Liverpool John Moores University

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Title:	Sustainability and Adaptation: Concepts & Planning
Status:	In creation
Code:	**7501CATSCI** (125264)
Version Start Date:	01-08-2020
Owning School/Faculty:	Natural Sciences & Psychology
Teaching School/Faculty:	Centre for Alternative Technology

Team	Leader
Colm Bowe	Y

Academic Level:	FHEQ7	**Credit Value:**	30	**Total Delivered Hours:**	65
Total Learning Hours:	300	**Private Study:**	235		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	30
Practical	5
Seminar	30

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Adapt Rep	Adaptation Report (3,000 words max)	50	
Essay	Crit Rev	Critique Review (3,000 words max)	50	

Aims

a) Contextualize sustainability and transformational adaptation in view of current environmental changes.
b) Appreciate the interconnectedness of the factors involved.

c) Make informed decisions during the adaptation transformation planning process, despite uncertainties.
d) Discern the wider implications of transformational adaptation on social structures, ecology, land use, trade, resource management, energy provision, governance, health and economic systems through a critical exploration of the primary considerations related to sustainability and environmental change.
e) Form a thorough understanding of adaptation transformation planning through facilitated self-reflective practical team exercises.

Learning Outcomes

After completing the module the student should be able to:

1	Form a synthesis of knowledge related to the current discourse around transformational adaptation and mitigation strategies, vulnerability, adaptive capacity, ecosystem services and resilience building in relation to current environmental change;
2	Conceive the nature of the interconnectedness of the numerous interactions related to transformation adaptation, sustainability and environmental change;
3	Critically analyse the implications of transformational adaptation to environmental change in the wider context of sustainability, equity and well-being provision;
4	Evaluate the ethical dilemmas when problem-solving and decision-making, in a general context and in relation to current environmental change;
5	Effectively communicate (in written and oral forms) to both peers and a wider audience;
6	Reflect critically on team working experience in order to inform self-development and confidence.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Adaptation Report	1	2	3	4	5	6
Critique Review	1	3	5			

Outline Syllabus

Environmental change, Energy provision, Built environment adaptation possibilities (new build & renovation), Ecosystem services and biodiversity enhancement, Atmospheric carbon reduction, Mechanisms of environmental change, Geo-engineering, Transformational adaptation (vulnerability, risk, resilience and adaptive capacity), Health and well-being implications of environmental change, Water security and waste, Food security, Materials, Economic fundamentals and non-growth economic systems, Transportation, Land use, Adaptations needed for climatic changes and weather extremes, Population growth and migration implications for transformational adaptation and sustainability.

Learning Activities

This module will comprise a series of lectures and practical activities covering a broad range of sustainability topics in the first teaching week and will be assessed by writing a blog and report, and reviewing critically a published paper. The second teaching week learning is largely delivered through group work seminars whereby students work together throughout the week to develop adaption solutions to climate and environmental change scenarios.

Distance learners will gain access to the lectures via the VLE, take part in topic-based and study skill seminars with a tutor via Skype, and carry out the same assessment tasks. During the second teaching period in November, students take part in extended group-work discussions to develop solutions to future climate and environmental change scenarios. These sessions will be mediated by a tutor.

Notes

This module is available onsite or at a distance.