17-19 NOVEMBER 2025

TLC 2025 PROGRAMME

SHAPING THE FUTURE OF EDUCATION:
DATA-DRIVEN STRATEGIES FOR EQUITY AND SUCCESS

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD
CENTRE FOR HIGHER EDUCATION DEVELOPMENT

tlc Teaching & Learning Conference

DASS Data Analytics for Student Success

17 November 2025

WORKSHOPS

DAY 0 | MONDAY 17 NOVEMBER

TIME	2A	2B	STUDIO 2	4A
10:00 – 12:00	**Workshop 1** **Towards an AI-enhanced personalised learning metamodel for dynamic educational experiences** Adheesh Budree & Gabriel Daniel Hoffman	**Workshop 2** **Pre-Texts protocol workshop: A contemplative pedagogy for the humanities in the age of AI** Mara Boccacio & Katia de la Cruz	**Workshop 3** **'Know Your Course and Students' report: A DASS workshop on data analytics** Greig Krull, Kende Kefale, Jaamia Galant & Stephen Marquard	**Workshop 4** **Ethics hotseat** Rob McLaughlin & Paul Prinsloo
Break	**Tea & coffee provided. Own arrangements for lunch.**			
14:00 – 16:00	**Workshop 5** **Using AI for qualitative analysis of teaching and learning datasets** Stephen Marquard, Sukaina Walji & Francois Cilliers	**Workshop 6** **Embedding ethics in AI for education: A practical guide using the IEEE 7000 standard** Sampath Amarasinghe	**Workshop 7** **A toolkit for interdisciplinary landscape studies** Shari Daya, Pippin Anderson & Olivia Thompson	**Workshop 8** **Data organisation in Amathuba: Preparing your Gradebook** Thomas King & Mary-Ann Fife

DAY 1 | TUESDAY 18 NOVEMBER

08:00 – 09:00	**REGISTRATION**
	OPENING PLENARY: AUDITORIUM
08:55 – 09:00	**Performance – The Institution and the Human** Onele Ncedana & Luke Green-Thompson
09:00 – 09:15	**Welcome: Vice-Chancellor** Professor Mosa Moshabela
09:20 – 10:00	**Distinguished Teacher Awards** DVC Professor Brandon Collier-Reed and recipients
10:05 –10:50	**KEYNOTE ADDRESS** **Data for what? Reimagining engagement, learning and success in South African higher education** Professor Francois Strydom, Senior Director: Centre for Teaching and Learning, University of the Free State
10:50 – 10:55	**Acknowledgements and housekeeping**
10:55 – 11:00	**Performance – The Institution and the Human** Onele Ncedana & Luke Green-Thompson
11:00 – 11:30	**Break (and move to venues)**

VENUE	AUDITORIUM	2A	2B	STUDIO 2		4A
11:30 – 12:00	**1. Leveraging learning analytics for personalised feedback and motivation** Jimmy Winfield	**2. Panel discussion – Student points of view as data? Considerations and reflections for equity and student success** Esai Reddy, Ubuntu Hlatshwayo, Sharief Hendricks, Nico Pampier, Bianca Masuku & Sanjin Muftic	**3. Supporting third-year occupational therapy students' transition into practice learning: Student perspectives** Feroza Cassim, Caylin O'Kelly, Gracia Mujinga, Ivana Krivokapic, Iman Dollie, Matthew De Allende & Mia Kleintjes	11:30 – 11:45	**4. Reflective practice as a catalyst for academic support in a second-year MBChB programme: Insights from the 'Integrated Health Systems' course** Jaisubash Jayakumar	**6. Data solutions showcase** **Business Objects** **PowerBI** **Explorance Blue** **Explorance MLY** **Analytics Builder** **DataFirst** Sean Bester, Kende Kefale, Chevon Erispe, Stephen Marquard, Mary-Ann Fife & Lynn Woolfrey
				11:45 – 12:00	**5. Bridging the assessment literacy gap in the pre-clinical MBChB curriculum: Modalities to assess and enhance student confidence** Olivia Fuller, Rahul Rama-Panchia, Urvashini Pillay & Jaisubash Jayakumar	
12:00 – 12:30	**7. Turning academic alerts into action: Data-driven support to boost student success in the Faculty of Health Sciences** Kerrin Begg, Lakshini McNamee, Kirsten Reichmuth & Philip Dambisya			12:00– 12:15	**8. Visual representations for qualitative analysis of data from students using smartphones as measurement tools in an undergraduate physics lab** Mayhew Steyn, Saalih Allie & Dale Taylor	
				12:15 – 12:30	**9. Scaled vector diagrams: A lost art in teaching mechanics** Trevor Cloete	

