

Sustainability Symposium 2022

Session abstracts

29-30 March 2022

Parallel session 1, 1.1a, Oral Presentation, 29 March 2022, 13:25 - 14:25

Sustainability: Welcome into the fold

Kashmir Kaur and Dr Salma Al Arefi, University of Leeds

In the aftermath of COP26, more so than ever before, higher education institutions have an imperative to accelerate the net zero transition. Most existing efforts on sustainability education, however, have been infused in silos and limited to the curriculum periphery. This talk presents an interdisciplinary case study that showcases how sustainability became the beating heart of the Language for Engineering, Postgraduate Pre-sessional Programme. It provided students an opportunity to develop their sustainability literacies in an inclusive manner, simultaneously fostering an authentic learning experience. Students overwhelmingly endorsed the programme as relevant to their postgraduate studies and beyond.

Parallel session 1, 1.1b, Oral Presentation, 29 March 2022, 13:25 - 14:25

Sustainability and the conservatoire of the future: The Royal College of Music as a case-study

James Collins, Royal College of Music

What can a conservatoire do to ensure a better future for our planet? How can such specialist arts institutions approach delivering for the UN Sustainable Development Goals? The importance of a conservatoire-wide approach is discussed in terms of equipping music students as 'global citizens' and for the conservatoire in fulfilling a societal leadership role, applying the guidance for higher education more generally in Price et al. (2021). The Royal College of Music's in-flight sustainability programme is presented as a case-study involving a small, specialist arts institution transitioning to a model where sustainability is part of the institutional core purpose.

Parallel session 1, 1.1c, Oral Presentation, 29 March 2022, 13:25 - 14:25

From individual action to transformative change

Professor Claudia Carter, Rachel Curzon, Victoria McGrath and Neva Mowl, Birmingham City University

This presentation unravels BCU's journey towards championing STEAM approaches and embedding sustainability in its estate and education processes. We examine how transformative change can progress from (ad hoc) individual efforts to a way of thinking, doing and influencing that brings sustainability to the front and centre of the university's activities and estate. We pay particular attention to high impact initiatives with relatively small resources and student-staff collaboration (e.g. BCU's SEDA-accredited 'Embedding Sustainability into the Curriculum' CPD course).

Parallel session 1, 1.2a, Oral Presentation, 29 March 2022, 13:25 - 14:25

What Would Nature Do? Permaculture Principles for a Sustainable Pedagogy

Dr Alessandra Campoli, The Open University

Permaculture is a design system and a social movement founded by Bill Mollison and David Holmgren in the 1970s. The fundamental approach of permaculture is to guide us to mimic

the patterns and relationships we find in nature to create 'systems of abundance'. It is used to design regenerative systems at all scales, using nature's principles to develop resilient, healthy, diverse and productive landscapes and communities. This session aims to reflect on how the permaculture approach to heal, repair and build systems of abundance can be incorporated into higher education to create resilient, supportive and nourishing learning environments.

Parallel session 1, 1.2b, Oral Presentation, 29 March 2022, 13:25 - 14:25

Mushroom moments: The first NTF sustainable supperclub

Professor Natascha Radclyffe-Thomas, British School of Fashion, Glasgow Caledonian University London and Haleh Moravej, Manchester Metropolitan University

In September 2021 a group of academics and students broke bread at the first Sustainable Supperclub, an experiential transdisciplinary online workshop designed to explore and co-create the integration of the SDGs into fun, creative and impactful learning and teaching activities and authentic assessments. This presentation shares the design, implementation and impact of the Supperclub which posed the question 'Can mushrooms save the world?' generating diverse and positive examples of how educators can use their own experiences, environments, and disciplines to transform higher education and ensure sustainability is not only 'front and centre' in the sector but accessible and achievable for everyone.

Parallel session 1, 1.2c, Oral Presentation, 29 March 2022, 13:25 - 14:25

Assessment of competencies for sustainable development

Dr Georgina Gough, UWE Bristol

This session will provide space to consider how competences of students are assessed. A case study of the UNESCO key competencies for sustainability will be used as a framework for the session. This session will enable participants to familiarise themselves with these competencies (promoted within the Advance HE/QAA Education for Sustainable Development Guidance (2021)), and to consider how well existing assessment practice in HE enables institutions to be sure that these competencies are displayed in all graduates. Academic attendees may wish to consider their own individual practice and where new additional assessment criteria or activity might be warranted.

Parallel session 1, 1.3a, Oral Presentation, 29 March 2022, 13:25 - 14:25

Bringing students and staff together to research sustainability: A case study of the University of Derby's undergraduate research scholarship scheme

Dr Chris Ribchester, Scott Backler and Chinenye Lumenze, University of Derby

In 2021, the University of Derby's Undergraduate Research Scholarship Scheme (URSS) was themed around 'Imagination and Innovation: Research for a more Sustainable Future', with all projects aligning to one or more of the UN Sustainable Development Goals (SDGs). This presentation will outline details of the Scheme and we will hear from two students who will share their insights on being involved in the URSS and their personal learning from engaging in collaborative research with academic staff. The talk is likely to be of interest to colleagues considering how to provide research opportunities related to sustainable development for their students.

