

Dear lecturers,

As part of the **SEA-EU University Alliance** your University takes part in task 2.3 on flexibilization of curricula and the development of **micro-credential offers** and study programmes in the learning field of **Future Skills** and **Sustainability Studies**. It is the idea of the Alliance to foster exchange, cross-border teaching and the offer of small learning units for students from all subjects in the two aforementioned topics in an **Alliance-wide exchange of virtual teaching**.

As lead of task 2.3 Kiel University organizes the provision of micro-credentials in the fields of "Future Skills" and "Sustainability Studies" for all Alliance students. With this Guidebook we aim to give you an idea of how you can open up your teaching for students from all other SEA-EU-Alliance universities. This is in many ways an ambitious endeavor. As we are on the way to establish the whole process, we chose to find pragmatic solutions while working on more sustainable and automated procedures in the long term. In a first phase we agreed on establishing the micro-credential Programme for Future Skills. In the next phase this will be done for the Sustainability Studies Programme in the same way.

We define micro-credentials as a small learning unit of 1-5 ECTS. Micro-credentials provide learners with specific knowledge, skills and attitudes that meet the cultural, societal or market demands of our changing world. Micro-credential courses are open to students within the SEA-EU Alliance and the ECTS gained can be used within study programmes. In this way, students can supplement their studies with important future skills according to their own ideas and interests.

We don't expect students to travel to another country for a micro-credential course and therefore advise you to think of suitable courses preferably in English, which are offered online or in a hybrid format.

Do you have a course that covers the topic of "Future Skills"? Would you like to enrich your course with participants from up to nine SEA-EU universities?

This Guidebook guides you through the process of a course offer, which can be summarized in three steps:

- Fill in the SEA-EU micro-credential course sheet and we add your offer to our course pool and make it visible to students at the Alliance
- The registration to the course for the SEA-EU students has to be done on the basis of the appropriate procedures of your university.
- At the end of the course, you or your University hand out the SEA-EU certificate to the successful SEA-EU-students. We will provide you with the pre-filled template for the certificate.

Perhaps we have piqued your interest and you would like to design a new course that addresses SEA-EU Alliance students? We have gained initial experience in designing such courses and would be happy to help you.

Yours sincerely  
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Key Skills Centre, Kiel University, SEA-EU task 2.3 micro-credentials

# Guidebook for teachers

Micro-credential course offers  
for the  
SEA-EU micro-credential programme  
on “Future Skills”

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## 1. Introduction

The content of this Guidebook is the result of the work of the SEA-EU task 2.3 micro-credential Expert group.

The task 2.3 micro-credentials within the SEA-EU Alliance is organising a micro-credential course offer for all students of the SEA-EU Alliance in the fields of Future Skills and Sustainability Studies.

Our aim is to create a course pool in the field of Future Skills that contains course offers from all 9 Universities of the Alliance for all students of the Alliance.

We define micro-credentials as small learning units of 1-5 ECTS. You can find our full definition in the Annex 6: Definition SEA-EU task 2.3 micro-credentials

Students can pick only one course with for example 1 ECTS from the course pool or they can complete the whole micro-credential Programme on Future Skills by covering at least three categories and by collecting at least 15 ECTS from the Programme.

In a first step, we worked out the micro-credential Programme on Future Skills, this will be subject of this Guidebook. In the next step we will define the Programme on Sustainability Studies and complete this Guidebook.

In order to have a clearer definition of what we mean by Future Skills, we have created a Future Skills framework which you will find in [chapter 2](#).

To open up some places in your existing course to the students from the Alliance or to offer a new course for the course pool, please take the following steps:

- Check whether your course fits into one of the categories of our Future Skills framework (see [chapter 2](#):). To do this, look at the competences listed in the respective category and decide whether the learning objectives of your course develop one or more of these competences.
- Fill in the online course sheet, for more information see [chapter 3](#)
- Please organise for now the application and registration of the students at your University (in future there might be a common solution for this process for SEA-EU courses). For more information see [chapter 4](#)
- Please hand out a course certificate to the SEA-EU students after their successful completion of the course, or use your university processes to confirm student achievement, if possible. For more information see [chapter 5](#)

## 2. The SEA-EU micro-credential programme on „Future Skills“

For the Future Skills programme, we have created five meta categories that represent our definition of Future Skills. The courses offered as micro-credential course on “Future Skills” should fit in one of these categories.

Meta category	Competences
Higher order thinking competences	Adaptability competences, Problem solving competences, Critical and Systems thinking competences
Self competences	Active Learning competences, Self-awareness competences, Complexity and ambiguity competences
Social and communication competences	Collaboration and networking competences, Communication competences, Leadership competences
Transformative competences	Entrepreneurship competences, Citizenship competences, Global awareness competences
Digital and media competences	Data Literacy competences, Media literacy competences, Digital collaboration competences

For each Meta category you can offer a course/micro-credential module with 1 to 5 ECTS (2,5 ECTS are also possible)

Please find the detailed “Future Skills Framework” with definitions of all competences and with learning outcomes for each category in Annex 1.

### 3. The micro-credential course sheet

If you want to offer a course for the SEA-EU micro-credential programme on Future Skills, please fill in the online course sheet: <https://studfeedback.uni-kiel.de/evas-ys/online.php?p=23P5N>

The information in the course sheet will be used for

- Course dissemination to all students of the Alliance
- Creation of the course certificate template, which we will make available for you
- Checking the fit of the course to the SEA-EU micro-credential Future Skills programme

The whole course sheet can be found in Annex 2

#### 3.1. Course sheet - General Information

This section of the course sheet contains the main course information.