VENUE	AUDITORIUM	2A	2B	STUDIO 2		4A
12:30 – 13:00	**10. Using data in EBE to evaluate student and course performance** Pierre le Roux	**11. Student voice as data: From cohorts to co-creators** Lauren Butler, Jade Smith, Lovejoy Marozhe & Nawaal Deane	**12.Postgraduate student success: Lessons from the Humanities Faculty Writing Support Project** Shari Daya, Geetika Anand, Nicole Isaacs, Shannon Morreira & Tammy Wilks	12:30 – 12:45	**13. Targeted online remediation of muddy concepts in chemical pathology: Enhancing student performance through structured support** Jaisubash Jayakumar, Rivak Punchoo & Jacqueline van Wyk	**15. Telling stories with data** Michelle Kuttel
				12:45 – 13:00	**14. From numbers to narratives: Community data to reframe learning in health promotion and political studies** Dale Trimble	
13:00 – 14:00	Lunch					
14:00 – 14:30	**16. From analytics to action: Co-designing culturally relevant pedagogies through AI-augmented study groups in engineering education** Athenkosi Nzala, Tafadzwa Chapara, Ntokozo Sibande & Hlengiwe Mazibuko	**17. 'The struggle for the soul of the university': Engaged research at UCT** Lesley Powell & Leon Tikly	**18. Automating assessment in a large practical-based course** Aslam Safla	14:00 – 14:30	**19. Regaining confidence: The intangible assets of the ECP in the Faculty of Health Sciences** Nastassia Timothy, Jia Fan, Sharief Hendricks, Bronwynn Williams, Megan Petersen, Lunelle Pienaar, Shari Simpson, Gaironeesa Hendricks, Elmi Badenhorst & Busayo Ige	**20. Chatbots: From conversation to insights** Riashna Sithaldeen, Deepti Charitar, Qiraan Christians & Stephen Marquard

VENUE	AUDITORIUM	2A	2B	STUDIO 2		4A
14:30 – 15:00	**21. Tutor reflections as relational data for inclusion** Lara Karassellos, Pragashni Padayachee & Shanali Govender	**22. When numbers and feelings collide: How can data educate us about the importance of positive student emotions in teaching and learning?** Chivaugn Gordon	**23. Flipped Fridays: A teaching and learning intervention to build engagement and bridge the transfer gap in a first-year accounting course** Jimmy Winfield & Boitumelo (Tumi) Diale	14:30 – 14:45	**24. Use of computer simulations in an open-ended assignment for third-year fluid dynamics course** Wei Hua Ho	
				14:45 – 15:00	**25. Science and engineering lecturers' experiences with using Gradescope** Anita Campbell, Shajid Haque, Jumani Clarke, Michelle Henry & Zahraa Harnaker	
15:00 – 15:30	**27. The evolving ethical landscape of learning analytics** Paul Prinsloo	**28. Cutting to the CORE of gender inequality in economics** Robert Hill	**29. Where they learn, what they learn: Mapping the Faculty of Health Sciences clinical platform** Philip Dambisya, Kerrin Begg, Lakshini McNamee & Kirsten Reichmuth	15:00 – 16:00	**30. Making student feedback work for everyone:** **a. Reframing student voice from a weapon against lecturers to a lecturers' arsenal** **b. Navigating change: From evaluation data to institutional development in South African higher education** Shameemah Abrahams, Nompumelelo Mazibuko & Stephen Marquard	**31. AI in constructive alignment** Adheesh Budree & Marilette Pretorius
15:30 – 16:00	**32. An early warning system for identifying students at risk** Mary-Ann Fife & Dale Taylor	**33. Working with student teachers to disrupt Anglonormativity: A reflective account from the PGCE programme** Carolyn McKinney, Soraya Abdulatief, Kate Angier & Hannah Carrim	**34. The introduction of workplace-based assessment for general surgery training** Daniel Nel			
16:00 – 16:30	**35. SASSE and LSSE 2025: A first look at the UCT results** Stephen Marquard	**36. The transhuman student: Implications for pedagogy and equity in post-apartheid higher education** Yunus Omar	**37. Evaluating the effectiveness of near-peer teaching in undergraduate surgical skills** Urvashini Pillay, Ben Daniel & Morne Visser			

