

## Conference Day 1 – Wednesday 02 September 2026

| Time        | Session Details                                                                                             |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|-------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 08:00–08:30 | Registration (Patricia O'Shane Building)                                                                    |                                                                                                        |                                                                                                                                 |                                                                                                                               |
| 8:30–9:00   | <b>Patricia O'Shane 104</b><br><b>Patricia Elizabeth Mutton Theatre</b>                                     |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Chair: Tracey Kuit                                                                                          |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Welcome to Country: Aunty Maxine Ryan from La Perouse Local Aboriginal Land Council                         |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Opening Address: Professor Sarah Maddison<br>Deputy Vice-Chancellor of Education & Student Experience, UNSW |                                                                                                        |                                                                                                                                 |                                                                                                                               |
| 9:00–10:00  | Keynote: Professor Kelly Matthews                                                                           |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Learning to Share Responsibility with our Students                                                          |                                                                                                        |                                                                                                                                 |                                                                                                                               |
| 10:00–10:30 | Morning Tea (Patricia O'Shane Building)                                                                     |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Parallel Session                                                                                            |                                                                                                        |                                                                                                                                 |                                                                                                                               |
|             | Patricia O'Shane 103<br>Helen Barry & Michele G.<br>Blum Theatre                                            | Patricia O'Shane 105<br>Galina Sugowdz<br>Theatre                                                      | Patricia O'Shane G05<br>Clara Patricia<br>Alfonso Theatre                                                                       | Patricia O'Shane G06<br>Annada Gohain<br>Theatre                                                                              |
| Chair       |                                                                                                             |                                                                                                        |                                                                                                                                 |                                                                                                                               |
| 10:30–10:50 | Implementing a<br>Competency-Based<br>and Synoptic<br>Curriculum in Physics                                 | Revision Modules to<br>Support Student<br>Prerequisite<br>Knowledge                                    | Nā Tō Rourou, Nā Taku<br>Rourouka Ora Ai Te Iwi:<br>Teaching Science<br>Students to Engage<br>with Diverse<br>Knowledge Systems | Transition from<br>University to<br>Employment: A Case<br>Study in Wildlife<br>Conservation                                   |
|             | <i>Samantha Pugh</i>                                                                                        | <i>Bill Ellis and<br/>Alan McCarthy</i>                                                                | <i>Kaitlin Beare</i>                                                                                                            | <i>Emma Thompson</i>                                                                                                          |
| 10:50–11:10 | Findings From a<br>University-Wide Pilot<br>of Competency Grading                                           | An AI-Supported<br>Approach to Targeted<br>Mathematical Revision                                       | Embedding First<br>Nations Science in<br>Undergraduate Science<br>Curriculum                                                    | Extending<br>Communities of<br>Practice Through<br>Volunteer Mentoring                                                        |
|             | <i>Elizabeth Angstmann</i>                                                                                  | <i>Christopher Duffy</i>                                                                               | <i>Hayley McGrice and<br/>Beth Loveys</i>                                                                                       | <i>Noel Hanna</i>                                                                                                             |
| 11:10–11:30 | There And Back Again:<br>A Competency-Based<br>Grading Journey in First<br>Year Chemistry                   | From Grading Tool to<br>Learning Tool:<br>Reflecting on a Rapid<br>Shift in Mathematics<br>Quiz Design | How Can Science<br>Living Labs Support<br>Indigenous Student<br>Success?                                                        | Landscape Of<br>Australian DBER:<br>Practitioner<br>Perspectives Through<br>the Lens of<br>Communities-of-<br>Practice Theory |

