

	<b>Horizons in STEM Higher Education</b> <b>SWANSEA UNIVERSITY, SINGLETON PARK, SWANSEA, SA2 8PP</b> <b>Day 1</b> <b>Wednesday 28th June</b>			
9:00 - 9:30	<b>Registration</b> <b>Room: Science Central, Wallace Building, first floor</b>			
9:30 - 9:45	<b>Welcome and Introduction: Prof David Smith</b> <b>Room: Glyndwr D</b>			
9:45 - 10:15	<b>Plenary 1 – Prof Nicky King</b> <b>Room: Glyndwr D</b>			
	Travel time between rooms			
	<b>Laboratory, field and practical work</b> <b>Room: Glyndwr A</b> <b>Chair: Penny Neyland</b>	<b>Equality, Diversity and Inclusion</b> <b>Room: Glyndwr B</b> <b>Chair: Wendy Harris</b>	<b>Transitions, Student Support and Academic Mentoring</b> <b>Room: Glyndwr C</b> <b>Chair: Adesola Ademiloye</b>	<b>Assessment</b> <b>Room: Glyndwr D</b> <b>Chair: Ana Da Silva</b>
10:20 - 10:40	Bridging the gap between theory and practice using open-ended bite-size laboratory design approach <i>Augustine Egwebe and Sean Lethbridge.</i>	'I can't really say as my course is 90% male': students' perceptions of gender impact on computing and engineering degrees <i>Ella Taylor-Smith, Sally Smith and Khristin Fabian</i>	Statistical anxiety: a new measurement tool <i>Rachel Hilliam, Emma Steele, Carol Calvert and Di Haigney</i>	GPA inflation <i>Yifu Wan</i>
10:40 - 11:00	Simulations as an assessment for learning <i>Nigel Francis, Dave Ruckley and Thomas Wilkinson</i>	STEM and belief in UK and USA Higher Education: A new perspective on Equality, Diversity and Inclusion <i>Lucy Peacock and Tiffani Riggers-Piehl</i>	Smoothing the bumpy road of student transition <i>Cressida Lyon</i>	Unique data sets for robust and fair online assessments <i>Alison Hill, Nicholas Harmer and Steven Porter</i>

11:00 - 11:30	<b>Break for coffee</b> <b>Room: Science Central, Wallace Building, first floor</b>			
	<b>Active Learning</b> <b>Room: Glyndwr A</b> <b>Chair: Sarah Roberts</b>	<b>Sustainability, Climate Education and a Net Zero Future</b> <b>Room: Glyndwr B</b> <b>Chair: Peter Esteban</b>	<b>Digital Learning Technologies</b> <b>Room: Glyndwr C</b> <b>Chair: Neil Williams</b>	<b>Pedagogic Research</b> <b>Room: Glyndwr D</b> <b>Chair: Susan Pawley</b>
11:30 - 11:50	Incidence of a pedagogical intervention based on active learning and critical thinking in solving problems of Mechanics Physics in Engineering students. <i>Ignacio Laiton</i>	Embedding Sustainable Development Goals in Postgraduate Programmes <i>Noha Saleeb</i>	Virtual Laboratory Teaching: A Blended Approach <i>Denise Rooney, Frances Heaney, Carmel Breslin, Steffi Thomas, Marwa Aly, Aoife Newman, Ronan Bree, Bernard Drumm, Brian Murphy, Aoife Morrin, Blanaid White and Eric Moore</i>	Situational Awareness in Aerospace Engineering Education <i>Jason McFadzean and Patricia Xavier</i>
11:50 - 12:10	Embedding retrieval practice in undergraduate Biochemistry teaching using PeerWise <i>Nigel Francis, Tanya Higgins, Ed Dudley, Owen Bodger and Phil Newton</i>	Cultivation of disconnection: STEM, self, others and planet <i>Patricia Xavier and Nathalie Al Kakoun</i>	Community, Relevance and TALENT: A STEM specific network for digital and pedagogical transformation <i>Lucy Hamilton and Hayley Whitefoot</i>	STEM Integration: novel pedagogy or unlikely fantasy for the United Kingdom? <i>Rory McDonald</i>
12:10 - 12:30	Collaborative programme design and active learning in Aerospace Engineering design modules <i>Yuying Xia and Jase Mcfadzean</i>	Why engineering for sustainable development initiatives will fail <i>Gabrielle Orbaek White</i>	Institute of Coding in Wales Micro-Credential Digital Skills Bootcamps <i>Casey Hopkins and Faron Moller</i>	Picture is worth 1000 words – Developing students' visual communication skills by creating information sheets <i>Ralitsa Kantcheva and Bethan Davies Jones</i>
12:30 - 13:30	<b>Lunch</b> <b>Room: Science Central, Wallace Building, first floor</b>			

