SDG Curriculum Mapping at UWE

Presentation by

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https://uwe-repository.worktribe.com/output/9912189/uwe-bristol-and-the-sustainable-development-goals-sdgs-programme-mapping-portfolio

Aberystwyth University
Learning and Teaching Enhancement

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Overview

- Why SDG mapping: Means? End(s)?
- Context
- Who
- Process
- ‘Results’/ outputs
- Competence and assessment
- Next steps

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Why SDG Mapping?

UWE

- Long and successful history of engagement with sustainability
- Research-informed teaching: Strength in sustainability-related research
- 'Practice, promote and influence sustainability'
- Whole institution engagement

Staff

- Meaningful work and impactful teaching and research
- KESE (Knowledge Exchange for Sustainability Education)

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SDGs: Global agenda

Why should we do this mapping?

- Enables demonstration of conscious reflection of practice
- Validates professional nature of our activity
- Enables us to be satisfied with our processes for minimising negative impact
- Promotes reflection on purpose, usefulness, impact and legacy
- Is our current performance good enough? Identification of opportunities for development/ enhancement
- Consideration of new opportunities for funding and partnership/collaboration (internally and externally)
- Supports development of new forums/ communities/ networks/ partnerships/ collaboration/ friendships

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SDG Mapping at UWE

- Whole institution
- Programmatic focus
- Led by staff reps
- Contributions from students
- 80+ maps

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Who

- ESD lead and subject champions
- Programme leaders
- Programme teams
- Student reps
- Interested students

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Overcoming challenges

- Multiple institution and sector agendas
- Time-poor staff
- Assessment-driven students
- Limited/unknown levels of understanding of sustainability
- Variable/unknown levels of existing activity
- Relatively limited formal responsibility for sustainability

PRAGMATISM NEEDED!

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Process

- Just start!
- Allow localisation and variety of interpretation
- Provide examples
- Set ‘deadlines’
- Celebrate and shame!

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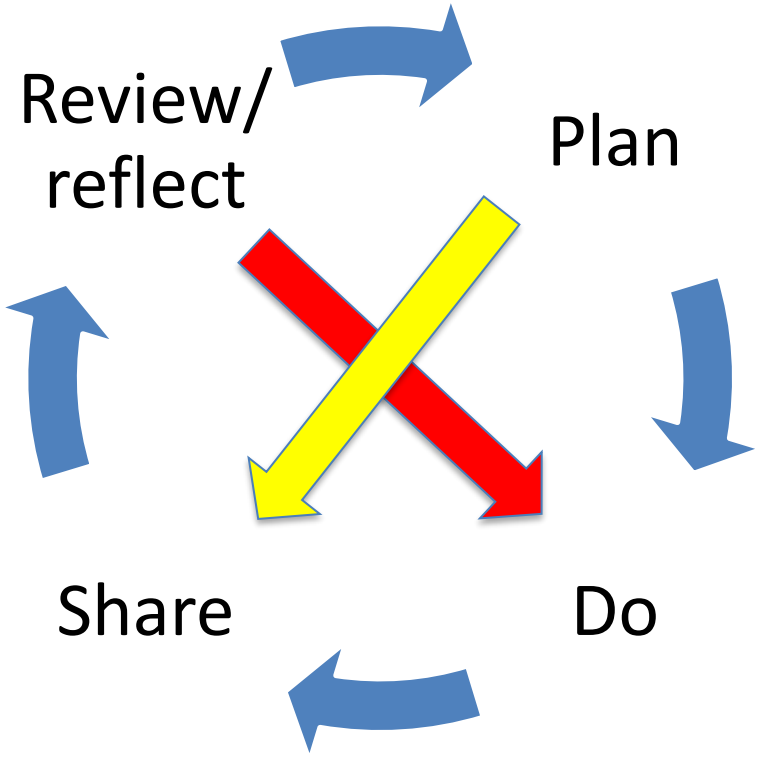
SDG Mapping Phase 1

- Defining the task
- Finding 'local' meaning
- Using staff 'champions'
- Building capacity
- Working together
- Working with students
- Sharing externally



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How?

- Meetings/workshops
- Desk-based work
- Surveys
- Timing
- Make it easy
- Don’t be the expert
- Start with ‘why’

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Evaluating impact:

Outputs and outcomes

- Portfolio of 'maps'
- New teaching activities and assessment
- New modules
- Cross-disciplinary work
- Intrinsic reward
- External recognition

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Evaluating impact:
Metrics

- 6 years
- More than 80 maps
- Over 200 members of staff, nearly 50 members of The Students' Union at UWE and more than 400 students have contributed to the creation of the maps and curriculum changes undertaken
- Students on programmes which are benefitting from these curriculum enhancements number more than 10,000

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Evaluating impact:

Engagement

- Interest
- Activity
- Enquiry
- Discussion
- Attendance
- Motivation
- Demand
- Support
- Contribution
- Pride
- Joy
- Satisfaction

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BSc (Hons) Biological Science

Issues identified in the programme | *Place in the programme*

1 NO POVERTY

- Sustainable development linked to environmental issues particularly climate change risks, population growth, human health in response to heat and stress, disease, vulnerability, ecosystem services and economic progress. Scientific enterprise and innovation within business enterprise.

- *Level 2 - Ecology and Ecosystem Protection, Microbial Life; Human Health and Disease; Human Physiology*
- *Level 3 - Scientific Frontiers and Enterprise; Cell Signalling and Disease; Pathophysiology; Marine Ecosystems; Global Forest Systems; Sustainable Food Production; Physical Activity, Nutrition and Health*

2 ZERO HUNGER

- Ecosystem services; vertical farming; biofuels; genetic technology; local farming; organic farming; livestock impacts and cellular agriculture, legume biotechnology and carbon farming; climate change impacts on crop growth, pests and diseases; GM; food quality and waste; sustainable forest practices; sustainable fisheries management.

- *Level 1 - Human Anatomy and Physiology*
- *Level 2 - Ecology an Ecosystem Protection; Microbial Life; Human Health and Disease; Human Physiology; Wildlife Ecology*
- *Level 3 - Sustainable Food Production;*
- *Global Forest Systems; Marine Ecosystems; Physical Activity, Nutrition and Health; Cell Signalling and Disease; Pathophysiology*

3 GOOD HEALTH AND WELL-BEING

- Human health and the environment; pollution pathways, impacts and prevention; sustainable agriculture, forestry and fisheries; climate mitigation; emerging and re-emerging disease; antibiotic resistance; antimicrobial agents and control of microbes; environmental toxicology.

- *Level 1 - Human Anatomy and Physiology*
- *Level 2 - Ecology an Ecosystem Protection; Microbial Life; Human Health and Disease; Human Physiology; Wildlife Ecology*
- *Level 3 - Sustainable Food Production;*
- *Global Forest Systems; Marine Ecosystems; Physical Activity, Nutrition and Health; Cell Signalling and Disease; Pathophysiology*

4 QUALITY EDUCATION

- Science skills; applied management skills; philosophy of sustainability; scientific enterprise and innovation within business.