DAY 2 | WEDNESDAY 19 NOVEMBER

08:15 - 08:45	BREAKFAST, POSTERS AND INTERACTIVE SESSIONS				
VENUE	**AUDITORIUM**	**2A**		**STUDIO 2**	**2B**
09:00 – 09:30	**38. What is counted and what counts? Thinking about data in a UCDG project through an emergent and relational lens** Shanali Govender, Pragashni Padayachee, Lara Karassellos, Matt Kingwill & Luna August	**39. Beyond feedback: A scoping review of medical students' perceptions of feedforward in clinical education** Sunali Parbhoo, Jaisubash Jayakumar & Shameemah Abrahams	**9:00 – 10:30**	**40. UCT AI Teaching Innovation Grants** Lukas du Plessis Colin Tredoux Liza Hitge Jaisubash Jayakumar Katia de la Cruz Garcia Marwaan Rylands Jeffrey Bagraim Gerhard Venter	**41. Logics at Play: A serious game – data analytics, equity and student success** Megan Bam & Yusra Price
09:30 – 10:00	**42. Building institutional capacity for using data to improve teaching and learning in South African universities: Insights from the SAAIR and Siyaphumelela communities** Elizabeth Booi	**43. Failure to complete: A grounded theory exploration of the experiences of students who do not complete the EMBA degree in the prescribed time** Lionel Green-Thompson & Gavin Andersson			
10:00 – 10:30	**44. GenAI in learning and teaching at UCT: Exploring staff perceptions, practices and literacies** Mishka Reddy, Lara Karassellos, Mashudu Raudzingana & Janet Small	**45. Scales of success: Exploring the challenges of defining and evaluating student success in a writing centre** Natashia Muna, Taahira Goolam Hoosen, Christianah Kehinde, Thando Kubheka, Juandre Makaka & Lenschen Greyling			

10:30 – 11:00	**46. In defence of less: Integrating principles of privacy in data analytics** Rob McLaughlin & Paul Prinsloo	**47. Student voice as data: Investigating teaching pedagogies in Swahili communications** Eliza Mahenge			
11:00 –11:25	**Break with refreshments**				
	CLOSING PLENARY: AUDITORIUM				
11:25 – 11:30	**Performance – The Institution and the Human** Onele Ncedana & Luke Green-Thompson				
11:30 – 12:15	**48. Plenary panel: Building an evidence-based culture** Brandon Collier-Reed, Ashraf Conrad, Paul Prinsloo, Elizabeth Booi, Nompumeleo Mazibuko, Kerrin Begg & Shannon Morreira				
12:20 – 12:35	**Presentation of UCT Open Textbook Award**				
12:40 – 12:50	**Closing comments**				
12:50 – 12:55	**Evaluation**				
12:55 – 13:00	**Performance – The Institution and the Human** Onele Ncedana & Luke Green-Thompson				

WORKSHOPS

DAY 2 | WEDNESDAY 19 NOVEMBER

TIME	2B	STUDIO 2
14:00 – 16:00	**Workshop 9** **Using data for dialogue: Co-creating a feedback culture** Shameemah Abrahams, Jaisubash Jayakumar, Sunali Parbhoo & Ludolph Pedro	**Workshop 10** **SASSE and LSSE: A deep dive into student and lecturer perceptions of learning and teaching at UCT** Greig Krull & Stephen Marquard