<b>Course Title</b>		<b>Code</b>
<b>Course teacher</b>		
<i>Name, Institution, University: main teacher</i>		
<i>Name, Institution, University: associated teacher</i>		
<b>Organiser/Contact person</b>		
<i>Name, Institution, University</i>		
<b>Credits (ECTS)</b>	<b>Workload</b>	
<i>Possible range 1 to 5</i>	1 ECTS = 25 to 30 h Workload, including ____ contact hours and ____ self instructed learning	
<b>Language of instruction</b>		
<i>English (preferred) or local language</i>		
<b>Mode of provision</b>		
<input type="checkbox"/> Physical attendance of students: 100% <input type="checkbox"/> Physical attendance of students: partly required		<input type="checkbox"/> remote attendance possible <input type="checkbox"/> online 100%
<b>Percentage of e-learning (0-100%)</b>		
<b>Short course description (for dissemination to students)</b>		
<i>Please enter a short course description for the course dissemination to students</i>		
<b>Link to the university's website for the course / time and place for the course</b>		
<i>Please enter the link to the course information at your University's website or, if not possible, the specific dates or time period</i>		

### 3.2. Course sheet - Organisational Information

This section contains all organizational information for the students. For the course format/teaching and learning methods please refer to the SEA-EU agreed list of teaching and learning methods in Annex 3

<b>Course format/teaching and learning method (see SEA-EU list of teaching and learning methods)</b>
<b>Max. number of participants</b>
<b>Course enrolment</b>
<i>Please fill in a Link to a local course enrolment platform, that is usable for all students of the Alliance or the information, how students from all Universities of the Alliance can enroll.</i>
<b>Course fees</b>
<b>Enrolment requirements</b>
Study level <input type="checkbox"/> Bachelor (level 6) <input type="checkbox"/> Master (level 7) <input type="checkbox"/> PhD/Doctorate (level 8) Entry level of language proficiency: Other requirements:
<b>Link to the university's website for the course</b>
<b>Other remarks</b>

### 3.3. Course sheet - Learning Conditions

In this section the course content is specified: the learning outcomes, the student activities within the course and the attendance policy. For the Assessment Methods please refer to the SEA-EU agreed list of assignments in Annex 4

<b>Course content</b>
<b>Learning outcomes (knowledge, skills, attitudes)</b>
Students are able to..( <i>based on e.g. Bloom's taxonomy</i> ):

<b>Student activities</b>
<b>Attendance policy</b>
<b>Assessment Methods (see SEA-EU list of assignments)</b>
<b>Grading</b>
<input type="checkbox"/> graded <input type="checkbox"/> non-graded (pass/fail)
<b>Study materials/Course literature</b>

### 3.4. Course sheet - Linkage to SEA-EU micro-credential Programmes

In this section you specify which category/module of the SEA-EU Future Skills framework your offer belongs to and which competence(s) of the category/module are trained by your course offer.

Please refer to [chapter 2](#).

<b>Linked to micro-credential programme</b>
<input type="checkbox"/> Future Skills <input type="checkbox"/> Sustainability studies (not yet applicable)
<b>Linked to micro-credential category/module (see Future Skills Framework)</b>
<input type="checkbox"/> Higher order thinking competences <input type="checkbox"/> Self competences <input type="checkbox"/> Social and communication competences <input type="checkbox"/> Transformative competences <input type="checkbox"/> Digital and media competences
<b>Linked Competence</b>
Name the competence(s) from list of the related category/module in the SEA-EU Future Skills Framework or the SEA-EU Sustainability Studies Framework you will provide with your teaching:



## 4. Organising the course application and registration at the home University

In the next step you/your University organise the application and registration of the students at your University (in future there might be a common solution for this process for SEA-EU courses).

We are aiming to find a cross-university solution for the authentication of students within the SEA-EU Alliance. However, this will take some time. Until then, we ask you to find pragmatic solutions for the application and registration of students. Please bear in mind that external students may not be able to use your internal university systems as they may not have access to them.

If you need help or support with the application and registration process for Alliance students, please contact us by e-mail. Our contact: [rohlf@zfs.uni-kiel.de](mailto:rohlf@zfs.uni-kiel.de)

As this is an exchange of students within the Alliance, we would like to suggest that the course offer is free of charge for students. Students from your university will take part in courses at other universities in the Alliance, and in return you will host students from the Alliance. In our view, this should balance out any additional costs incurred. However, if it is not possible for you to offer your course for free, please give information on the fees and the payment process.

**Please enter the information concerning the application and registration process for the students from the SEA-EU Alliance in the course sheet.**

## 5. The SEA-EU course certificate

To confirm the successful course participation of the students, please hand over the course certificate to the SEA-EU students or use your University processes for credit achievement if possible. Please use the standardized form that we will provide you with pre-filled, after you have filled in the course sheet. Students will submit this course certificate, after having received it from you, to their home university for ECTS credit transfer.

There will probably also be a SEA-EU-wide solution for issuing course certificates and awarding ECTS, but this is currently still in preparation.

You can see what the course certificate will look like in Annex 5

## Annex 1: SEA-EU task 2.3 micro-credentials “Future Skills” Framework

### The SEA-EU micro-credential Framework on “Future Skills”

Meta-categories	Skills/Competences	Learning outcomes
Higher order thinking competences	<p><b>Adaptability competences</b></p> <p>Adaptability competence encompasses the knowledge, skills and responsible attitude to approach unknown situations positively, to work on several tasks simultaneously and to deal constructively with change.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- define techniques and methods for proactive behavior in unknown situations</li> <li>- identify challenges in learning and working environments</li> <li>- describe improvisation techniques for dealing with change</li> <li>- implement adaptation strategies for dealing with unknown challenges</li> <li>- evaluate individual learning and working steps for dealing with unknown situations or challenges</li> <li>- integrate improvisation techniques into the adaptation process</li> <li>- evaluate their intrinsic motivation in adaptation situations</li> <li>- assess their own role in working with others in unfamiliar situations</li> <li>- develop priorities for adaptation in challenging or unfamiliar situations, taking into account their own needs and the needs of others</li> </ul>
	<p><b>Problem solving competences</b></p> <p>Problem-solving competence comprises the knowledge, skills, and responsible attitude required to effectively identify, analyze, and resolve complex issues and challenges within a given context. It involves the application of critical thinking, creativity, and eth-</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- recognize complex problems from diverse domains, identifying key components and interrelationships.</li> <li>- synthesize information from various disciplines, fostering a holistic understanding of problems and solutions.</li> <li>- name problem-solving theories and models</li> <li>- evaluate information objectively, identify assumptions, and form well-reasoned conclusions.</li> <li>- generate innovative solutions to complex issues.</li> <li>- cultivate a resilient attitude towards problem-solving, demonstrating perseverance in the face of setbacks.</li> <li>- appreciate diverse perspectives, foster-</li> </ul>

