



Short Learning Programme on Art, Design &  
sustainability with special focus on environment  
and climate change

2021-1-ES01-KA220-HED-000032193

## TEACHERS' GUIDE

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## List of Abbreviations

ECTS: European Credit Transfer System  
 EU: European Union  
 EUC: European University Cyprus  
 EINA: EINA Centro Universitario de Diseño y Arte de Barcelona  
 LTTA: Learning, teaching and training activities  
 MYD: MyDocumenta (Documenta SL)  
 SEPIE: Servicio Español para la Internacionalización de la Educación  
 SLP: short learning programme  
 UAb: Universidade Aberta

## 1. Introduction

This guide is addressed to teachers who will implement the Short Learning programme in Art, Design and Sustainability for higher education, developed during the ARDES Project. It is intended to be a practical document with an overview of the course and guidelines for its implementation, to support the teachers and complement the curriculum and the teaching material.

### The ARDES project

ARDES - Short Learning programme of “Art & Design & Sustainability with a special focus on environment and climate change” - is a project co-funded by the Erasmus+ programme of the European Union. The main topics of the Erasmus programme addressed by the project are: 1) Environment and climate change; 2) Creating new, innovative learning and teaching practices; 3) Supporting digital skills of the higher education sector.

This 2-year project is a partnership of MyDocumenta (Coordinator, Spain), European University Cyprus, Universidade Aberta (Portugal), EINA (Spain) and the associated partner LABA Valencia (Spain).

The project partners have developed a short learning programme in Art, Design & Sustainability for higher education. This programme aims to educate art & design students so that their future artistic values, artwork productions and art activities will help to increase the citizens' commitment towards sustainability and climate change mitigation.

Further information about the project can be found at [www.ardesproject.eu](http://www.ardesproject.eu).

### A short learning programme

The ARDES Course is a short-learning programme (SLP), designed to provide specific knowledge and skills in a short period of time, and with the following characteristics:

- it addresses the topics of sustainability and climate change, applied to art & design students,
- it is designed to provide quick and targeted learning outcomes,
- it is aimed to provide practical and applicable knowledge,
- it is designed in a flexible and accessible way, combining, for example, online and face-to-face learning,
- it allows for a modular format,
- it is supported by digital tools,

- it helps students enhance their existing skills, acquire new ones, and stay up-to-date with the latest advancements in their field.

The programme consists of 4 modules of 2 ECTS each. The contents, competences and outcomes are further described in the following sections of the document.

## The target groups

The main target group is higher education students in art & design. At a further stage, other educational levels (i.e., vocational or secondary schools) or types of students (not limited to art & design) will be explored.

The participating students should have basic ICT skills and be able to understand written English.

## 2. Structure of the course

The course contemplates four modules, each with a set of lessons, covering sustainability and climate change topics related to art and design.

Each of the modules consists of 2 ECTS (approximately 52 hours in 4 weeks). Therefore, the full course is 6 ECTS + 2 optional ECTS (for Module 4) and lasts 12 weeks.

The course is made to be modular and sequential. Module 1 sets the basis and is a compulsory first step, and it can be followed by Module 2 and/or Module 3 (possible combinations are 1+2+3, 1+2, 1+3).

The table below contains a short description of each module.

<ul style="list-style-type: none"> <li>● <b>Module 1 - Sustainability &amp; Climate Change: historical perspective and their relationship with Arts</b></li> </ul>
<p>Module 1 focuses on the historical background and the concepts of Sustainability and Sustainable Development Goals, and the link with art and design. It also introduces the sustainability assessment in the context of art and design. The aim is this module is two-fold: i) to understand the use of art and design in communicating campaigns on sustainability and climate change, and ii) to understand how to create art and design works in a sustainable way.</p>

- **Module 2 - Art and Design for communicating Sustainability & CC**

Module 2 provides the knowledge and understanding of the use of art and design in enhancing innovation and leadership necessary to tackle the challenges of sustainability and climate change, helping students to create artwork for promoting a greener environment, by utilizing visual communication, compiling design projects via latest digital tools and techniques to achieve innovative and engaging designs. It uses artwork to foster cognitive processes and behavioural changes, creating an integrative nature through posthuman ontologies, ecofeminism, art and design through biotechnology. The methods and repertoire of activism and the use of digital media, networks ensure the reach and impact, in order to involve citizens, governments and corporate actors in the climate change combat.

