Postgraduate Open Days 2025

Sustainable Futures

THE UNIVERSITY of EDINBURGH
Edinburgh Futures Institute

Join us to **Challenge. Create. Change.**

With you today

- Dr Neneh Rowa-Dewar, Director of Students
- Professor Liz Grant, MSc Planetary Health
- Dr Kirsteen Shields & Professor John Brennan, MSc Sustainable Lands and Cities
- Dr Lucy Wishart, MSc Circular Economy
- Professor Sean Smith, MSc Future Infrastructure, Climate Change and Sustainability
- Valklyrs, MSc Future Infrastructure, Climate Change and Sustainability student
- Yenesha, MSc Planetary Heath student

Study at Edinburgh Futures Institute

Interdisciplinary

Bringing arts, humanities and social sciences together with sciences, engineering and medicine to address complex global issues.

Participatory and porous

Inviting diverse groupings to bring their ways of working and thinking together. EFI extends this invitation to industry, the public and government.

Critical and research-led

Working on pressing social issues that require new ways of thinking. Mindful of the role of universities in confronting uncomfortable questions.

Future-facing

Embracing the non-traditional, the untried and the unexpected. EFI defines challenges and co-creates responses to build better futures.

Sustainable Futures

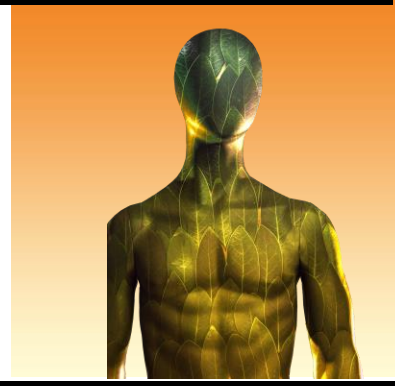
- Planetary Health
- Sustainable Lands and Cities
- Circular Economy
- Future Infrastructure, Climate Change and Sustainability

Creative Futures

- Service Management and Design
- Creative Industries
- Narrative Futures: Art, Data, Society
- Cultural Heritage Futures

Just Futures

- Data and AI Ethics
- Data, Inequality and Society
- Education Futures
- Future Governance



What's different about Education at EFI?

- Interdisciplinary programmes taught by leading academics from different Schools and disciplines
- Equips you with the critical, data and creative skills needed to navigate a rapidly-changing world
- We will help you apply leading-edge knowledge to live projects you care about
- We will connect you to our partners in the community, industry and government

Our approach

- Community-focused: bringing together students from diverse backgrounds and disciplines as a single cohort
- Collaboration: students regularly work together in small groups developing skills in communication, teamwork and co-creation
- Connected: employers work with us on the design and teaching of our programmes and help support projects

Future skills focused

Working in cross-disciplinary teams with students from other Futures Institute programmes, you will learn critical data skills, ethical awareness, creative thinking, and methods to address complex issues:

- Collect, manage and analyse computational datasets
- Use emerging methodologies for mapping and designing possible futures
- Learn the fundamentals of data ethics
- Learn to use creative skills in the analysis and representation of data-informed and qualitative inquiry

The student experience

- Global and diverse cohort
- A very well supported experience with a dedicated student experience and support team
- Events and networks to connect with each other
- Meet our students:
  - **Valklyrs,** MSc Future Infrastructure, Climate Change and Sustainability student
  - **Yenesha**, MSc Planetary Heath student

Sustainable Futures: Interdisciplinary Masters

MSc Planetary Health

MSc Circular Economy

MSc Future Infrastructure, Sustainability and Climate Change

MSc Sustainable Lands and Cities

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Planetary Health

Professor Liz Grant, Global Health Academy, College of Medicine and Veterinary Medicine
Dr Rowan Jackson, School of Veterinary Studies, Global Academy of Agriculture and Food Systems
Dr Ewelina Rydzewska, School of Health in Social Sciences



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Global Academy of
Agriculture and Food Systems

Responding to the COPs and the Global Decision making bodies with the language of change making