Self competences	ical considerations to navigate and overcome obstacles in a systematic and effective manner.	ing collaboration and enhancing their ability to tackle multifaceted problems. develop a heightened awareness of ethical considerations in problem-solving, ensuring that their solutions contribute positively to society.
	<p><b>Critical and Systems thinking competences</b></p> <p>The competence of critical thinking encompasses the knowledge, skills and responsible attitude for process-based thinking behavior that serves to systematically analyze and evaluate information, ideas and arguments and to reach factually sound conclusions.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify different arguments and claims for their critical analysis</li> <li>- recognize facts, concepts, theories and principles of the respective field of knowledge that are relevant to carry out an informed, critical analysis</li> <li>- name basic steps and techniques of critical thinking</li> <li>- combine different techniques of critical thinking to analyze experiences, complex information and theories critically and objectively</li> <li>- formulate questions to critically analyze arguments and conclusions</li> <li>- develop and evaluate rational arguments from existing perspectives</li> <li>- use facts, concepts, theories and principles of the respective field of knowledge to develop alternative solutions in the critical thinking process</li> <li>- find assessment standards for comparing different theses and arguments</li> <li>- recognize their own subjectivity</li> <li>- develop a value system that appreciates existing arguments, theses or decisions in the process of critical thinking</li> <li>- critically weigh different perspectives against each other</li> <li>- take a responsible stance on their own and other arguments</li> </ul>
	<p><b>Active Learning competences</b></p> <p>Active Learning competence encompasses the knowledge, skills and responsible attitude required to develop ac-</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify personal needs and areas of learning</li> <li>- describe different learning methods</li> <li>- recognise techniques and methods for planning, reviewing and adapting their own learning</li> <li>- assess their own level of development</li> <li>- create individual learning and develop-</li> </ul>

	<p>tively individual learning strategies and to shape self-organised one's own learning process in a solution-oriented manner.</p>	<p>ment goals</p> <ul style="list-style-type: none"> <li>- organise and evaluate their own learning process</li> <li>- identify their own preferred learning methods</li> <li>- develop a personalised learning strategy</li> <li>- consider solution-orientated changes and opportunities for learning</li> <li>- are convinced of their own ability to achieve goals</li> <li>- internalise the positive appreciation of learning as a life-enriching activity</li> <li>- take the initiative to extend and deepen their own learning</li> </ul>
	<p><b>Self-awareness competences</b> Self-awareness competence comprises the knowledge, skills and responsible attitude to recognize and classify one's own patterns and strategies in behavior and to align behavior with these insights and values.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify techniques and methods of self-reflection</li> <li>- identify personality and basic psychological models for self-reflection</li> <li>- review techniques, methods and models of self-reflection by applying them in relation to their own personality</li> <li>- develop the ability to self-observe</li> <li>- analyse their own motives in self-reflection</li> <li>- develop skills for self-regulation</li> <li>- become aware of their own emotional state in the process of self-reflection</li> <li>- find assessment standards for their own values and behaviour through self-reflection</li> <li>- weigh different perspectives against each other and relate them to their own perception in self-reflection</li> <li>- reflect on personal stereotypes, behavioural patterns and prejudices</li> <li>- develop an awareness of and self-confidence in their own abilities in the process of self-reflection</li> </ul>
	<p><b>Complexity and ambiguity competences</b> Complexity and ambiguity competence comprises the knowledge, skills and</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify concepts of complexity and ambiguity</li> <li>- identify techniques and strategies for coping with complexity and ambiguity</li> <li>- identify complex challenges and conflicting goals</li> <li>- analyse contradictory information and</li> </ul>

	<p>responsible attitude to recognize, classify and accept ambiguity and heterogeneity in situations and roles</p>	<p>role expectations</p> <ul style="list-style-type: none"> <li>- analyse contradictions</li> <li>- examine the handling of complex systems consisting of many interconnected parts that often interact in a non-linear way</li> <li>- evaluate unconventional and innovative solutions</li> <li>- manage systems that are difficult to predict due to their diversity, dynamics and emergence</li> <li>- allow for uncertainties in complex systems</li> <li>- honour different perspectives in ambiguity</li> <li>- accept ambiguity in their world view</li> <li>- tolerate emergent phenomena and chaos</li> </ul>
<p>Social and communication competences</p>	<p><b>Collaboration and networking competences</b></p> <p>Collaboration and networking competences comprises the knowledge, skills and responsible attitude to face challenges in a group in a collaborative and participative way in order to solve a problem or achieve a goal and to establish, maintain and use effective connections and networks.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- name tools for collaboration</li> <li>- name collaboration theories and co-creation methods</li> <li>- define common working methods and forms of collaboration</li> <li>- describe effective communication and dialogue strategies that facilitate the development and maintenance of relationships in a network</li> <li>- name strategies and techniques for finding, analysing and sharing relevant information in order to identify resources and expertise within the network</li> <li>- characterise strategies and techniques to successfully build relationships in networks</li> <li>- create a positive working atmosphere in collaboration</li> <li>- plan a common setting for cooperative work</li> <li>- organise the roles and tasks of the cooperation partners</li> <li>- jointly combine goals and solutions for successful collaboration</li> <li>- use tools, techniques and strategies to build and maintain relationships in a network</li> <li>- develop procedures to bring people and</li> </ul>

