engage constructively in discussions with participants from diverse cultural and disciplinary backgrounds.
  - Understanding of global and regional contexts in sustainable innovation.
- Ethical and Societal Awareness
  - Reflection on the social, environmental, and ethical implications of applying deep-tech in circular systems.
  - Responsible innovation mindset.
- Autonomous and Lifelong Learning
  - Initiative in exploring cutting-edge developments beyond formal instruction.
  - Capacity for independent research, self-evaluation, and continuous professional development.
- Problem-Solving and Creativity

- Application of analytical insights from the conference to identify innovative solutions for circular economy challenges.

(3) COURSE SYLLABUS

- Full participation in the 5-day international conference on Digital Deep-Tech Driven Circular Economy.
- Attendance at keynote sessions, thematic workshops, and networking events.
- Engagement in interactive poster or panel sessions (as participant or observer).
- Post-conference debriefing and reflection seminar.
- Independent study and preparation of analytical report.

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

MODE OF TEACHING *Face-to-face, distance learning, etc.*	Distance Learning
MODE AND FREQUENCY OF COMMUNICATION WITH THE STUDENTS	Synchronous distance communication on a weekly basis, asynchronous on a daily basis through LMS platform
ENSURING THE MODE OF COMMUNICATION AMONG STUDENTS *Team assignments and discussions, collaborative learning platforms with the use of AI, video conference, QA sessions, κ.α.*	Weekly assignments, discussions through dedicated discussion forum, dedicated space per module on the learning platform, schedule video conference meetings through MS Teams, dedicated QA sessions per module
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, in laboratory training, in the communication with students*	Use of ICT in Teaching, Communication with students Online Platforms will be used for teaching, tutorials, students' guidance, students' self-assessment and support on group projects
TECHNOLOGICAL EQUIPMENT REQUIREMENTS	PC /laptop for video conference meeting
PLAGIARISM POLICY/ PLAGIARISM DETECTION TOOLS	Gradescope, Turnitin
ARTIFICIAL INTELLIGENCE POLICY *(1) The use of Artificial Intelligence is prohibited in all circumstances* *(2) The use of Artificial Intelligence is allowed only with the permission of the instructor* *(3) The use of Artificial Intelligence is allowed only with an explicit reference to the literature* *(4) Students are free to use Artificial Intelligence*	The use of Artificial Intelligence is allowed only with an explicit reference to the literature. Additionally, students are free to use AI provided by the master programmes for contacting stimulations, practicing purposes, etc.
ORGANISATION OF TEACHING *The mode and methods of teaching are described in detail.* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, work placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artworks, etc.* *The student's study hours for each learning activity are stated, as well as the hours of independent study, according to the principles of the ECTS.*	
STUDENT ASSESSMENT *Description of the assessment method*	

Activity	***Semester workload***
Conference attendance (5 days × 8 hours)	40
Pre-conference literature review	30
Report preparation and writing	37,5
Presentation and feedback session	42,5
Course total	**150**

Language of assessment, methods of assessment, formative or summative assessment, multiple choice questions test, short answer questions, essay questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory assignment, clinical examination of patient, art interpretation, other *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Students will be evaluated based on their active participation in the conference, on the report provided and on the oral presentation as follows: Active Conference Participation Verified attendance, engagement in discussions, and reflective notes: 30 % Analytical Report (2,000–3,000 words) Critical synthesis of selected sessions, linking deep-tech innovation with circular-economy frameworks: 50 % Presentation for oral 5-minute presentation summarizing main takeaways and personal insights: 20 %