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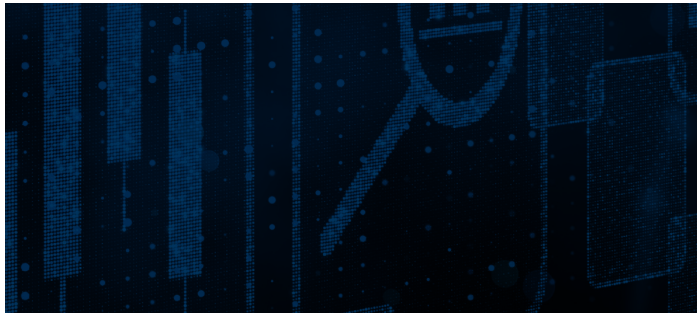
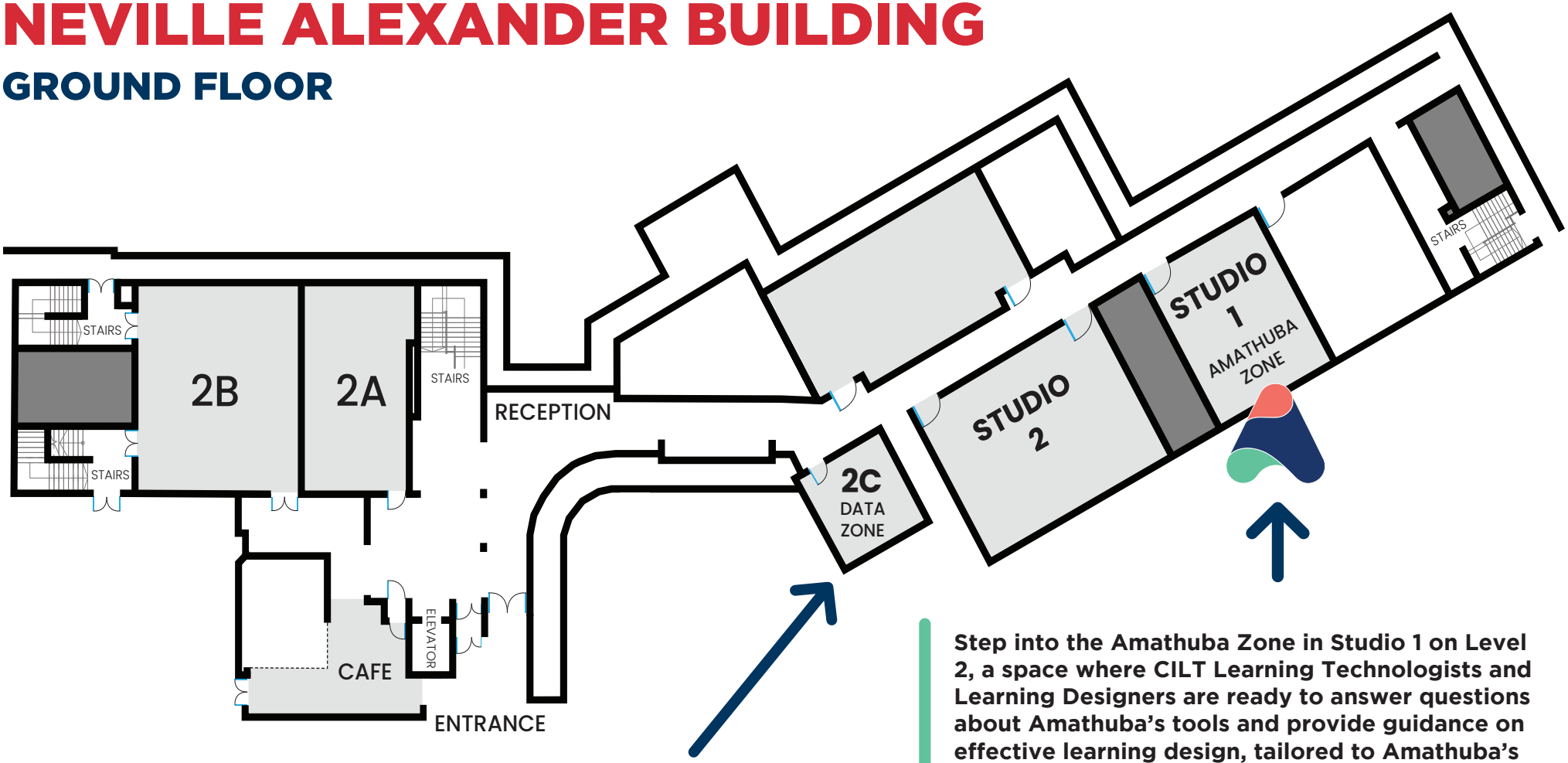


NEVILLE ALEXANDER BUILDING

GROUND FLOOR



Curious about how data is being used to support teaching and learning at UCT?

Visit the Datazone at the 2025 Teaching and Learning Conference. Here you will find the Data Analytics for Student Success (DASS) team. They are ready to meet with you, and help you explore data tools, and strategies to enhance your teaching and learning practices. Stop by for an engaging conversation and see how data-informed insights could make a real impact in your classroom."

Step into the Amathuba Zone in Studio 1 on Level 2, a space where CILT Learning Technologists and Learning Designers are ready to answer questions about Amathuba's tools and provide guidance on effective learning design, tailored to Amathuba's features.

Visit us on Tuesday from 08:30 to 14:30 and Wednesday from 08:30 to 11:00 for instant support, consultations, and quick demos. Whether you're a lecturer, tutor, or student, the Amathuba Zone helps you get the answers and ideas you need fast, so you can focus on teaching and learning.

