# RESULTS FROM STUDENT-LED SUSTAINABILITY CURRICULUM MAPPING

FOR CITY COLLEGE PLYMOUTH

**MARCH 2024** 



STUDENTS ORGANISING FOR SUSTAINABILITY UNITED KINGDOM

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## 1.1 Introduction and Background

On 24th January, 15 students from City College Plymouth took part in the College's student-led sustainability curriculum mapping project. Together, the student auditors mapped 153 schemes of learning, assessment and reflection (SoLAR) against the United Nations Sustainable Development Goals (SDGs), sustainability skills and methods used in education for sustainable development (ESD). Prior to mapping, students attended a training workshop on campus exploring the SDGs and the role of education in contributing to sustainability, how to critically engage with SDGs and how to map modules specifications against the 17 SDGs as well as a set of criteria on Responsible Management Education and ESD methods.

The purpose of the curriculum mapping project is to provide City College Plymouth with a baseline understanding of how programmes and modules are supporting students to see the relevance of sustainability in a range of subjects as well providing practical experience to equip students with skills and competencies to be able to contribute to a more sustainable world.



The following report provides results from the project on how the SDGs, sustainability skills and ESD methods are incorporated into courses - categorised subject, followed by key recommendations to progress embedding sustainability into teaching and learning.

## Methodology

The methodology for this sustainability curriculum mapping project was developed by Students' Organising for Sustainability in partnership with the University of Winchester and Winchester Students' Union. The mapping uses SoLARs delivered by City College Plymouth.

The student auditors review the module specifications to identify:

- To what extent the themes encompassed by the SDGs are included (scoring 0 nothing,
- 1 a little or implicitly included, and 2 a lot, or explicitly included);
- Whether sustainability skills are supported (same scoring as above);
- $\bullet$  And whether ESD pedagogies, or methods, are used (scoring 0 not included, 1 included).

Please view the <u>City College Plymouth Curriculum Mapping form</u> or the information provided in Appendix 1 to see the different criteria modules were mapped against

The SDG specifications come from the <u>United Nations' site</u> and the ESD methods and sustainability skills are modified from the Advance HE and QAA <u>ESD Guidance</u> (2021).

Student recorded the numerical value for each sub-category under each of these three thematic areas as well as keeping note of further information they wish to highlight (e.g., particularly strong examples or areas of opportunity for further embedding of sustainability). They also flagged any questions which have arisen.

This report is accompanied by an Excel spreadsheet sharing raw and categorised data from the project as well as auditor comments about each module mapped.

## **Methodology: Limitations**

During the training, students explore the range of ways topics related to the SDGs can be incorporated into teaching and learning, particularly focusing on key themes and words. However, because a number of students take part in the mapping project, and they all may interpret the mapping methodology slightly differently, there may be variations across the data. This is natural and the training seeks to ensure as much uniformity in the mapping as possible. Some variation should be expected and where this is identified, can be rectified.

There may be examples of sustainability in modules that are not described in the SoLAR. This may mean that the data is not exhaustive in highlighting all information. Where it is identified that there are examples of good practice which have not been covered in the mapping, course leaders should be encouraged to update module specifications accordingly. Having up to date SoLARs helps students to understand and identify where sustainability relates to their subject and also safeguards that sustainability content for future years, should the educator for courses change.

The SDGs are an imperfect model and have been criticized for their focus on a neoliberal and capitalist economic model. Nevertheless, they are largely accepted as the 'road map' and



common language for sustainability this decade and are used, in this project, as a specification for the breadth of sustainability.



Photo from curriculum mapping auditor training delivered by SOS-UK in January 2024 at City College Plymouth

## Purpose of Curriculum Mapping

#### Outcomes from curriculum mapping

There are a number of beneficial outcomes from conducting curriculum mapping, including:

- Building on other audits
- Identifying existing good practice within teaching and learning
- Opening up discussion with academics, deans and across faculties
- Establishing a quantitative baseline
- Measuring progress over time

#### The SDGs - a shared language

Additionally, the SDGs form an important part of how universities and colleges conceptualise sustainability. This is demonstrated by a range of initiatives within further and higher education including:

- <u>SDG Accord</u> university and college sector commitment to celebrate and advance the integral role education plays in progressing sustainability and delivering the SDGs, and to do more to deliver on the goals, including reporting annually on signatory's progress. The SDG Accord is signed by 227 institutions, 55 students' unions and 1734 individuals across all levels in an educational institution.
- <u>SDG Teach In</u> annual campaign ran by SOS-UK calling on educators to pledge on embedding the SDGs in teaching, learning and assessment. 2023 SDG Teach In was the biggest yet, with 1284 educators from 128 institutions pledged reaching 121,000 students globally.