- **Module 3 - Digital tools for the interactive engagement of audiences with Art and Design**

Module 3 helps students understand and apply core concepts behind big data, handle data visually, and become aware of the challenges of data interpretation. Students will learn how to engage audiences through different live-specific interaction technologies (streaming, web-based, app, wearables, crowd monitoring). Finally, students will learn how creative technologies and tools collaboration and co-construction can help design user experiences for increased audience involvement.

- **Module 4 (optional) - Call for artists**

For students who are capable of producing artwork design and bringing it to life through their extra-curricular civic activism and voluntary work to engage audiences, a digital exhibition of their artworks and online portfolios will be organised. This extracurricular exhibition constitutes the distinction level of the online assessment of the PBL and will deliver the equivalent of 2 ECTS. During the project pilot, this will be organised at LABA Valencia.

The modules are divided into lessons organised around different topics. In the table below you can find an overview of the full course (modules, lessons, topics, activities and estimated time).

Table 1. Overview of the ARDES course

ARDES. Short Learning programme of "Art & Design & sustainability with special focus on environment and climate change. Ref: 2021-1-ES01-KA220-HED-000032193.



Module 1 Sustainability & Climate change: historical perspective and their relationship with Arts						
Lesson	Topics	Time (hours)	Week	Activity	Time	COMPULSORY/OPTIONAL
	Warming up activity			A0 - Initial thought on Sustainability	2	compulsory
Lesson 1 Sustainability and SDGs: Historical background and concepts	Topic 1 Sustainability concepts and Circular Economy	26	Week 1&2	A1. Connecting your daily life with Sustainability and SDGs (Part I)	4	compulsory
	Topic 2 Sustainable Development Goals (SDGs)			A2. Connecting your daily life with Sustainability and SDGs (Part II)	4	compulsory
Lesson 2 Sustainability and art	Topic 1 Historical context of the relationship between art and sustainability	13	Week 3	A1. Early activism movements (Essay)	4	compulsory
	Topic 2			A2. Create a digital artist	3	compulsory
Lesson 3 Sustainability Assessment Tools	Topic 1	13	Week 4	A1. Calculating your Personal	4	compulsory
	Topic 2			A2. Life Cycle	4	optional

Module 2 How art can contribute to facilitate dialogue, communicate sustainability and climate change and foster learning						
Lesson	Topics	Time (hours)	Week	Activity	Time	COMPULSORY/OPTIONAL
Lesson 1 Art for communicating Sustainability and Climate Change (CC)	Topic 1 Communicating Sustainability and CC through arts and design	26	Week 1&2	A1 Project Basics of processes and hand made structures	4	compulsory
				A2 Creation of Package design with eco friendly materials	4	compulsory
	Topic 2 Sustainability and CC through the visual communication and animation industry			A3. Corporate identity design campaign	13	optional
	A4. Digital Storytelling using a variety of techniques			13	optional	
Lesson 2 Art practice and design projects for communicating sustainability through transformative social, cultural and environmental action	Topic 1 Communicating sustainability through sustainable practices, media and materials	26	Week 3&4	A1 Ranking techniques, media and materials	3	compulsory
	Topic 2* New materialism and ecocriticism: approaches to an integrative Nature			A2. Discussion: what is eco art and what is not	5	compulsory
	Topic 3 The medium is the sustainable message			A3. Create an artwork/action pertaining to a sustainability issue	15	compulsory