- *Level 1 - Skills for Biosciences*
- *Level 2 - Research Skills*
- *Level 3 - Science Communication; Tropical Expedition; Scientific Frontiers and Enterprise; Professional Practice in Applied Sciences; Research Project*

5 GENDER EQUALITY

- Education; family planning; legislation and policy; human reproduction.

- *Level 1 - Human Anatomy and Physiology*
- *Level 2 - Human Health and Disease; Human Physiology*
- *Level 3 - Science Communication; Tropical Expedition; Physical Activity, Nutrition and Health; Developmental and Stem Cell Biology*

6 CLEAN WATER AND SANITATION

- Water catchments, local and global catchment systems; historical case studies of pollution; Waste water recycling research; Microbial fuel cells; Wetland and forest restoration. Water and human health.

- *Level 2 - Ecology and Ecosystem Protection; Human Health and Disease; Human Physiology; Microbial Life*
- *Level 3 - Environmental Forensics; Global Forest Systems; Sustainable Food Production, Physical Activity, Nutrition and Health; Marine Ecosystems*

7 AFFORDABLE AND CLEAN ENERGY

- No single solution to climate/energy crisis. Scientific enterprise and innovation. Microbial fuel cells.

- *Level 2 - Microbial Life*
- *Level 3 - Scientific Frontiers and Enterprise*

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8 DECENT WORK AND ECONOMIC GROWTH

- Creativity and innovation; field trips and job market; scientific enterprise and innovation; emergence of a new class of entrepreneurial firms that are deeply immersed in science sectors such as biotech, life sciences, nanotech and energy.

- *Level 2 - Molecular Biotechnology*
- *Level 3 - Scientific Frontiers and Enterprise; Tropical Expedition; Sustainable Food Production*

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

- Climate change and economic development; planning and policy; carbon and energy; green economy; scientific enterprise and innovation; emergence of a new class of entrepreneurial firms that are deeply immersed in science sectors such as biotech, life sciences, nanotech and energy.

- *Level 1 - Skills for Biosciences*
- *Level 2 - Microbial Life; Molecular Biotechnology; Ecology and Ecosystem Protection; Research Skills*
- *Level 3 - Scientific Frontiers and Enterprise; Research Project; Science Communication*

10 REDUCED INEQUALITIES

- Sustainable development linked to environmental issues particularly climate change risks, vulnerability and economic progress. Scientific enterprise and innovation within business enterprise.

- *Level 2 - Human Health and Disease; Human Physiology; Molecular Biotechnology*
- *Level 3 - Scientific Frontiers and Enterprise; Tropical Expedition; Sustainable Food Production;*
- *Global Forest Systems; Physical Activity, Nutrition and Health; Cell Signalling and Disease; Pathophysiology*

11 SUSTAINABLE CITIES AND COMMUNITIES

- Climate change, planning and policy; carbon and energy; green economy; change matters; green capital and/or human health.

- *Level 1 - Human Anatomy and Physiology*
- *Level 2 - Ecology and Ecosystem Protection, Human Health and Disease; Human Physiology; Wildlife Ecology; Microbial Life*
- *Level 3 - Scientific Frontiers and Enterprise; Tropical Expedition; Sustainable Food Production;*
- *Physical Activity, Nutrition and Health; Cell Signalling and Disease; Pathophysiology; Environmental Forensics*

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- Food and farming; forestry, fisheries; waste management; local pollution; energy from waste, anaerobic digestion; biofuels; scientific enterprise and innovation within business enterprise.

- *Level 2 - Microbial Life; Ecology and Ecosystem Protection*
- *Level 3 - Scientific Frontiers and Enterprise; Sustainable Food Production; Global Forest Systems; Environmental Forensics*

13 CLIMATE ACTION

- Physical science, impact, vulnerability and adaptation; mitigation; energy technologies; land use change; agricultural and forestry interventions; resilience and risk; ecosystem services; Scientific enterprise and innovation. Microbial fuel cells.

- *Level 1 - Skills for Biosciences*
- *Level 2 - Ecology and Ecosystem Protection; Microbial Life Molecular Biotechnology; Research Skills*
- *Level 3 - Scientific Frontiers and Enterprise; Sustainable Food Production; Global Forest Systems; Environmental Forensics; Marine ecosystems; Tropical Expedition*

14 LIFE BELOW WATER

- Biogeochemistry; ocean acidification; marine ecosystems; marine waste disposal; micro-plastics; sustainable fisheries management; Cuba field trip.

- *Level 1 - Life on Earth; Skills for Biosciences; Cells, Biochemistry and Genetics*
- *Level 2 - Microbial Life; Research Skills Microbial Life; Research Skills*
- *Level 3 - Marine ecosystems; Tropical Expedition; Ecology and Ecosystem Protection; Wildlife Ecology; Environmental Forensics; Sustainable Food Production*

15 LIFE ON LAND

- Global biogeochemistry and nutrient cycling; wetland ecology; soils; ecosystems; agriculture; biodiversity loss; ecosystem functions and services; land management and restoration; agricultural technologies; zoology; Madagascar field trip.

- *Level 1 - Life on Earth; Skills for Biosciences; Cells, Biochemistry and Genetics*
- *Level 2 - Microbial Life; Research Skills*
- *Level 3 - Marine ecosystems; Tropical Expedition; Ecology and Ecosystem Protection; Wildlife Ecology; Environmental Forensics; Sustainable Food Production; Global Forest Systems; Primate Ecology and Conservation*

16 PEACE AND JUSTICE STRONG INSTITUTIONS

- Diversity, equality and inclusivity tutoring - "Increasing diversity in Science. Your role and responsibilities"

- *Ad/work - Scientific Advisor and Tutoring (SAT) programme*

17 PARTNERSHIPS FOR THE GOALS

Connections still under consideration

1 NO POVERTY

- Sustainable development linked to climate change risks, population growth, human health in response to heat and stress, disease, vulnerability, ecosystem services and economic progress.

- *Level 1 - Infection and Disease; Biomedical Skills; Human Anatomy & Physiology*
- *Level 2 - Studies in the Biology of Disease; Pharmacology; Immunology; Medicinal Chemistry; Microbiology; Human Physiology*
- *Level 3 - Pharmacology & Toxicology; Antimicrobial Agents; Pathophysiology; Physical Activity, Nutrition and Health; Science Communication; Epidemiology and Public Health; Medical Technology and Enterprise*

2 ZERO HUNGER

- Genetic technology; pests and diseases; Food quality and waste; healthy diets; lifestyle choice; public health.

