



Module Specification

Ecological and Regenerative Approaches

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Contents

| | |
|--|----------|
| Module Specification | 1 |
| Part 1: Information | 2 |
| Part 2: Description | 2 |
| Part 3: Teaching and learning methods | 7 |
| Part 4: Assessment..... | 8 |
| Part 5: Contributes towards | 9 |

Part 1: Information

Module title: Ecological and Regenerative Approaches

Module code: UBLL4F-30-M

Level: Level 7

For implementation from: 2026-27

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

Partner institutions: None

Field: Architecture and the Built Environment

Module type: Module

Pre-requisites: Zero Carbon Design and Innovation 2025-26

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: The Ecological and Regenerative Approaches module provides students with a comprehensive understanding of sustainability as a regenerative process, encouraging them to go beyond traditional metrics to design for a positive, lasting impact on ecological and social systems. Running in parallel with the Design Thesis, this module equips students with critical frameworks and technical tools to address sustainability, and fire and life safety, in a way that transforms their architectural projects into active contributors to environmental and community resilience.

This module covers the broad spectrum of sustainability, from technical and digital solutions to low-tech, craft-based approaches. Through an emphasis on systems thinking the module provides a holistic framework to address complex design challenges. Students consider the interconnectedness of ecological and social factors, applying this knowledge directly to the Design Thesis module. This integrated approach allows students to bring depth to their design propositions, supporting design decisions that not only mitigate negative impacts but also actively contribute to biodiversity, ecosystem health, and community well-being. By fostering the ability to connect insights across topics and scales, this module encourages students to produce contextually rich, resilient work that adapts to the demands of a changing world.

Aligned with RIBA's values of environmental stewardship and user safety (E1), this module teaches regenerative design that enhances ecological resilience. Students learn to integrate responsible resource use (E3), biodiversity, and community health into their designs, emphasising architecture's potential for positive impact.

Pre-requisite: Student must have completed UBLL45-30-3 Zero Carbon Design and Innovation before starting this module.

Features: Systems Thinking for Regenerative Impact: Introduces students to systems-based frameworks for regenerative design, enabling them to consider the holistic effects of their projects on environmental, social, economic, and safety systems.

Multiscalar and Interdisciplinary Focus: Engages students with sustainability at multiple scales, from building components to community models, preparing them to apply these perspectives within their Design Thesis work.

Direct Application to Design Thesis: As students advance in their thesis projects, they directly apply the insights and technical knowledge gained in this module, ensuring a cohesive integration of sustainability principles in their design outcomes.

Educational aims: This module aims to develop students' ability to approach sustainability from a regenerative perspective, fostering ecological resilience, social equity, and contextual responsiveness. By the end of the module, students will:

Apply systems-thinking approaches to develop contextually responsive and safe design solutions, ensuring that their Design Thesis projects contribute positively to ecological, community, and occupant resilience.

Integrate interdisciplinary knowledge, regenerative strategies, and fire and life safety considerations into architectural design, addressing complex environmental and social challenges.

Utilise advanced digital and analogue tools for analysis and design, demonstrating the impact of regenerative approaches across scales.

Communicate sustainability concepts effectively, adapting their approach to diverse stakeholders and audiences.

Outline syllabus: The Ecological and Regenerative Approaches module provides students with the foundations to integrate regenerative sustainability into their design work, structured as a combination of seminars, workshops, and applied project-based learning.

1. Foundations of Regenerative and Systems-Based Design

The module begins by exploring regenerative design principles, encouraging students to see sustainability as an opportunity for "positive regeneration" within built environments. Students learn to analyse projects from a systems perspective, considering how designs can enhance ecological, social, and economic resilience.

Through case studies and readings, students examine the interconnected roles of stakeholders, resource flows, and environmental impacts, building a framework for regenerative thinking that informs their Design Thesis work.

2. Sustainability Across Ecological and Social Dimensions

In this phase, students investigate the broader implications of sustainability, from environmental justice to craft and low-tech approaches. Emphasis is placed on understanding sustainability's multifaceted nature, enabling students to address issues at different scales within their Design Thesis projects.

Topics include ethical sourcing, lifecycle analysis (LCA), and design for disassembly, with students exploring how these principles can elevate their thesis work by fostering community value and ecological integrity.

3. Application of Regenerative Design and Safety Across Scales

Students apply regenerative and safety-conscious principles at various scales, from individual building components to community models. This includes workshops on subjects such as, adaptive reuse, fire safety strategies, and ecologically centred design.

