The 15th eSTEeM Annual Conference: Stepping Back and Stepping Up – 15 Years of eSTEeM
29-30 April 2026

DRAFT PROGRAMME

Day 1: Wednesday 29th April 2026

Time	Session	
9.15-10.00	**Registration and Coffee**	
10.00-10.05	**Welcome and Introduction** Daphne Chang and Fiona Aiken, eSTEeM Directors	
10.05-10.15	**Welcome Address** Victoria Nicholas, Associate Dean, Faculty & Strategy	
10.15-11.00	**Keynote Presentation** Sam Nolan, Director, Durham Centre for Academic Development, Teaching and Learning Centre **Small Questions, Big Change: A Personal Journey Through the Scholarship of Teaching and Learning** This keynote reflects on a personal journey into the Scholarship of Teaching and Learning (SoTL) and explores how scholarly inquiry into teaching can evolve from small-scale practice-based curiosity into a catalyst for institutional change.	

11.00–11.15	**Break**			
11.30–12.30	**Parallel Session A: Interactive Oral Presentations – Assessment and Feedback**			
	Becca Whitehead and Gemma Warriner	Evaluating the effectiveness and student experience of using plug-in tablets as part of robust online assessment	We will outline our project which acts as a response to the challenges of designing robust assessment in the context of Generative AI. We aim to investigate the possibility of online assessment via a verbal one-to-one discussion using plug-in tablets to assess a range of scientific and mathematical work.	
	Fiona Moorman, Katja Rietdorf and Karen New	Academic discussions: evaluating student experience and outcomes and tutor perceptions of this novel form of assessment	Real-time oral exams provide opportunities for spontaneous, personalised student-tutor interactions, offering potential for an authentic assessment experience which may also address academic integrity concerns. This session will provide an update on implementation of oral exams within two biology modules, a demonstration of a mock oral exam, and time for discussion.	
	Sally Jordan, Jonathan Nylk, Becca Whitehead and Cath Brown	Improving performance on remote examinations in symbolically-rich disciplines: lessons from the past and lessons for the future	We will present key findings from an investigation into the effectiveness of several initiatives in encouraging student engagement with a remote exam. Participants will discuss the	

			project's findings in the light of their wider experience of assessment and consider implications for assessment and student support in the future.	
11.30–12.30	**Parallel Session B: Interactive Oral Presentations – Continuation and Completion & Innovations in STEM Teaching and Learning**			
	Silvia Varagnolo, Zahra Golrokhi, Colum McKenna, James Openshaw, Shawndra Hayes-Budgen and Elizabeth Mathews	Gamification to increase participation in maths practice quizzes in Level 1 Engineering modules	The project aims to improve student engagement with weekly practice quizzes in a level 1 engineering module by gamifying existing Moodle quizzes. Three interventions were introduced: improved presentation, conditional feedback, and rewards (tokens and a digital badge). Effectiveness was evaluated through data about engagement and outcomes, one survey and interviews.	
	Ivan Sudakow, Andrey Umerski, Gregory Carslaw, Phil Foster and Adam Wayne	Online calculus games for distance learners: what works and why	Join a fast, interactive look at online calculus games for distance learners. See what students preferred, where timers helped or harmed, and how feedback can boost learning. Bring your experience—quick polls and discussion will shape a shared "what works" checklist.	

	Ruth Neal, Ellen Marshall and Emma Steele	Students as partners to incorporate learning preferences and inclusivity into curriculum design and improve learning outcomes	An interactive session sharing early findings from a project exploring student perceptions of statistics teaching and learning preferences. We examine how current materials support or hinder different learners and invite participants to discuss inclusive, engaging approaches that can shape future curriculum design.	
11.30–12.30	**Parallel Session C: Interactive Oral Presentations – Sustainability in the STEM Curriculum & Employability**			
	Emma Dewberry and Vera Hale	Transformative Design Education: Cultivating Capabilities and Skills for the 21st Century	This paper explores how design education can foster transformative learning for sustainability by developing capabilities and green skills for employability. Drawing on data from initiatives such as Sustainathon, it highlights how design-led learning equips graduates to address pressing social and ecological challenges.	
	Martin Braun, Georgina Gough, Carlton Wood, Anna Elliott, Maria Nita, Kathleen Calder, Rosie Meade and Paul Astles	Linking Physics and the Disciplines: Reinterpreting Biglan's Framework for Sustainability Integration	This session explores how Biglan's framework can support embedding sustainability across disciplines, drawing on a physics case study linking Key Sustainability Competencies to existing curricula. Participants will examine disciplinary influences on sustainability education and co-develop	