- *Level 1 - Human Anatomy and Physiology*
- *Level 2 - Studies in the Biology of Disease; Human Physiology*
- *Level 3 - Antimicrobial Agents; Pathophysiology; Physical Activity, Nutrition and Health; Pathophysiology; Science Communication; Epidemiology and Public Health; Medical Technology and Enterprise*

BA (Hons) Sociology

Issues identified in the program

7 AFFORDABLE AND CLEAN ENERGY

- Climate Change
- Carbon energy
- Peak Oil
- Renewable energy: policy, practice and politics
- Risk

- *Social Issues and Social Problems*
- *Comparing Cultures*
- *Sustainable Futures: Environment and Society in an Age of Crisis*

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16 PEACE AND JUSTICE STRONG INSTITUTIONS

- Environmental justice
- Diversity, inequality and justice
- Gender and sexual violence and harm
- Policing, criminal justice and power
- Family justice
- Critical perspectives on justice

- *Gender and Society*
- *Difference: Race, Ethnicity and Diversity in Contemporary Society*
- *Transgression*
- *Love, Intimacy and Family Life*
- *Sustainable Futures: Environment and Society in an Age of Crisis*
- *Protest, Policing and Public Order*
- *Contemporary Critiques of Modern Society*

17 PARTNERSHIPS FOR THE GOALS

- Governance for sustainability
- Public engagement and civic participation
- Digital and visual communications and organisation
- Student volunteering
- Student placements

- *Sustainable Futures: Environment and Society in an Age of Crisis*
- *Seeing and Society*
- *Digital Media and Society*
- *Developing Self and Society*
- *Placement Module*

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8 DECENT WORK AND ECONOMIC GROWTH

UPNN6E-30-2: Workplace learning partnerships are under development for L2 non fiction. These will allow students to recognise and cultivate transferable skills and prepare them for employment.

UPNN6C:30-1:
The role of creativity and its importance across different sectors (business and industry as well as the arts) is explored in Creative Practice.

UPNN6G-30-2:
This module is delivered in partnership with commercial organisations including Babcock International, John Wainwright & Company Ltd and Anthem Publishing, as well as providing credit towards the Institute of Leadership and Management Diploma.
UPNN6L:30-3, UPNN6M-30-3 & UPNN6P-30-3: Industry expectations and the flexible skills needed to flourish in the creative industries – whether as a freelance or employed worker – are embedded throughout all 3 levels of the course, but especially at Level 3.

UPNNA5-30-3: The placement module gives students hands-on experience of the workplace, which they can then use to inform their work in their other modules at Level 3.

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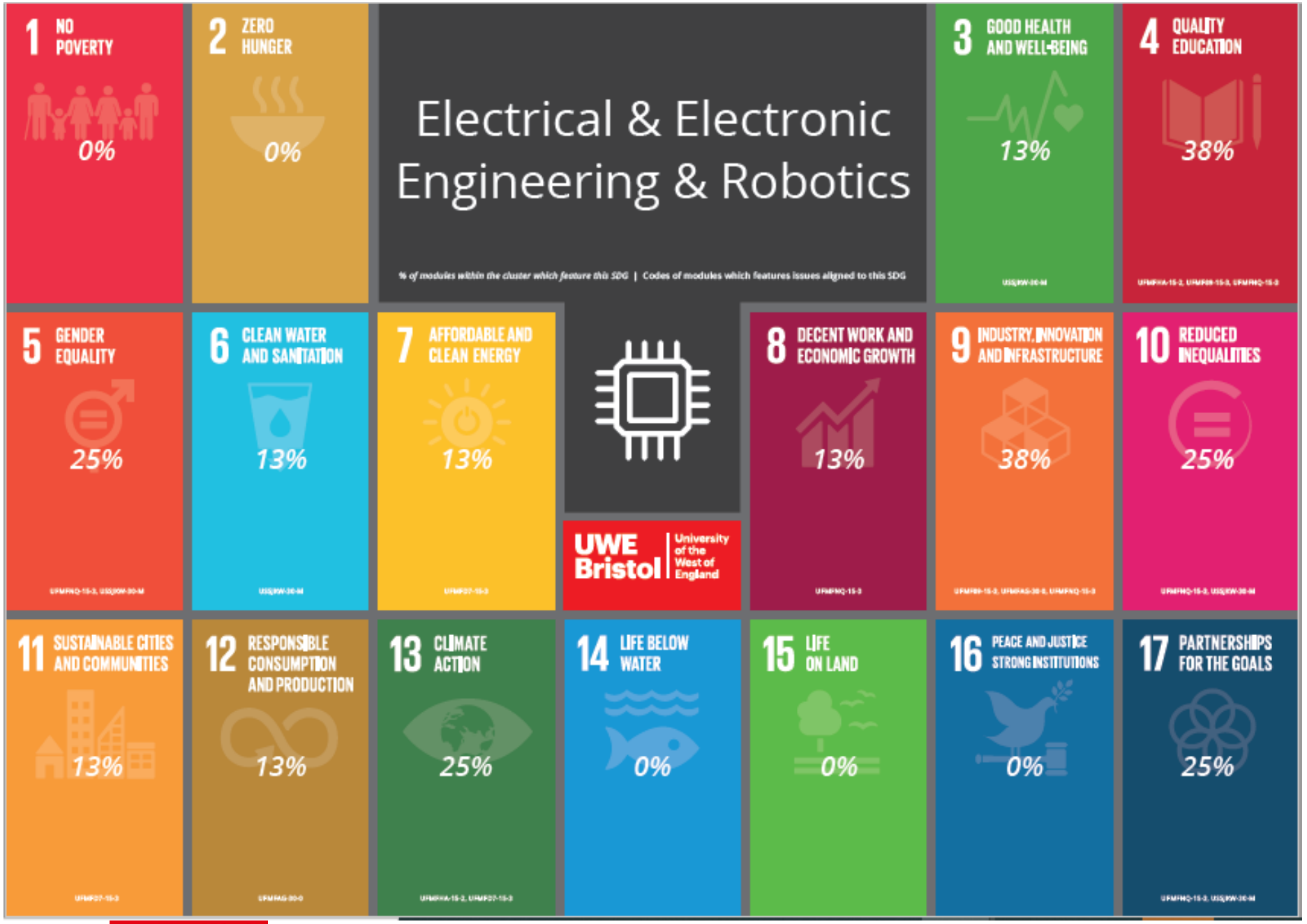

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MSc Data Science

Issues identified in the programme | *Place in the programme*

1 NO POVERTY

- Data science in support of creation of policy frameworks. Access to Technology and Financial Services.
- *Coursework may use data sets on indicators of poverty and deprivation, including household surveys.*

2 ZERO HUNGER

- Support for food systems, agricultural productivity and regulation of commodity markets. Identify risks of poor nutrition.
- *Coursework may use data sets on Diet and Nutrition.*

5 GENDER EQUALITY

- Use of enabling technology, in particular ICT, to promote the empowerment of women. Design to end discrimination.
- *UFCE8J-15-M, UFCFJJ-15-M*

6 CLEAN WATER AND SANITATION

- Support water resource management and ecosystems analysis.
- *Coursework may involve analysis of water quality and water resource data sets.*

7 AFFORDABLE AND CLEAN ENERGY

- Carbon footprint arising from IT use of electricity (about 3% of global GHG emissions). Imperative to decarbonise IT.
- *UFCFLR-15-M, UFCFKJ-15-M*

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8 DECENT WORK AND ECONOMIC GROWTH

- Support resource efficiency improvement and economic productivity. Supply chain analysis to eliminate modern slavery.
- *UFCFMJ-15-M, UFCFWQ-45-M*

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Corporate Governance Module

At all times, Corporate Social Responsibility (CSR) aspects are balanced against corporate governance requirements and the expectations of the core stakeholders in terms of profit generation against those of external stakeholders of long-term sustainability.