Workshops	Room: Glyndwr 124	Room: Glyndwr M		LearnSci parallel session Room: Glyndwr D
13:30 - 14:30	Exploring how to embed sustainability in curriculum in a natural way <i>Martin Braun</i>	What might a decolonised computing and IT curriculum look like? <i>Zoe Tompkins and Magnus Ramage</i>		<ul style="list-style-type: none"> <li>Micro-Skill Badging: Evidencing In-Course Development of Employability Skills and Competencies <i>Frances Heaney, Trinidad Vealsco-Torrijos, Denise Rooney, John Stephens, Anne Cleary, Orla Joyce, Ria Collerywalsh, Robert Elmes, Carmel Breslin and Steffi Thomas</i></li> <li>Pre-arrival Hub to support and enhance student engagement, attainment and retention <i>Alexandra Moores</i></li> <li>The History of Life film project <i>John Murray</i></li> <li>Biochemistry Smart Worksheets and unique data set generation by Smart PDFs <i>Steve Porter, Nic Harmer and Alison Hill</i></li> <li>Bringing Forensic Science and Crime Scene Investigation (CSI) to life through digital, innovative, interactive LearnSci Smart Worksheets in preparation for CSI practice and enhancement of learning and assessment as well as employability <i>Rebecca Flanagan</i></li> <li>Personalising feedback at scale for first year undergraduate chemistry students <i>Charisse Reyes and Sara Kyn</i></li> </ul>
	<b>Assessment</b> <b>Room: Glyndwr A</b> <b>Chair: Duncan Parker</b>	<b>Digital Learning Technologies</b> <b>Room: Glyndwr B</b> <b>Chair: Elinor Jones</b>	<b>Transitions, Student Support and Academic Mentoring</b> <b>Room: Glyndwr C</b> <b>Chair: Susan Pawley</b>	
14:30 - 14:50	Training and assessing students in seeing “the big picture” in complex mathematical processes and linking to employability scenarios. <i>Maire Gorman</i>	Natural Bedfellows: Flipped Learning and Deep Artificial Intelligence Chat Bots. <i>Neil Gordon and Mike Brayshaw</i>	Writing retreats for undergraduate students: a controlled study <i>Paul Collier and Victoria Nicholas</i>	
14:50 - 15:10	Group Project in Bioinformatics, an example of authentic assessment to develop a wide range of professional skills for PGTs <i>Celine Petitjean</i>	"Personal tutor" pilot scheme on a Mathematics first year module in a distance learning environment <i>Victoria Brown and Cath Brown</i>	Sharing of cross-institutional case studies to support success in lifelong learning and skills development in first year science students <i>Sarah Gretton, Alison Cullinane and Nigel Page</i>	
15:10 - 15:40	<b>Break for coffee</b>  <b>Room: Science Central, Wallace Building, first floor</b>			

