Presentation by

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Sustainability, Curriculum and Academics in Higher Education





Sustainable Development and Planning

- "Planners, environmentalists, architects, engineers, policy makers and economists have to work together in order to ensure that planning and development can meet our present needs without comprising the ability of future generations"
- "...interaction between different regions ...developing new methodologies for monitoring ...planning and implementation of novel strategies ...mitigating environmental pollution ...sustainable use of available resources"
- "SD and P 2017 will bring together academics, policy makers, practitioners and other stakeholders from across the globe to discuss the latest advances in the field, ...new academic findings and their application in planning and development strategies, assessment tools and decision making processes"

These processes must form part of the education of practitioners of the future



Session overview

- Why is sustainability in the HE curriculum important?
- What are we trying to do and how are we going about it?
- How can we support academics in this process?
- What has the impact been?

Key lessons: Flexibility, support and persistence



Why is sustainability in the HE curriculum important?

- Education for sustainable development
- Research and knowledge creation
- Influencing others
- Common purpose (internal and external)
- Institutional alignment?
- Purpose for being?



The role of progressive universities in the global knowledge economy









SDGs and HE

Selected connections:

SDG8

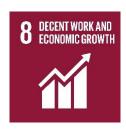
- HEIs as places of work
- HEIs as producers of future employees
- HE as a generator of economic activity

SDG9

- Research is about innovation
- HEIs have access to intelligence, creativity, dedication and enthusiasm

SDG17

- HEIs work within their locations/regions
- HEIs bridge private and public sector
- HEIs and their Students' Unions











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Strategy 2020 ambition

To be a university recognised for the success and impact of our professionally-recognised and practice-oriented programmes; our strong industry networks and connections; our agile ways of working; and our inclusive and global outlook and approach.



ESD ambition

To ensure that a sustainability culture permeates our curriculum, research and the knowledge base and behaviour of our staff and students



Key actions to support progress

- Annual meetings
- Monthly meetings with internal KE group
- Ad hoc meetings
- Annual reporting
- Surveys
- Observation

Formal

and

Informal



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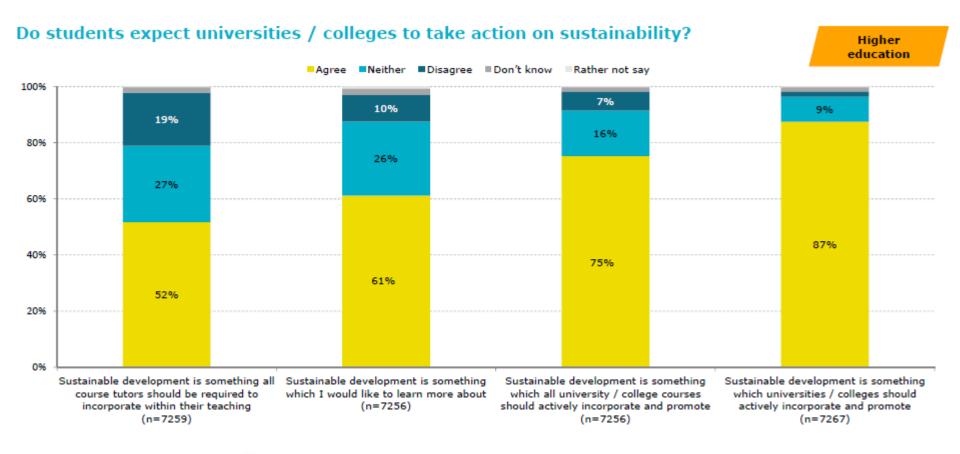


Academics, curriculum and sustainability

- Enthusiastic for principles
- Often already doing relevant work (knowingly or otherwise!)
- Psychological barriers include insecurity and academic anxiety
- Lack of time and perceived lack of demand are also relevant



Student demand



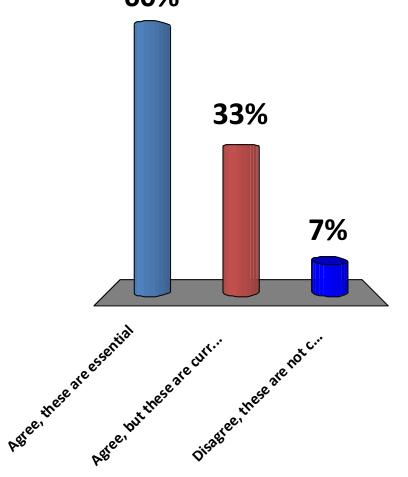




Skills demand/employability

New graduates in my sector need sustainability knowledge and awareness of sustainable professional practice. 60%

- A. Agree, these are essential
- B. Agree, but these are currently desirable rather than essential
- C. Disagree, these are not currently a significant feature of employment in my sector.