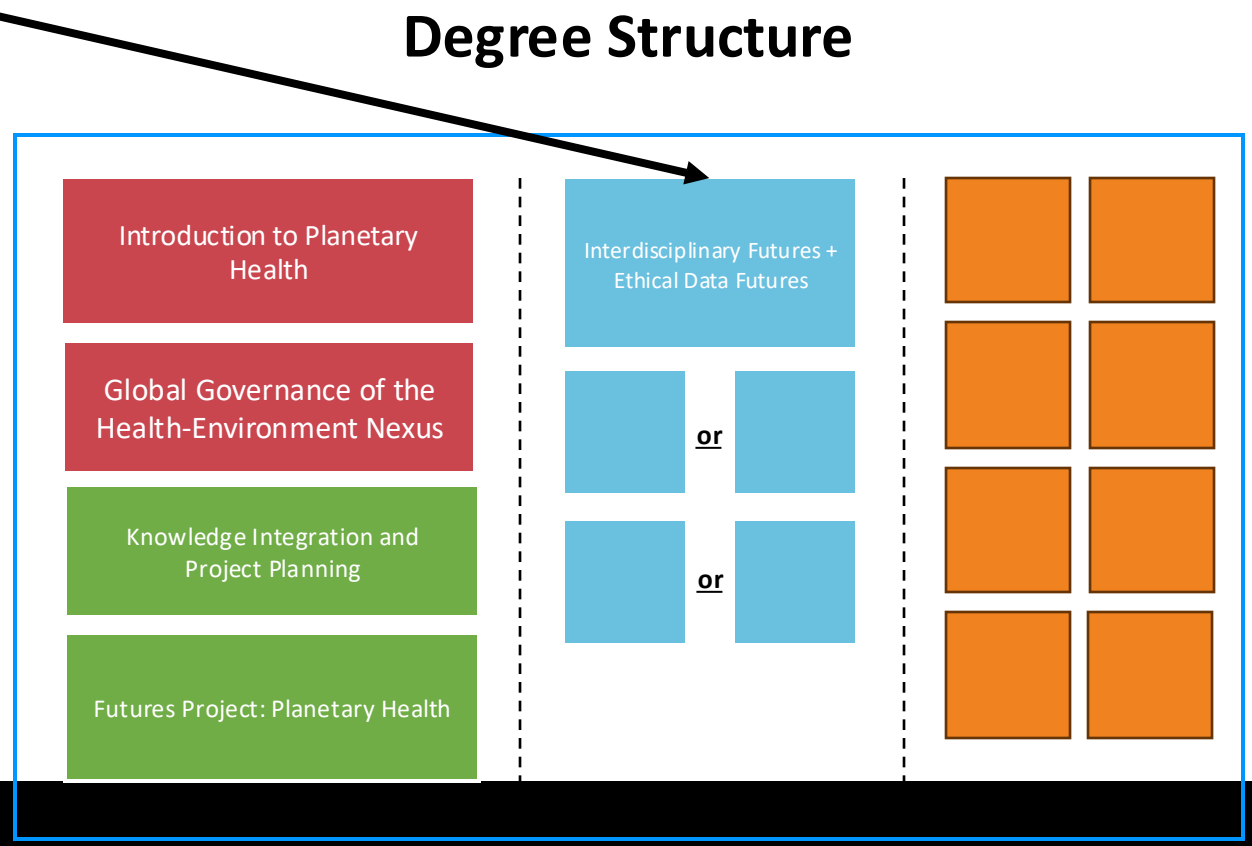
Responding to the Business and Financial Communities with decision making tools

What will I study on Planetary Health at the University of Edinburgh?

Course Options

- Mental health and the Anthropocene
- Trauma and Resilience
- Changing Climate, Changing Health
- Transforming Economies: A Wellbeing Economy Agenda
- Future Food Systems
- Heritage Environments and Climate Change

Degree Structure



Join us to **Challenge. Create. Change.**

What makes this degree significant?

The MSc in Planetary Health reimagines what the health of the future will look like by connecting those working in business, policy, public services, culture and education together. It will:

Develop skills, tools and solution-orientated strategies to redesign and connect systems for healthier outcomes.