	<b>Active Learning</b> <b>Room: Glyndwr A</b> <b>Chair: Sarah Gretton</b>	<b>Assessment</b> <b>Room: Glyndwr B</b> <b>Chair: Aydin Nassehi</b>	<b>Transitions, Student Support and Academic Mentoring</b> <b>Room: Glyndwr C</b> <b>Chair: Duncan Parker</b>	<b>Equality, Diversity and Inclusion</b> <b>Room: Glyndwr D</b> <b>Chair: Penny Neyland</b>
15:40 - 16:00	Connecting Undergraduates with Research in Mathematics <i>Elinor Jones, Paul Northrop and Nicholas Grindle</i>	Auto-marked data interpretation examinations: Can we eliminate marking whilst continuing to assess students' higher-level cognitive skills? <i>Jo Stewart-Cox</i>	Accessible academic support: Are we barriers to student success? <i>Nicola Swann, Jennifer Oates, Charlotte McCarroll and Dynatra Subasinghe</i>	Who are our students? Their learning journeys, in 400 words. <i>Hilda Mulrooney, Alison Kelly, Marwa Morshed, Kashfia Nizum, Aneesha Joseph, Baria Uppal and Phothiny Nesanathan**(online)</i>
16:00 - 16:20	Enhancing students' understanding of Intermolecular Forces using IMFs cards <i>Erlina Erlina, Maria Ulfah and Azwa Fadilla Wafiq</i>	What is known in literature about online exams in higher education in general, and in particular in Physics and Maths <i>Martin Braun</i>	Learning to be leaders: the transition from post-graduate student to research leader <i>Ann Grand, Victoria Pearson, Joanna Shelton, Iain Greenlees and Snezana Levic</i>	Demographic inequalities across assessment types in university physics <i>Jessie Durk, Michael Fox, Camille Kandiko Howson, Amy Smith and Mark Richards</i>
	Travel time between rooms			
16:30 - 17:30	<b>Poster session</b> <b>Room: Science Central, Wallace Building, first floor</b>			

	<b>Horizons in STEM Higher Education</b> <b>SWANSEA UNIVERSITY, SINGLETON PARK, SWANSEA, SA2 8PP</b> <b>Day 2</b> <b>Thursday 29<sup>th</sup> June</b>			
9:00 – 9:20	<b>Registration</b> <b>Room: Science Central, Wallace Building, first floor</b>			
9:20 - 9:50	<b>Plenary 2 – Virtual Reality</b> <b>Room: Glyndwr D</b>			
	Travel time between rooms			
	<b>Active Learning</b> <b>Room: Glyndwr A</b> <b>Chair: Peter Esteban</b>	<b>Equality, Diversity and Inclusion</b> <b>Room: Glyndwr B</b> <b>Chair: Patricia Xavier</b>	<b>Laboratory, field and practical work</b> <b>Room: Glyndwr C</b> <b>Chair: Aisling Devine</b>	<b>Transitions, Student Support and Academic Mentoring</b> <b>Room: Glyndwr D</b> <b>Chair: Suzanne Wells</b>
10:00 - 10:20	Making workshops work <i>Timothy Burns</i>	Women into Tech: understanding barriers, making connections <i>Ella Taylor-Smith, Sally Smith, Carron Shankland and Mario Kolberg</i>	Do students still want overseas field courses? <i>Wendy Harris and Joanne Maddern</i>	Decolonising the delivery of Engineering subjects <i>Tosha Nembhard</i>
10:20 - 10:40	The gamification of learning in a Medical Science curriculum <i>Dylan Jones</i>	The Role of Enjoyment in Life Sciences Higher Education <i>Catherine Mansfield and Kate Ippolito</i>	Live fieldwork broadcast- a student co-production partnership <i>Janine Maddison</i>	Engineering Capital: The development and adoption of a domain-specific perspective on Engineering inequities in the United Kingdom <i>Rory McDonald</i>
10:40 - 11:00	Assisting Transition and promoting active learning: a case study of a first-year Engineering module <i>Yue Chen</i>	Together from the Start? Exploring student sense of belonging following a residential field trip at the start of their university journey <i>Emily Bell, Celine Petitjean and Rose Murray</i>	Being free to fail: a new approach to developing confidence and competence in practical skills <i>Sarah Aynsley, Nazim Ali and Rebecca MacKenzie</i>	Gaining deeper understanding of the female decision-making process for the selection of Mechanical Engineering at degree level in the UK, to counteract its low uptake. <i>Jennifer Thompson, Chloe Morgan, Andrew Rees and Katie Hebborn</i>