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NEVILLE ALEXANDER BUILDING

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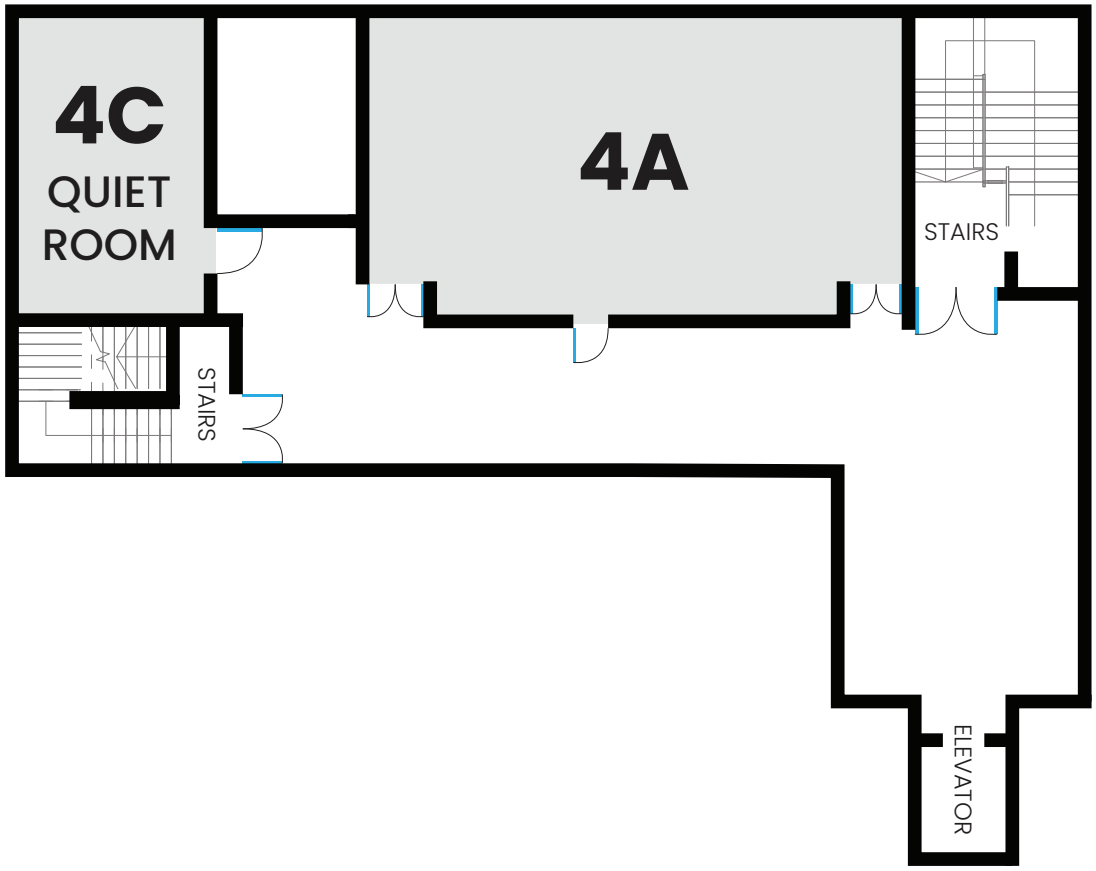

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DASS Data Analytics for Student Success

Contents

Keynote address

Data for what? Reimagining engagement, learning and success in South African higher education

Invited Speaker Keynote

Francois Strydom

How can higher education institutions leverage data to enhance the quality of teaching, improve student success and advance social justice? The University of the Free State (UFS) has been recognised as an institution focused on building an equitable learning environment which helps students to succeed.

This keynote presentation will share the journey of the UFS and its Centre for Teaching and Learning. At the core of this journey has been an evidence-based and data-driven approach focused on student engagement, quality teaching and learning and social justice.

The presentation illustrates how the combination of evidence and data helped to develop a holistic, multi-faceted, collaborative framework which integrates and supports learning, engagement and empowerment of students, academics and support staff. Examples will be provided of how evidence and data are used to inform design interventions and to assess their impact. The opportunities offered by technology, as well as key principles that could inform future, ethical, reflective and reflexive practice will be shared.

Prof Francois Strydom is the Senior Director of the Centre for Teaching and Learning (CTL) at the University of the Free State. He has dedicated his career to promoting quality, equity, and student success in higher education through evidence-based innovation.