Teach future-mapping methodologies, with a particular focus on how the non-health sector – businesses, industry, civil society and public services – could help translate the health related SDGs into action.

Build on a vision to catalyse the transformation of health in society by working with people, populations and their data to examine the intersections of major risks through a planetary health lens.

Maximise the opportunities to curate multiple datasets emerging through planetary health in order to develop actionable pathways for all business and agencies to plan in a planetary health and wellness-promoting way.

Enhance understanding of roles, value and strategies in partnership working and societal engagement to shape health-related outcomes.

Build up legal and business discourse capabilities, entrepreneurial thinking, resilience for challenging established systems, and networking participatory skills.

Why study Planetary Health at the University of Edinburgh?

You'll be joining a creative, innovative and interdisciplinary environment

Your studies will be supported by team of experts with health, environmental, economic, design and data-science expertise

The University of Edinburgh has world-leading expertise in health and environmental research

You will join a vibrant student community

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Who will use planetary health knowledge & skills?

- Leaders, or those who aim to be leaders, in all sectors of business and industry who want to align their future vision and their ecological footprint to the global movement for an interconnected and inter-dependent world.
- Likely to be in strategic roles making connections between well-being and societal development, whether that is economic, environmental, social, legal, technological, or industry led.
- Leaders who understand the significance of the wider determinants of health and the intersection of human and environmental health issues within an ESG framework.
- Those currently working, or planning to work, in boundary roles in agencies fore-scanning and dealing with the risks, the impact and the consequences of global challenges to health and well-being at local, national and international level.
- Those considering how their enterprises and industry can contribute to a sustainable agenda, and those working to reduce their risks of being unsustainable or of having stranded assets.
- Careers that involve change-making and advocacy, health tech, sustainability, inclusion, health finance, business development, sectoral agenda setting or international and political engagement.

Circular Economy

Dr Lucy Wishart

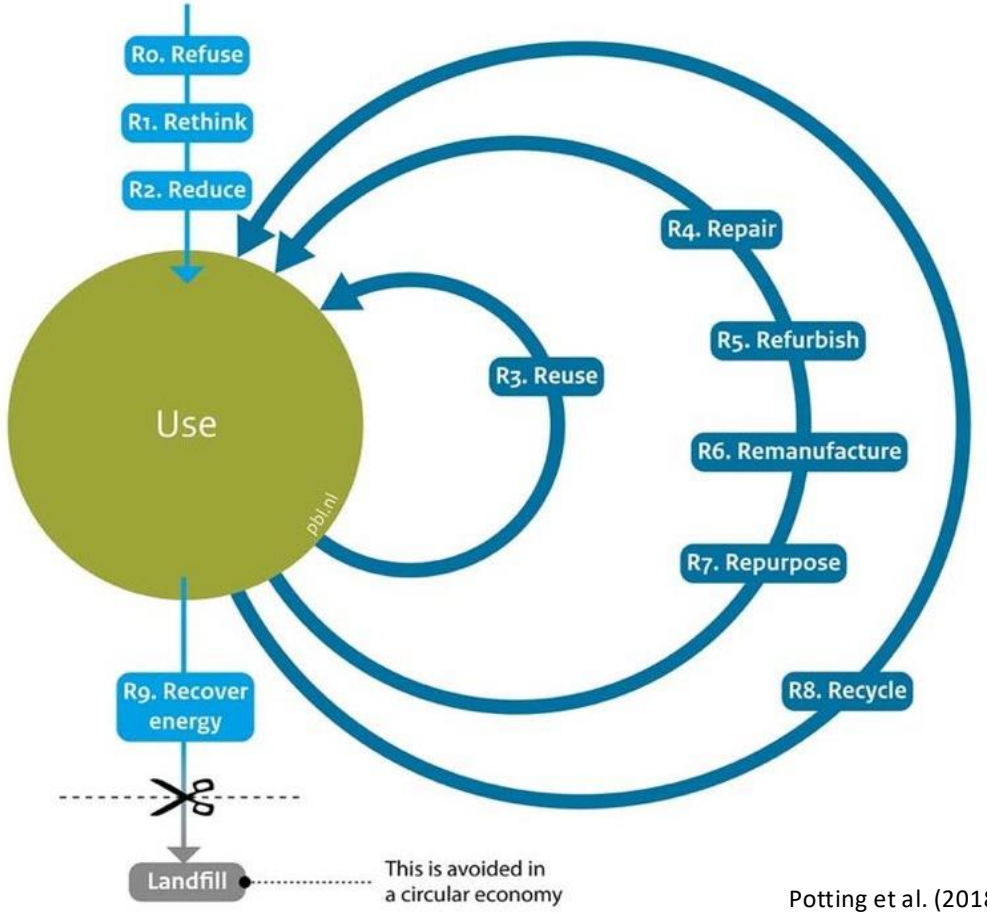
Lecturer in Circular Economy & Sustainable Transformations
Programme Director, MSc Circular Economy
School of Geosciences