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|             | <i>Karin Schaffarczyk McHale</i>                                                                                | <i>Rosie Cameron</i>                                                                                | <i>Kathleen Butler</i>                                                                           | <i>Elizabeth Yuriev</i>                                                                                   |
| 11:30–11:50 | Designing Feedforward-Oriented Assessment to Support Clinical Reasoning in First-Year Nursing Science Education | From Performance to Impact: AI-Enabled Learning in Health and STEM Education                        | Country As Teacher                                                                               |                                                                                                           |
|             | <i>Senani Rathnayake</i>                                                                                        | <i>Maitreyee Roy</i>                                                                                | <i>Johanna Turnbull</i>                                                                          |                                                                                                           |
| 12:00–14:20 | Poster Session (with lunch served, Patricia O'Shane Building))                                                  |                                                                                                     |                                                                                                  |                                                                                                           |
|             | Parallel Session                                                                                                |                                                                                                     |                                                                                                  |                                                                                                           |
|             | Patricia O'Shane 103                                                                                            | Patricia O'Shane 105                                                                                | Patricia O'Shane G05                                                                             | Patricia O'Shane G06                                                                                      |
| Chair       |                                                                                                                 |                                                                                                     |                                                                                                  |                                                                                                           |
| 14:20–14:40 | Interactive Oral Assessment at Scale: Design, Implementation, and Equity Outcomes                               | Critics and Criticality: How Do Science Students Evaluate the Work of GenAI                         | Beyond the Binary: Recommendations to Uplift Inclusive Practice in STEMM                         | A Scaffolded Model for Professional Identity Formation in Medical Science                                 |
|             | <i>Masha Smallhorn</i>                                                                                          | <i>James Tsatsaronis</i>                                                                            | <i>Michelle Rank</i>                                                                             | <i>Nirmani Wijenayake</i>                                                                                 |
| 14:40–15:00 | Interactive Oral Assessments at Scale: Student Perceptions                                                      | Choose Your Own Adventure: Multiple Pathways for Learning in a Large Second Year Data Science Unit  | Unlocking Potential: Barriers To Belonging in an Australian University Stem Context              | Building Professional Identity and Transferable Skills in Science Students Through Co-Operative Education |
|             | <i>Andy Tran</i>                                                                                                | <i>Diana Warren</i>                                                                                 | <i>Thomas Hiscox</i>                                                                             | <i>Lara Wakeling</i>                                                                                      |
| 15:00–15:20 | The Efficacy of Interactive Oral Assessments in a Fully Online Bachelor of Food and Nutrition                   | The Effectiveness of "Labsorials" for First-Year Students - a Pre-Laboratory Instructional Approach | Understanding the Needs of Disabled and Neurodivergent Science Students on WIL                   | Student Perceptions of Collaborative Skill Development                                                    |
|             | <i>Zil a Rubab</i>                                                                                              | <i>Yuqing Fang*</i>                                                                                 | <i>Natalie Wall</i>                                                                              | <i>Anna Lister</i>                                                                                        |
| 15:20–15:40 | Using Digital Simulation as an Authentic Assessment in Undergraduate Biochemistry                               | Transforming Teamwork Through Playful Pedagogy: Lego®-Based Approaches                              | An Equity-Minded Framework for Relationship-Rich STEM Support in Digitally Dominant Universities | Leading From the Middle: Boundary-Spanning L&T Leadership in a New Age of Tertiary Education              |
|             | <i>Jane AL Kouba</i>                                                                                            | <i>Sarah Bajan and Gee Chong Ling</i>                                                               | <i>Adrienne Burns</i>                                                                            | <i>Jeff Shimeta</i>                                                                                       |

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| 15:40–16:00 | Afternoon Tea (Patricia O’Shane Building)                                                                                     |
| 16:00–17:00 | <b>Patricia O’Shane 104</b>                                                                                                   |
|             | Alumni Panel: The Voice of Our Recent Graduates                                                                               |
|             | <i>Tracey Kuit with an alumni panel from UNSW, USYD, UoW<br/>Ella Scott, Georgia De Nobrega, Zac Arkley-Smith, Jason Chen</i> |
| 18:00–22:00 | Conference Dinner (The Coogee Bay Hotel)                                                                                      |