Parallel session 1, 1.3b, Oral Presentation, 29 March 2022, 13:25 - 14:25

Reorienting architectural education towards sustainability to benefit both the environment and local communities: The pedagogical example of a student design

project aimed at re-greening the city

Anna Pepe and Lauren Lee, Leeds Beckett University

A research-based student design project aimed at re-greening under-utilised areas in Leeds city centre is offered as pedagogical example of how the refocusing of theories and methods of teaching towards sustainability provides students with essential environmental and ecological literacy and an opportunity to nurture their ability to develop a sense of duty towards the environment and local communities, in the interest of fostering change both in the short and long term. The pedagogical approach proposed is based on the recognition that engagement in environmental action relies on an individual's ability to identify the interconnectedness of environmental issues, responsibility and action.

Parallel session 1, 1.3c, Oral Presentation, 29 March 2022, 13:25 - 14:25

The experimental sustainability studio: Accelerating change for climate action

Dr Matthew Jones, Dr Jemma Browne, Dr Sandra Costa and Dawn Parke, Birmingham School of Architecture & Design

Embedding sustainability in higher education is crucial to address the interconnected dilemmas of climate change, biodiversity loss and environmental inequality. Birmingham School of Architecture & Design's Experimental Sustainability Studio (ESS) aims to combine short-term impact with long-term change to prioritise sustainability as a core purpose within BSoAD. This presentation will discuss how initiatives such as pop-up think tanks, Climate Literacy Labs, and collaborative 'live' projects have enabled 'troublesome knowledge' to become a transformative pedagogy with the potential to change the way future graduates think, practice and are prepared to 'participate in the transformation of their world'.

Parallel session 2, 2.1a, Lightning Talk, 29 March 2022, 14:35 - 15:40

Law students as partners in curriculum review

Fiona Boyle, University of Cumbria

When sustainability issues are discussed in the context of the university, legal education is generally far from the top of the list of disciplines considered relevant. However, legal regulation is a vital factor in achieving the UN SDGs. If tomorrow's legal professionals are to play a part, ESD must be incorporated into the Law curriculum. A review of the LLB at the University of Cumbria is using a partnership approach to consider how to reflect ESD in the curriculum to reflect the views of students and staff. This lightning talk will highlight key learning points from the process so far.

Parallel session 2, 2.1b, Lightning Talk, 29 March 2022, 14:35 - 15:40

Ethical Risk Assessment for Sustainable Computing

Dr Elias Pimenidis, University of the West of England

As educators, we teach Computing students to be innovative and to use technology in a disruptive way, to break barriers and to create opportunities. Where Artificial Intelligence and other state-of-the-art technologies are used, this happens with little concern for the impact on resources and the environment. Demand for energy-hungry applications and non-recyclable equipment is rising exponentially. Yet, when we consider the risks of any computing project, the focus is mostly on financial elements of the project. It is time the emphasis of our teaching switches to whether what we are proposing, designing and building is sustainable.

Parallel session 2, 2.1c, Lightning Talk, 29 March 2022, 14:35 - 15:40

Sustainability in helping professions: a common core unit across disciplines

Dr Charlotte Fontaine, and Professor Kathryn Nicholson Perry, Australian College of Applied Professions

Sustainability is an emerging concept that is important for all students to be aware of. At the Australian College of Applied Professions (ACAP), we sought to provide common content across the disciplines of Psychology, Counselling, Social Work, and Criminology to promote sustainability to our students. From this, we aimed to highlight the key aspects of sustainability needed for students and professionals, helping them avoid burnout and provide sustainable practices in their careers. This unit has received positive feedback from both students and staff.

Parallel session 2, 2.1d, Lightning Talk, 29 March 2022, 14:35 - 15:40

Using storytelling to facilitate empathy in higher education

Dr Lucy Gill-Simmen, Royal Holloway, University of London

The relationship between empathy and sustainability represents a key advance in understanding human-environment relations (Brown et al., 2019). Whilst being empathetic does not guarantee action when a person is in need, it is a positive indicator of future action (Decety and Ickes, 2009). De Andreotti (2014) argues that if we are not willing to confront our own assumptions and limitations then we risk harming those we wish to serve. As educators, the question arises as to how empathy can be cultivated amongst students in business schools? Since stories evoke empathic responses and enable perspective-taking (Garcia and Rossiter, 2010), this lightning talk showcases an approach to bringing empathy into the higher education curriculum through narrative pedagogy.