Tuesday 18 November

1: Leveraging learning analytics for personalised feedback and motivation

Scholarly, higher education research and project-based presentations

Jimmy Winfield

In large undergraduate courses, sustaining student motivation and engagement can be a persistent challenge. This paper explores the use of data-informed feedback systems – specifically personalised progress reports and gamified badge awards – to support student motivation in Financial Reporting 1, a core course in the professional accounting stream at UCT.

Drawing on platform-generated data about video viewing, quiz scores, lecture attendance and tutorial participation, the convenor has developed two targeted feedback interventions. The first is a mid-term 'progress report', personalised for each student based on early course engagement and performance. The second is a weekly 'badge' system, awarding digital recognition to students who complete a defined set of learning tasks. Both systems are underpinned by a deliberate engagement strategy – grounded more in gamified motivation than traditional behaviourist reinforcement – designed to encourage sustained participation through visibility, personal acknowledgment and forward-focused encouragement.

Building on a previously presented case example, this presentation develops a more rigorous account of these interventions by drawing on relevant educational literature and comprehensive survey data. It examines the pedagogical foundations for the two interventions, referencing relevant scholarship on motivation in blended learning, positive reinforcement and universal design for learning. The presentation will also highlight students' perceptions of these tools, drawing on recent feedback course evaluation data.

By sharing this model, the presentation aims to contribute to a growing understanding of how course analytics can be leveraged both as a means for maintaining motivation and also as a mechanism for helping students to align their learning behaviour with the key factors for success in the course.

2: Student points of view as data? Considerations and reflections for equity and student success

Panel discussion

Chair: Esai Reddy

Panelists: Ubuntu Hlatswayo, Nico Pampier, Bianca Masuku, Sharief Hendricks & Sanjin Muftic

This session profiles four student-led, data driven initiatives at UCT – (1) the Faculty of Health Sciences Student Curriculum Lekgotla, (2) the Digital Open Textbooks for Development Student Fellowship initiative, (3) Health Science Reviews and #TeamSciComm, and (4) the Curator's Corner, which is facilitated by UCT Libraries. The panel discussion, led by Esai Reddy from the

Centre for Innovation in Learning and Teaching, will focus the spotlight on the particularities of working with student voice as data, particularly with regards to ethical concerns, risks, ownership and recognition.

2a: The Student Curriculum Lekgotla: A model for sustainable student engagement in health professions education

Ubuntu Hlatshwayo

In response to the growing need for socially responsive curriculum reform, the University of Cape Town (UCT) established the Student Curriculum Lekgotla (SCL). The SCL is a student-led, faculty-supported body that generates evidence, facilitates dialogue and co-designs practical improvements with staff. This model reflects international best practice in 'students-as-partners' approaches, which emphasise reciprocity, shared responsibility and co-creation between students and staff (Healey, Flint & Harrington, 2014). This highlights the value of student voice as data, which aligns with the Lekgotla's main objective: to disrupt entrenched systems of knowledge production that have historically marginalised student voice and encourage active student participation in curriculum co-creation. Studies by Bovill et al. (2011) and Healey, Flint and Harrington (2014) underscore the value of such partnerships, which enhance learning environments and cultivate more equitable educational practices.

Established in 2023, the SCL has formed a close relationship with the Health Sciences Student Council, hosted the first MBChB curriculum indaba to gain insights from undergraduate students, and earned international recognition by winning the AMEE 2025 Patil Teaching Innovation Award (one of the highest recognitions in global health professions education). This is a testament to the potential that student-led bodies can have on shaping curricula and ensuring equity and success. The Lekgotla's formation reflects the broader significance of student involvement in educational reform, positioning students not as passive recipients but as active, critical partners in creating a just, equitable and socially responsive curriculum.

2b: The DOT4D Student Fellowship initiative: Student collaboration and co-creation in open education

Bianca Masuku & Nico Pampier

The Digital Open Textbooks for Development (DOT4D) Student Fellowship programme aims to bring students more explicitly into the Global South conversation around social justice and open education and to engage students as partners in open textbook research, implementation and advocacy work in order to promote inclusivity, representation of student voice, and capacity development. As such, the programme's model promotes collaboration, empowerment, inclusivity, openness, reciprocity and co-creation, and centers students as knowledge-creators in their educational journeys.

Through inviting students into the fellowship space and capturing student reflections, experiences, perspectives and insights as data, the fellowship has been a catalyst for student-driven data

gathering and collective data analysis on topics related to the complexities of collaborating and co-creating open educational resources with students. This data-driven approach has helped refine and rethink how to partner with students in open education activities within the institution and empower students to have a sense of belonging, agency and ownership.