Module 3 Digital tools for the interactive engagement of audiences with Art and Design						
Lesson	Topics	Time (hours)	Week	Activity	Time	COMPULSORY/OPTIONAL
Lesson 1 Handling data and big data through creative digital tools	Topic 1: Data and Big data (soil, water, weather, etc.) interpretation and visualisation tools, techniques and methodologies	13	Week 1	A1. Local visual narrative Working with local databases A2. European visual narrative	13	optional (1 per lesson/topic)
Lesson 2 Creative digital tools for live communication and interaction	Topic 2: Live interaction tools	13	Week 2	A1 Live performance (with A2. Interactive survey working with European databases	13	optional (1 per lesson/topic)
Lesson 3 Designing user experiences for increased audience engagement	Topic 3: Data Creative technologies and tools for collaboration, co-construction of cultural meanings, fields, and audience engagement.	26	Week 3&4	A1. Designing a participative action A2. Writing an essay	26	optional (1 per lesson/topic)

**Module 4 Digital tools for the interactive engagement of audiences with Art and Design (optional)**

For those students who will be capable to produce artwork design and bring it to life through their extracurricular civic activism, voluntary work to engage audiences, a digital exhibition of their artworks and online eportfolios will be organized. This extracurricular exhibition constitutes the distinction level of the online assessment of the PBL and will deliver the equivalent to 2 ECTS credits. During the project pilot, this will be organized at LABA Valencia.

Each module contains the following sections:

1. Learning outcomes
2. Competences
3. Topics
4. Aim of lesson
5. Essential questions
6. Anticipatory set/hooks,
7. Assumed prior knowledge
8. Resources (tools, references, audio-visual resources)
9. Learning Activities
10. Assessment (detailed in contact hours, independent work, group work)

The details of these sections are included in the teaching material (see Section 5 - Resources).

### 3. Pedagogical method

#### General structure

The modules composing the programme will be developed according to the learning pedagogical practices of each of the three partner universities and can be conducted face-to-face or online. Each module is structured as follows: i) Lesson, ii) Topic, iii) Independent work, and iv) Activities.

- **Lesson**

Each module is structured into Lessons that cover a study guideline, topics, learning resources for classroom/independent work, learning Activities (individual or group), and assessment activities (individual or group).

- **Topic (content)**

Each lesson consists of a set of topics that cover the main content of the course and must be worked on. Each topic comprises a series of learning resources (texts, slides, videos, and engaging tools) that allow students to acquire a deep understanding of the content proposed by the teacher. The content of each topic which will be served in a single week is designed based on an average of 13 hours to study in the classroom or individually for an online setting and conducting/participating in the activities.

- **Independent work**

It comprises a series of projects for students to work independently, addressing the content proposed by the teacher, and developing the skills provided by each lesson.

- **Activities**

Activities consist of a series of works that are developed individually or in groups, both in the classroom and virtually. The activities contribute to the acquisition and understanding of knowledge and competences in the relationship between art, design, and sustainability. The activities are divided into 2 types:

**i) Learning Activities** (individually or in-group), classified from designing artwork, reflection on existing art productions, project-based activities, working with European and local databases, and live performance, all in the concept of sustainability and CC.

**ii) Assessment Activities** (individually or in-group), which are a set of learning activities that can be selected by teachers to be considered for students' assessment.

Alongside this, an ice-breaking activity is defined at the beginning of the course to welcome students to share their initial thoughts about sustainability through sharing a piece of poem.

## Online learning

All learning resources and activities related to this course are also made available in the virtual classroom environment (online method). Emphasis is given on asynchronous communication, with relevance to the debate **Forum**:

“In the e-learning platform of UAb, and in each Lesson, an asynchronous *Forum* will be active throughout the module duration, moderated by the teacher. The *Forum* will be used for the development of the learning and assessment activities, and to clarify doubts by the teachers, thus providing the possibility of permanent interaction among students and between students and the teacher.”

Each lesson in the online setting comprises:

- Summary - A brief text about what the students will learn during the lesson.
- Topics - including
  - Study Guideline - Orientations for the readings and activities in the online platform relating to each topic.
  - Videos and slides - including quiz questions.
  - Readings - bibliographical material supporting learning (and further reading not mandatory).

- Food for thought - a complementary open question, that serves as feed for thought and is supported by only one bibliographical reference (not mandatory).
- Activities - serve as learning and assessment activities at the same time.
- Forum - specific Forum for debate and individual or group activities development.