			approaches for adapting these insights within their own academic contexts.	
	Sarel Marais, Gareth Neighbour and Russ Lewis	A Quizzical Approach to Employer-Facing Education: Engaging the eSTEeM Community through Participatory Action Research	An interactive, live-polling session exploring what employer-facing education really means, the challenges of work-focused learning, particularly for a distance learning institution. Join us to reflect, compare perspectives, and help shape our eSTEeM research on employer partnerships and higher education delivery.	
11.30–12.30	**Parallel Session D: Interactive Oral Presentations – Student Support & International collaborations in STEM Teaching and Learning**			
	Nicola McIntyre, Cath Brown, Linda Moore and Eleanor Crabb	Creating a suite of maths support for LHCS students	We will look at how we are supporting LHCS students with their mathematical skills at a qualification level. We will explain the rationale for this type of cross-module support, including its benefits and challenges, describe what we have done and invite the audience to consider opportunities for cross-module support in their own areas.	
	Rachel Hilliam	What Happens After the Project Ends? Lessons learnt from tracing the impact of three eSTEeM Scholarship projects in Mathematics and Statistics	This talk examines the professional, institutional, and student impact of three eSTEeM projects. It explores work on Staff Tutor diversity, evaluation of the Mathematics and Statistics Study Site, and interventions addressing statistical anxiety, demonstrating how scholarship informed policy, enhanced student support, improved retention, and generated national and international influence.	

	Sarah Davies, Jane Cullen and Maria Velasco	Co-investigating preparedness for virtual practical STEM education: testing and learning in Ghana	Virtual laboratories and virtual fieldwork can provide powerful practical learning experiences; however, success depends on an understanding of the context. This collaborative project between the Open University and University of Cape Coast, Ghana, explored attitudes, pedagogical readiness and technical preparedness for implementing virtual practical STEM education in the Ghanaian context.	
12.30–13.30	**Lunch**			
13.45–14.45	**Parallel Session E: Workshop/Demonstration – Student Support**			
	Rosie Boltryk and Emma Champion	How does it feel to support students with extensions: the AL experience	This project focuses on student and AL experience around extensions on engineering modules, and links to equitability and retention. The session invites you to explore the AL experience of working with TMA extensions, including discussions on AL practice related to extensions and also the impact of extensions on ALs' work life, personal life and emotional wellbeing.	
13.45–14.45	**Parallel Session F: Workshop/Demonstration – Employability**			
	Fiona Gleed, Claudia Eckert, Mark Addis and Karen Storey	Mapping the soft skills brought by mature students to Engineering Education	Soft skills are an important aspect of higher education but can be difficult to develop in distance learning. In this workshop we will explore the categorisation of soft skills and consider	

			how these map to student entry profiles and module content.	
13.45–14.45	**Parallel Session G: Workshop/Demonstration – Innovations in STEM Teaching and Learning**			
	Dimitar Valchev	Remote space propulsion lab	This remote lab activity on space propulsion studies a small ion thruster placed in a vacuum chamber. Through three soft controls, the user adjusts the flow of gas, the ionisation voltage, and the acceleration voltage for the ionised gas. The resulting plasma plume is observed on a webcam.	
14.45–15.00	**Break**			
15.15–16.15	**Teaching Innovation Talks** A series of short, 5-minute talks discussing module/programme level initiatives, concentrating on what works and how it has improved the student experience, followed by Q&A.			
	Becca Whitehead, Gemma Warriner and Judith Croston	Use of tablets to facilitate discussion-based assessments	We'll describe, and if time is available, demonstrate our ongoing exploration of plug-in tablets to facilitate student-tutor discussions of physical sciences topics, as a possible new assessment mode that is robust against academic misconduct while supporting development on communication skills.	
	Shaun Mutter, Daniel Payne,	Using labcasts to make chemistry assessments more authentic	We outline the approaches taken to make the end of module assessment for a level 2 chemistry module more	