2c: Health Science Reviews and #TeamSciComm: An example of student-driven sustainable group learning

Sharief Hendricks, Lee Fredericks, Blessing Gumbu, Chone Makhubela, Israel Oyebade, Candice Watkins & Katlego Matlala

Health Science Reviews was established in 2020 as an initiative within the Science and Communication BSc Honours (Medicine) programme. Its primary aim is to provide a platform for students and staff in the Faculty of Health Sciences to share and communicate their research. This initiative allows students to publish a science communication output, thereby benefiting their curriculum vitae while also serving as a public outreach outlet. To date, the website has achieved significant reach with 39,536 views, 18,671 visitors and 681 posts, attracting a global audience from over 150 countries. The initiative now also maintains four active social media channels under the identity of #TeamSciComm.

Acknowledging the challenges of sustainable student-driven approaches, this presentation will showcase the Health Science Reviews website, including its science communication posts and student reflections. We will also detail the operations and activities of #TeamSciComm. We will then argue that the website and the activities of #TeamSciComm represent a successful example of sustainable student-driven group learning. This model of group learning encompasses collaborative learning, cooperative learning, problem-based learning and team-based learning – all of which are grounded in the constructivist view of learning and instruction.

2d: Curators' Corner: Student-led digital collections and data narratives on Ibali digital collections

Sanjin Muftic

The Curator's Corner, the student-led digital collections section on Ibali, UCT's digital showcasing platform is where students stage Digital Humanities projects as living, collaborative sites. Supported by the Digital Scholarship Specialist team in UCT Libraries, students curate collections using Omeka S (a web publishing platform for digital archives) and engage with workflows addressing data management, metadata creation, and digital presentation.

Their curation process raises critical questions about provenance, ownership, and describing media as data. Rather than reinforcing hierarchical models of academic output, these projects operate as co-authored digital publications, gesturing toward alternative forms of assessment and knowledge dissemination. Students become researchers, storytellers, and custodians. In this sense, the Curators' Corner functions as both laboratory and publication space: where media and metadata intersect, and where practice is shaped by critical theory, software infrastructures, and institutional support. Positioned within a Global South university shaped by colonial and

apartheid legacies, the project underscores how platforms like Ibali reveal and challenge power dynamics in data narratives through interrogating metadata and reframing archival items.

3: Supporting third-year occupational therapy students' transition into practice learning: Student perspectives

Scholarly, higher education research and project-based presentations

Feroza Cassim, Caylin O'Kelly, Gracia Mujinga, Ivana Krivokapic, Iman Dollie, Matthew De Allende & Mia Kleintjes

Practice learning (PL) is a pivotal phase in undergraduate occupational therapy (OT) education. The shift from classroom-based learning to real-world clinical practice shapes students' professional identity, confidence and competence. While existing scholarship highlights the importance of supportive PL environments, limited research foregrounds student voices – particularly within the South African context. This study aims to explore how undergraduate OT students UCT experience their first PL placement and the strategies they use to navigate this transition.

A qualitative descriptive design was employed. Six purposively sampled third-year OT students who had completed a five-week placement in either mental health or physical health settings participated in semi-structured interviews. Interviews were transcribed verbatim and analysed inductively using Braun and Clarke's (2006) six-phase thematic analysis framework.

Four themes emerged from the data: (1) preparation for the transition to practice, highlighting gaps in readiness despite classroom teaching; (2) supervision practices and their impact on learning, showing how supervisory styles could either enable or hinder students' confidence; (3) diverse and unique clinical and contextual exposure, which broadened students' perspectives on practice within resource-limited South African settings; and (4) support systems, where peer networks and external mentorship played a crucial role in resilience and learning.

Students' narratives revealed both challenges and enabling factors in their first PL experiences, offering insight into how supervision, support systems, and diverse contextual exposures influence confidence and professional identity development. This data provides direction for curriculum design, supervision practices, and institutional support, contributing to a more responsive and contextually relevant approach to OT education in South Africa.

4: Reflective practice as a catalyst for academic support in a second-year MBChB programme: Insights from the 'Integrated Health Systems' course

Show & tell / stand up presentation

Jaisubash Jayakumar

In UCT's Faculty of Health Sciences, second-year MBChB students experience a pivotal transition marked by cognitive demands, interdisciplinary integration and heightened emotional pressures. These challenges often manifest as academic underperformance, diminished well-being and

disengagement from available support structures. In response, I have developed the Self-Reflective Questionnaire for Academic Growth in IHS questionnaire, designed as both a diagnostic and developmental tool to promote self-awareness and facilitate individualised academic support.