		<p>ideas together in an interdisciplinary way</p> <ul style="list-style-type: none"> <li>- connect people and in this way contribute to the success of the network</li> <li>- honour the individuality of the cooperation partners</li> <li>- develop shared values for their collaboration</li> <li>- categorise the goals and values of the cooperation partners</li> <li>- align their behaviour with the goals of the collaboration</li> <li>- participate in networks</li> <li>- practise respect and appreciation when dealing with other people in the network</li> <li>- establish relationships between people to build and maintain the network</li> </ul>
	<p><b>Communication competences</b> Communication competence encompasses the knowledge, skills and responsible attitude to communicate clearly, comprehensibly and congruently and thus to contribute to building interpersonal relationships, avoiding misunderstandings and improving the quality of communication.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- recognise the structure of conversations, presentations and written messages</li> <li>- name methods and models of comprehensible communication</li> <li>- recognise paralinguistic features of communication</li> <li>- recognise the significance of gestures, facial expressions, posture and tone of voice</li> <li>- compare how non-verbal signals are interpreted in different cultures</li> <li>- use the appropriate words to convey information, thoughts and ideas clearly and precisely</li> <li>- select language and body language appropriate to the target group and situation</li> <li>- develop self-control to consciously manage their own non-verbal communication</li> <li>- examine the possible effects of their own non-verbal communication on others</li> <li>- base their communication behaviour on the principles of honesty and authenticity</li> <li>- practise clarity in verbal and non-verbal communication, share information openly and thus avoid misunderstandings</li> </ul>
	<p><b>Leadership competences</b> Leadership com-</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- present the principles of good leadership</li> <li>- recognise classic and modern leadership</li> </ul>



	<p>petence encompasses the knowledge, skills and responsible attitude to successfully lead, motivate and influence a group of people or an organization to achieve common goals.</p>	<p>styles</p> <ul style="list-style-type: none"> <li>- define feedback rules</li> <li>- explain socio-psychological experiments and phenomena from the context of leadership</li> <li>- name definitions of leadership from various disciplines</li> <li>- develop a confident appearance in leadership situations</li> <li>- apply communication tools for leadership situations</li> <li>- design smart goals for themselves and as a leader for others</li> <li>- assess tools for self-leadership and for leading others</li> <li>- organise leadership situations with people and goals in mind</li> <li>- develop clarity and a self-reflective attitude with regard to their own leadership role</li> <li>- develop a value-oriented attitude in leadership situations that is characterised by empathy and appreciation</li> <li>- align their leadership behaviour with principles of integrity and ethics in dealing with power</li> </ul>
<p><b>Transformative competences</b></p>	<p><b>Entrepreneurship competences</b> Entrepreneurship competences encompasses the knowledge, skills and responsible attitude to establish and successfully manage a company by developing innovative solutions, recognizing opportunities and taking risks. This includes market and customer understanding, financial management, marketing,</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify techniques for developing their own ideas for successful entrepreneurial activity or business start-ups</li> <li>- recognise methods for carrying out market analyses</li> <li>- explain the legal requirements and conditions for setting up and running a business</li> <li>- describe methods for estimating and evaluating risks</li> <li>- describe methods of business model development</li> <li>- develop their own ideas for new business models and entrepreneurial decisions</li> <li>- evaluate innovation potentials for start-up projects and entrepreneurial decisions</li> <li>- use methods, tools and techniques for successful business start-ups and management</li> </ul>



	<p>personnel management and adaptability.</p>	<ul style="list-style-type: none"> <li>- convince others of their ideas or proposed solutions for entrepreneurial challenges, cooperation or investment</li> <li>- flexibly assess changing challenges and requirements for their entrepreneurial activities</li> <li>- orientate their behaviour towards independence, initiative, openness to innovation and constructive cooperation in entrepreneurial processes</li> <li>- find benchmarks for assessing the sustainability of start-up projects and entrepreneurial decisions</li> <li>- evaluate risks and affirm change in the entrepreneurial decision-making process</li> <li>- practise a culture of networking and communication to promote start-up projects and entrepreneurial success</li> <li>- develop an attitude of responsibility towards social, operational and human challenges in start-up projects and entrepreneurial decisions</li> </ul>
	<p><b>Citizenship competences</b> Citizenship competence comprises the knowledge, skills, and responsible attitude required to navigate, engage, and contribute effectively in diverse societal contexts. It involves a deep understanding of global issues, legal and political systems, and cultural perspectives, fostering the ability to critically analyze information and communicate effectively.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- name the major components of global issues, including legal and political systems</li> <li>- explain cultural perspectives and their impact on social interactions</li> <li>- Students explain relationships between different cultural values and behaviors within different communities</li> <li>- create well-founded solutions for complex social challenges in different contexts</li> <li>- analyze and evaluate the interplay of legal frameworks, cultural dynamics and global issues</li> <li>- develop proposals to advocate for positive social change in a way that respects diverse perspectives and promotes inclusive dialog</li> <li>- articulate personal values associated with citizenship, expressing an understanding of the significance of responsible engagement in diverse societal contexts and attaching subjective worth to participation</li> <li>- actively participate in discussions on citizenship</li> </ul>

		<p>zanship competences, expressing their reactions, opinions, and questions related to societal issues</p> <ul style="list-style-type: none"> <li>- integrate ethical values into their decision-making processes, illustrating how these values contribute to responsible citizenship in diverse societal contexts</li> <li>- demonstrate a commitment to upholding ethical standards and values associated with citizenship competences, both in academic and real-world scenarios.</li> <li>- critically examine their own values in the context of global issues, legal systems, and cultural perspectives</li> </ul>
	<p><b>Global awareness competences</b></p> <p>Global awareness competences comprise the knowledge, skills, and responsible attitude required to comprehend and engage with the complex interconnections of our interconnected world. This includes a comprehensive understanding of global issues spanning social, economic, and environmental realms, as well as the ability to analyze and interpret diverse cultural perspectives.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- analyze global issues by critically examining the interconnected relationships between social, economic, and environmental factors, demonstrating the ability to discern patterns and evaluate the implications of these interconnections on a global scale</li> <li>- assess the economic dimensions of global challenges, utilizing economic theories and models to analyze the distribution of resources, trade patterns, and the socio-economic disparities that influence global development.</li> <li>- apply cross-cultural communication skills to engage with diverse stakeholders, fostering effective collaboration and negotiation in the pursuit of global solutions to social, economic, and environmental challenges.</li> <li>- create innovative strategies for addressing global challenges, integrating insights from social, economic, and environmental perspectives to propose comprehensive and adaptable solutions.</li> <li>- design and implement projects that contribute positively to global well-being, applying their knowledge and skills to address real-world challenges and promoting responsible and sustainable practices on a global scale.</li> <li>- participate in activities that require them to analyze and interpret information</li> </ul>

