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

## FINAL PROGRAMME – ONLINE ATTENDANCE

### Day 1: Wednesday 29th April 2026

| Time | Session | MS Link |
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| **9.15-10.00** | **Registration and Coffee** | **Medlar and Juniper** |
| **10.00-10.05** | **Welcome and Introduction**<br>Daphne Chang and Fiona Aiken, eSTEeM Directors | **Hub Lecture Theatre** |
| **10.05-10.15** | **Welcome Address**<br>Victoria Nicholas, Associate Dean, Faculty & Strategy | **Hub Lecture Theatre** |
| **10.15-11.00** | **Keynote Presentation**<br>Sam Nolan, Director, Durham Centre for Academic Development, Teaching and Learning Centre<br><br>**Small Questions, Big Change: A Personal Journey Through the Scholarship of Teaching and Learning**<br>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. | **Hub Lecture Theatre** |

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| **11.00-11.15** | **Break** | | | **Medlar and Juniper** |
| **11.30-12.30** | **Parallel Session A: Interactive Oral Presentations – Assessment and Feedback** | | | |
| **Chair: Sarah Daniell** | 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. | **CMR 1** |
| | 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 | Improving performance on remote examinations in symbolically-rich disciplines: | We will present key findings from an investigation into the effectiveness of several initiatives in encouraging student engagement with a remote | |

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| | Whitehead and Cath Brown | lessons from the past and lessons for the future | 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** | | | |
| **Chair: Sue Pawley** | 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. | **CMR 11** |
| | 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. | |

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| | 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** | | | |
| **Chair: Mark Jones** | 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. | **CMR 15** |
| | 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 | |

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| | | | 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** | | | |
| **Chair: Trevor Collins** | 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. | **Library Seminar Rooms 1-2** |
| | 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, | |

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| | | | 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** | | | **Medlar and Juniper** |
| **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 | **CMR 1** |

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| | | | 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. | **CMR 11** |
| **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. | **CMR 15** |
| **14.45-15.00** | **Break** | | | **Medlar and Juniper** |
| **15.15-16.15 Chair: Daphne Chang** | **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. | | | **Hub Lecture Theatre** |

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| | 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, Kate Nixon and Rob Janes | 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 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. | |

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| | 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**<br>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. | | | **Hub Lecture Theatre** |
| **17.00** | **End of Day One** | | | |

## Day 2: Thursday 30th April 2026

| Time | Session | | | MS Link |
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| **9.00-9.45** | **Registration and Coffee** | | | **Medlar and Juniper** |
| **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. | **CMR 1** |
| **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 | **CMR 11** |

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| | | | 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. | **CMR 15** |
| **10.45-11.00** | **Break** | | | **Medlar and Juniper** |
| **11.15-12.00** | **Poster Presentations** | | | |
| **Poster 1** | Alice Fraser-McDonald, Maria Townsend and Kambiz Saber-Sheikh | | How valuable are 'quiet' tutorials for Level 1 Interdisciplinary Environmental Science students? | **Watch video** |
| **Poster 2** | Ian Bates and Gareth Neighbour | | Transactional to Transformative: an evolution of the HE into FE partnership | **Watch video** |
| **Poster 3** | AnnMarie McKenna and Catherine Scott | | AIDED – The AI Design Ed project. Practical application of AI tools in OU Design | **Watch video** |
| **Poster 4** | 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? | **Watch video** |

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| **Poster 5** | Cath Brown, Andy Neate and Ruth Neal | Tackling illicit Generative AI use informally | **Watch video** |
| **Poster 6** | Sam Johnson | Tracking Self-Efficacy in STEM: How Student Confidence Changes During Modules and Why It Matters | **Watch video** |
| **Poster 7** | Elouise Huxor and Theodora Philcox | Creating a sense of belonging…. one postcard at a time | **Watch video** |
| **Poster 8** | Zoë Chapman and Janette Wallace | Do Co-Created Digital Assets Contribute to Students' Sense of Belonging in LHCS? | **Watch video** |
| **Poster 9** | Lucy Anderson, Sarah Daniell, Janette Wallace and Trevor Collins | From Pilot to Practice: Facilitating the use of a social virtual reality platform in LHCS | **Watch video** |
| **Poster 10** | Katie Acutt, Fiona Moorman and Sarah Daniell | Bespoke tutor-student allocation for Health Sciences students | **Watch video** |
| **Poster 11** | Ruth Neal, Ellen Marshall and Emma Steele | Students as partners to incorporate learning preferences and inclusivity into curriculum design and improve learning outcomes | **Watch video** |
| **Poster 12** | Nitu Bharati, Edsoulla Chung and Paul Piwek | A survey of Stage 1 students on use of Generative AI and Argumentation | **Watch video** |
| **Poster 13** | Victoria Pearson, Maria Velasco, Linda Moore and Alison Condliffe | Investigating students' perceptions of university communications | **Watch video** |
| **Poster 14** | Harriet Marshall and Yvonne Chakraborty | Exploring How Structured Engagement Opportunities Could Help Students Address Eco-anxiety Through Supporting Wellbeing and Fostering Community Building | **Watch video** |
| **Poster 15** | Andy Diament, Gemma Warriner and Stella Bradbury | Evaluating the Programming for Physical Sciences website and forums on SM123 Physics and Space | **Watch video** |

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| **Poster 16** | Stuart Auton | | Fixing Broken Content Access: A Design-Led Solution | **Watch video** |
| **Poster 17** | Chris Corcoran | | Researching student barriers and enablers: a reflection on the role of research ethics | **Watch video** |
| **12.00-13.00** | **Lunch** | | | **Medlar and Juniper** |
| **13.15-14.15** | **Parallel Session K: Interactive Oral Presentations – Access, Participation and Success; Student Support & Student Emotions and Wellbeing** | | | |
| **Chair: Cath Brown** | 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 sciences | 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. | **CMR 1** |
| | 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. | |

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| | 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** | | | |
| **Chair: Andrew Potter** | 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. | **CMR 11** |
| | 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, | |

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| | | | 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** | | | |
| **Chair: Cathy Smith** | 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. | **CMR 15** |
| | 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 | |

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| | | | 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** | | | **Medlar and Juniper** |
| **14.30-15.30** | **Panel Discussion – The Role of Scholarship in the OU's Emerging Strategy**<br><br>As the University sets about developing its new strategy for the next five years, join us for a discussion about how scholarship can play an important role in shaping and delivering its vision of high-quality, digitally enabled education, research and partnership. Our invited panellists will be Mark Brandon (Interim PVC Research & Innovation), Ian Pickup (PVC Students), Victoria Nicholas (STEM Associate Dean, Faculty & Strategy) and Liz Hardie (Director of SCiLAB, FBL). | | | **Hub Lecture Theatre** |
| **15.30-15.45** | **eSTEeM Scholarship Projects of the Year, Best Poster Presentation, Most Immersive and Engaging Presentations Awards followed by Closing Remarks** | | | **Hub Lecture Theatre** |
| **15.45** | **Conference Close** | | | |