What is 'Circular Economy'?

Circular economy is a vision for the future a sustainable future where materials (re)circulate through the economy at their **highest value** for as **long** as possible, **reducing our demand on natural resources**.

A circular future requires us to:

- **reexamine data**: focusing on flows of materials
- **redesign (business) models:** identifying
- opportunities to add value without increasing material costs
- **regenerate systems:** establishing the conditions for society and the planet to thrive
- **reconnect people:** building partnerships to support circular systems
- **reconsider ideas:** reflecting on concepts and contexts that promote linear systems



Potting et al. (2018)

Why study MSc Circular Economy?

Circular Economy is flourishing across policy contexts; industry sectors and local communities

On the MSc in CE you will:

- Learn to analyse contexts to **create innovative circular solutions**
- Explore concepts and tools to **appraise and evaluate** circular initiatives
- Develop skills to **effectively communicate** circular economy visions

Equipping you with the skills to **manage and lead** the circular transitions aspired to by many organisations and sectors

What and how will you learn?

The MSc Circular Economy interactive core course focuses on:

- **Visions** for circular futures across different scales, places and political landscapes
- Designing **innovative systems** which maximise value from material resources
- **Partnership working** with policy-makers, industry and communities to enhance circular transitions

Elective courses may include:

- Circular Economy in the Built Environment (led by School of Engineering)
- Waste Law in Circular Economy (led by Law School)
- Introduction to Life Cycle Assessment (led by Business School)
- Textile Revolution: Unstitching the Linear (led by Edinburgh College of Art)

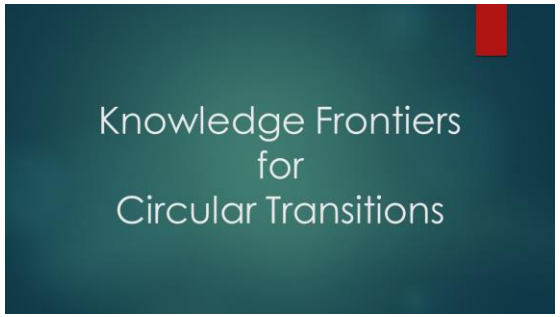
Supported personal learning journey

- Explore circular economy through **creative and material spaces** using EFI's makerspace
- Engage with **cutting edge research** from interdisciplinary circular economy specialists
- Work with **circular economy practitioners** from industry, policy and circular communities
- Develop and enhance your personal learning objectives through your **Futures Project**

Who will you learn with?