#### Student and staff demand for sustainability in teaching and learning

From <u>research conducted by SOS-UK</u> over the last ten years, students surveyed consistently tell us that 84% of students would like to see sustainable development actively incorporated and promoted through all courses, and 66% say sustainable development is something they would like to learn more about. This is statistically significant across disciplines.

Through this research, students have highlighted that the most relevant ways they want to learn for sustainability are through applied learning opportunities such as placements, projects, and work experience.

Consequently, the purpose of a student-led sustainability curriculum Mapping is to better understand the incorporation of SDGs, wider aspects of sustainability learning and ESD methods in modules across the University, but also to provide students with an opportunity to explore the role of education in progressing sustainability, engage critically with the SDGs and to share their perspectives on sustainability in teaching and learning. Through this project, students are learning for sustainability through real-life experience, while supporting City College Plymouth to ensure all students can learn for sustainability in their modules. Findings

The following section presents findings from data captured by students during the curriculum mapping process.

## **Findings**

#### Incorporation of topics related to SDGs

Topics related to **SDG 3** - **Good health and wellbeing** appear the most to some extent, in 83.7% of all mapped SoLARs. Topics related to **SDG 2** - **Zero Hunger** were incorporated into 10.5% of all mapped SoLARs, making it the least incorporated SDG amongst all mapped modules.

Across subjects, English and Maths engaged with the SDGs the most on average with about 63% of SoLARs mapped incorporating topics related to the SDGs, while Biology incorporated topics related to the SDGs the most with topics related to the SDGs appearing to some extent in about 18% of modules mapped.





According to mapping results, students were supported to develop **Critical Thinking Skills** in 86.3% of all mapped SoLARs. Students were supported to **Challenge Business as Usual** in only 25.5% of the total mapped SoLARS, making it the least supported wider aspect of sustainability learning.

Across subjects, Biology on average supported students to engage with wider aspects of sustainability learning in around 80% of SoLARs mapped. Public Service and Sports supported wider aspects of sustainability in about 56% of mapped SoLARs making it the subject with the lowest score for criteria on wider aspects of sustainability learning.





#### ESD methods

**Experiential project work** and **problem-based learning** were the most commonly used ESD methods, utilised during about 76% of all mapped SoLARs. **Case studies** were mapped in only 48.4% of all modules making it the least utilised ESD method.

Across subjects, around 85% of mapped SoLARs in the Construction and the Built Environment employ ESD methods, making it the programme utilising ESD methods most often. Biology and ESOL utilised ESD methods in 60% of mapped modules, which is the lowest level across programmes.







## 2.1 Total SoLARs

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in all 153 mapped SoLARs.

#### Sustainable Development Goals



#### Wider aspects of sustainability learning





#### **ESD** Methods



## 2.2 Access to HE

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 71 mapped SoLARs in Access to HE.







#### **ESD** methods







## 3.1 Construction and the Built Environment

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 11 mapped SoLARs in Construction and the Built Environment.



Wider aspects of sustainability learning





#### **ESD** Methods



## 4.1 English and Maths

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 11 mapped SoLARs in English and Maths.







#### **ESD** Methods







## 5.1 Engineering

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 8 mapped SoLARs in Engineering.

#### Sustainable Development Goals



#### Wider aspects of sustainability learning





#### ESD methods



## 6.1 ESOL

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 6 mapped SoLARs in English for Speakers of Other Languages (ESOL).







ESD methods







## 7.1 Health and Childhood Education

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 6 mapped SoLARs in Health and Childhood Education.

#### Sustainable Development Goals



Wider aspects of sustainability learning



#### **ESD Methods**





## 8.1 Hospitality and Tourism

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 7 mapped SoLARs in Hospitality and Tourism







#### **ESD** Methods





## 9.1 Public Services and Sport

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 22 mapped SoLARs in Public Services and Sport.

#### Sustainable Development Goals



#### Wider aspects of sustainability learning





#### **ESD** Methods



## **10.1 Skills Development**

The following section provides a breakdown of how the SDGs, wider aspects of sustainability learning and ESD methods are included in 10 mapped SoLARs in Skills Development.







#### **ESD Methods**







## 11.1 Recommendations

The following recommendations can support City College Plymouth to effectively utilise findings from the Curriculum Mapping exercise and progress embedding of sustainability in learning.

#### 1. Celebrate good practice

Utilise findings from the report and accompanying subject-level data to celebrate good practice and uncover allies. This could look like sharing key findings on the College's social media, creating case studies from high scoring modules, or about the project as a whole, featured on the College website, or sending congratulatory emails to educators.