		<p>from diverse cultural perspectives.</p> <ul style="list-style-type: none"> <li>- articulate personal values related to global citizenship, expressing empathy and concern for the well-being of people worldwide.</li> <li>- actively contribute to the development of global ethical frameworks, integrating values and principles into their decision-making processes.</li> </ul>
Digital and media competences	<p><b>Data Literacy competences</b> Data literacy encompasses the knowledge, skills and responsible attitude to effectively collect, understand, analyze and use data, big data and AI.</p>	<p><i>Students</i></p> <ul style="list-style-type: none"> <li>- identify basic principles of mathematics and statistics when dealing with data</li> <li>- list databases, query languages, programming languages and data visualisation tools for analysing data</li> <li>- explain ethical and legal aspects of data processing and describe the effects in terms of data security, data protection regulations, access rights, etc. (including the use of Artificial Intelligence (AI))</li> <li>- identify various procedures for handling data from creation to deletion (data life cycle)</li> <li>- collect, classify and evaluate data</li> <li>- create data products including products based on large language models (LLM)</li> <li>- explain AI</li> <li>- use and reflect on the use of AI-products</li> <li>- analyse and check data to uncover hidden biases and errors</li> <li>- implement appropriate guidelines for secure and ethical data processing, including the processing of big data for AI-Models</li> <li>- follow a responsible approach to data, big data and AI</li> <li>- practise openness, curiosity and a willingness to learn when dealing with data and digital innovations (e.g. Artificial Intelligence, machine learning, etc.)</li> <li>- organise their work and interaction with data according to ethical principles: Avoidance of discrimination and prejudice, as well as compliance with legal rules and regulations; "data fairness" as a basic attitude</li> </ul>
	<p><b>Media literacy</b></p>	<p><i>Students</i></p>

	<p><b>competences</b> Media literacy competences encompasses the knowledge, skills and responsible attitude to understand, compare and critically evaluate, select and create media in a responsible way so that they are used effectively and in different contexts.</p>	<ul style="list-style-type: none"> <li>- name different types, formats and channels of media for different target groups</li> <li>- characterise the criteria for high-quality, trustworthy media content</li> <li>- describe the effects of different media</li> <li>- describe methodological approaches to media analysis</li> <li>- compare media and data according to specific criteria, e.g. seriousness, credibility/trustworthiness, risk of manipulation</li> <li>- name criteria for a technically proficient use of different media</li> <li>- explain the advantages and disadvantages, opportunities and risks of different types of media</li> <li>- describe methods for recognising manipulated content, advertising and disinformation</li> <li>- apply various media analysis methods</li> <li>- assess media systematically by collecting and analysing evidence that leads to well-founded conclusions</li> <li>- assess interests and conditions of media production and distribution</li> <li>- examine various media critically and competently in order to use them to form opinions and make decisions</li> <li>- use media interactively, purposefully and in a target group-orientated way to communicate their own thoughts and knowledge</li> <li>- critically assess their own media usage behaviour and adapt it if necessary</li> <li>- configure the media used on the basis of security and privacy settings</li> <li>- are committed to an analytical-critical, evidence-based attitude towards media</li> <li>- weigh up the importance of media in shaping perceptions of reality, (political) opinion-forming and social behaviour</li> <li>- recognise the importance of flexibility, adaptability, willingness to learn and problem-solving skills when dealing with rapidly changing media</li> <li>- follow rules of behaviour and appropriate communication when using media</li> <li>- develop a critical, self-reflective and re-</li> </ul>
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		<p>sponsible attitude with regard to their own media usage behaviour</p> <ul style="list-style-type: none"> <li>- feel committed to a data protection-compliant and rights-preserving approach to media</li> <li>- have the principle of taking a stand against disinformation, propaganda and hate speech</li> </ul>
	<p>Digital collaboration competences</p> <p>Digital collaboration encompasses the knowledge, skills and responsible attitude to exchange information in the digital space, to communicate effectively and to collaborate with the help of digital tools, platforms, and communication technologies, along with the ability to leverage them for seamless collaboration.</p>	<p>Students</p> <ul style="list-style-type: none"> <li>- name tools for digital interaction and virtual collaboration</li> <li>- characterise the potentials and challenges of human-machine interaction</li> <li>- identify the opportunities and limitations of digital communication and interaction</li> <li>- identify the opportunities and challenges of digital interaction</li> <li>- apply different tools for effective and appropriate digital interaction</li> <li>- configure connections to other interaction partners in the digital space with the help of digital tools</li> <li>- create a constructive working atmosphere for virtual collaboration</li> <li>- design solutions for conflicts in the digital space</li> <li>- use indicators to analyse human-human and human-machine interaction in the digital space</li> <li>- evaluate the special features of digital communication</li> <li>- develop a change-conscious and responsible attitude towards (new) tools for digital interaction</li> <li>- accept ambiguity in digital communication and practise patience in contradictory situations</li> <li>- practise the principle of transparency in virtual collaboration</li> </ul>

Based on:

European Commission, Directorate-General for Employment, Social Affairs and Inclusion, ESCO handbook – European skills, competences, qualifications and occupations, Publications Office (2017), <https://data.europa.eu/doi/10.2767/934956>

Athanasia Kotsiou, Dina Daniela Fajardo-Tovar, Tom Cowhitt, Louis Major & Rupert Wegerif (2022). A scoping review of Future Skills frameworks, Irish Educational Studies, 41:1, 171-186, DOI: 10.1080/03323315.2021.2022522