1 NO POVERTY

Part of corporate social responsibility (CSR) is about looking how corporations can exercise their philanthropic discretion as corporate citizens by contributing to the betterment of the societies in which they exist. We look at this, in the module, by considering multinational corporation (MNC) activity in developing countries as well as touching upon FDI and corporate involvement in such deals.

2 ZERO HUNGER

This is partly picked up in discussions about Business and Ethics. Monsanto is one multinational corporation (MNC) that is used to consider whether their sterile but resistant GM crops contribute to food security or create more insecurity through dependence. We also consider the ethical nature of trading in commodities, including grains.

3 GOOD HEALTH AND WELL-BEING

Within CSR, we consider to what extent corporations can contribute to human health. For example, we have considered Procter & Gamble's Pampers adverts (each pack of nappies bought = one vaccination) and a Dispatches report on Coca-Cola and its active lobbying at UK government level against the sugar tax. In exploring corporate contributions to human health, the module actually goes back to considering the earlier version of paternalism and Arkwright.

4 QUALITY EDUCATION

Many MNCs nowadays invest in future generations by offering scholarships. Thus, examples are used to underline how corporations can (of course not without ulterior motives) contribute to education e.g. by offering STEM scholarships or by supporting reading initiatives.

5 GENDER EQUALITY

In a session about stakeholder involvement in corporate activity, we consider to what extent equality and diversity are communicated as part of corporate policy and under reporting obligations, and look at examples like Walmart or Sports Direct to explore the reality.

6 CLEAN WATER AND SANITATION

As part of the consideration of MNC impact on local communities, the module considers the reasons why corporations invest in particular locations including the exploitation of natural resources and to what extent the environment is abused as an indirect result or business activity, e.g. Coca-Cola in India (pesticides, water level depletion), Union Carbide in Bhopal, Shell in Nigeria.

7 AFFORDABLE AND CLEAN ENERGY

As a thread through the module, we keep considering what corporations contribute to human existence. With many utilities now in the hands of private corporations, their research and development (R&D) could contribute to the advancement of cheaper and cleaner energy. The question always is: how does this affect their bottom line? The Volkswagen scandal underlined that it is not always in corporations' best interest, in the short-profit term, to invest in clean energy.

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8 DECENT WORK AND ECONOMIC GROWTH

Part of the ongoing CSR discourse is to what extent corporations are to contribute to sustainable growth. As there are MNCs in existence today whose income exceeds the gross domestic product (GDP) of some countries, the relative power vis-à-vis national governments is immense. They have thus the power, and ability, to influence the sustainability goals of whole economies.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Industry and innovation are considered as part and parcel of corporate sustainable engagement.

10 REDUCED INEQUALITIES

Linked with the points made in Goal 8, when corporations are as powerful as countries, their policy-making influence must not be underestimated.

11 SUSTAINABLE CITIES AND COMMUNITIES

Wherever corporations settle, they should behave as a good corporate citizen. We consider what that means, and to what extent there can be an expectation on corporations to behave responsibly.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

There are corporations out there that, genuinely, try to achieve sustainable production and consumption. Thus, we do cover the 'responsible sustainable corporation' and to what extent this is possible by looking at, for example, Ben & Jerry's and The Body Shop.

13 CLIMATE ACTION

Climate action is part of corporate sustainable development and is extensively discussed against examples such as Volkswagen.

14 LIFE BELOW WATER

This is not a major thread, but we have discussed to what extent the sustainable and safe exploitation of the world's seas can be achieved by looking at examples like John West's Dolphin-friendly Tuna (is that even possible?) and the Deep Water Horizon scandal.

15 LIFE ON LAND

This is extensively discussed by looking at Shell's actions in the Niger Delta but also by looking at the use of palm oil in just about every product out there and microbeads in cleaning/cosmetic products.

16 PEACE AND JUSTICE STRONG INSTITUTIONS

This is part of the Ruggie Principles and is discussed as part of the International framework on human rights in CSR.

17 PARTNERSHIPS FOR THE GOALS

The module has an ongoing thread which examines the extent to which corporations act in conjunction and cooperation with the societies in which they exist.

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BA (Hons) Business & Management UG Modules

Issues identified in the programme | *Place in the programme*

1 NO POVERTY

- Economic growth and poverty reduction
- Management of organisations in a globalised world
- New approaches for addressing complex challenges, including homelessness
- How "becoming entrepreneurial" can increase the well-being of individuals locally and in different cultural contexts
- How to address global issues such as poverty
- Modern day slavery
- Contract labour

- *Contemporary Business Issues (Level 1)*
- *Introduction to Management (Level 1)*
- *Enterprise and Entrepreneurship (Level 1)*
- *Understanding the Principles of Marketing (Level 1)*
- *International Business Context (Level 1)*
- Operations and Supply Management (Level 1)
- Global Marketing Management (Level 3)
- Economics of Developing Countries (Level 3)

2 ZERO HUNGER

- Role of logistics systems in food distribution

- *Delivering Customer Requirements*

3 GOOD HEALTH AND WELL-BEING

- Workplace Health and Wellbeing
- Personal goals and actions, including the impact on the health and wellbeing of self and others.
- Social impact of ventures and 'social enterprises'
- Impact of working with others, including the giving and receiving of feedback and the ethical implications of setting group norms and expectations

- *Managing People (Level 2)*
- *Team Entrepreneurship programme modules*

4 QUALITY EDUCATION

- Ethical decisions
- Managerial and leadership skills and competencies relevant to the imperative of sustainability
- Insight into personal values, ethics and motivations.
- Stakeholder perspectives
- Theories of Corporate Social Responsibility (CSR)
- Ideas of Corporate Shared Value (CSV)
- Firms' legitimacy to take choices on behalf of a society
- Health and safety
- Law and education
- Ethics, security and sustainability
- Intercultural communication
- Concept of culture
- Corporate Philanthropy
- Community Volunteering
- Responsible business practices

- *Developing Personal Effectiveness and Resilience (Level 2)*
- *Intercultural Communications (Level 2)*
- *Digital Business Management (Level 2)*
- *Strategic Management (Level 3)*

5 GENDER EQUALITY

- Considering different publics and their concerns, how these can be addressed by organisations
- Equality and the gender pay gap
- Government equality monitoring scheme
- Modern day slavery

- *Operations and Supply Management (Level 2)*
- *Public Relations (Level 3)*

6 CLEAN WATER AND SANITATION

No explicit coverage currently within UG business and management modules.