#### 2. Meet with module leaders to discuss findings

Meeting face-to-face with educators to discuss findings alongside sharing the report can facilitate understanding of the results, as well as key next steps. Holding meetings ensures that the mapping findings reach relevant stakeholders, and that staff have a space to ask questions, share ideas and feed into and agree upon next steps. This space can also support knowledge exchange between course leaders, and across levels of learning. Co-creating next steps with educators ensures whole-college ownership and buy-in over this work.

#### 3. Provide a space for students to read findings and ask questions

ESD processes support students to co-create their learning experience alongside their educators. Share findings with students via the Students' Union or course representatives. Provide a space for students to share thoughts on the findings, as well as to feed into next steps to progress sustainability in learning; this could be either an online forum or a suggestions box in the Students' Union or a discussion after classes.

#### 4. Continued Professional Development for Staff

Consider how to support staff to further embed sustainability into their modules by using a broader range of discussion topics. To support holistic sustainability understanding amongst students, consider how to support staff to further embed topics related to all SDGs in their teaching and assessment. This can be done through supporting staff to understand the relevancy of a broader range SDGs and other sustainability frameworks in their work and subject.

#### 5. Focus on embedding topics related to SDGs in teaching and learning

Mapping indicates that many programmes within the college embed wider aspects of sustainability and ESD methods more than topics related to the SDGs. Explore how to support course leaders and other educators to further embed topics related to SDGs in content. This can be done both informally and formally. For example, the <u>SDG Teach In</u> calls is an accessible, straightforward way for educators to trial including more topics related to sustainability in teaching, particularly through case studies, discussion questions, examples, readings etc. This work can also be explored more formally.

#### 6. Continued student leadership

Following on from sharing findings with students and providing a space for students to ask questions and feed into next steps, consider how to maintain student leadership on and ownership of work around embedding sustainability and ESD into teaching and learning to maintain accountability and transparency with students through partnership working and ensure



the work is fit for purpose and changes are relevant to students' needs and priorities. This may be through creating a student group for ESD or working with the Students' Union.

## 7. Use Responsible Futures as a framework for progressing curriculum mapping findings

We are delighted to work with City College Plymouth on <u>Responsible Futures</u>, a supporter change programme and accreditation embedding sustainability in learning in partnership with students. Through a framework of 50 criteria, Responsible Futures supports institutions and their students to develop an enabling environment for sustainability and progress initiatives for ESD through a whole-institution cohesive approach. We recommend using the Responsible Futures framework to identify where findings and recommendations from student-led curriculum mapping can be progressed.

## Appendix 1

## Wider aspects of sustainability learning:

Alongside looking at the 17 SDGs, students are asked to look for how wider aspects of sustainability learning are incorporated in modules. These aspects include:

**Understanding Sustainable Development:** Covers a holistic understanding of sustainable development within the context of the subject

**Seeing the Bigger Picture:** Students develop systems thinking or futures thinking skills, helping them to critically engage with and understand the bigger picture.

Ethics and Values: Students use or apply an ethical framework in relation to their subject.

**Collaborative Problem Solving:** Students work together with others to address a real-world issue.

Critical Thinking Skills: Students learn skills to help them analyse and critique information.

**Challenge Business as Usual:** Students encounter different-paradigm ways of thinking, e.g. circular economy in field of design; doughnut economics in business, or directly experience a different paradigm (e.g. via a study trip).

**Take Real-World Action:** Students have a chance to take real-world action in their learning. For example, through activities with real-world impacts done through the course, such as placement or project.

### **ESD Methods**

Students are also asked to look for the inclusion of ESD methods in teaching and learning. These methods include:

**Case studies:** Real-life examples of sustainable development issues - from local to global - and how these have been, or might be, addressed, introduce students to the concept of



sustainability in practice.

**Stimulus activities:** Providing a prompt (such as a poem, dance, artwork, quotation, piece of music or newspaper article) can stimulate discussion or reflection on a sustainability topic. Stimulus activities are well suited to group work and can be open-ended, encouraging students to extend their thinking beyond the confines of their own discipline.

**Simulation:** Activities and projects that simulate real-life situations and encourage students to participate can help develop focused thinking around sustainable development issues, and can contribute to the formation of students' own attitudes and the social norms that they find acceptable. Such activities include role plays, debating, mock trials and gaming, and they can be used across a range of disciplinary and interdisciplinary contexts to help students develop appropriate professional behaviours.

**Experiential project work**: Experiential, interactive, or participatory activities enable students to engage with sustainability issues at a number of levels, not only in relation to their discipline, but also in terms of reflecting on their own values, attitudes and accepted social norms. Working through issues in an authentic setting is also valuable for identifying potential interdisciplinary or transdisciplinary links.

**Problem-based learning:** Problem-based learning approaches can be used to good effect in teaching and learning about sustainability, since they provide opportunities for student-led, collaborative work which can be focused on a real-world problem or issue.