	Kate Nixon and Rob Janes		authentic. This was achieved by directly linking the assessment to data and procedures from a synoptic labcast, that demonstrated concepts and techniques used in solving a real-world chemical problem.	
	Philip Wheeler	Lessons from teaching Environmental Scientists coding	This talk is about the opportunities, challenges and experience of developing teaching materials to teach environmental science students about coding.	
	Tim Lowe	Optionality in a Stage 3 emTMA	In this presentation, we discuss how we support optionality in a Stage 3 emTMA and arrange appropriate specialist marking.	
	Leslie Mabon	Building awareness of values in environmental managers: the experience with T330 Environmental Management: Pathways to Sustainability	This presentation will outline the development of T330 Environmental Management: Pathways to Sustainability, a Level 3 environmental management module that reframes the environmental manager beyond technical roles to include community and informal practice. Through eco-anxiety reflection, journaling, competency mapping, and practitioner narratives, the module integrates	

			personal values with professional and technical development.
	Soraya Kouadri Mostéfaoui and Stuart Auton	Beyond detection: strategies for assessment integrity in the GenAI era	In this presentation, we will present our ongoing efforts to navigate the challenges and opportunities posed by students' use of Generative AI in academic assessments.
16.15–17.00	**15 Years of eSTEeM Celebration and Networking** Join us to formally mark our 15th anniversary and reflect on day one of the conference with colleagues over some light refreshments. An online session will be available for those joining remotely.		
17.00	**End of Day One**		

Day 2: Thursday 30ᵗʰ April 2026

Time	Session			
9.00-9.45	**Registration and Coffee**			
9.45-10.45	**Parallel Session H: Workshop/Demonstration – Employability**			
	Vera Hale, Emma Dewberry and Georgina Hawkins	Learning from the OU Sustainathon: Employability Skills through Sustainable Design Challenge	By using the OU Sustainathon as a creative, distance-learning project template, this eSTEeM workshop aims to engage colleagues in sharing insights and exploring ways to better embed the development of sustainable employment skills opportunities for our students.	
9.45-10.45	**Parallel Session I: Workshop/Demonstration – Access, Participation and Success**			
	Zoe Tompkins, Amaninder Singh, Kate Feliciello, Brent Cunningham and Andrew Smith	Decolonising Computing: Practical Steps for Inclusive Curriculum and Pedagogy	Join us for a practical, interactive session; exploring how decolonising approaches can strengthen inclusivity, representation, and sociotechnical awareness in computing education. After a short introduction, you'll take part in hands-on activities remixing real profiles from the Diverse Computing Pioneers Repository designing a	

			micro-activity for immediate use in your own teaching.	
9.45–10.45	**Parallel Session J: Workshop/Demonstration – Academic Professional Development and Recognition**			
	Janet Haresnape, Carina Bossu and Sarah Daniell	The crucial role that scholarship of teaching and learning plays in Fellowship of the Higher Education Academy (HEA) applications	Exploration of scholarship initiatives which are appropriate to include in Fellowship of the Higher Education Academy submissions, to ascertain the extent of the influence and hence appropriate level of each. This workshop will be of particular relevance to anyone actively involved in scholarship who is applying for SFHEA or PFHEA.	
10.45–11.00	**Break**			
11.15–12.00	**Poster Presentations**			
	Alice Fraser-McDonald, Maria Townsend and Kambiz Saber-Sheikh	How valuable are 'quiet' tutorials for Level 1 Interdisciplinary Environmental Science students?		
	Ian Bates and Gareth Neighbour	Transactional to Transformative: an evolution of the HE into FE partnership		
	AnnMarie McKenna and Catherine Scott	Adventures in Copilot whispering		
	Servel Miller and Jenny Duckworth	Does student knowledge and perceptions of AI use as a learning support tool align with academic staff approaches to embedding it in the curriculum?		
	Cath Brown and Andy Neate	Tackling illicit Generative AI use informally		

	Sam Johnson	Tracking Self-Efficacy in STEM: How Student Confidence Changes During Modules and Why It Matters	
	Elouise Huxor and Theodora Philcox	Creating a sense of belonging.... one postcard at a time	
	Zoë Chapman and Janette Wallace	Do Co-Created Digital Assets Contribute to Students' Sense of Belonging in LHCS?	
	Lucy Anderson, Sarah Daniell, Janette Wallace and Trevor Collins	From Pilot to Practice: Facilitating the use of a social virtual reality platform in LHCS	
	Katie Acutt, Fiona Moorman and Sarah Daniell	Bespoke tutor-student allocation for Health Sciences students	
	Ruth Neal, Ellen Marshall and Emma Steele	Students as partners to incorporate learning preferences and inclusivity into curriculum design and improve learning outcomes	
	Nitu Bharati, Edsoulla Chung and Paul Piwek	A survey of Stage 1 students on use of Generative AI and Argumentation	
	Victoria Pearson, Maria Velasco, Linda Moore and Alison Condliffe	Investigating students' perceptions of university communications	
	Harriet Marshall and Yvonne Chakraborty	Exploring How Structured Environmental Engagement Opportunities Foster a Sense of Belonging and Provide Support for Distance Learning Students' Eco-anxiety	
	Andy Diament, Gemma Warriner and Stella Bradbury	Evaluating the Programming for Physical Sciences website and forums on SM123 Physics and Space	