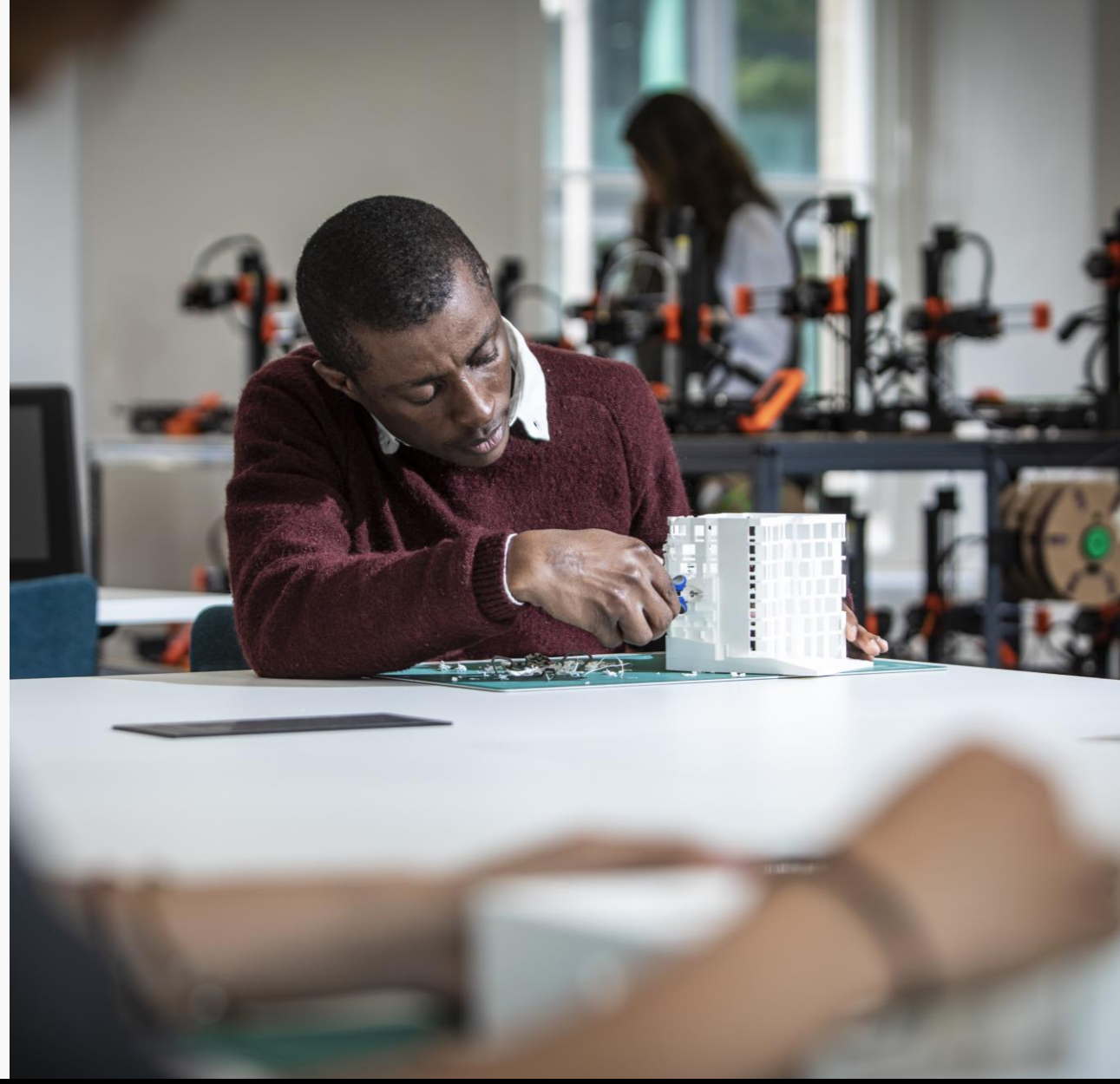
Circular Economy at EFI is a growing learning community with opportunities for students to meet, learn and work with others navigating their own circular economy journey

- International interdisciplinary **seminar series** with leading researchers
- **Guest Lectures** from circular economy leaders in business, third sector and policy
- Opportunities to access to professional **networks**
- Developing **Alumni** network of CE graduates



Future Infrastructure, Climate Change and Sustainability

Professor Sean Smith
School of Engineering,
Centre for Future Infrastructure



- Tackling the **major challenges** facing global **societal & related infrastructure** is essential.
- Together we will develop the **inter-disciplinary understanding crucial** to creating impactful resilient solutions.