Parallel session 2, 2.1e, Lightning Talk, 29 March 2022, 14:35 - 15:40

Student-staff partnership promotes climate change pedagogy on university campus

Dr Hong Yang, University of Reading

Climate change has always been an indispensable part of our sustainability pedagogy. Through student-staff partnership, we used project-based learning (PBL) to encourage students to explore greenhouse gas emissions on university campus. Students designed small projects to explore carbon dioxide and methane concentrations in classroom, library, student hall, pitch, and lake. After field and laboratory work, students delivered group presentations. Based on the findings, students and staff worked together to propose measures to minimise carbon emissions on campus and promote the sustainability of university.

Parallel session 2, 2.2a, Lightning Talk, 29 March 2022, 14:35 - 15:40

Leading change locally: Civic Universities as enablers of climate education and action

Dr Andrew Reeves, De Montfort University and Dr Sandra Lee, University of Leicester

Working towards Net Zero emissions in the UK requires concerted action by all citizens, businesses and communities. The civic role of universities as local anchor institutions creates an imperative to use university resources and influence to support place-based responses to the climate emergency. This session introduces a successful collaborative approach to this agenda. Leicester's universities are working together to deliver carbon literacy training, sustainability audits and short courses locally - reaching students, businesses and the voluntary sector. A key success factor is cross-sectoral joint-working (e.g. with schools and business support agencies), which could be replicated in other UK

communities.

Parallel session 2, 2.2b, Lightning Talk, 29 March 2022, 14:35 - 15:40

Giving a voice to all parts of the Open University family

Derek Goldman, and Professor Andy Lane, The Open University in Scotland

The Open University's Royal Charter means it is charged with not only providing education for its students but to promote the educational wellbeing of the community generally. Its OpenLearn platform does this through a wealth of open educational resources from the University, including ones on nature and the environment (Law et al, 2020). To mark COP26 we have created a Hub on OpenLearn that collates existing resources and a growing series of diverse articles on climate change and sustainability topics that gives a voice to people from all parts of the OU family – staff, students, alumni and partners.

Parallel session 2, 2.2c, Lightning Talk, 29 March 2022, 14:35 - 15:40

Carbon literacy is for everyone!

Dr Sigrun Wagner, Professor Elizabeth Schafer and Dr David Bullen, Royal Holloway, University of London

A lightning talk about how Carbon Literacy is for everyone and brings together key stakeholders in higher education institutions to educate, inspire and empower students and staff to take individual and collective climate action

Parallel session 2, 2.2d, Lightning Talk, 29 March 2022, 14:35 - 15:40

Education for sustainable development in practice

Dr Lory Barile, Warwick University

This talk will showcase how staff and students in HE can work together to build more just, inclusive and sustainable learning and working environments.

Parallel session 2, 2.2e, Lightning Talk, 29 March 2022, 14:35 - 15:40

The aspiration to develop an Education for Sustainable Futures Hub

Dr Alex Meredith, Nottingham Trent University

Researchers at Nottingham Trent University have developed an 'Education for Sustainability Toolkit', which is now the focus of a more ambitious follow-on project. The aim is to develop a network of academics who wish to incorporate sustainability into their teaching. The project will entail the development of a website with three main strands,

1. A research database
2. A scholarship database containing educational materials
3. A forum to facilitate discussion between academics

This talk will introduce the Toolkit, emphasise the importance of developing interdisciplinary understandings, discuss the project, and then invite anyone who might be interested to make contact.

Parallel session 2, 2.3a, Lightning Talk, 29 March 2022, 14:35 - 15:40

Inspiring students to be green entrepreneurs

Viki Soper, Ewelina Grzanka and Emmanuel Zuza, The Open University in Scotland

The revised QAA benchmark Statement for ES3 (QAA, 2021) emphasises the importance of including employability, entrepreneurship and enterprise in the curriculum. The Open University in Scotland has supported entrepreneurship amongst students through an open course Entrepreneurship – from ideas to reality and also a panel discussion in the OU's Student Voice Week that followed on from COP26 in Glasgow the week prior. The discussion showcased OU students who have been motivated by their studies to develop green/sustainable initiatives as well as experts from the OU able to answer student questions on the full range of green entrepreneurial opportunities they might pursue.

Parallel session 2, 2.3c, Lightning Talk, 29 March 2022, 14:35 - 15:40

Linking sustainability to employability in the curriculum

Dr Elisa Lopez-Capel, Newcastle university

Education for Sustainable Development is embedded in our curriculum through creative collaborations between academic teams and professional service teams, such as the Sustainable Solutions module. Students work in cross-disciplinary groups to give sustainable solutions to genuine problems posed by organisations. This provides students with the opportunity to work with external organisations on challenges linked to the UN SDGs. This presentation provides advice on how to implement this initiative in academic institutions, and how to link sustainability to employability as a key skillset students need in the rapidly changing sectors in which they will graduate.