7 AFFORDABLE AND CLEAN ENERGY

No explicit coverage currently within UG business and management modules.

8 DECENT WORK AND ECONOMIC GROWTH

- Critical scrutiny of corporate social responsibility (CSR), business ethics, and social good
- Understanding good governance
- Understanding the ethical implications and sustainability of business decisions taken
- Crisis management
- Implications for brand image of poor practice
- Environmental factors and international business
- Long-term business planning
- Trade and investment theory
- Foreign exchange
- Interaction between business and government as they relate to international commerce
- How to recognise and analyse ethical and social responsibility issues and choose appropriate actions for practical business situations

- *International Business Context (Level 1)*
- *Creating a Venture (Level 1)*
- *Developing a Venture (Level 1)*
- *Theory and Practice of International Business (Level 2)*
- *Planning and Managing Events (Level 2)*
- *Growing a Venture (Level 2)*
- *Introductory Research Project (Level 2)*
- *Sustaining a Venture (Level 3)*
- *Brand Management (Level 3)*
- *Strategic Management (Level 3)*

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

- Contemporary ways of managing and organising
- Disruptive innovation in Asian markets
- Imitation and creative innovation
- How technology and new ways of working
- Use of digital technology
- Ethical and sustainable organisational change in local and global business and public sector settings
- The changing sales environment

- *Understanding Organisations And People (Level 1)*
- *Good & Bad Business & Sustainability (Level 2)*
- *Digital Business Management (Level 2)*
- *Doing Business in Asia (Level 3)*
- *Digital Marketing Communication (Level 3)*
- *Key Account Management (Level 3)*
- *Managing Organisational Change (Level 3)*

10 REDUCED INEQUALITIES

- Homelessness case study
- Politics and global inequality
- Gentrification
- Cultural understanding
- Social cohesion

- *Enterprise and Entrepreneurship (Level 1)*
- *Contemporary Issues in Events (Level 3)*

11 SUSTAINABLE CITIES AND COMMUNITIES

- Meaning and measurement of development
- Rural-to-Rural migrations: causes, effects and policy implications
- Responsibility towards people and the societies in which a company operates and stewardship of the natural resources on which it relies
- Employee travel to work
- Vulnerability of big data
- Transport associated with events
- Urban tourism and city breaks

- *Contemporary Business Issues (Level 1)*
- *Methods of Inquiry (Level 2)*
- *Economics of Developing Countries (Level 3)*
- *Staging and Evaluating Events (Level 3)*
- *Managing Tourism Experiences (Level 3)*

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- Ethics and risk assessment
- Cultural norms and values and cross-cultural working.
- Ethics in marketing and consumer behaviour
- Materialism
- Over consumption
- Carbon Accounting, foot-printing and Life Cycle Analysis.
- Social inclusion and equal opportunities
- Business, family and community
- Environmentally responsible behaviour at events
- Critical analysis of PR as propaganda
- Exploring the impact of business on the ecological crisis (for example the overuse of un-renewable natural resources, climate change and endangered biodiversity).

- *Tourism and Events in Context (Level 1)*
- *Introductory Business Research Project (Level 2)*
- *Introductory Research Project (Level 2) Research Methods for Marketing and Events (Level 2)*
- *Consumer Behaviour and Professional Practice (Level 2)*
- *Good & Bad Business & Sustainability (Level 2)*
- *Planning and Managing Events (Level 2)*
- *International Human Resource Management (Level 3)*
- *Public Relations (Level 3)*
- *Marketing Services and Customer Experiences (Level 3)*

13 CLIMATE ACTION

- Mitigating impacts from production and consumption of events
- Influencing environmentally responsible behaviour amongst event attendees
- Assessing impact and legacy
- Green technology
- Ecological concerns and context
- 'Ecocricity' case study
- Impact of the eco-crisis on business

- *Planning and Managing Events (Level 2)*
- *Contemporary Issues in Events (Level 3)*
- *Events & Festivals Management (Level 3)*
- *Marketing Services and the Customer Experience (Level 3)*
- *Brand Management (Level 3)*
- *Global Marketing Management (Level 3)*

14 LIFE BELOW WATER

- Examples of brands making a difference to the environment, including in relation to plastic microbeads
- Proposed topics for research include process design innovations and environmental wastes.

- *Integrated Marketing Communications (Level 2)*
- *Introductory Research Project (Level 2)*

15 LIFE ON LAND

- Waste reduction
- Pollution reduction
- Ecosystems and issues of climate change
- System degradation
- Biodiversity and resource depletion
- Approaches to valuing the environment
- Ecological, social and economic causes and consequences of global climate change and resource depletion

- *Good & Bad Business & Sustainability (Level 2)*
- *Sustainable Business (Level 3)*

16 PEACE AND JUSTICE STRONG INSTITUTIONS

- Growth and corruption
- Employment Relations
- Law and Equality at Work
- Managing International Risk
- Unethical activities within supply chain
- Physical dangers to international assignees
- Ethics of digital marketing
- Fair dealing; relational contracting and the stakeholder model
- Bad business from professional crime to managerial self interest

- *Good & Bad Business & Sustainability (Level 2)*
- *International Human Resource Management (Level 3)*
- *Interactive and Digital Marketing (Level 3)*
- *Economics of Developing Countries (Level 3)*

17 PARTNERSHIPS FOR THE GOALS

- Working with international colleagues
- Partnerships with global partners
- Ethical implications of practices and processes within teams
- Partnerships with clients and customers

- *Working in Teams (Level 1)*
- *Developing Performance in Teams (Level 2)*
- *Key Account Management (Level 3)*