What are we doing to support academics to further progress?

Commitment Resources

Staff resource Staff development

Engagement QMEF

Partnerships Reporting

Students Celebrating

Networks Setting tasks...



Our SDG ambition

To undertake conscious and meaningful assessment of the alignment between the activities and actions of the institution and the UN Sustainable Development Goals



How have we begun to assess UWE's contribution to achieving the SDGs?

Defining priorities

Strategy 2020 **Sustainability Plan**

ISO 14001

Setting goals

ISO 14001

Risk register **Sustainability Plan**

Strategy 2020

Own goal setting

Integrating

Internal and external presentations Roles and responsibilities

Terms of reference and reporting

templates **Graduate attributes**

Working with others

Internal and external reporting **Standards**

Sharing and listening

Reporting and

communicating



SDGs mapping: Outcomes and outputs









































Supporting staff

No quick wins!

- Non-obligation and flexible deadlines
- Provision of templates, examples and guidance
- Allowing local interpretation of task
- Personal support from institutional lead and peers



SDGs mapping: Prompt questions

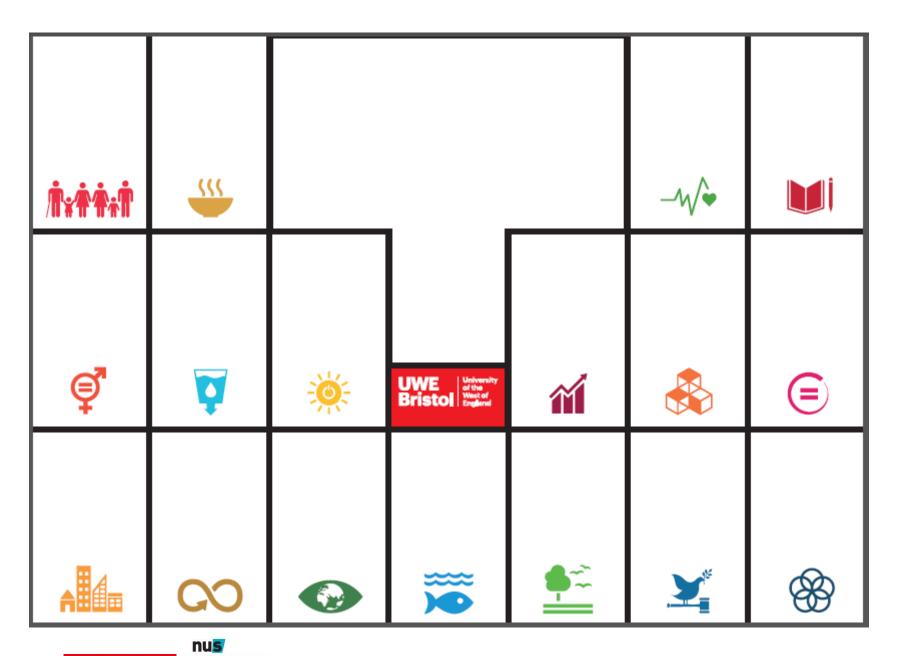
- Where/how do constituent modules offer students the opportunity to learn about issues aligned to sustainable development (SDGs and their associated targets)?
- Is consideration given to the ways in which these issues are relevant to the discipline and its associated professions?
- How might professional practice be influenced/ affected by measures introduced to mitigate against issues such as inequality and climate change?



SDGs mapping: Prompt questions

- How are students prepared for becoming future-facing and globally responsible during the course of the programme?
- How are approaches to teaching and learning which align to ESD incorporated into the programme (QAA-HEA ESD Guidance)?
- Consider the formal and informal curriculum: The whole student experience









Human Geography

Which of the issues represented in the SDG targets are core to the Human Geography programme?