The main steps of online learning, adopted in this course, that should be followed by each student include:

**1) independent learning**, including readings, critical analysis of other learning materials, reflection on the learning materials, or practical application of sustainability to arts and design topics.

**2) completion of the learning activities**, including conducting the individual and in-group activities based on the instructions available on the platform.

**3) sharing the outputs of independent learning or completion of activities**, which cover the learning construction between students by interaction with teachers and other students through *debate Forum* to carry out the proposed activities (e.g., participation in thematic discussions or group activities, and reflection of points of views, leading to a deepening of the topics under study).

**4) completion of the assessment activities**, which will be served for the final classification.

Each participant will be advised to prepare a weekly schedule of his/her work, which takes into account the readings, access to the platform, downloading files, eventual research, the development of individual reflections, and participation in group activities or in general discussions.

During the pilot, each of the universities will work with a different platform: UAb with Moodle, EUC with Blackboard, and EINA with MyDocumenta eportfolio.

## 4. Assessment

### Competences

The European Education Area helps the Member States of the European Union to work together to build more resilient and inclusive education and training systems. In relation to environmental education for sustainability, the European Union is promoting measures that contribute to the green transition and the strengthening of the sustainability skills of all students. To this end, the European Commission is addressing these problems

through a framework of competences in sustainability ([GreenComp](#)<sup>1</sup>), which establishes the knowledge, skills and attitudes and values that students of all ages will need for the green transition. The framework is designed to be applied to a context that individuals, professionals and organizations, such as digital competence and entrepreneurial competence widely accept. It is also designed to be applied to a lifelong learning context and complementary to international, national, regional and local efforts and existing frameworks. The ARDES programme aims to contribute to the development of that framework also using the GreenComp. In order to build assessment tasks or events we encourage the teachers to apply them freely to the different ARDES Modules.

[The development of a European sustainability competence framework](#) is one of the policy actions set out in the European Green Deal as a catalyst to promote learning on environmental sustainability in the European Union. GreenComp identifies a set of sustainability competences to feed into education programmes to help learners develop knowledge, skills and attitudes that promote ways to think, plan and act with empathy, responsibility, and care for our planet and for public health.

GreenComp comprises four interrelated competence areas: 'embodying sustainability values', 'embracing complexity in sustainability', 'envisioning sustainable futures' and 'acting for sustainability'. Each area comprises three competences that are interlinked and equally important. The 12 competences taken together make up the building blocks of the sustainability competence for all people.

**Table 2. GreenComp areas, competences, and descriptors.**

AREA	COMPETENCE	DESCRIPTOR
<b>1. Embodying sustainability values</b>	1.1 Valuing sustainability	To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.
	1.2 Supporting fairness	To support equity and justice for current and future generations and learn from previous generations for sustainability.
	1.3 Promoting nature	To acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems.
AREA	COMPETENCE	DESCRIPTOR

<sup>1</sup> Bianchi, G., Pisiotis, U. and Cabrera Giraldez, M., GreenComp The European sustainability competence framework, Punie, Y. and Bacigalupo, M. editor(s), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.

<b>2. Embracing complexity in sustainability</b>	2.1 Systems thinking	To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.
	2.2 Critical thinking	To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.
	2.3 Problem framing	To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems.

AREA	COMPETENCE	DESCRIPTOR
<b>3. Envisioning sustainable futures</b>	3.1 Futures literacy	To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.
	3.2 Adaptability	To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.
	3.3 Exploratory thinking	To adopt a relational way of thinking by exploring and linking different disciplines, using creativity and experimentation with novel ideas or methods.

AREA	COMPETENCE	DESCRIPTOR
<b>4. Acting for sustainability</b>	4.1 Political agency	To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability.
	4.2 Collective action	To act for change in collaboration with others.
	4.3 Individual initiative	To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.

Rubrics can be found in the same document: [GreenComp The European sustainability competence framework](#).



## Assessment of ARDES activities

The following are the activities, types of assessment and competences that can be applied in the ARDES course.