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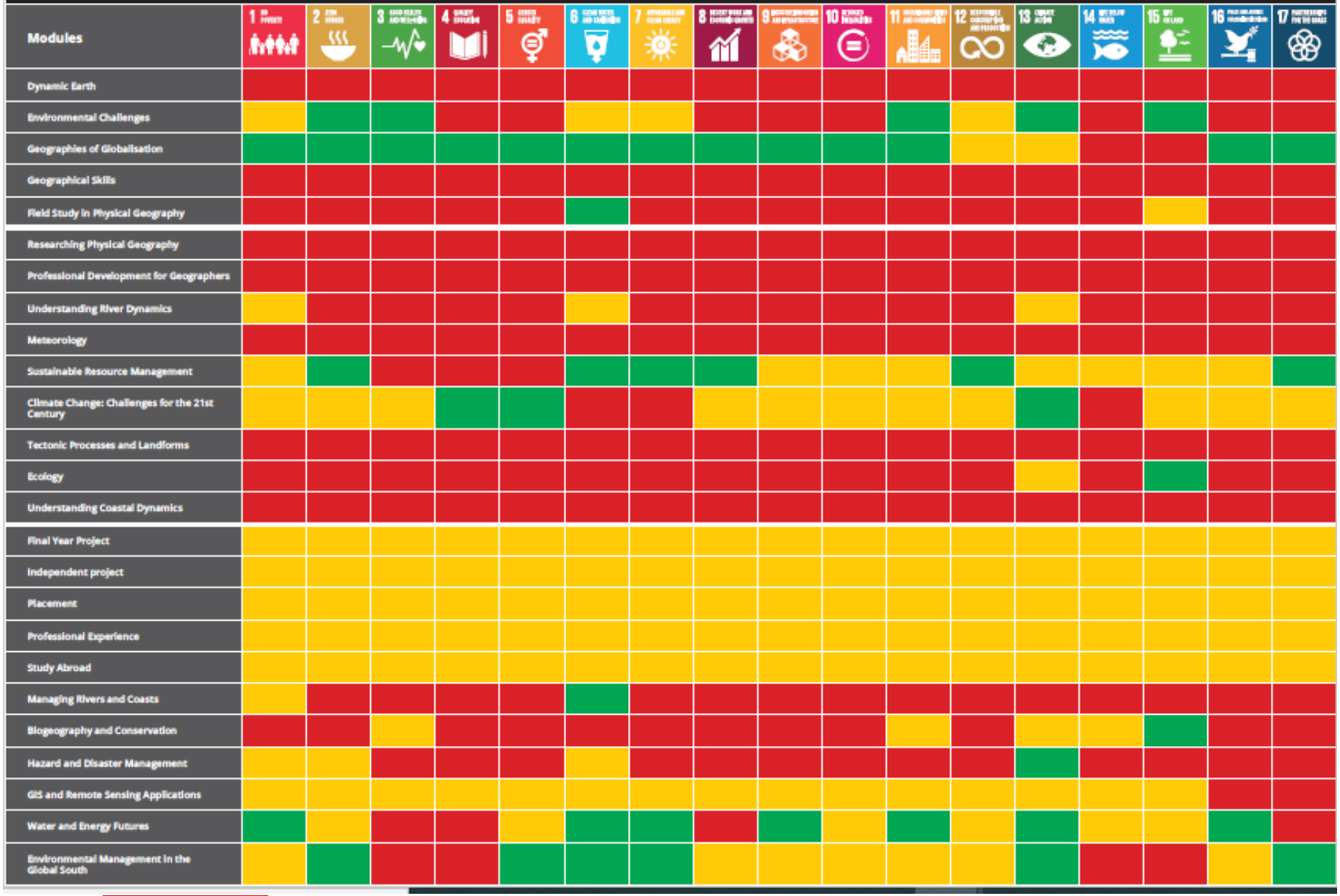
BSc (Hons) Geography

Covered Directly | Covered indirectly/optional | Not Currently Covered



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11 SUSTAINABLE CITIES AND COMMUNITIES

- Through our teaching we emphasis the ability for the next generation of civil engineers to be critical to the development of sustainable and affordable cities. This is through the design of transport systems, structures and public spaces.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

- Through selection of civil engineering and construction materials, the environmental impact of projects can be significantly reduced. Through our teaching of materials, and as a wider thread throughout the programme, we identify and discuss how the embodied energy and carbon of projects can be reduced through material choices. Discussions extend to more sustainable construction options including earth and crop based materials.

13 CLIMATE ACTION

- In designing infrastructure, civil engineers can identify and design for resilience to the changing climate. We teach this through discussing the impacts of climate change such as more extreme weather conditions and sea level change.

BEng (Hons) Civil & Environmental Engineering

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Competencies in sustainability

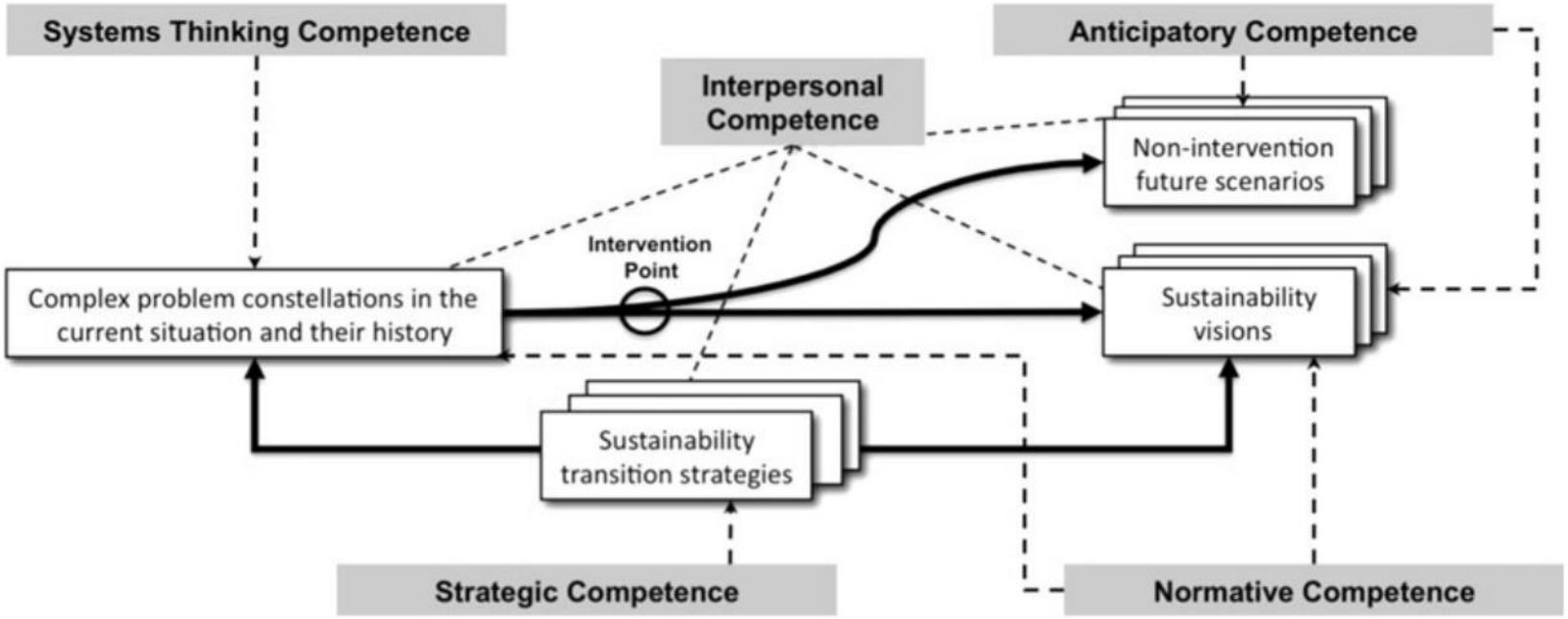


Fig. 2 The five key competencies in sustainability (*shaded in grey*) as they are linked to a sustainability research and problem-solving framework (see Fig. 1). The *dashed arrows* indicate the relevance of individual competencies for one or more components of the research and problem-solving framework (e.g., normative competence is relevant for the sustainability assessment of the current situation as well as for the crafting of sustainability visions)