Which modules are most focused on issues of relevance?





esilience of the poor evels for poverty eradication

Environmental Management in the Global South Rural Change and Development International Tourism Development and



BA (Hons) Geography

Issues of relevance

Place in Undergraduate Programme

AND WELL-BEING



GOOD HEALTH

Management of global health risks Good quality and affordable universal health

EDUCATION



Sustainable lifestyles Role of education in en

Geographies of Globalisation
International Tourism Development and

EOUALITY



Equitable access to resources

CLEAN WATER AND SANITATION



AFFORDABLE AND



DECENT WORK AND ECONOMIC GROWTH



Sustainable economic development Sustainable management of tourism Global trade systems and agreements Equitable employment markets for all Entrepreneurship, creativity and innovation

Modules: Transforming Cities Geographies of Globalisation Environment Society, Youth and Ageing

INDUSTRY, INNOVATION AND INFRASTRUCTURE



INEOUALITIES



Responsible migration and movement of people Policy development for equal opportunities and Equal access to resources Climate justice

Geographies of Globalisation Migration, Policy and Society Environment

SUSTAINABLE CITIES AND COMMUNITIES



RESPONSIBLE CONSUMPTION **AND PRODUCTION**



Impacts of rapid technological and econo development and globalisation



change National and international strategies and policy relating to climate change

mouries. Environmental Challenges Renewable Energy International Tourism Development and

LIFE BELOW WATER

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of the

marine protected areas Environmental systems and processes Ecosystem and biodiversity values

Geographies of Globalisation Geographies of Security



16 PEACE AND JUSTICE STRONG INSTITUTION STRONG INSTITUTIONS



Debates on youth unemployment and crime Planning for issues such as border security, exploitation, trafficking and abuse Participatory and representative development

Society, Youth and Ageing Migration, Policy and Society PARTNERSHIPS FOR THE GOALS



Contemporary challenges posed by

Stakeholder partnerships and capacity building Public-private and civil society partnerships

Geographies of Globalisation International Tourism Development and Transforming Cities

Architecture

Which modules of the architecture programmes deliver learning relevant to the SDGs?



NO POVERTY **M******* ZERO Hunger

BA (Hons) **Architecture & Planning** GOOD HEALTH AND WELL-BEING



QUALITY EDUCATION



Healthy Sustainable Communities (Level 1) Collaborative Practice (Level 3.1)

REDUCED INEQUALITIES

nning Global Cites (Level 3)

GENDER EQUALITY





CLEAN WATER AND SANITATION



RESPONSIBLE CONSUMPTION **AND PRODUCTION**





13 CLIMATE ACTION





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Collaborative Practice (Level 3.1) Planning Global Cities (Level 3.1) Agency project (Level 3.2)



Planning Global Cities (Level 3.1)





Planning Global Cities (Level 3.1)



Agency Project (Level 3.2)

ZERO Hunger



BEng (Hons) Architecture & Environmental Engineering

GOOD HEALTH AND WELL-BEING



Modules: Building Physics & Services (Level 1) Engineering Buildings for Use (Level 3.1)



Modules:
Building Physics & Services (Level 1)
Engineering Buildings for Use (Level 3.1)
Collaborative Practice (Level 3.1)
Energy Management & Performance
Evaluation (Level 3.2)

GENDER EQUALITY



Collaborative Practice (Level 3.1)





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Modules: Collaborative Practice (Level 3.1)



Strategic Design & Energy Simulations (level 3.1) Studio 2 (Level 2)



Building Physics & Services (Level 1) Engineering Buildings for Use (Level 3.1)



Building Physics & Services (Level 1) Strategic Design & Energy Simulations

RESPONSIBLE CONSUMPTION **AND PRODUCTION**



Modules:
Building Physics & Services (Level 1)
Strategic Design & Energy Simulations
(level 3.1)



Boulding Physics & Services (Level 1)
Technical Studio 1 (Level 1)
Studio 2 (Level 2)
Design & Engineering Studio 3 (Level 3.1)

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Connections still under consideration



Connections still under consideration

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Live Project s (extra curricula)

Construction

Which issues represented in the SDG targets are included in Quantity
Surveying and Construction Property
Management programmes?

Which modules are most focused on issues of relevance?



NO Poverty



ZERO Hunger



BSc (Hons) Quantity Surveying & Commercial Management / BSc (Hons) **Construction Project** Management

Issues of relevance

Place in Undergraduate Programmes

GOOD HEALTH AND WELL-BEING



Human health and built environment related to construction design and use of appropriate technologies and site health and safety.