Parallel session 2, 2.3d, Lightning Talk, 29 March 2022, 14:35 - 15:40

Sustainability action for everyone: Working together to make sustainability reporting among small and medium enterprises (SMEs) a reality

Professor Venancio Taurigana, Dr Simonov Kusi-Sarpong, Dr Gillian Saieva, Dr Renata Konadu and Ishmaiel Tingbani, University of Southampton

The objective of this presentation is to explain a pilot project on promoting sustainability reporting on which academic staff, students and small and medium-sized (SMEs) companies are collaborating.

Parallel session 2, 2.3e, Lightning Talk, 29 March 2022, 14:35 - 15:40

Sustainable marketer behaviour: Identifying appropriate and timely interventions

Dr Richard Howarth, Nottingham Trent University

This work focuses on marketer behaviour and what, in the context of the challenges and opportunities (E.g. Albinsson et al., 2020; Kemper et al., 2019) and guidance (E.g. Sipos et al., 2008; Sterling, 2021; QAA, 2021), can guide and lead marketing educators in their pursuit and endeavours to support the development of sustainable marketer behaviour. With this focus, the work maps marketer and sustainability competences to guide behaviour(s), outcomes and transformation(s); attends to the benefit(s) from the guidance (and its application); and both identifies and illustrates the importance of supporting progression and learner journey transitions in this process.

Parallel session 3, 3.1a, Lightning Talk, 29 March 2022, 15:50 - 16:50

Higher education institutions' transformation towards sustainable strategies and graduate attributes: Best practices and measurement tools

Dr Esra Aldhaen, Ahlia University

For leaders of higher education, this is the wakeup call for HEIs to consider transformational

sustainable strategies with assurance of producing graduates with appropriate skills beyond the classics. Have you questioned whether we are producing appropriate graduates? This presentation will provide insights on transformational sustainable strategies covering a number of strategies related to teaching, learning and research.

Parallel session 3, 3.1b, Oral Presentations, 29 March 2022, 15:50 - 16:50

Making Connections: Contextualising technical sustainability principles through reflective writing in an architecture technology course

Dr W. Victoria Lee, Lucy Boyd, Yeldar Gul and Tahlor Jarrett, University of Edinburgh

Buildings contribute ~40% of the global CO2 emission, and architects play an important role to mitigate and adapt to climate change. The undergraduate architecture course on technology and environment is aimed specifically to help students understand the science behind sustainability. However, the technical nature of the course can create a disconnect with the rest of the curriculum, which are arts- and humanities-focused. Staff and students will discuss how the use of regular reflective writing assignments can help students better contextualise the learning of sustainability principles and make meaning of their knowledge with respect to all three pillars of sustainability: society, environment and economics.

Parallel session 3, 3.1c, Oral Presentation, 29 March 2022, 15:50 - 16:50

Experiments in zero-waste design: At the intersection between creative pedagogy and environmental activism

Anna Pepe, Charlotte Whitfield, Molly Baker and Peter Morrison, Leeds Beckett University

A series of student experiments in zero-waste design and temporary spatial interventions made from waste material are presented, which focus on re-imagining waste by looking at it with new eyes, by giving it new life, meaning and purpose. Through creative, experimental and experiential forms of learning, students engage with the debate on sustainability action, exploring ways to benefit both the environment and communities, today as students, tomorrow as designers. Moreover, these experiments also expose the wider public to the magnetic power and unexpected beauty of artefacts and installations made from waste material in order to raise awareness and encourage action.

Parallel session 3, 3.2a, Oral Presentation, 29 March 2022, 15:50 - 16:50

Ways of thinking, practicing and being

Professor Alison Greig, Anglia Ruskin University

For sustainability to become part of a University's core educational offer, it needs to extend beyond carbon reduction and pro-environmental behaviour-change agendas to focus on the curriculum, specifically what is taught and how. This presentation will critically reflect on how this journey has unfolded within ARU and against a backdrop of changing levels of institutional and student buy-in, and the existence of 'competing' agendas. It will illustrate how learning about sustainability, for sustainability and as sustainability, link strongly to student outcomes, wellbeing and employability. It will outline how sustainability has the potential to become a meta-agenda, changing both students and the Institution's ways of thinking, ways of practicing and ways of being.

Parallel session 3, 3.2b, Oral Presentation, 29 March 2022, 15:50 - 16:50

Inclusion and belonging through sustainability: A globalisation lens

Dr Salma Al Arefi, University of Leeds

While sustainability education remains to compete for core curriculum integration beyond the

periphery, avenues to foster for inclusion, cultivate belonging and engage global citizenship are yet to be explored. This presentation showcases an example of embracing learner diversity and authenticity on a MSc Sustainable Electrical Engineering module through reflection and co-creation. It outlines the use of a decolonial inclusive citation approach that provide a global outlook to sustainable electrical engineering challenges in its aims to empower learners as global citizens and enable them to work in an interconnected world. Acknowledging learner authenticity has shown to enhance students' sense of belonging to their module, and hence raise engagement.

