

GD124-15 Interdisciplinary Approaches to Global Sustainable Development

24/25

Department

Global Sustainable Development

Level

Undergraduate Level 1

Module leader

Elizabeth Chant

Credit value

15

Module duration

10 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

Why do sustainable development challenges need interdisciplinary responses?

Why is my degree a Bachelor of Arts and Sciences?

This module will provide training for students to examine how interdisciplinary approaches can be used to engage with sustainability issues. By analysing case studies and methodological approaches from across the sciences and the humanities, students will develop discipline-specific knowledge while also nurturing interdisciplinary mindsets that will foster radical thinking. This will be done across three key themes: (1) knowledge and methodologies, (2) communication of knowledge, and (3) resources and technologies. In dialogue with these topics, students will advance their own research into a sustainability issue and disseminate their findings to a non-specialist audience, helping them to practice the scholarly communication that is central to behavioural and systems change. Ultimately, this will engage students with the interdisciplinary culture of Global Sustainable Development (unpicking the 'Bachelor of Arts and Sciences') and provide training for a 'beyond boundaries' way of thinking that will inspire learning outside the limits of their degree.

Module aims

- To interrogate issues of disciplinarity and positionality by studying arts/humanities and STEM topics in dialogue with one another
- To understand and reflect upon how knowledge is constructed and how disciplinary siloes impact our learning
- To use their emerging interdisciplinary knowledge to communicate sustainability issues to a non-specialist audience

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

The core teaching themes are as follows: (1) knowledge and methodologies, (2) communication of knowledge, and (3) resources and technologies. Topics will follow the above themes, with a list of likely topics noted below – this is purely to demonstrate the breadth and type of subjects that may be covered, and may be subject to change:

Constructing interdisciplinary knowledge;
Science, Culture, and Subjectivity Sustainable scholarship and methodologies;
Communication in sustainability;
Science for sustainable development;
Humanities for sustainable development;
Technology in sustainable development.

Learning outcomes

By the end of the module, students should be able to:

- Evaluate how knowledge is constructed and can be applied to respond to sustainability issues.
- Identify disciplinary boundaries, including their own disciplinary positionality and use this understanding to begin developing interdisciplinary perspectives.
- Forge connections between the sciences and the humanities to formulate creative responses to address global challenges.
- Use peer-learning to develop effective communication to interdisciplinary audiences.
- Explain the relevance of arts and sciences topics for tackling the three pillars of sustainable development.

Indicative reading list

Vienni-Baptista, Bianca, Isabel Fletcher, and Catherine Lyall. 2023. Foundations of Interdisciplinary and Transdisciplinary Research: A Reader, edited by Bianca Vienni Baptista, Isabel Fletcher and Catherine Lyall. Bristol: Bristol University Press.

Freeth, Rebecca and Guido Caniglia. 2020. "Learning to Collaborate while Collaborating: Advancing Interdisciplinary Sustainability Research." *Sustainability Science* 15 (1): 247-261.

Quantitative Sustainability: Interdisciplinary Research for Sustainable Development Goals 2024., edited by Stefano Fantoni, Nicola Casagli, Cosimo Solidoro and Marina Cobal. Cham: Springer Nature. doi:10.1007/978-3-031-39311-2.

Liboiron, Max. 2021. *Pollution is Colonialism*. Durham: Duke University Press. doi:10.1515/9781478021445.

McKittrick, Katherine. 2021. *Dear Science and Other Stories*. Durham: Duke University Press. doi:10.1515/9781478012573.

Research element

Students will undertake research on a topic of their choice as part of the dissemination object and mini literature review assessments. They will receive support in developing research skills across the module.

Interdisciplinary

This module integrates approaches and topics from the humanities and sciences, following a 'STEAM' pedagogy which seeks to break down the barriers students often encounter between these subjects. Students will engage with identified interdisciplinary themes by approaching them from a plurality of angles and will investigate topics that engage with each pillar of Global Sustainable Development, echoing across the additional interdisciplinary modules studied in Year 1. The assessment specifically encourages students to interrogate their own disciplinary expertise to date and to work with their peers to formulate an interdisciplinary dissemination object.

International

This module asks students to engage with sustainability challenges that are inherently international in nature. Although focussing on anglophone-medium production, the module assessment will encourage them to develop dissemination to a global non-specialist audience. Reflecting on their own experiences of study, especially disciplinary breakdowns, will further provide opportunities for fostering self- and cultural awareness.

Subject specific skills

- Understanding of scientific and humanities approaches that are relevant for global sustainable development.
- Interrogation of disciplinary knowledge and positionality including foundational concepts in interdisciplinary scholarship.
- Understanding of how knowledge construction is subjective and how this is important for the communication of sustainability issues.

Transferable skills

Working with others: developing professional relationships with others to achieve individual and team outcomes in group activities, presentations, and other module tasks (all forms of employment).

Effective communication: developing ideas and insights which engage others, driving forward discussions with a focus on actionable and practical responses. This is a key focus of the module and relevant across sectors (marketing, business, civil sector, third sector)

Time management: through a requirement to plan independent study, assignments, and engage in other forms of time management in this module, students are able to build valuable workplace skills (all forms of employment)

Emotional intelligence: students develop a nuanced and practical understanding of interdisciplinary study, supporting future careers where approaches to challenges must encompass diverse perspectives.

Study

Study time

Type	Required
Seminars	9 sessions of 2 hours (12%)
Private study	63 hours (42%)
Assessment	69 hours (46%)
Total	150 hours

Private study description

We aim for students to spend around 6 hours completing personal study per week.

Costs

No further costs have been identified for this module.

Assessment

You do not need to pass all assessment components to pass the module.

Assessment group A

	Weighting	Study time
Mini literature review	20%	14 hours

Students will create a literature review from a list of pre-defined topics. This will engage with the interdisciplinary issues of global challenges and will provide students with an opportunity to begin

	Weighting	Study time
researching a topic for the project assessment.		
Creative project	50%	35 hours
Working in pairs, students will choose a sustainability issue and undertake a creative project. This is then marked individually via a supporting commentary about the project which includes (e.g.) visual examples from the project itself and relevant discussion of academic materials.		
Interdisciplinary reflection	30%	20 hours
Students will complete a reflection task where they discuss the importance of interdisciplinary approaches and communication in sustainable development.		

Feedback on assessment

Students will receive written feedback after submission either via feedback form or Tabula.

Availability

Courses

This module is Optional for:

- Year 1 of UIPA-L8A1 Undergraduate Global Sustainable Development