The quickening need for 'Manhattan Project #2' process for climate emergency response

The Scale

The scale of infrastructure changes and retrofit programme may appear daunting but also provides the opportunity for transformational approaches to how we enable processes and delivery to meet the needs of current and future generations.

11 million homes per annum for 2050 targets. Unlike previous individual country economic and environmental approaches the global synergetic demand for low carbon project works by so many countries in parallel suggests that previous route map processes to delivery are unlikely to prevail. Both Italy and Germany identified this issue, even before the current

Above

Complexity and bespoke nature of non-domestic retrofit even for buildings constructed during the last decade

© Sean Smith

Aims of the programme

To tackle some of the **key future challenges** of climate change on **future infrastructure, society's needs, government policy and industry delivery.** From addressing carbon emissions and net zero targets, to accelerating beyond such targets and material resource constraints the course provides critical insights to sustainable infrastructure needs.

- To understand the role of infrastructure (current and future) for governments, public sector, industry and society in the delivery of climate change adaptation, mitigation and resilience for urban, rural and coastal areas.
- To analyse increasing demand and supply factors, the pressures on water systems, food and environment and future sustainable development
- To understand the critical role of data in infrastructure needs and future planning

Related career paths and sector interests

- UN, World Bank, AIIB
- Multinational Companies
- Private Sector Consultancies
- Public & Municipality Authorities
- Banking & Investment
- Economists & Actuary
- Legal Services and Legislative
- Government Policy / Advisory
- NGOs

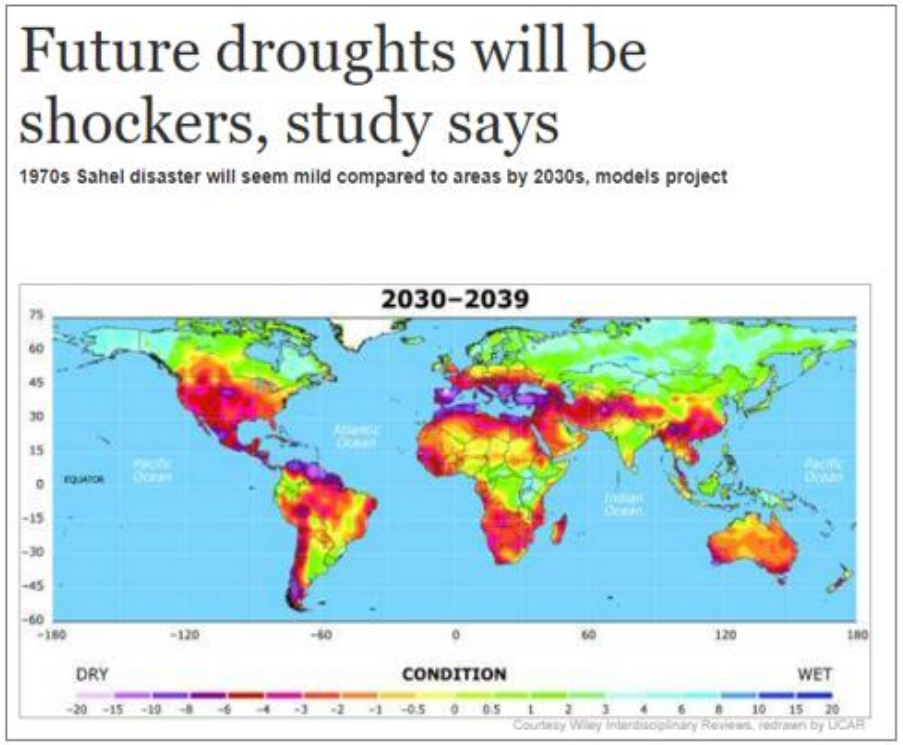
- Social Sciences & Policy
- Infrastructure Planners
- City & Urban Planners
- Environmental Science
- Environmental Engineers
- Data Analysts
- Civil Engineering
- Technical Directors

Other areas include:
(Architecture / Technologists / Geoscientists / Strategic Advisory Roles / Risk Analysts / Insurers / Resilience & Adaptation Experts)

Future drivers...