## Conference Day 2 – Thursday 03 September 2026

| Time        | Session Details                                                                                                   |                                                                                                               |                                                                                                         |                                                                                      |
|-------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 08:30-09:00 | Registration (Patricia O'Shane Building)                                                                          |                                                                                                               |                                                                                                         |                                                                                      |
| 9:00-10:00  | <b>Patricia O'Shane 104</b>                                                                                       |                                                                                                               |                                                                                                         |                                                                                      |
|             | Chair: Kate Jackson and Sara Kyne                                                                                 |                                                                                                               |                                                                                                         |                                                                                      |
|             | Keynote: Professor Phillip Dawson                                                                                 |                                                                                                               |                                                                                                         |                                                                                      |
|             | Assessment Design for a Time of Artificial Intelligence                                                           |                                                                                                               |                                                                                                         |                                                                                      |
| 10:00-10:30 | Morning Tea (Patricia O'Shane Building)                                                                           |                                                                                                               |                                                                                                         |                                                                                      |
|             | Parallel Session                                                                                                  |                                                                                                               |                                                                                                         |                                                                                      |
|             | Patricia O'Shane 103                                                                                              | Patricia O'Shane 105                                                                                          | Patricia O'Shane G05                                                                                    | Patricia O'Shane G06                                                                 |
| Chair       |                                                                                                                   |                                                                                                               |                                                                                                         |                                                                                      |
| 10:30-10:50 | Who's in the Room?<br>Stakeholder Involvement in Program-Level Assessment Across STEM Degrees                     | Vibe Coding in Practice: Using Generative AI to Build Interactive Learning Tools for First-Year Biology       | Motivation And Belonging in First-Year: A Cross-Institutional Study                                     | Keep It Real: Personalised, Authentic Learning In STEM                               |
|             | <i>Hayley Elise Bugeja</i>                                                                                        | <i>Reece Sophocleous</i>                                                                                      | <i>Pavani Halpelage*</i>                                                                                | <i>Milo Barham</i>                                                                   |
| 10:50-11:10 | Redesigning Feedback on Assessments to Increase Student Trust of Human-Based Marking                              | Rethinking Feedback in STEM Education with Generative AI                                                      | Understanding Student Motivations for Lecture Attendance in First-Year Mathematics and Statistics       | AI-Supported Scientific Writing at Scale: Equity, Pedagogy, and Performance Outcomes |
|             | <i>Pauline Ross and Francesca Van den Berg</i>                                                                    | <i>Raji Kochandra and Nilanka Gurusinghe</i>                                                                  | <i>Thomas Elton</i>                                                                                     | <i>Osu Lilje</i>                                                                     |
| 11:10-11:30 | The Impact of Scaffolded Weekly Reflection on Students' Construction of their Open-Notesheet for Exam Preparation | Implementing Generative AI Tools into Lab Preparation and Report Writing: Student Perceptions and Experiences | The What, Why & How of Surveying Students About Tutor Experiences Across Three First Year Physics Units | Enhancing Assessment Accessibility Through Universal Design                          |
|             | <i>Awin Masmos*</i>                                                                                               | <i>Samuel Lo* and Talyssa Lea*</i>                                                                            | <i>Ke Ri Liang*</i>                                                                                     | <i>Teagan Mock</i>                                                                   |
| 11:30-11:50 |                                                                                                                   | AI Teams as a Pragmatic Alternative to Traditional                                                            | Beyond First Year: Exploring Belongingness Among Senior-Level Students                                  | Critical Thinking in the Era of AI: The Power of Estimation                          |