Key Skills Center, Kiel University (2023), Our definition of key competences, <https://www.zfs.uni-kiel.de/en/key-competences/our-definition-of-key-competences>

## Annex 2: SEA-EU task 2.3 micro-credentials course sheet

### SEA-EU micro credential course sheet

Course offers for the SEA-EU micro-credential Programmes on Future Skills or Sustainability Studies

#### General Information

Course Title		Code
Course teacher		
<i>Name, Institution, University: main teacher</i>		
<i>Name, Institution, University: associated teacher</i>		
Organiser/Contact person		
<i>Name, Institution, University</i>		
Credits (ECTS)	Workload	
<i>Possible range 1 to 5</i>	1 ECTS = 25 to 30 h Workload, including ____ contact hours and ____ self instructed learning	
Language of instruction		
<i>English (preferred) or local language</i>		
Mode of provision		
<input type="checkbox"/> Physical attendance of students: 100%		<input type="checkbox"/> remote attendance possible
<input type="checkbox"/> Physical attendance of students: partly required		<input type="checkbox"/> online 100%
Percentage of e-learning (0-100%)		
Short course description (for dissemination to students)		
<i>Please enter a short course description for the course dissemination to students</i>		
Time and place for lessons		
<i>Please enter a link to the information on time and place on your website. If you can't provide a link, please enter the specific dates or time period</i>		

#### Organisational Information

Course format/teaching and learning method (see SEA-EU list of teaching and learning methods)
Max. number of participants



<b>Course enrolment</b>
<i>Please fill in a Link to a local course enrolment platform, that is usable for all students of the Alliance</i>
<b>Course fees</b>
<b>Enrolment requirements</b>
Study level <input type="checkbox"/> Bachelor (level 6) <input type="checkbox"/> Master (level 7) <input type="checkbox"/> PhD/Doctorate (level 8) Entry level of language proficiency: Other requirements:
<b>Link to the university's website for the course</b>
<b>Other remarks</b>

## Learning Conditions

<b>Course content</b>		
<b>Learning outcomes</b> (knowledge, skills, attitudes)		
Students are able to..( <i>based on e.g. Bloom's taxonomy</i> ):		
<b>Student activities</b>		
<b>Attendance policy</b>		
<b>Assessment Methods</b> (see SEA-EU list of assignments)		
Method	Duration in hours or length in words	Percentage Weighting
<b>Grading</b>		
<input type="checkbox"/> graded <input type="checkbox"/> non-graded (pass/fail)		
<b>Study materials/Course literature</b>		



## Linkage to SEA-EU micro-credential Programmes

<b>Linked to micro-credential programme</b>
<input type="checkbox"/> Future Skills <input type="checkbox"/> Sustainability studies
<b>Linked to micro-credential module (see module list)</b>
<input type="checkbox"/> Higher order thinking competences <input type="checkbox"/> Self competences <input type="checkbox"/> Social and communication competences <input type="checkbox"/> Transformative competences <input type="checkbox"/> Digital and media competences
<b>Linked Competence</b>
Name the competence(s) from list of the related module in the SEA-EU Future Skills Framework or the SEA-EU Sustainability Studies Framework you will provide with your teaching:

\*This course sheet is derived from the SEA-EU Joint Programme course sheet.

## Annex 3: SEA-EU task 2.3 micro-credentials Teaching and Learning Methods

### Teaching and Learning Methods

#### Definitions for SEA-EU micro-credentials

These teaching methods offer a variety of approaches to cater to different learning styles and objectives within the university education context.

Teaching method	Definition
Fieldwork	Educational activities conducted outside the classroom, typically in real-world settings. It involves hands-on experience, data collection, or research in a specific field related to the course.
Lecture	A method of teaching where an instructor presents information to a large group of students. It is a one-way communication where the lecturer imparts knowledge and concepts.
Performance	A teaching method that involves students showcasing their skills or understanding through practical demonstrations, presentations, or performances, often related to the subject matter.
Practical Study-Unit	A study unit focused on hands-on application of theoretical knowledge, often involving practical exercises, experiments, or projects related to the course.
Practicum	Similar to an internship, a practicum is a hands-on learning experience in a professional setting, typically associated with teacher training or counselling programs.
Project	A collaborative or individual task requiring students to plan, execute, and present the results of an in-depth investigation or creative work related to the course.
Seminar	A small-group discussion or workshop led by a facilitator, where students actively engage with the material, discuss concepts, and share ideas. It encourages participation and critical thinking.
Tutorials	Small-group or one-on-one sessions where students receive personalised instruction, clarification of concepts, and guidance from a tutor or instructor. Tutorials supplement larger lectures and allow for individualised learning.

\*Source: Adapted from the SEA-EU “Teaching Methods. Definition for SEA-EU Joint Programmes” from the document SEA-EU\_JP\_definitions\_Teaching\_Assessment\_Methods-.pdf

## Annex 4: SEA-EU task 2.3 micro-credentials Methods of Assessment

### Methods of Assessment for SEA-EU micro-credentials

The method of assessment should inform students exactly how they will be assessed\*.

Teaching method	Definition
Analysis Task	A task which requires students to identify the primary elements of a problem or task at hand, and then outline the steps and skills required to ensure that the task is performed optimally.
Assignment	Normally an essay (or a set of written exercises) to be done away from the classroom and submitted by a set date.
Case Study (Exam conditions)	A research approach that is used to generate in-depth, multi-faceted understanding of a complex issue within a real-life context, which includes the application of discipline specific models, constructs and research literature..
Case Study (take home)	Students are required to work through a case study to identify the problem(s) and to offer potential solutions; useful for assessing students' understanding and for encouraging students to see links between theory and practice. Case studies could be provided in advance of a time-constrained assessment.
Classwork	Written or oral exercises carried out by students whilst in the classroom. Examples include: discussions, debates, translation exercises, etc.
Competencies	Refers to a continuous process which aims at building the student's capabilities (knowledge, skills and abilities), and assessing them against stated (professional) standards.
Essay	An analytical, interpretative, or critical piece of writing that expresses the writer's opinion in response to a set question, problem or issue.
Examination	A written assessment (using traditional pen and paper or a digital platform for the administration of the examination) which is carried out in a predetermined, restricted time span under invigilated conditions. This type of assessment is normally summative in nature.
Fieldwork	Work which is done on site to enable students to gain practical experience and knowledge through first hand observation.
Internship	An internship can be defined as any arrangement in which students are given opportunities to apply their learning and demonstrate their professional capabilities in the workplace, community context or other relevant settings. Assessment will be conducted by academic supervisors, industry supervisors or workplace mentors, or a combination of both.
Logbook	A systematic record of every phase of a project or placement activity.
Long Essay	An analytical, interpretative, or critical piece of writing that enables students to explore a specific subject area in some depth, explain theories and concepts; evaluate arguments, and express and support