Image sources: BBC

Future drivers...



Sustainability – Net Zero – Circular Economy – Embodied Carbon – Transport – Food & Water – Resilience – Adaptation Energy – Multi-disciplinary

Source: Getty Images

MSc outline

MSc core course

- Future infrastructure & climate change challenges
- Future infrastructure, policy & innovations

EFI core courses

- Understanding the climate change challenges
- Data ethics
- Other data related courses

Elective courses

- Net zero infrastructure
- Energy and society
- Transport and society
- Urban project
- Future food systems

Plus many other electives available across EFI.

This is a provisional list of electives and will be confirmed before the start of the academic year

Core courses

Future Infrastructure Climate Change Challenges

The scale of change, required resilience measures and adaptions to come provides students with a strong understanding of the future challenges.

Impacts on society, environment, food and related infrastructure will impact all countries and students will have the opportunity to analyse the complexity and interdisciplinary approaches required.

Infrastructure Innovations and Policy

Involving conceptual, emerging and specific major innovation drivers will allow students to explore the inter-relationship of solutions and technology readiness levels.

Importantly the role of future policy, regulation and impacts on society will allow students to have a holistic approach to direct and indirect outcomes of such changes.

Teaching staff and external experts

- UoE teaching staff involved bring a wide range of expertise having engaged with **over 40 countries** through projects across **Europe, Middle East, South America, North America and Asia.**
- As **lead advisors to government departments, international organisations and multi-national companies** they bring a wealth of experience and understanding to the complex climate change, society and infrastructure challenges.
- **Guest lectures from leading international experts** will enhance the course content bringing previous and live issues they have tackled or are addressing currently and planning for the future.

Sustainable Lands and Cities

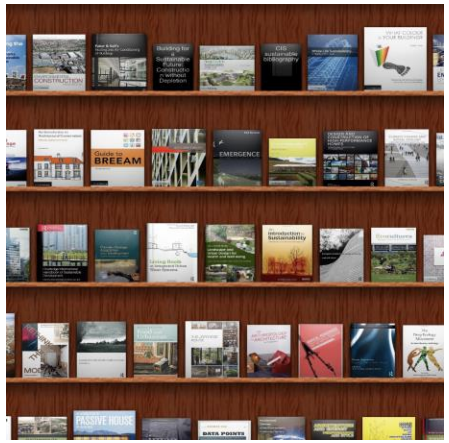
Dr Kirsteen Shields
Global Academy of Agriculture and Food Systems

Professor John Brennan
School of Architecture and Landscape Architecture (ESALA)

MSc Sustainable Lands and Cities: **Addressing Sustainable Challenges**

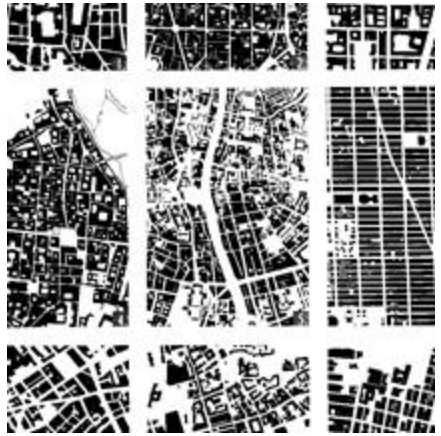
information overload

how do we find what's relevant to plot a path to resilient sustainable strategies?



the ever evolving city

how can we and our infrastructures keep up with cities and countrysides in cycles of rapid change



context is all

every urban and rural context is different; how to move from generic indicators to focused solutions?

