DI106-30 Design Ecologies and Regenerative Practice

26/27

Department
Design Studies
Level
Undergraduate Level 1
Module leader
Graham Powell
Credit value
30
Module duration
18 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

Living in a volatile, uncertain, complex and ambiguous (VUCA) world, which is characterised by a fast-accelerating climate and biodiversity emergency, sustainable design is no longer enough to produce a just and regenerative future for all. In recent years, the integration of environmental considerations in the design process has shifted designers' focus on strategies which are more considerate of the use of natural resources and their circulation as well as the overall reduction of our impact on the environment and all its eco-systems.

Whether we consider zero-waste design, decarbonisation through design or sustainable material innovation, it is inevitable for new designers to create with redundant, invasive and extractive mindsets. Regenerative practices go beyond sustainability and actively contribute to the restoration and replenishment of what human activities have deteriorated and exploited. From toxic agriculture, energy production, design and manufacture to global economics, finance systems, policy and governance design - the colossal complex issues we are facing today, were inevitably caused by poor design. As such, there is an enormous responsibility on designers to gain a better understanding and relationship with eco-system around us in order to engage with new design ecologies and regenerative practices which foster a culture of repair and replenishment.

This module will take you on a journey of regeneration by exploring methods and approaches in sustainable architecture, life-centred product and UX design, visual communication for change, alongside other disciplines through intricate practice-led design briefs.

Module aims

Principal module aims entail a careful weaving of learning through practice-led approaches and covering the following areas of design mindset and skillset:

- Systems Thinking and the holistic impact of human activities on the environment and communities.
- Understanding regenerative principles of resilience, diversity and interconnectedness.
- Gaining ecological literacy through developing understanding of ecosystems, their function and the interdependencies between various elements in nature.
- Design ethics through critical evaluation of choices, intervention and impact in the design process.
- Social design and the importance of designing with and for people towards regeneration.
- Biomimicry through solutions that mimic natural processes and systems
- Circular economies by prioritising the entire life cycle of products and systems, minimising waste and environmental impact.
- Visual communication for design activism and effective dissemination of interventions, solutions and knowledge exchange.

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.

Over the course of this module students will undertake a journey of critically and creatively exploring issues of design ecologies and regenerative practice through various strands of design and architecture, underpinned by systems thinking. Students will respond to a brief in the form of a portfolio, design solution and pitch which will seek to be entirely regenerative in concept, evaluation and intervention.

Learning outcomes

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

- Understand eco-system analysis through visual methods and creative responses.
- Develop skills in communicating complexity regarding design ecologies and regenerative practice.
- Critically evaluate designs from a life-centred perspective.
- Explain regenerative design processes through a multi-disciplinary design approach.
- Demonstrate persuasive communication in delivering complex information to a trans-disciplinary audience.

Indicative reading list

Reading lists can be found in Talis

Interdisciplinary

This module runs as all other Design Studies modules in the School for Cross-faculty Studies. As the hub for interdisciplinary and trans-disciplinary scholarship and practice, by default this and other Design Studies modules are inter- and trans-disciplinary, enabling students from all disciplinary backgrounds without prior design study experience.

International

This module will be part of a degree which also has an international intercalated year and will also host students from other departments including international students to partake in this learning.

Subject specific skills

- Systems thinking: Understand and apply systems thinking to analyse and address interconnected ecological and social systems.
- Design thinking: Apply design thinking methodologies to creatively and collaboratively solve problems within the context of ecological and regenerative design.
- Ecological literacy: Develop a deep understanding of ecosystems, biodiversity, and the principles governing ecological balance.
- Biomimicry knowledge: Gain insights into the principles of biomimicry and the ability to apply nature-inspired solutions to design challenges.
- Social design skills and community engagement: Develop skills in engaging and collaborating with local communities, understanding their needs, and incorporating local knowledge into design processes.
- Resilient design: Design systems and solutions that are resilient to environmental changes and can adapt to evolving conditions.
- Visual communication: Capabilities in compositing, creating and disseminating complex information through diverse graphic media.
- Rapid prototyping: Abilities in creating quick and low fidelity contextualisation of ideas through diverse materials and digitalisation.

Transferable skills

- Collaborative and interdisciplinary skills: Work collaboratively with diverse teams and stakeholders, recognising the importance of interdisciplinary approaches to address complex challenges.
- Critical thinking: Cultivate critical thinking skills to evaluate the environmental and social implications of design decisions and propose innovative solutions.
- Communication skills: Effectively communicate regenerative design concepts to various audiences, including stakeholders, policymakers, and the general public.
- Adaptability and lifelong learning: Foster a mindset of continuous learning and adaptability, staying informed about new developments and emerging best practices in regenerative design.

Study

Study time

Type	Required
Seminars	18 sessions of 2 hours (12%)
Supervised practical classes	18 sessions of 1 hour (6%)
Private study	91 hours (30%)
Assessment	155 hours (52%)
Total	300 hours

Private study description

All students will be working in asynchronous capacity to develop their portfolio and design solutions.

Costs

Category	Description	Funded by	Cost to student
Equipment and project costs	Materials will be supplied for workshop inductions and course-based teaching sessions. While there will be some provision of basic materials, students will drive their own practice and therefore may require a broader set of materials and/or tools than can be provided. This will be very individual and will be at the student's cost.	Student	£0.00
Printing and photocopying	On this module, students will be provided with printing credit to the value of £10.00 per student.	Department	£10.00

Assessment

You must pass all assessment components to pass the module.

Students can register for this module without taking any assessment.

Assessment group A1

	Weighting	Study time	Eligible for self-certification
Assessment component			
Design Portfolio	40%	65 hours	Yes (extension)
The design portfolio is a substantial body of work which will document students progress, experiments and solutions.			
Reassessment component is the same			
Assessment component			
Professional Pitch	20%	30 hours	No
This coursework will capture students response to the design brief which will be accompanied by an exhibition pitch.			
Reassessment component			
Resit - Professional Pitch			Yes (extension)
You are required to submit an 8-minute recorded presentation that pitches your designed delivery element in response to the module assignment brief. You can use the maximum of 9 slides to communicate your design process (this includes your references). The video should be uploaded to Tabula.			
Assessment component			
Critical Research Analysis	40%	60 hours	Yes (extension)
This coursework will entail a critical research analysis of the project undertaken.			
Reassessment component is the same			

Feedback on assessment

Formal and informal, class-based, live assessments and written feedback in line with rubric.

Availability

Courses

This module is Core for:

- Year 1 of UIPA-W201 BASc Design for Sustainable Innovation

This module is Optional for:

- Year 1 of UIPA-L8A1 Undergraduate Global Sustainable Development