	their own views and opinions.
Oral Examination	An examination during which students are required to verbally reply to questions posed to them in the spoken form.
	Students are asked to give an oral presentation on a particular topic for a specified length of time and could also be asked to prepare associated handout(s). Can usefully be combined with self- and peer-assessment.
Portfolio	A systematic and organised collection of a student's work that exhibits to others the direct evidence of a student's efforts, achievements, and progress over a period of time. It should include representative work, providing a documentation of the learner's performance and a basis for evaluation of the student's progress. Portfolios may include a variety of demonstrations of learning that have been gathered in the form of a physical collection of materials, videos, CD-ROMs, reflective journals, etc.
Poster	The production of a large print that can be displayed in a public space. It can include graphical images, text or a mixture of both and is usually designed with the intention of promoting an idea, event, product etc.
Report	A written document in which information is presented in an organised format. A report would normally include a descriptive statement, an account of the conditions that are observed, findings resulting from investigation and inquiry, and a conclusive summary in which the student puts forward any recommendations.
Research Paper	A research paper is an extended essay which is intended to assess the students' written, analytical, interpretative and argumentative skills, based on independent research.
Research Projects	Potential for sampling a wide range of practical, analytical and interpretative skills. Can assess wide application of knowledge, understanding and skills.
Research/Review Paper	A thorough and systematic analysis of published research findings, from which students are expected to provide new insights or interpretations about a topic or field of interest.
Role Play	Students write or give a presentation taking on a particular role, e.g. a journal reviewer/ editor, consultant, art critic etc. This type of assignment could be paired up with a grant application exercise.
Seminar Paper	A seminar paper is an advanced piece of writing which is intended to present an original piece of research to a group of peers.

\*Source: Adapted from the SEA-EU "Methods of Assessment for SEA-EU Joint Programmes" from the document SEA-EU\_JP\_definitions\_Teaching\_Assessment\_Methods-.pdf

## Annex 5: SEA-EU task 2.3 micro-credential course certificate

SEA-EU micro-credential Course Certificate

# CERTIFICATE OF PARTICIPATION

The European University of the SEAS (SEA-EU) certifies that:

**Participant's name**

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of the **[University]** has successfully completed the SEA-EU micro-credential course:

Name of course : xxx  
Duration (hours) : x  
ECTS : x [remove line if no ECTS is awarded]  
Date : xx/xx/xx – xx/xx/xx  
Delivered by : *course instructor's name*  
Learning outcomes : *short summary*  
Reference to Framework : SEA-EU Future Skills Framework (*link*)  
Reference to Module : *chosen module from the Framework*

xx.xx.20xx

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Date, name & signature

## Annex 6: Definition SEA-EU task 2.3 micro-credentials

### SEA-EU Alliance

### SEA-EU micro-credentials in the context of Task 2.3

<b>General Understanding</b>	<p>A SEA-EU micro-credential programme is a collection of specific micro-credential modules<sup>1</sup>. This set of modules on the total of 15 ECTS<sup>2</sup> focus on specific learning outcomes<sup>3</sup> verifying what a learner knows understands or can do. The learners collect the credit points over the duration of their entire degree programme. Completed modules that sum up a minimum of 15 ECTS of the micro-credential programme provide the basis for a SEA-EU certificate<sup>4</sup>.</p> <p>The modules in the micro-credential programmes are small volumes of learning (1 to 5 ECTS).</p>
<b>Purpose</b>	<p>Learning experiences leading to micro-credential programmes are designed to provide the learner with specific knowledge, skills ethics, values and attitudes that respond to societal, personal, cultural or labour market needs in the field of future skills and sustainability studies. Therefore a SEA-EU micro-credential programme is a personalised record of achievement<sup>5</sup>, that is additional and complementary to the learners formal learning path of their degree.</p>
<b>Providers</b>	<p>Providers of SEA-EU micro-credential courses, modules and programmes are all partner universities of the SEA-EU Alliance, or associated partner universities of the SEA-EU Alliance working in collaboration with a SEA-EU partner university.</p>
<b>Mode of delivery</b>	<p>A micro-credential programme is composed of modules from all study levels (Bachelor, Master, Doctoral Programmes). Modules consist of one or more courses<sup>6</sup>. Prerequisites should always be clearly communicated for learners. Learning settings are distributed in diverse, physical, online, blended, virtual and digital locations. The languages of instruction can be either English (priority) or the national language. The language level should always be clearly communicated for learners. Records of informal or non-formal learning are not applicable.</p>

<sup>1</sup> See '4. Module', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>2</sup> See '1. Credit (ECTS)', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>3</sup> See '5. Learning outcomes', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>4</sup> See '7. Certificate', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>5</sup> Mark Brown, et al., The Global Micro-credential Landscape: Charting a New Credential Ecology for Lifelong Learning, in: JL4D, 2021, Vol. 8, No. 2, pp. 228-254

<sup>6</sup> See '6. Course', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-cre-