**Table 3. GreenComp assessment in ARDES activities**

Module 1 Sustainability & Climate change: historical perspective and their relationship with Arts														
Lesson	Activity	ASSESSMENT	1. Embedding sustainability values			2. Embracing complexity in sustainability			3. Embracing sustainable futures			4. Acting for sustainability		
			1.1 Making sustainability	1.2 Supporting fairness	1.3 Promoting nature	2.1 Systems thinking	2.2 Critical thinking	2.3 Problem Solving	3.1 Futures literacy	3.2 Adaptability	3.3 Exploratory thinking	4.1 Political agency	4.2 Collective action	4.3 Individual initiative
	A0 - Mind above and below	Formative												
Lesson 1 Sustainability and SDGs: Historical background and concepts	A1. Connecting your daily life with sustainability and SDGs (Part A)	Formative												
	A2. Connecting your daily life with sustainability and SDGs (Part B)	Summative												
Lesson 2 Sustainability and art	A1. Early activism movements (2 way)	Formative												
	A2. Create a digital artwork project	Summative												
Lesson 3 Sustainability Assessment Tools	A1. Calculating your Personal Ecological Footprint	Summative												
	A2. Life Cycle Analysis/Assessment and in-class workshop design	Summative												
		Peer assessment (optional)												
Module 2 How art can contribute to facilitate dialogue, communicate sustainability and climate change and foster learning														
Lesson	Activity	ASSESSMENT	1. Embedding sustainability values			2. Embracing complexity in sustainability			3. Embracing sustainable futures			4. Acting for sustainability		
			1.1 Making sustainability	1.2 Supporting fairness	1.3 Promoting nature	2.1 Systems thinking	2.2 Critical thinking	2.3 Problem Solving	3.1 Futures literacy	3.2 Adaptability	3.3 Exploratory thinking	4.1 Political agency	4.2 Collective action	4.3 Individual initiative
Lesson 1 Art for communicating Sustainability and Climate Change (CC)	A1. Project: Series of processes and hand made structures	Assessment												
	A2. Creation of Package design with eco-friendly materials	Assessment												
	A3. Corporate identity design campaign	Formative												
Lesson 2 Art practice and design projects for communicating sustainability through transformative social, cultural and environmental action	A4. Digital Storytelling using a variety of techniques	Assessment												
	A1. Printing techniques, materials and materials	Assessment												
	A2. Discussion what is eco-art and what is not	Formative												
	A3. Create an artwork/action plan leading to a sustainability vision	Assessment												
Module 3 Digital tools for the interactive engagement of audiences with Art and Design														
Lesson	Activity	ASSESSMENT	1. Embedding sustainability values			2. Embracing complexity in sustainability			3. Embracing sustainable futures			4. Acting for sustainability		
			1.1 Making sustainability	1.2 Supporting fairness	1.3 Promoting nature	2.1 Systems thinking	2.2 Critical thinking	2.3 Problem Solving	3.1 Futures literacy	3.2 Adaptability	3.3 Exploratory thinking	4.1 Political agency	4.2 Collective action	4.3 Individual initiative
Lesson 1 Handling data and big data through creative digital tools	A1. Local visual narrative Working with local databases	Formative												
	A2. European visual narrative Working with European databases	Formative												
Lesson 2 Creative digital tools for social communication and interaction	A1. Live performance (with hipopunk)	Formative												
	A2. Interactive survey working with European databases	Formative												
Lesson 3 Designing user experiences for increase audience engagement	A1. Designing a participative action	Summative												
	A2. Writing a story	Formative												
Module 4 Digital tools for the interactive engagement of audiences with Art and Design (optional)														
For those students who will be capable to produce artwork design and bring it to life through their own artistic civic activities, voluntary work to engage audiences, a digital exhibition of their artworks and online experiences will be organized. This non-academic exhibition constitutes the distinction level of the online assessment of the PEI and will deliver the equivalent to 2 ECTS credits.														

## 5. Resources

The following learning resources are available for teachers: this Teacher's Guide, the description of content and the PowerPoint presentations for each of the lessons.

All these resources are available at the project website: [www.ardesproject.eu](http://www.ardesproject.eu)

## Contact information

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