	Stuart Auton		Reducing Signup Errors in Online Course Materials Through Design-Led Guidance and Monitoring Tools	
	Chris Corcoran		Researching student barriers and enablers: a reflection on the role of research ethics	
12.00–13.00	**Lunch**			
13.15–14.15	**Parallel Session K: Interactive Oral Presentations – Access, Participation and Success; Student Support & Student Emotions and Wellbeing**			
	Christopher Hutton, Fiona Aiken and Iris Verhagen	Investigating and supporting skills development needs for students transitioning between stages 1 and 2, and 2 and 3 in environmental science	We are investigating skills gaps that present challenges to students transitioning from stage 1 to 2 and 2 to 3 on environmental science modules. We will share our findings from focus groups with staff and facilitate a discussion around the wider implications in STEM.	
	Susan Pawley, Nicola McIntyre and Becca Whitehead	Identifying and supporting maths anxiety	This presentation explores how maths anxiety develops, its emotional and behavioural effects, and how it disrupts learning. Through interactive activities and examples, it highlights key indicators such as avoidance and procrastination and demonstrates how targeted strategies can help students reduce anxiety, improve engagement, and enhance overall well-being.	

	Jake Hilliard, Karen Kear and Helen Donelan	Understanding students' emotion regulation when learning online	Online learning can be emotionally challenging. This session shares insights from a study of undergraduate STEM students, exploring how and why students regulate their own and others' emotions when learning online. Participants will reflect on emotional processes in online learning and discuss strategies to support student wellbeing and foster emotional resilience.	
13.15–14.15	**Parallel Session L: Interactive Oral Presentations – Access, Participation and Success**			
	Willow Neal, Emmanuel Zuza, Kat Gauld, Elaine McPherson, Christopher Hutton and Ellesar Elhaggag	Patterns of Inequality in STEM Degree Awarding for LGBTQ+ Students in Distance Learning	Distance learning is often framed as inclusive, yet institutional data reveal a clear awarding gap for LGBTQ+ students in STEM. This session presents new evidence from the Open University and invites reflection on how identity, data, and teaching practices shape equity in higher education.	
	Louise MacBrayne, Jennie Bellamy, Isabella Henman and Kate Gibson	Postcode Inequity: Closing the Awarding Gap for Stage 1 STEM Students residing in our most deprived UK postcodes	The OU has identified an awarding gap for stage one STEM students between the most and least deprived UK postcodes. We will outline the key themes identified from survey and student interviews, around community,	

			study space, belonging and confidence. Results from a parallel intersectional study for socio-economic status with other characteristics will also be shared.	
	Alice Fraser-McDonald, Sally Jordan, David Sharp and Teresa Sides	Progression of OU STEM students from taught courses to postgraduate research – motivations and barriers	This session presents key findings from an investigation into the progression of OU STEM students from taught courses to postgraduate research. Drawing on institutional data, survey and interviews, it explores progression rates and identifies barriers to pursuing this pathway. Participants will also discuss follow-on actions to help mitigate these challenges.	
13.15–14.15	**Parallel Session M: Interactive Oral Presentations – Innovations in STEM Teaching and Learning**			
	Emma Steele, Carol Calvert, Alison Bromley and Ruth Neal	Guiding students in the use of GenAI for study support	This talk will invite participants to think about the advantages and disadvantages of student use of GenAI in their study, alongside the positive ways in which students can utilise GenAI to enhance their own learning.	
	Hayley Ryder and Tacey O'Neil	You are not alone	We explore GenAI as a "study buddy" for isolated students. Using an outsourcing lens, we ask which tasks GenAI can support without weakening learning outcomes. The session includes a live GenAI demonstration to showcase	

			supportive, wellbeing-positive interaction. Being live, this has the exciting potential to go spectacularly off-script.	
	Mark Hintze, Janette Wallace and Karen New	Automatic reference checker to save time and support ALs	Come along to our interactive session where we will show case a new Agent Ref tool, which we have designed to save time and support ALs through the automatic checking of references. You will be offered the opportunity to test drive the tool and explore its potential use.	
14.15–14.30	**Break**			
14.30–15.30	**Panel Discussion – The Role of Scholarship in the OU's Emerging Strategy**			
15.30–15.45	**eSTEeM Scholarship Projects of the Year, Best Poster Presentation, Most Immersive and Engaging Presentations Awards followed by Closing Remarks**			
15.45	**Conference Close**			