(Wiek, Withycombe and Redman, 2011, p206)

QAA/Advance HE ESD Guidance (2021)

Competency	A student who displays this competency can:	
Systems thinking competency	▪ recognise and understand relationships ▪ analyse complex systems ▪ consider how systems are embedded within different domains and scales ▪ deal with uncertainty	Ways of thinking
Anticipatory competency (Future thinking)	▪ understand and evaluate multiple outcomes ▪ create their own visions for the future ▪ apply the precautionary principle ▪ assess the consequences of actions ▪ deal with risks and changes	
Critical thinking competency	▪ question norms, practices and opinions ▪ reflect on one's own values, perceptions and actions ▪ take a position in the sustainable development discourse	

QAA/Advance HE ESD Guidance (2021)

Competency	A student who displays this competency can:	
Strategic competency	▪ develop and implement innovative actions that further sustainable ▪ development at the local level and further afield	Ways of practicing
Collaboration competency	▪ learn from others (including peers, and others inside and outside of their institution) ▪ understand and respect the needs, perspectives and actions of others ▪ deal with conflicts in a group ▪ facilitate collaborative and participatory problem solving	
Integrated problem-solving competency	▪ apply different problem-solving frameworks to complex sustainable development problems ▪ develop viable, inclusive and equitable solutions ▪ utilise appropriate competencies to solve problems	

QAA/Advance HE ESD Guidance (2021)

Competency	A student who displays this competency can:	
Self-awareness competency	▪ reflect on their own values, perceptions and actions ▪ reflect on their own role in the local community and global society ▪ continually evaluate and further motivate their actions ▪ deal with their feelings and desires	Ways of being
Normative competency	▪ understand and reflect on the norms and values that underlie one's actions ▪ negotiate sustainable development values, principles, ▪ goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions	

+ 132 suggested learning outcomes

Connecting competences and pedagogical approaches in HE for sustainable development

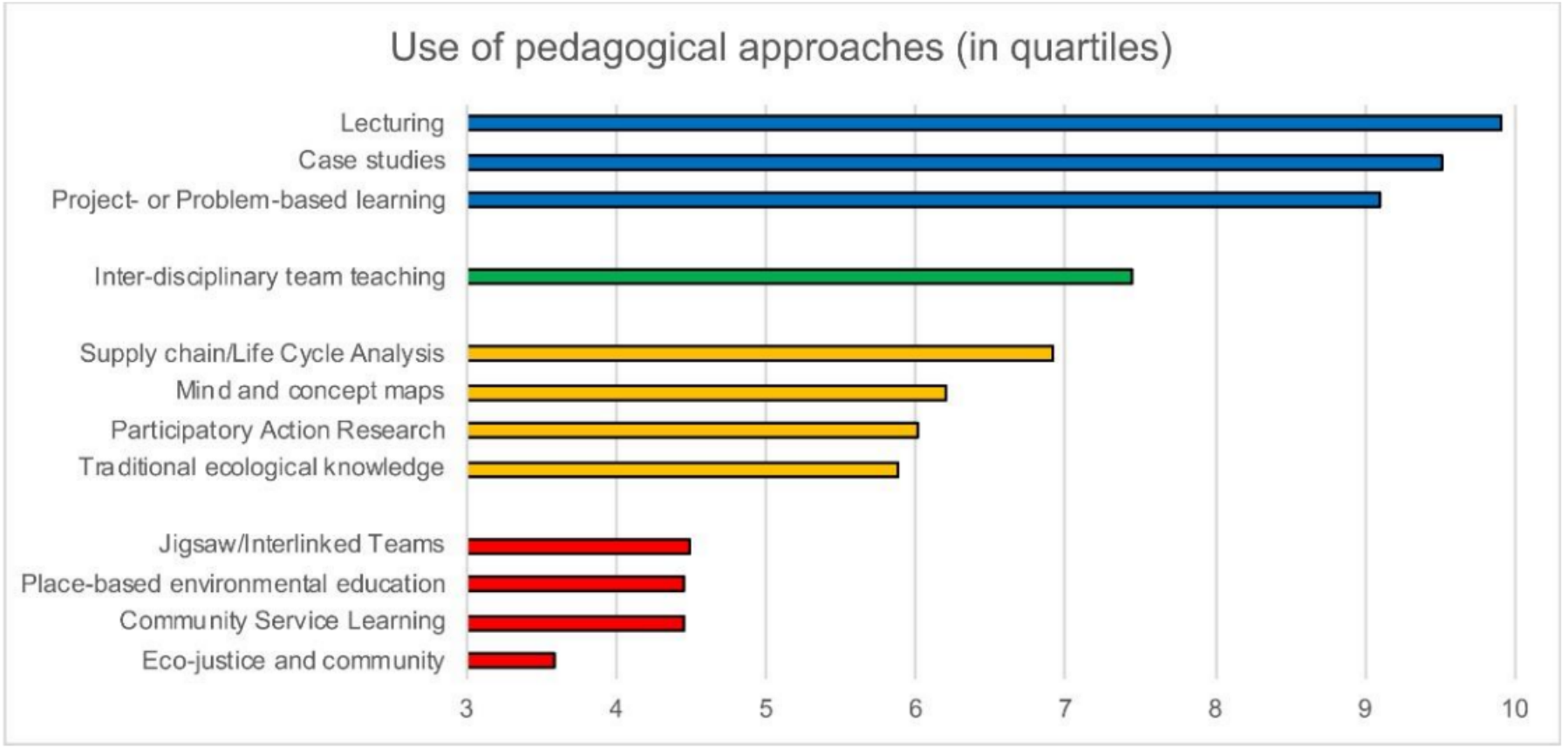
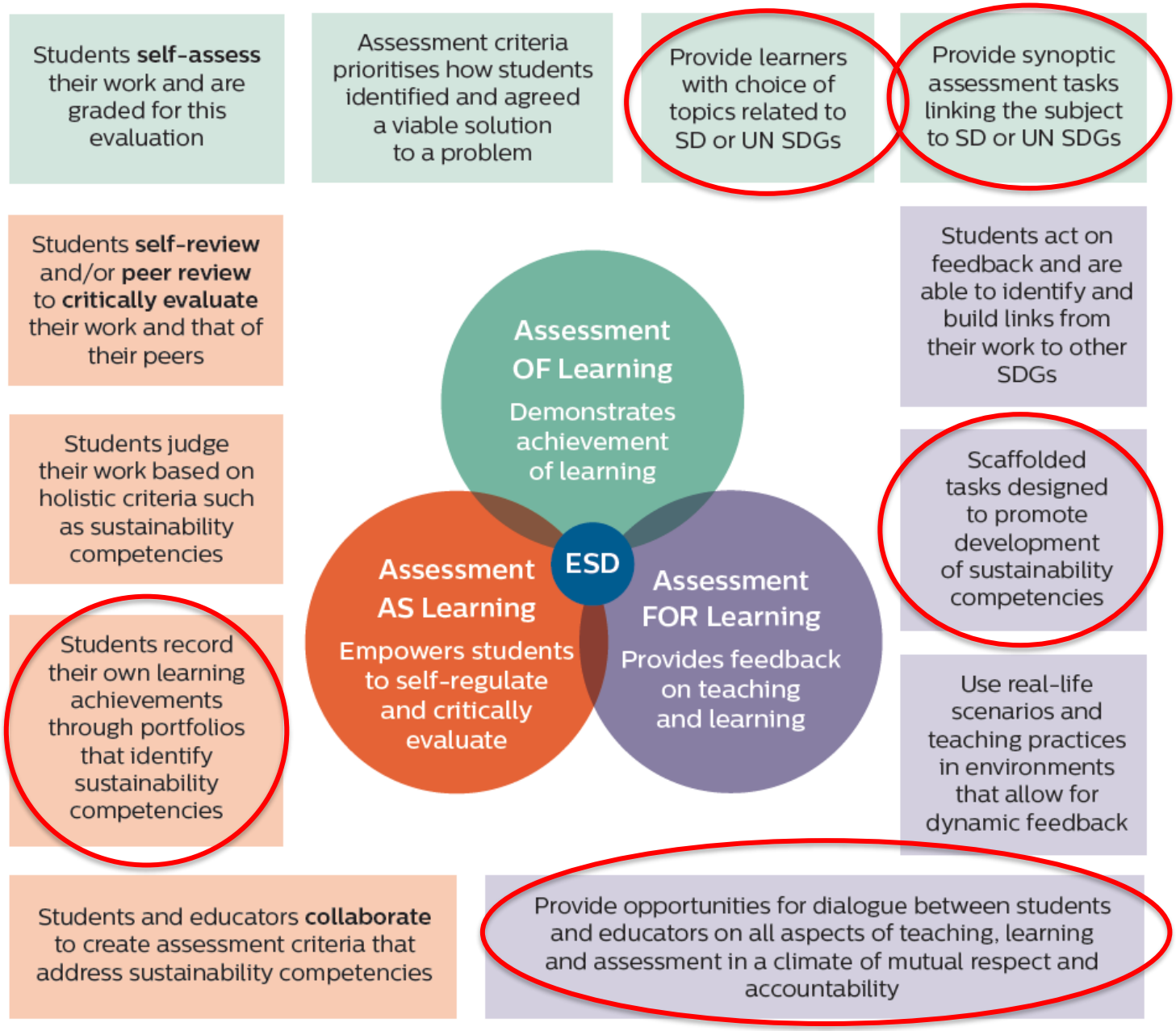