Parallel session 3, 3.2c, Oral Presentation, 29 March 2022, 15:50 - 16:50

Learning design and education for sustainable development bootcamp

Dr Maria Toro-Troconis, Learning Design and ESD Bootcamp and Yuma Inzolia, Unesco Iesalc and American Dr Norita Ahmad, University of Sharjah and Victoria Taut and Professor Alison Greig, Anglia Ruskin University and American Dr Mohammed Ibahrine and Rose Armour, University of Sharjah and Dr Vickie Dale and Dr Nathalie Tasler, University of Glasgow and Katharine Reedy, The Open University

In this presentation the Bootcamp leads will present the Learning Design and Education for Sustainable Development Bootcamp including the pre-mentoring phase which includes an online course designed by the Bootcamp Committee and hosted on the UNESCO IESALC platform. The CoDesignS ESD Framework and Toolkit will also be presented including examples of cases created using the framework from different universities in English and Spanish.

Parallel session 3, 3.3a, Oral Presentation, 29 March 2022, 15:50 - 16:50

Building staff-student partnerships to support sustainability for all by co-designing a carbon descent board game

Professor Catherine Jones, and Tom Becker, University of Luxembourg

Carbonopolis: Letz bring it down! is a prototype board game that stimulates awareness and encourages exchange on six climate change topics impacting Luxembourg. Aimed at multicultural participants, they play, discover and discuss potential sustainable planning initiatives for carbon descent. The game integrates three types of playing cards:

- (1) topical multiple-choice questions
- (2) planning initiative cards for value-driven policy prioritisation and
- (3) crisis cards for reflecting on current policy impacts.

In the spirit of co-design, as a sustainability action for all, and with the goal of building partnerships beyond the formal curriculum, Masters and Doctoral students were integrated into the process, especially in the graphic design and evaluation stages of the game.

Parallel session 3, 3.3b, Oral Presentation, 29 March 2022, 15:50 - 16:50

Sustainable childhoods: Perspectives on placing sustainability at the heart of the curriculum

Julie Kent, Nottingham Trent University

Using staff and student perspectives on the development and delivery of a new module within the BA (Hons) Childhood Degrees at Nottingham Trent University, this session will explore the teaching and innovative assessment of the concept of sustainable childhoods and consider how to develop analysis, critique and evaluate effective practice within aspects

of sustainability in childhood in undergraduates. This module was developed in response to the NTU-wide Education for Sustainable Development agenda and is underpinned by aspects of child agency, concepts of global and community citizenship and the embedding of the Sustainable Development Goals in undergraduate learning experiences.

Parallel session 3, 3.3c, Oral Presentation, 29 March 2022, 15:50 - 16:50

Developing responsible leaders through the design and delivery executive education programmes

Dr Jenny Davidson, Newcastle University Business School and Sheri-Leigh Miles, Net Positive Futures

Newcastle University Business School has partnered with the consultancy, NETpositive Futures, to develop responsible leaders through the design and delivery of our new part-time Executive MBA (EMBA) programme. The two-year pilot project explores moral reflectivity, partnering and scholarly practice in education for sustainability. Our programme design brings together pedagogy, technology and knowledge to enable learners to explore the Sustainable Development Goals (SDGs) in a personal, professional and academic context throughout the duration of the programme.

Parallel session 4, 4.1a, Oral Presentation, 30 March 2022, 09:05 - 10:05

Enhancing student employability through engagement with the UN SDGs

Professor Debbie Willison, University of Strathclyde

This presentation describes the continuing development of a novel multidisciplinary elective module based on the UN's Sustainable Development Goals which is available to all students at the University of Strathclyde. The module is delivered through an online and blended learning mode and has contributions from staff in each Faculty (Business School, Engineering, Humanities and Social Sciences and Science). Details will be provided of how the class is delivered and how students develop a wide range of employability skills through working in multidisciplinary teams.

Parallel session 4, 4.1b, Oral Presentation, 30 March 2022, 09:05 - 10:05

Embedding sustainability in postgraduate accounting curriculum through collaborative action research

Dr Helen Yang, La Trobe University

This presentation is a reflective account of practice in effectively embedding sustainability in a postgraduate accounting capstone subject over three years between 2019 and 2021 through collaborative action research at an Australian university.

