GD909-20 Global Challenges and Transdisciplinary Responses

24/25

Department
Global Sustainable Development
Level
Taught Postgraduate Level
Module leader
Martin Lima Velazquez
Credit value
20
Module duration
10 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

The module offers training in transdisciplinary approaches to significant Global Challenges, such as, but not limited to: global resource management, Climate Change and human inequalities. The term is divided into three units, each focusing on one defined Global Challenge, covering its foundational natural and social realities, a critical review of existing responses and opportunities for further positive transformation. Contact time sessions require active issue-based and response-focused thinking, using case studies embedded with key conceptual learning, substantive applied knowledge, and process skills (particularly those valuable to engagement as or alongside practitioner stakeholders as part of the transdisciplinary approach). Assessment provides the opportunity to create authentic and rigorous analysis and recommendations for positive intervention.

Module aims

This module will explore current issues of global concern, which form reference points in the Sustainable Development agenda, and thus provide an important point of departure for critical engagement with global discourses and practices. Students will develop their aptitude for engagement with environmental, social and economic perspectives as they inculcate themselves

into a transdisciplinary approach to responding to the 'wicked' nature of global challenges.

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.

Module divided into three units of three weeks each, preceding a capstone issue-based, response-focused simulation week (assessment) . Units initially comprise:

Global Resource Management:

- Expanding human population and economy into environmental sphere. Economic models, resources and waste.
- Critical analysis of the conceptual interpretation of resources in conventional economics and economic development.
- Responses: “Externalities”, recycling and closed loop supply networks
- Case study of plastics as a novel entity (science and impacts: ecology and biodiversity). Ecological and environmental injustices (waste)
- Response Opportunities - behaviour science and intervention (case study based)

Climate Change

- Ecosystem Services Framework, Foundation Climate Science & Impact
- Social Justice and Governance
- Response opportunities, governance mechanisms (case study based)

Human Inequalities

- Economic Realities & Inequalities
- Analysing mechanisms of inequality
- Response Opportunities, governance mechanisms (case study based)

Learning outcomes

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

- Apply rigorous transdisciplinary knowledge of natural and social realities in identifying and responding to significant real-world challenges
- Explain the discursive and practical emergence of the global sustainable development agenda
- Engage with real-world issues through a tripartite lens of social, environmental and economic considerations.
- Work actively as part of a community to research and critically analyse issues of concern, in order to develop authentic and innovative opportunities for constructive responses.
- Communicate analysis and proposed responses to a fully professional standard, using techniques critically and consciously designed for a specified audience.

Indicative reading list

Clift, Ben (2018). Unusual Bedfellows? The IMF, Tackling Inequality and Social Democratic Policy Renewal. In: Hay & Bailey (Eds.), Diverging Capitalisms. Palgrave Macmillan.

Hadorn, G. H., Bradley, D., Pohl, C., Rist, S., & Wiesmann, U. (2006). Implications of transdisciplinarity for sustainability research. Ecological economics, 60(1), 119-128.

Herman Daly (1997). Beyond Growth: the Economics of Sustainable Development. Boston: Beacon Press.

Jai et al (2019). Motivating actions to mitigate plastic pollution. Nature Communications, 10. [Online].

Parrique et al (2019). Decoupling debunked – Evidence and arguments against green growth as a sole strategy for sustainability. European Environmental Bureau: Brussels.

Lakner et al (2019). How Much Does Reducing Inequality Matter for Global Poverty? IMF: Washington.

Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., ... & Thomas, C. J. (2012). Transdisciplinary research in sustainability science: practice, principles, and challenges. Sustainability science, 7(1), 25-43.

Meadows et al. (2012). The limits to growth: the 30-year update. Earth Scan: London.

Turner (2008). A comparison of The Limits to Growth with 30 years of reality. Global Environmental Change, 18(3).

World Bank (2020). Global Economic Prospects, January 2020 : Slow Growth, Policy Challenges. IMF: Washington.

Research element

Healey & Jenkins (2009) propose that Research-led-teaching design should consider four discrete opportunities. This module has been designed to include two of these opportunities.

1. Research-led learning, where the module syllabus is developed from current research in relevant fields, being based on contemporary and seminal, peer reviewed and other high-quality research literature.
   As such, all knowledge for student engagement will be consciously and specifically chosen for its merits in reference to broader academic understanding: potentially but not necessarily concerning knowledge on the management of material resources, the process and outcomes of climate change and human inequalities.

2. Research-tutored learning, where students engage actively in discussing high quality, contemporary and seminal research literature. Given the problem-based and response focused pedagogy to be deployed, students will focus on a number of Global Challenges, through group working and engagement with relevant literature concerning the issues and potential avenues for responses. These will then be used actively in contact time discussions.

Interdisciplinary

Positive global transformations are widely recognised to require transdisciplinary approaches and this approach is adopted in the design and delivery of learning opportunities. Students are required to draw on a variety of disciplines to engage in problem-based, response focused thinking and learning. around the Global Challenges covered.

Authentic assessment will require students to demonstrate transdisciplinary aptitude, through the production of Policy Briefings that draw on a range of disciplinary knowledge sets. Transdisciplinary aptitude will be explicitly embedded in the marking rubric, as adapted from the standard university scale and descriptors.

International

This is a module on the Master's in Global Sustainable Development which offers learning experiences that draw on a range of different national and international subjects: as they engage with Global Challenges, such as Climate Change and Inequalities . Students will engage with a geographically diverse range of knowledge.

Subject specific skills

The students will develop a transdisciplinary approach to framing, analysing and proposing responses to Global Challenges typically associated with the Sustainable Development agenda and more desirable forms of human socioeconomic transformation. This will include an ability to engage effectively with varied vocabularies and the knowledge sets they represent, as well as how to combine these authentically and innovatively.

Students will have the opportunity to develop skills for personal research, note taking, synthesis of information, the communication and discussion of information, necessary for change agency.

Transferable skills

Students will be required to learn together as a community, as an inherent part of the pedagogical structure .

Students will have the opportunity to develop skills for the oral presentation of knowledge and its constructive discussion. They will be encouraged to understand that they will receive weekly feedback from their seminar experiences that should be used for such development.

Study

Study time

Type	Required
Lectures	9 sessions of 1 hour (8%)
Seminars	9 sessions of 2 hours (15%)
Total	117 hours

Type	Required
Private study	90 hours (77%)
Total	117 hours

Private study description

Weekly reading.

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
Problem Analysis and Intervention Design	30%	35 hours
Students respond to an unseen real-world problem not previously addressed directly in the module, being required to demonstrate an understanding of the issue, explain and critique existing interventions and propose progressive responses.		
Problem Analysis and Intervention Design (Development)	50%	35 hours
Students are invited to rework previous submission, responding to comments and developing depth.		
Responding to Real World Problems	20%	13 hours
Students work in groups to show knowledge of one of the real word problems studied, and develop a proposed intervention.		

Feedback on assessment

Substantive annotated comments will be provided on submitted assessment artefacts with overview summary addressing how work was judged against the marking rubric for the assessment and what areas should be prioritised for future development.

Tutor observation of group presentations will result in written feedback.

Availability

Courses

This module is Core for:

- RGSA-L800 Postgraduate Research Global Sustainable Development
    - Year 1 of L800 Global Sustainable Development
    - Year 1 of L800 Global Sustainable Development
    - Year 1 of L800 Global Sustainable Development
- Year 1 of TGDA-L801 Postgraduate Taught Global Sustainable Development