Figure 3. Ranking of the pedagogical approaches used (according to the survey results).

(Lozano et al., 2017, p8)

Assessment for, as and of Learning for SD



(Source: Advance HE/QAA, 2021, p37)

This assessment requires you to produce a professional report which critically reviews academic literature relating to ONE action linked to sustainable development. The options are:

Write a report for a local council who are looking to promote sustainable personal behaviours. You need to critically review evidence for ONE of the following individual behaviours in supporting the SDGs:	Write a report for a city council who are looking to promote sustainable urban development. You need to critically review evidence for ONE of the following development principles in supporting the SDGs:
1. Wear second-hand clothes 2. Use public transport 3. Eat seasonal food 4. Buy fair trade products 5. Don't buy plastic bottles 6. Drive an electric car	1. Ensure low crime neighbourhoods 2. Promote local culture 3. Install sustainable urban drainage systems 4. Maximise accessible green space 5. Promote rural-urban partnerships 6. Empower citizens through meaningful participation in governance

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Nursing

Final 6000 words independent research project from one of four options, including:

Service improvement proposal for enhancing an aspect of care delivery (focusing on patient safety and sustainability of resources)

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SDG Multiplier Training

An interactive learning activity design to help you think about the SDGs and their relevance and implementation in relation to personal behaviour or urban development.

This should support your thinking for the assessment.

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Student-staff dialogue

- Module feedback
- Student rep staff forums
- Programme management committee
- Programme advisory boards
- NSS/PTES
- Student representation
- *Etc.*

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Portfolio with self-reflection and employability

ENGAGEMENT TASKS	Deadline	Complete?
1. Amended CV and professional development self-assessment	05/12/22	
2. Module progress reflective log	13/02/23	
3. Evidence of three WBL project applications	27/03/23	
4. Sample report evaluation	26/06/23	
5. Reflective report outline	21/07/23	
FINAL SUBMISSION	**Deadline**	**Complete?**
Completed work record	10/07/23	
Evidence of project outputs/outcomes	10/07/23	
Asked project supervisor to email feedback form to Module Leader	10/07/23	
Reflective Report (including approved Learning Plan as an Appendix)	11/09/23	

ESD

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WORKSHOP DISCUSSION

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Questions for consideration

1. What is your 'local' and/or institutional context at Worcester for engagement with the SDGs?
2. Who are you particularly interested in engaging? What is important to them (generally)?
3. How can the SDGs be linked to the concerns/priorities of the group(s) which you seek to engage?
4. What benefits can you see for your work in mapping a relevant 'entity' (e.g. module, programme, project, service, other?)
5. Consider how these elements can be brought together over the long term and what your first steps after this session might be.

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Future plans (SDG mapping)

- More programmes
- Renewed maps
- Competence work: development and assessment of
- Learning environment and communities
- Research

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Further ESD work at UWE

- Linking to QAA/Advance HE ESD Guidance
- THE Impact Rankings
- Responsible Futures
- PRME

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Further tools and resources

United Nations Educational, Scientific and Cultural Organization · Sustainable Development Goals

[SDGs, targets and progress]

Education for Sustainable Development Goals

Learning Objectives

AdvanceHE

QAA

Education for Sustainable Development Guidance

Education 2030

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Was this session useful?

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THANK YOU!

For more information about sustainability at UWE, visit:
http://www1.uwe.ac.uk/about/corporateinformation/sustainability.aspx

and https://www.thestudentsunion.co.uk/community/green-team/

or contact

Georgina.Gough@uwe.ac.uk (Education for Sustainable Development)

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