Parallel session 4, 4.1c, Oral Presentation, 30 March 2022, 09:05 - 10:05

We need to talk about Albert: Sustainability is employability

Dr Ken Fox, Maleik Cadogan and Georgia Carpenter, Canterbury Christ Church University

This conversation between tutor and students will focus on how the Albert Sustainability Media Skills Certificate was introduced to a screen studies course and its impact on their understanding of sustainability and sustainable productions. Our interaction will reflect upon how saving the planet and employability in the screen industries is inextricably linked.

Parallel session 4, 4.2a, Oral Presentation, 30 March 2022, 09:05 - 10:05

SustainaWHAT? Co-creating multidisciplinary spaces to explore how and why the

UNSDGs matter to all postgraduate research students

Rosalind Beaumont, Anna Christy, Duong Nguyen, Anand Roy, Andy Oroke, Wahbi Albasyouni and Jecel Censoro, Newcastle University

How can sustainability-themed gatherings offer value in terms of knowledge, skills and networking for postgraduate research students from multiple disciplines? And what kind of impact could these gatherings have on the institutional response to the interconnected social, environmental and economic challenges we face? In our presentation we will share our response to these questions through data collected during a four-day event co-created by a cross-faculty and multidisciplinary student/staff team, with a view to identifying key elements which could inform those planning smaller or larger scale sustainability-themed initiatives aimed at postgraduate research students from all disciplines across our university (and beyond).

Parallel session 4, 4.2b, TBC

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Parallel session 4, 4.2c, Oral Presentation, 30 March 2022, 09:05 - 10:05

Education for sustainable development and authentic curriculum

Dr Theo Mojtaba Ammari and Dr Geoff Paul, University of Sunderland in London

In this oral presentation, we introduce our plan to integrate SDGs into the University Curriculum through three phases:

- 1- Awareness building,
- 2- Implementation, and
- 3- Authentic Curriculum.

For the implementation phase, we introduce a straightforward four-step implementation model that educators can use from both modular or programme-based approaches towards designing activities for the sustainable development goals at the classroom level. Finally, we present how embedding sustainable goals makes the university curriculum authentic.

Parallel session 4, 4.3a, Oral Presentation, 30 March 2022, 09:05 - 10:05

Turning out graduates who can promote change within organisations: An integrated approach

Dr Peter Kahn, University of Liverpool

Individualistic approaches currently dominate the student experience of higher education, and yet it is widely accepted that ongoing degradation of the environment is driven in significant part by weaknesses in relation to collective action. This presentation draws on institutional theory to consider how universities could educate graduates who are able to promote a logic of sustainability within organisations. It offers an analysis of curricular norms and outlines an associated set of practical educational approaches. If universities are to develop an inclusive approach that extends beyond a focus on university estates or on topics that are directly related to environmental issues, then it will be important for them to turn out graduates who are able to foster change within collectives.

Parallel session 4, 4.3b, Oral Presentation, 30 March 2022, 09:05 - 10:05

Education through sustainable development: SDGs as pedagogy?

Dr Jennifer O'Brien and Andres McBride Galarza, University of Manchester

Education is well recognised as both an integral part of sustainable development, and an enabler of it. We are all familiar with the transformative power of Education for Sustainable Development (UNESCO, 2017). We, arguably, think less about developing education through sustainability (Yulita, 2020). Delivered with students, this presentation critically shares experiences of using the United Nation's Sustainable Development Goals (SDGs) to teach sustainability on an online interdisciplinary course 'Creating a Sustainable World'. We argue that the SDG premises of leaving nobody behind and working together in partnership to effect change for a better future offers a pedagogic framework that could underpin all teaching and learning.

Parallel session 4, 4.3c, Oral Presentation, 30 March 2022, 09:05 - 10:05

Future pathways

Cathy d'Abreu, Oxford Brookes University

Future Pathways:engaging HE with ESD: The Future Pathways project is built on the principles of collaboration, shared knowledge and pooling resources. It suggests creating a space for curriculum and professional ESD development that acknowledges the need to embrace 'brave spaces' (Winks, 2017), liminal states and Transformative Learning approaches (Mezirow, 2009).

Parallel session 5, 5.1, Workshop (30 mins), 30-Mar-22, 11:10 - 11:40

Embedding sustainability within the curriculum: Creating a balance between the challenge, the action and well-being of students

Hilary Weston Jones, Birmingham City University

This workshop will support academics in striking the balance between embedding climate change challenges, and their bleak associations, within their curriculum whilst supporting students' wellbeing by delivering empowering and positive messages and calls for action.

Parallel session 5, 5.2, Workshop (30 mins), 30-Mar-22, 11:10 - 11:40

Decarbonising university campus through sustainable transportation

Dr Salma Al Aredi and Daniel Taylor, University of Leeds

In alignment with the United Nation's Sustainable Development Goals, the University of Leeds has been committed to embedding sustainability into its practices and use the campus to find solutions to local and world challenges. Decarbonisation of transportations is one of the latter.