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|             |                                                                                                                                              | Groupwork in Online Science Education                                  |                                                                                                           |                                                                                                         |
|             |                                                                                                                                              | <i>Kasimir Gregory</i>                                                 | <i>Dilusha Munasinghe*</i>                                                                                | <i>Anastasia Lonshakova</i>                                                                             |
| 12:00–13:00 | <b>Patricia O'Shane 104</b>                                                                                                                  |                                                                        |                                                                                                           |                                                                                                         |
|             | Educator Panel                                                                                                                               |                                                                        |                                                                                                           |                                                                                                         |
|             | <i>Alan McCarthy with Andrea Barkla, Roy Leon Cruz, Daniel Golestan, and Shelley Wilson</i>                                                  |                                                                        |                                                                                                           |                                                                                                         |
| 13:00–14:00 | Lunch break (Patricia O'Shane Building)                                                                                                      |                                                                        |                                                                                                           |                                                                                                         |
|             | Parallel Session                                                                                                                             |                                                                        |                                                                                                           |                                                                                                         |
|             | Patricia O'Shane 103                                                                                                                         | Patricia O'Shane 105                                                   | Patricia O'Shane G05                                                                                      | Patricia O'Shane G06                                                                                    |
| Chair       |                                                                                                                                              |                                                                        |                                                                                                           |                                                                                                         |
| 14:00–14:20 | Can Conceptual Bridges Lift Student Engagement and Performance? – A Longitudinal Investigation Within an Evolving 1st Year Chemistry Subject | Identifying At-Risk Students Using K-Means Clustering of Learning Data | Mathematical Communication: Supporting Secondary to Tertiary Transition in Mathematics                    | Conceptualising Empathy Amongst Education-Focused Instructors in Tertiary Science – A Qualitative Study |
|             | <i>Matthew Burton</i>                                                                                                                        | <i>Abdulla Alseiri*</i>                                                | <i>TriThang Tran</i>                                                                                      | <i>Alan Chen*</i>                                                                                       |
| 14:20–14:40 | Two-Stage Exams: Transforming Exams into Learning Experiences                                                                                | Examscan For Improved Feedback of High-Stakes Assessments              | From Remediation to Impact: Reimagining Bridging Mathematics Through Assessment, Feedback, and Engagement | Promote Sustainable Student-Staff Partnership Through Facilitator                                       |
|             | <i>Timothy Lee</i>                                                                                                                           | <i>Jeffrey Black</i>                                                   | <i>Ritu Taneja</i>                                                                                        | <i>Gee Chong Ling</i>                                                                                   |
| 14:40–15:00 | From Proof to Practice: Assessing Authentic Mathematical Communication in Large-Scale First-Year Courses                                     | Generative AI as a Team Member in Pharmaceutical Science Education     | Addressing a National Shortage of Great Science Teaching                                                  | Do Students Actually Do the Readings? Science Student Perspectives on Textbooks and OERS                |
|             | <i>Sean Gardiner</i>                                                                                                                         | <i>Ziheng Wu</i>                                                       | <i>Mick Moylan</i>                                                                                        | <i>Hendrika Duivenvoorden</i>                                                                           |
| 15:00–15:20 | Monitoring Student Engagement through Online Learning Modules in Mathematics                                                                 | Training Student Knowledge Brokers through Public SOTL and GenAI       | Transforming STEM Teacher Professional Learning through Cross-Sector Partnerships                         | What is Science? Transforming Students' Worldviews and Critical Scientific Literacy                     |

|             | <i>Tiffany Jones</i>                                                              | <i>Emily Faulconer</i> | <i>Farshid Pahlevani</i> | <i>Robyn Yucel</i> |
|-------------|-----------------------------------------------------------------------------------|------------------------|--------------------------|--------------------|
| 15:30–15:45 | <b>Patricia O'Shane 104</b>                                                       |                        |                          |                    |
|             | Chair: Kate Jackson and Sara Kyne                                                 |                        |                          |                    |
|             | Conference Close: Scientia Professor Sven Rogge<br>Dean, Faculty of Science, UNSW |                        |                          |                    |
| 15:45–16:30 | Afternoon Tea (Patricia O'Shane Building)                                         |                        |                          |                    |