11:00 - 11:30	Break for coffee Room: Science Central, Wallace Building, first floor			
	Pedagogic research Room: Glyndwr A Chair: Neil Williams	Laboratory, field and practical work Room: Glyndwr B Chair: Aisling Devine	Employability work-based learning and apprenticeships Room: Glyndwr C Chair: Simon Bott	Cengage parallel session Room: Glyndwr D
11:30 - 11:50	Using a design thinking approach to re-imagine provision of large first-year bioscience modules Hilda Mulrooney, Gemma Shearman and Nigel Page	Blended field courses: Using collaboration tools to integrate physical and online access to fieldwork Trevor Collins, Yesenia Arroyo and Anita Marshall	Enrichment workshops to encourage awareness of employability skills Janet Haresnape and Ruth Gilbert.	Digitally Focused Pedagogy Cengage
11:50 - 12:10	Developing Higher Learning Skills through Remote Practice-Based Learning Maxim Lamirande, Foroogh Hosseinzadeh, Anne-Marie Gallen, Helen Lockett and Rafael Hidalgo.	Development of an at-home practical to overcome a control theory threshold concept Haziqah Shahari, Becky Selwyn and Joel Ross	Undergraduate Engagement with Outreach Simon Bott	How educational technology solutions build confidence by equipping students with the skills and competencies needed to advance their careers in STEM. James Coates, Sue Prain and Cengage Faculty Partners
12:10 - 12:30	Attitudes to Science in an Interdisciplinary Programme Derek Raine and Sarah Gretton	Editing the green gene: a report on implementing a Masters-level unit-based CRISPR genome-editing research experience Zoë Burke and Neil Brown	Integrating an e-portfolio into the curriculum to allow students to track skills development Becky Thomas, Rebecca Lewis and Siobhan Swindells	
12:30 - 13:30	Lunch Room: Science Central, Wallace Building, first floor			

<b>Workshops</b>	<b>Room: Wallace 218</b>	<b>Room: Glyndwr 124</b>	<b>Room: Glyndwr M</b>	<b>Room: Grove LT 330</b>
13:30 - 14:30	Questions, Stories, Pictures, Decisions: A streamlined framework for embedding work-readiness curriculum into STEM teaching <i>Graham Cole</i>	Using computer tools to support molecular biology labs <i>Philip Leftwich</i>	Decolonising the curriculum through an active learning approach <i>Angie Makri and Stephanie McDonald</i>	Identifying and developing good practice in the Scholarship of Teaching and Learning (SoTL) within STEM HE <i>Diane Butler, Trevor Collins, Sarah Gretton and Neil Williams</i>
	<b>Assessment</b> <b>Room: Glyndwr A</b> <b>Chair: Wendy Harris</b>	<b>Transitions, Student Support and Academic Mentoring</b> <b>Room: Glyndwr B</b> <b>Chair: Suzanne Wells</b>	<b>Equality, Diversity and Inclusion</b> <b>Room: Glyndwr C</b> <b>Chair: Sarah Gretton</b>	<b>Employability work-based learning and apprenticeships</b> <b>Room: Glyndwr D</b> <b>Chair: Ana Da Silva</b>
14:30 - 14:50	Embedding employability through a framework of authentic assessment and training support in the undergraduate research project <i>Stephanie McDonald and Lee Parkin</i>	<b>Postcard Project: an investigation into engagement and retention on a level one module</b> <i>Theodora Philcox and Elouise Huxor</i>	Remodelling Bioscience Undergraduate Final Year Projects and Dissertations. <i>Karan Singh Rana</i>	Integrated work-based assessments for level 7 data analytics digital degree apprenticeships: challenges and lessons <i>Antonios Kaniadakis, Isabel Sassoon and Faris Alwzinani</i>
14:50 - 15:10	Developing transferable skills with final year Biosciences students using design sprints and assessment co-creation <i>Joanne Gough and Alan Goddard</i>	Purposefully creating an online community amongst students <i>Cath Brown and Susan Pawley</i>	Conceptual understanding of intermolecular forces <i>Maria Ulfah and Erlina Erlina</i>	The Pizza Model: working at the academic and industry interface to improve graduate employability <i>Lee Higham</i>
<b>15:10 - 15:40</b>	<b>Break for coffee</b> <b>Room: Science Central, Wallace Building, first floor</b>			
15:40 – 16:10	<b>Final Plenary – Prof Phil Newton</b> <b>Room: Glyndwr D</b>			
16:10 - 16:30	Prizes awarded			