<b>Ownership, portability</b>	The SEA-EU micro-credential certificates are portable. That means that the learner is able to store their micro-credential certificates in a system of their choice, to share the certificate with a party of their choice and for all parties in the exchange to be able to understand the content and verify the authenticity of the credential.
<b>Duration</b>	The participants select courses from the total offer according to their individual interests. They can take one or more courses each semester. The certificate for the SEA-EU micro-credential programme is only provided to learners that collect modules that add up to a minimum of 15 ECTS in total. Participants have to complete the micro-credential programme before graduating from their degree programme.
<b>Outcomes and assessment</b>	Within SEA-EU 2.0 two micro-credential programmes each of 15 ECTS will be developed: one in the field of 'Future Skills' <sup>78</sup> and one in the field of 'Sustainability Studies' <sup>9</sup> . Learning within a micro-credential programme takes place in the organised and structured environment of the Alliance-institutions, and leads to the award of a qualification, in the form of a certificate <sup>10</sup> . A micro-credential programme consists of modules which have been developed in connection with the existing study programmes at the Alliance-universities.
<b>Standards and quality assurance</b>	The learning outcomes have been assessed within the acknowledged systems of quality assurance at each Alliance-university <sup>11</sup> . A micro-credential programme is based on study regulations / examination regulations according to each university's specifications.
<b>Certification</b>	The CAU will provide a template to be used for the certificate. The template will be in accordance with the European standard elements to describe a micro-credential <sup>12</sup> .

dentials

<sup>7</sup> See '8. Future Skills', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>8</sup> A. Kotsiou et al., A scoping review of Future Skills frameworks, Irish Educational Studies, 41:1, 171-186, 2022, DOI: 10.1080/03323315.2021.2022522 and UNESCO, Futures Literacy: An Essential Competency for the 21st Century, UNESCO, <https://en.unesco.org/futuresliteracy/about>

<sup>9</sup> See '9. Sustainability Studies', in: Glossary for the definition of "micro-credentials" in SEA-EU 2.0 task 2.3 micro-credentials

<sup>10</sup> European Commission (December 2020), Final Report, A European Approach to Micro-Credentials. Output of the Micro-Credentials Higher Education Consultation Group, <https://education.ec.europa.eu/sites/default/files/document-library-docs/european-approach-micro-credentials-higher-education-consultation-group-output-final-report.pdf>

<sup>11</sup> UNESCO "Towards a common definition of micro-credentials", 2022, <https://unesdoc.unesco.org/ark:/48223/pf0000381668>, p. 6

<sup>12</sup> EU Interinstitutional File: 2021/0402(NLE), EU-Proposal on Micro-credentials\_en\_2022.pdf, p. 16



<b>Relation to other credentials</b>	These learning outcomes complement existing qualifications, providing added value while not undermining the core principle of full degree programmes.
<b>Stackability</b>	The SEA-EU micro-credential programmes are stackable, where relevant, to combine different micro-credential programmes and build logically upon each other. Decisions to 'stack' or combine credential programmes lie with the receiving organisation (e.g. education and training institutions, employers, etc.) in line with their practices and should support the goals and needs of the learner. Stacking does not create an automatic entitlement to a qualification or a degree. Such decisions are made by regional and national authorities or institutions in line with their awarding processes.
<b>Target Group</b>	Enroled persons within SEA-EU Alliance Universities



## Annex 7: SEA-EU task 2.3 micro-credentials glossary

### Glossary for the definition of “micro-credentials” in SEA-EU 2.0 task 2.3 micro-credentials

#### 1. Credit (ECTS)

ECTS credits express the volume of learning based on the defined learning outcomes and their associated workload. 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent, which normally comprises a number of educational components to which credits (on the basis of the learning outcomes and workload) are allocated. ECTS credits are generally expressed in whole numbers.<sup>13</sup>

#### 2. Workload

Workload is an estimation of the time the individual typically needs to complete all learning activities such as lectures, seminars, projects, practical work, work placements<sup>1</sup> and individual study required to achieve the defined learning outcomes in formal learning environments. The correspondence of the full-time workload of an academic year to 60 credits is often formalised by national legal provisions. In most cases, workload ranges from 1,500 to 1,800 hours for an academic year, which means that one credit corresponds to 25 to 30 hours of work. It should be recognised that this represents the typical workload and that for individual students the actual time to achieve the learning outcomes will vary.<sup>14</sup>

#### 3. Course unit

A self-contained, formally structured learning experience. It should have a coherent and explicit set of learning outcomes, defined learning activities consistent with the time allocated within the curriculum, and appropriate assessment criteria.<sup>15</sup>

#### 4. Module

A course unit in a system in which each course unit carries the same number of credits or a multiple of it.<sup>16</sup>

<sup>13</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192>, P.68

<sup>14</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192>, P.77

<sup>15</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192>, P.68

<sup>16</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192>, P.73

## 5. Learning outcomes

Learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification.<sup>17</sup>

## 6. Course (unit)

A self-contained, formally structured learning experience. It should have a coherent and explicit set of learning outcomes, defined learning activities consistent with the time allocated within the curriculum, and appropriate assessment criteria.<sup>18</sup>

## 7. Certificate

A certificate certifies that the learner has successfully passed all modules of a SEA-EU micro-credential-programme. The certificate attests that the learner has achieved the learning objectives of the programme.

The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications. They are underpinned by quality assurance following agreed standards.<sup>19</sup>

## 8. Future Skills

Refers generally to the competencies that are intended to prepare learners to thrive in the face of a rapidly changing and strongly digitally shaped future with the aim to prepare, recover, and reinvent as changes occur and thus be able to work within complex, ambiguous, volatile and uncertain environments. (UNESCO, 2019) Learning opportunities include higher order thinking skills, dialogue skills, digital and STEM literacy, self-management, enterprise skills, leadership, lifelong learning and flexibility. (A. Kotsiou et. al., 2022)

## 9. Sustainability Studies

Definition tba

<sup>17</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192> , P.72

<sup>18</sup> European Commission, Directorate-General for Education, Youth, Sport and Culture, *ECTS users' guide 2015*, Publications Office of the European Union, 2015, <https://data.europa.eu/doi/10.2766/87192> , P.68

<sup>19</sup> <https://education.ec.europa.eu/sites/default/files/document-library-docs/european-approach-micro-credentials-higher-education-consultation-group-output-final-report.pdf>