Practical applications such as community engagement models help students develop context-sensitive solutions for resilience and adaptability in their thesis projects.

4. Expert Seminars and Technical Workshops

Industry experts lead a series of seminars and workshops on critical sustainability tools and techniques, including environmental modelling, material analysis, and stakeholder engagement strategies. These sessions provide students with practical skills they can apply within the Design Thesis module.

Workshops offer hands-on training in techniques such as environmental analysis, allowing students to evaluate and optimize their designs from a regenerative standpoint.

5. Project-Based Application and Reflection

Throughout the module, students work on an applied project related to their thesis, developing a detailed report that integrates regenerative principles within their chosen design focus. This project allows students to critically apply and reflect on the knowledge they have gained, ensuring meaningful connections between the two modules.

Alignment to ARB Competency Outcomes

In this module the following ARB Academic Competency Outcomes are met and assessed to passing standard:

CK3: The principles and relevance of social sustainability, social value and inclusive design.

CK4: The principles of climate change and biodiversity as relevant to design and construction.

CK5: The principles of building construction, services, structure, materials use, assembly and manufacture.

CK6: The principles of building physics and environmental design.

D7: Understand the consequences of design decision making on value to clients and communities over the life-cycle of built projects and the costs to the environment.

D8: Propose design solutions that achieve or exceed relevant performance standards and requirements.

D9: Understand the implications and benefits of regenerative design solutions and ethical sourcing and supply chains throughout the life cycle of architectural projects that meet or go beyond minimum standards.

D10: Understand the implications and benefits of working with existing buildings including potential for re-use and retrofit, and the resulting environmental impact.

RE4: Locate, evaluate and apply relevant legislation, regulations, standards, codes of practice and policies related to the development of the built environment.

RE6: Understand how modelling and post occupancy evaluation inform design.

PE5: Uphold the architect's obligation to the environment, society, and the wellbeing and quality of lives of current and future generations.

Part 3: Teaching and learning methods

Teaching and learning methods: This module combines lectures, practical workshops, and group work to support students in applying regenerative approaches directly to their Design Thesis projects:

Seminars and Workshops: Sessions with industry experts introduce advanced topics in regenerative design, from ecosystem integration to environmental modelling, equipping students with the skills to apply these methods within their thesis.

Small Group Tutorials: In regular tutorials, students discuss their project-based work, receiving feedback on how to integrate regenerative strategies effectively into their Design Thesis.

Collaborative and Reflective Practice: Group presentations encourage collaborative problem-solving and allow students to engage with peers' approaches to sustainability. Reflective exercises help students assess their progress and refine their application of regenerative principles.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Apply systems-thinking approaches to sustainability and fire and life safety, developing regenerative design strategies that enrich both ecological and social systems.

MO2 Utilise advanced digital and analogue tools for analysing and presenting regenerative design solutions, demonstrating technical rigor and contextual sensitivity.

MO3 Integrate regenerative principles with contemporary regulatory frameworks addressing building lifecycle, fire and life safety, adaptability, and social value.

MO4 Communicate complex sustainability concepts effectively, collaborating with peers and stakeholders to promote informed, interdisciplinary solutions.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://rl.talis.com/3/uwe/lists/1DE278BE-301E-9B01-9A2C-AC9AF7DD2721.html?lang=en-GB&login=1) via the following link <https://rl.talis.com/3/uwe/lists/1DE278BE-301E-9B01-9A2C-AC9AF7DD2721.html?lang=en-GB&login=1>

Part 4: Assessment

Assessment strategy: Connected Design Portfolio (100%)

Students produce a portfolio that applies regenerative and systems-thinking principles to a chosen specialist theme directly linked to their Design Thesis project. Topics may include environmental analysis, social sustainability models, or regenerative material strategies. It also includes a safety analysis, demonstrating compliance with fire and life safety standards and verifying that their designs meet essential regulatory requirements for occupant protection. The portfolio should demonstrate students' ability to translate regenerative theory into practical design enhancements that support their thesis.

Formative Feedback: Feedback during seminars, workshops, and tutorials allows students to refine their project focus and continuously improve their integration of

regenerative approaches within the Design Thesis.

Resit Assessment: If required, the resit assessment will follow the same brief and submission format as the main assessment, allowing students to develop and submit a revised portfolio that meets the original assessment objectives.

Assessment tasks:**Portfolio (First Sit)**

Description: Connected Design Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Portfolio (Resit)

Description: Connected Design Portfolio

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Architecture [Frenchay] MArch 2025-26