QUALITY EDUCATION

EOUALITY



CLEAN WATER AND SANITATION





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economic growth and support for professional development of students on placement or in the

Level 1 Law, Economics and Management; Leve

AND INFRASTRUCTURE



INEOUALITIES



AND COMMUNITIES



RESPONSIBLE CONSUMPTION **AND PRODUCTION**





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Operation of UK legal system in general and in context of commerce and professional ethics.

Level 1 Law, Economics and Management; Level 2
Procurement and Contract Practice, Professional



based on collaborative professional understanding and partnerships

Level 3 Collaborative Practice.

Public health

In what ways does the Public Health programme at UWE Bristol connect to the ambitions of the UN SDGs?



1 NO POVERTY



Course considers the global burden of disease with research being used to highlight inequalities in health outcomes. Distribution of causes of death and relationship to diet are also explored.

2 ZERO HUNGER

Epidemiology module includes focus on food and nutrition.

Sustainable Development Goals and Public Health (MSc)

The Public Health programme is designed from an ecological/health promotion approach. Many issues related to the Sustainable Development Goals (SDGs) are introduced and explored at multiple points in this programme as described below.

3 GOOD HEALTH AND WELL-BEING



Health and well-being are the raison d'être of the whole public health programme. Further, there is a focus on social justice, capacity building and working with communities, all components of the store.

4 QUALITY EDUCATION



The importance of including health awareness in early education is discussed in in early education in discussed in the programme. There is also discussion of now hard to reach groups might be targeted through education. The Marmot Review evidence-based strategies for reducing health inequalities is discussed during the course. The inequalities is discussed during the course. The discussed during the course in the course of the cours

5 GENDER EQUALITY



Inequalities of all kinds are explored in the programme, including in relation to gender. This topic is also frequently chosen by students as a focus for their dissertations.

6 CLEAN WATER AND SANITATION



A module on health protection includes specific reference to the importance of clean water in relation to communicable disease. Water is also implicitly relevant to determinants of health discussed in a ther modules.

7 AFFORDABLE AND CLEAN ENERGY



Energy is not currently explicitly considered in this programme.

8 DECENT WO



Issues related to socio-economic health inequalities are discussed in this programme, including links between levils of sconomic development and health. In particular, the relationship between previous models of economic development, with rapid in creases in industrialisation, and public health issues such as all repullation are investigated. Condiversation is made of ways in which currently underdeveloped regions and nations might develop in ways which are less environmentally and therefore health

INDUSTRY, INNOVATION AND INFRASTRUCTURE



Issues of industry are not explicitly considered in this programme. Health related innovation and infrastructure are discussed implicitly. Further, impacts of motorisation on health and safety are explored.

10 REDUCED INFOLIALITIES



The theme of inequality is explored in module including introduction to Public Health, Health Promotion, Epidemiology and Public Health Policy and Politics, among others.

11 SUSTAINABLE CITIES



Consideration is made of differences in health outcomes between urban and rural areas. Interdisciplinary teaching activities are facilitated between the health discipline based academics and academics from the Faculty of Environment and Technology, Impacts of

RESPONSIBLE CONSUMPTION AND PRODUCTION



Components of this goal are covered explicitly in the public health programme, Food, including consideration of food waste, is referenced at many points in the programme. Further, the impact of chemicals and waste on air, soil and water, and ultimately public health are explored in detail. Provision of information related to the promotion of good public health is core to this

13 CLIMATE ACTION



Changing climate is referenced in this programme in the context of potential implications for the spread of communicable disease. Further, measures which may be required to protect public health in the event of increased frequency

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isues related to life below water are no urrently included in this programme.

15 LIFE



PEACE AND JUSTICE STRONG INSTITUTIONS



Issues of migration are referred to in this programme in the context of the importance of government policy on public health (direct and indirect.) The U.F Public Health Outcomes Framework 2013-2016 is analysed and the role of the World Health Organisation is explored. As such, components of SDG 16 are considered in this covernment.

17 PARTNERSHIPS FOR THE GOALS



The role of the World Health Organisation in public health is explored implicitly throughout this programme. The need for training public health is explored implicitly throughout this programme. The need for training public health professionals in achieving these objectives is also discussed and such professionals are produced by the programme. The necessary competencies of such professionals are considered, and these inform the programme structure.