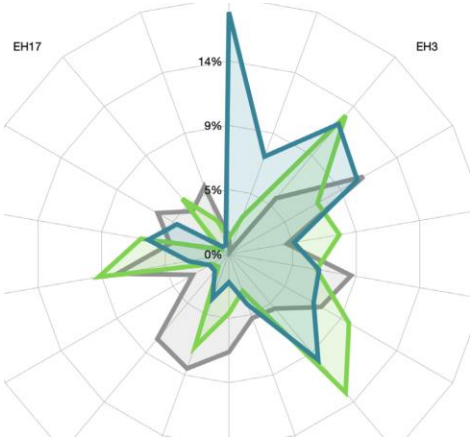
fundamentals of land

understanding how land is owned and controlled underpins any kind of sustainable development

MSc Sustainable Lands and Cities: **Acquiring Expertise**

data analysis

master diverse datasets to understand complex urban environments.



systems thinking

deploy systems analysis to engage with multi-stranded urban challenges

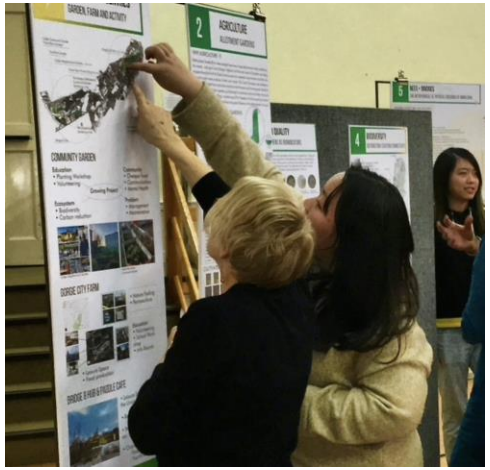
image: Wenze Gu, Liang Wang, Xiaoxiao Fan, Kübra Tanrıkulu

interrogating place

understand how cultural, physical and data infrastructures affect our cities and rural places.

understanding community

learn how communities construct themselves and can become vehicles for sustainable development.



MSc Sustainable Lands and Cities: **Create Sustainable Strategies**

data to strategy

use data to underpin sustainable strategies in the city image Dennis Macaria

unlocking wicked problems

create sustainable strategies for change that embrace complexity and paradox

intervening in place

deploy cutting edge design strategies for adaptation, rewilding and making resilient communities

image Zoe Watters Joshua O Mahoney Richard Beer Ho Kwan Leung

enabling community

use design techniques to empower communities to define and imagine their land and settlements.

MSc Sustainable Lands and Cities: **Our Curriculum**

Envisioning Sustainability C
fundamentals of sustainability for our lands and cities

Eco Cities E
understanding what eco city can really mean

Data Mobility and Infrastructure E
work with data to understand mobility in the city

this is a provisional list of electives and will be confirmed before the start of the academic year

Evaluating Sustainability C
data fundamentals to understand our lands and cities

Land Community Power E
ownership & community for sustainable development

A Systemic Approach to Sustainability E
tools to intervene in complex urban systems

EFI Electives E
choose electives across EFI to support your learning portfolio

Our Staff Disciplines

- Urbanism
- Law
- Business Studies
- Environmental Science
- Architecture+Design
- Data Science
- Community Engagement

bring your learning together in your Sustainable Lands and Cities Futures Project

MSc Sustainable Lands and Cities: **Future Careers**

You will be able to work collaboratively to create and execute sustainable strategies. You can acquire cross-disciplinary skills and understanding to support decision making in complex environments. You will have a range of career opportunities available, both for existing professionals and newer entrants to the job market:

Public and Voluntary Sector Organisations

Public, Third Sector and Non-Profits plan for the future in response to sustainable development goals. You will be able formulate strategy and tools to achieve targets for resilience and sustainability.

Environmental, Spatial & Community Consultancy

Work with multidisciplinary organisations using the skillsets you assemble in this programme. Often urban and rural projects are complex in nature and the ability to work with data sets is valued by employers

Develop within your own field

Graduates already in their professional roles will be able to work within their existing fields but with a specialism in sustainable development. Examples include planning, engineering, design, project management, the environmental sciences, public administration, law and advocacy.

Questions?

- for further queries contact: **efi.education@ed.ac.uk**
- visit the EFI website: **https://efi.ed.ac.uk/study/postgraduate**
- search for '**Edinburgh Futures Institute**' on our degree finder: **https://www.ed.ac.uk/studying/postgraduate/degrees**

Join us to **challenge**, **create**, and make **change** happen.