Transition towards a decarbonised campus is, however, a multidimensional shift governed by consumer engagement as well as attitudes towards technology and fuel sustainability. This workshop presents the findings of a student-staff partnership project on investigating student and staff attitudes towards decarbonising their travel to and from the University campus. Comparative analysis to regional HEI incentives and policies are included.

Parallel session 5, 5.3, Workshop (30 mins), 30-Mar-22, 11:10 - 11:40

Sustainability as an essential graduate attribute: student-educator partnerships for curriculum design

Ka Yan Hess, Diana Kerekesova, Felicity Murray, Neale Mendiola, Yik Hoi Lai and Dr Tanya Rihtman, Oxford Brookes University

The assurance of a climate-safe future is the challenge of our time at all societal levels. The

embedding of sustainability as a primary graduate attribute across higher education sectors is an urgent priority, and curriculum design strategies to achieve this are needed. As the initial stage of proposing sustainability curriculum development strategies, a collaborative student research study explored environmental sustainability experiences, views and behaviours of Allied Health Professional students. In this student-educator-led workshop, these findings will be used to facilitate the identification of opportunities, actions and collaborations for inclusive sustainability curriculum design with students as drivers of change.

Parallel session 6, 6.1a, Oral Presentation, 30 March 2022, 11:50 - 13:10

What should we do next? A heuristic framework for HEI action on sustainability

Dr Julie Gwilliam, Cardiff University, Andrew Reeves, De Montfort University, Natalia Timus, Côte d'Azur University and Professor Jackie Labbe, University of Gloucestershire

This presentation provides an introduction to a heuristic framework, developed as a part of the European Universities' Association's Learning & Teaching Thematic Peer Group on the Environmental sustainability of learning and teaching (2020). Its aim was to "promote and guide action to enable the embedding of holistic sustainability into Education and learning across higher education institutions (HEIs)". Here we seek to enable further exploration of the validity of this framework, through interaction during the session as well as by promoting an opportunity to contribute towards a database of practice documenting case studies of practice proven effective in institutional sustainable transformation.

Parallel session 6, 6.1b, Oral Presentation, 30 March 2022, 11:50 - 13:10

Developing learning pathways to transition from sustainability literacy to sustainability leadership in higher education in Ireland

Dr Mark Kelly, Galway-Mayo Institute of Technology

For the past four years, the Galway-Mayo Institute of Technology has strived to develop an educational for sustainability framework to facilitate a transition to move from learning ABOUT sustainability (accommodative) to learning FOR sustainability (reformative) where the campus operations, curriculum and institute policy begin to be re-conceptualised to capacity-building learning AS sustainability (transformative) (Sterling, 2013). This presentation will outline progress on two complementary projects that are exploring opportunities to embed sustainability across the curriculum and are building learning pathways for both students and staff to move from basic sustainability literacy to leadership roles within GMIT.

Parallel session 6, 6.1c, Oral Presentation, 30 March 2022, 11:50 - 13:10

University living lab: Transforming the ability of universities to support sustainability transitions through teaching and learning

Dr Jennifer O'Brien, University of Manchester

Students are an undervalued force for change (O'Brien, 2019). Our University Living Lab brokers applied research framed around the Sustainable Development Goals between organisations and students who can tailor it for their degree assessment. Over 1,000 students have worked with a huge range of partner organisations, including international consultants, governments, health bodies, charities and local businesses with huge impact. Drawing on student voice, this presentation critically shares the scalable approach (O'Brien et al., 2021) which unites teaching and research whilst transforming the ability of universities to support sustainability transitions (Evans et al., 2015). We invite partnership and collaboration.

Parallel session 6, 6.1d, Oral Presentation, 30 March 2022, 11:50 - 13:10

Sustainability as a core purpose of tourism management in HE: Adopting a collaborative approach to embed sector approaches to sustainability into an undergraduate tourism management degree

Dr Andrew Clegg, University of Portsmouth

Embedding sustainability is a core purpose of Tourism Management in HE, and this presentation reflects how an industry framework supporting sustainable destination management was successfully incorporated into an undergraduate Tourism Management degree programme. With reference to the Visit Britain VERB Model (Visitor, Environment, Residents, Businesses) the presentation highlights the importance of critical success factors such as the defined progression between theory and application across levels, a focus on experiential design in workshop activity, and authentic assessment through the involvement of industry partners via 'live' consultancy projects as the basis of making sustainability 'front and centre' in the tourism sector.

Parallel session 6, 6.2a, Oral Presentation, 30 March 2022, 11:50 - 13:10

Measuring sustainable fashion

Professor Mike Mannion, Glasgow Caledonian university

Supply chains in many sectors are increasing sustainability e.g. energy, manufacturing, construction, fashion. In the fashion sector, to demonstrate commitment, comparison against publicly available benchmark indices is increasingly common. So many fashion companies are now recognising the need for data science skills across different roles. This talk will describe a unique certificated course and curriculum partnership between Glasgow Caledonian University New York and Fashion Revolution targeted at fashion sector professionals entitled Measuring Sustainable Fashion. It will explain the motivation for the course, its structure, the profile of course attendees and their feedback.