Information Technology

Which of the issues represented in the

SDG targets are included in the IT

Management for Business

programme?

Which modules are most focused on

issues of relevance?





IT enabling access to resources e.g. financial services, land registries and

Induction Sustainable Technology tean

UFCF6X-30-2 eBusiness UFCFP6-30-3 The Information Practitioner 3 and 6 other modules



BSc(Hons) Information Technology Management for Business (ITMB)

Issues of relevance

Place in the ITMB Programme

GOOD HEALTH



UFCFP6-30-2 The Information Practitioner 3
UMSDT7-15-3 Strategic Management
And 7 other modules



ITMB students have extensive learning in Entrepreneurship. Importance of lifelong learning in information systems. Changing nature of skills. Broadening access to education through online learning.

UMSD87-15-3 Business Innovation and Growth UFCF6X-30-2 eBusiness **UFCFP6-30-3 The Information Practitioner 3** And 10 other modules



Learning about leadership, gender and diversity. Role of IT in enabling work equality e.g. working from home

UFCF6X-30-2 eBusiness UFCFP6-30-3 The Information Practitioner 3 UMSD7T-15-3 Strategic Management UMOD6F-15-3 Organisational Leadership And 7 other modules

CLEAN WATER



AFFORDABLE AND





Impact of technology on work. Role of entrepreneurship in creating work and growth.

UMSD87-15-3 Business Innovation and Growth UFCFAS-15-3 Information Networks and Society UFCFE6-15-3 Professional Experience And 15 other modules

INDUSTRY, INNOVATION AND INFRASTRUCTURE



Guru lectures on areas of IT driven innovation. Role of IT in disrupting old business models and creating new value. Importance of IT infrastructure in enabling

UMSD7T-15-3 Strategic Management UFCF6X-30-2 eBusiness



Key Issues raised by ICTs that give rise to ethical concerns. Impact of disruptive technologies on wealth distribution. Precarious work. Use of IT to widen equality of opportunity.

UMSD7T-15-3 Strategic Management UFCFB5-15-3 Ethical and Professional Issues in Computing and Digital Media
And 7 other modules

SUSTAINABLE CITIES AND COMMUNITIES



RESPONSIBLE CONSUMPTION AND PRODUCTION



UFCF6X-30-2 eBusiness
UFCFP3-30-1 Business Applications
UFCFP6-30-3 The Information Practitioner 3
and 9 other modules



for 20% of GHG reductions by 2030). Reducing the carbon footprint arising from IT use of electricity (about 3% of global GHG

Modules: Induction Sustainable Technology team project UFCF6X:30-2 eBusiness UFCF96-30-3 The Information Practitioner 3 and 7 other modules

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of the



Responsible management of eWaste to sensing for fisheries management /

Induction Sustainable Technology team project and 6 other modules



IT in sharing benefits of genetic resources. Remote sensing for conservation.

Modules: Induction Sustainable Technology team project UFCF6X-30-2 eBusiness UFCFP6-30-3 The Information Practitioner 3 and 6 other modules

16 PEACE AND JUSTICE STRONG INSTITUTION



Social consequences of technological cybercrime. Socio-technical hybrid nature of information practice.

UFCFA5-15-3 Information Networks and Society UFCFB5-15-3 Ethical and Professional Issues in Computing and Digital Media UMODDP-15-1 Understanding Organisations and

people And 12 other modules



Ability to adapt to different academic and cultural settings. Technology sharing and cooperation. Role of the Technology Bank

and 9 other modules

UFCFWJ-15-3 International Experience UFCF6X-30-2 eBusiness UFCFP6-30-3 The Information Practitioner 3

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Evidence of progress

- What are we asking?
- What are we measuring?
- What are we looking for?
- What are others looking for?

Explicit engagement with/ awareness of SDGs



Outcomes of SDGs mapping

21 programmes/discipline areas already engaged

120 staff contributing information

10 discipline maps produced to date

Too many new ideas and projects to



Outcomes (esp. of SDGs mapping)

- Exciting times!
- Enthusiastic staff
- Curriculum development
- Distributed responsibility
- New ambitions related to outcomes



New ambitions

- Skills, experiences and PBL
- Graduate attributes
- Explicit in documentation
- Student knowledge and attitudes
- Alignment across institution
- Measuring impact?



ANY QUESTIONS?

Please see also our SDG map display

Thank you!