## Posters

1. **Better Representation Needed of Students' Statistics Anxiety and Self-Efficacy: A Scoping Review.**  
Alissa Beath, Petra Graham, Alison Mcfarland, Noor Rizvi, Ashley Woodman, Eric Toole, & Sarah Vitelli
2. **Evaluating An AI-Assisted Poster Assessment in a Large Introductory Statistics Unit.**  
Karol Binkowski, Amanda Shaker
3. **The University AI Didn't Replace: Rethinking Universities in the AI Era.**  
Karol P. Binkowski, Andrew M. Hopkins
4. **Sensory Experiences in Undergraduate Chemistry Teaching Laboratories and Their Consequences for Students.**  
Katie Buchan, Jess Littlefield, Samantha K. Furfari, And Julia P. Sarju
5. **Between Tradition and Change: How STEM Educators Navigate Assessment Reform.**  
Hayley Bugeja, Margaret Murray, Claudia Rivera Munoz and Chis Thompson
6. **Improving Student Engagement in Mathematics Tutorials with Small-Group Worksheets.**  
Joshua Capel, Balázs Elek, Bill Ellis, Hannah Keese
7. **Science, Society, And Policy: Developing A Critical Understanding of Science and Society Through Animal Perspective Taking.**  
Adam Cardilini, Robyn Yucel
8. **Molecular Shape and Medicinal Chemistry: Using 3D Printed Enzymes to Aid in Teaching Drug Design.**  
Ruth B. Cink, Debbie Larkins, Tristan De Rond
9. **Collaborating to Rethink Laboratory Assessment in the Genai Era: A Disciplinary-Diverse School's Response.**  
Ruth B. Cink, Marie-Anne Thelen, Courtney Ruha, Peter Swedlund
10. **Career Goal Challenges to Retention in a Generalist Medical Science Degree.**  
Manisha R. Dayal, Charles O. Morton, Christopher E. Jones
11. **Building Belonging: A Women and Gender Minorities Mentoring Program.**  
Thomas Dixon, Shamima Islam, And Jesse Van De Sande
12. **The Classroom Inclusion Continuum.**  
Hendrika M. Duivenvoorden, Oli Shemmell, Michelle M. Rank
13. **Building Belonging Through Hikes, Huddles, And Human-Centric Comms.**  
Emily Faulconer
14. **Preparing Our STEM Graduates for Maximum Impact.**  
Jennifer Fox
15. **Developing Computational Learning Resources for Undergraduate Physics Courses.**  
Amy Geddes
16. **Integrating Mathematics and Science Through A "Do-Show-Explain" Portfolio Framework.**  
Rebecca Gehling, Alicia Reynolds
17. **Scaffolding Analytical Chemistry Laboratories to Build Competence, Confidence and Assessment Readiness.**  
Alison Green, Rebecca Gehling, Alicia Reynolds, Lara Wakeling
18. **Making Collaborative Qualitative Coding Transparent by Co-Creating Open-Source Workflows with SOTL Researchers.**  
Januar Harianto, Osu Lilje, Francesca Van Den Berg, Rosita Pang, Michael Widjaja
19. **Integrity In Online Mathematics Tests: A Lockdown Browser Case Study.**  
David Hartley



20. **Enhancing Undergraduate Anatomy Learning Through Digital Dissection Models: Student Engagement and Educational Impact.**  
Kate Hatzopoulos, Aurnyn Ona, Rex Barton Smith
21. **3D Molecular Modelling for Stereoselectivity Topics in Tertiary Chemistry Education.**  
Finn M. Holman,\* Emma Pearson
22. **Aligning Cross-Faculty Service Courses: A Data Driven Approach.**  
Neil Lawrence
23. **Evaluating a NCP Overseas Study Tour: Impacts for Students and Staff.**  
Jo-Ann Larkins, Kushan Tennakoon, Sharon Reid, Evie Turpin, Saumya Bandara
24. **Tailored Academic Support for Notetaking Improves Nursing Student Success in a Pathophysiology Exam.**  
Huifang Li, Mansi Dass Singh
25. **Teaching After the Scientific Revolution: A Spiral Curriculum for Einsteinian Science.**  
Anastasia Lonshakova,\* David Blair, Rahul Choudhary, Raju Bhattarai
26. **Enhancing Understanding and Altering Perspectives of Mathematics Through Digital-Physical Experiences.**  
Dann G. Mallet, A. Charisse Farr
27. **AI In RISK Assessment: Dynamic Decision Making and Reflection.**  
Ben Pace, Jeffrey Black
28. **StatBot: A 24/7 Accessible AI Tool to Support First-Year Undergraduate Statistics Students.**  
Liana E. Pozza, Minh Huynh, Floris Van Ogtrop
29. **Students' Experience of Sustainability and Entrepreneurship Education in Physical Sciences.**  
Samantha L. Pugh
30. **Virtual Teacher System Using Large Language Models for Clinical Learning: A RCT Protocol.**  
Janani Surya Ravichandran,\* Lisa Keay, Shajib Saha, Bin Sheng, Rajiv Raman, Maitreyee Roy
31. **From Demonstrator to Supervisor: Building Teaching Teams in Science.**  
Daniel Schumayer, Manjula D. Sharma
32. **Stories Behind the Science.**  
Anastasia Shavrova, Inna Osmolovsky, Vivian Ushiana, Stephen Bonser
33. **Pathflix To Engage Nursing Students.**  
Mansi Dass Singh, Natkunam Ketheesan
34. **Demystifying Education Development: Building A Tool to Strengthen Engagement with Academic Staff in UNSW Science.**  
Tanu Sridhar, Sarah Watts
35. **Partnering To Podcast: Engaging Students as Partners in Industry-Focused Podcasts from Student Assessment.**  
Carlo Caponecchia, Vanessa Huron

**Thank you for joining us at ACSME 2026**

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