Parallel session 6, 6.2b, Oral Presentation, 30 March 2022, 11:50 - 13:10

Embedding sustainability in the curriculum: Lessons from three freirean experiments

Dr Jane Hindley, Interdisciplinary Studies Centre, University of Essex

Mainstream approaches to embedding sustainability in the HE curriculum in the UK have been primarily oriented by the Sustainable Development Goals. This talk discusses three experiments with embedding sustainability in the Humanities/Social Science curriculum inspired by an alternative tradition based in the pedagogy of Freire, Dewey and informed by social movement theory (especially the work of Gramsci).

Parallel session 6, 6.2c, Oral Presentation, 30 March 2022, 11:50 - 13:10

Coventry-London: A behavioural marathon towards sustainable development

Dr Lory Barile, Warwick University and Dr Lorenzo Lotti, Bartlett School of Environment, Energy and Resources (UCL)

'Coventry-London: A behavioural marathon towards sustainable development' will showcase an example of a whole-higher education approach to sustainability, which brings together students, academics and external stakeholders to find viable solutions to 'sustainable fashion' using behavioural interventions.

Parallel session 6, 6.2d, Oral Presentation, 30 March 2022, 11:50 - 13:10

Storytelling as a proxy for experiential learning in sustainable education (for the built environment)

Michael Herrmann, Kingston University

In order to help first year students realise that environmental impacts do not recognise national boundaries, and so the consumption of a particular product or material in the UK may leave its ecological footprint on people in distant lands, first year BA architecture students were asked to prepare an 'illustrated essay' as a story about the 'secret life' of a building material.

Parallel session 6, 6.3a, Oral Presentation, 30 March 2022, 11:50 - 13:10

Applying problem-based learning (PBL) to develop key competences for sustainable development (ESD) and employability skills at the Westminster Business School

Dr Gustavo Espinoza Ramos, University of Westminster

Since September 2021, Sustainable City Economies has been a module for second-year undergraduate students at the Westminster Business School. The application of UNESCO key competencies for sustainability and the improvement of employability skills are embedded in the learning outcomes, activities and assessment. In the first roll out of the module, partnerships were built through the poster competition, a fieldtrip in the city of London, and the participation of external speakers from private, public and third parties, who demonstrated their distinctive views about sustainability, thereby enhancing the student experience. This presentation will share good practice in module design when using Problem-Based Learning (PBL) and experiential learning as student-centred pedagogies.

Parallel session 6, 6.3b, Oral Presentation, 30 March 2022, 11:50 - 13:10

Pursuing climate action: Combining academic and professional forces

Dr Fiona Cownie, Bournemouth University

How can academics and professional services work together to progress university engagement with the challenges of the climate crisis? Bournemouth University is ranked number three within UK universities in its work on SDG 13 Climate Action (Times Impact Rankings 2021). This oral presentation demonstrates how constructive relationships can make a fundamental contribution to the ways in which our education and practice address the climate crisis. We take you through our mapping of curriculum against SDGs including climate action and how we are using this intelligence to continue to move forward within the sustainability agenda.

Parallel session 6, 6.3c, Oral Presentation, 30 March 2022, 11:50 - 13:10

Every job can be a sustainability job: Connecting sustainability to employability at NTU

Fiona Winfield, Chris Harwood and Jane Bannister, Nottingham Trent University

In the context of established demand from students and employers, we will showcase our 'Sustainability Employability Award', achieved by engaging in extra-curricular activities such as:

- NTU's Sustainability in Practice certificate
- 'Working Sustainably' workshops
- Carbon Literacy Training for students
- Participation in SDG-based student challenges and simulations.

One of our undergraduates will co-present so we can demonstrate how this benefits the students, their future employers and the planet. These examples build on experience of embedding employability and sustainability within Nottingham Business School (NTU) and we hope to inspire others in the sector.

Parallel session 6, 6.3d, Oral Presentation, 30 March 2022, 11:50 - 13:10

Integrating responsible design practice into fashion education

Dr Alana James, Northumbria University

This presentation discusses the need for a collegiate approach across higher education to successfully integrate sustainable values. Utilising fashion as a contextual example, the presentation will explore the additional challenges faced in design education reflective of their unique studio environment and physical learning practice. A demand from industry is driving change across the creative curriculum to ensure graduates remain employable. However, this pressure is being placed on educators where a skills gap is being evidenced. Consequently a reluctance to incorporate sustainability into learning materials is causing a fractious delivery, impacting the overall learning experience for students.