The questionnaire guides students through structured reflection, encouraging them to identify internal and external barriers to success. These include ineffective study practices, time management challenges and personal stressors such as health concerns and financial strain. Importantly, the tool prompts exploration of emotional responses to setbacks, thereby cultivating resilience, adaptive coping and self-regulation skills – the competencies strongly associated with academic success and professional formation (Artino, 2012; Merkebu & Mennin, 2025).

Beyond self-diagnosis, students are supported in linking their reflections to targeted resources, including academic tutoring, peer learning networks, faculty mentorship and wellness services. A significant outcome of the process is the creation of personalised academic improvement plans, which incorporate research-informed learning strategies, such as spaced repetition and active recall.

Preliminary feedback suggests that students engaging with the questionnaire demonstrate improved study habits and more effective utilisation of institutional tutoring and mentoring resources. The findings highlight the value of embedding reflective practice into academic support frameworks, advocating for its broader adoption as a catalyst for holistic learning, personal growth and professional development within medical education.

5: Bridging the assessment literacy gap in the pre-clinical MBChB curriculum: Modalities to assess and enhance student confidence

Show & tell / stand up presentation

Olivia Fuller, Rahul Rama-Panchia, Urvashini Pillay & Jaisubash Jayakumar

Within the UCT pre-clinical MBChB programme, students often describe a disconnect between their knowledge and their performance in short-answer questions (SAQs). While content mastery is evident, many struggle with assessment literacy – interpreting prompts, applying rubrics and using precise terminology. Student voices reveal frustration, diminished confidence and anxiety around assessment readiness.

The mock, practice SAQ intervention was co-developed by students and a course convenor to respond to these concerns. Preclinical students completed educator-designed SAQs under exam-like conditions, then engaged in peer marking, guided feedback with convenors and senior peers and structured self-reflection.

Findings highlight that students valued the safe, low-stakes environment and felt their input was validated through immediate feedback. Reported outcomes included increased confidence, improved ability to decode action verbs and greater clarity on examiner expectations. Senior student involvement provided social and cognitive congruence, reinforcing the value of peer-supported learning.

By treating students as partners and co-researchers, this initiative reframes student voice as critical evidence to guide inclusive assessment reform. It demonstrates how student experiences can illuminate hidden gaps, challenge entrenched hierarchies, and support equitable assessment practices. Embedding student voice as data offers a pathway toward more collaborative, empowering approaches to medical education at UCT.

6: Data solutions showcase

Lightning talks (10min each)

Sean Bester, Kende Kefale, Chevon Erispe, Stephen Marquard, Mary-Ann Fife, Lynn Woolfrey

This session provides a lightning introduction to 6 different data platforms and tools available to the UCT community:

1. **Business Objects** is UCT's data warehouse which enables powerful reporting and data visualisations integrating admissions, student records, residence, NBT and other data sources.
2. **PowerBI** allows you to easily build interactive dashboards from your own data sets, and share them securely with other UCT staff.
3. **Explorance Blue** is the data-driven survey platform which powers UCT's course evaluations, and can also be used for institutional and Faculty-level surveys.
4. **Explorance MLY** is an AI-powered qualitative analysis platform that helps you make sense of high-volume written student feedback.
5. **Analytics Builder** is Amathuba's reporting and dashboard platform which enables customized insights into student learning activity across and within courses.
6. **DataFirst** is an award-winning research data service based at UCT which hosts both open and restricted data sets.

7: Turning academic alerts into action: Data-driven support to boost student success in the Faculty of Health Sciences

Scholarly, higher education research and project-based presentations

Kerrin Begg, Lakshini McNamee, Kirsten Reichmuth & Philip Dambisya

This presentation focuses on a data-informed intervention implemented over the past three years within the Faculty of Health Sciences to enhance student progression and throughput. The intervention utilises Faculty Examination Committee (FEC) probationary conditions, specifically the FECC and FECR academic standing codes, to identify and support Students At Risk of Interrupted Progress (SARIPS).

Previously, while the FEC would detect students at risk based on academic signals and recommend support measures, the absence of a requirement, tracking and follow-up led to minimal uptake of these interventions, often resulting in academic failure or interruption. This intervention transforms the FEC conditions from passive optional recommendations into active obligations, mandating students to engage in structured academic support.

Supported through regular check-ins with year convenors, engagement with the faculty's Student Development and Support (SDS) Unit to address psychosocial barriers, mentorship programmes and augmented academic support via the Education Development Unit, the strategy aims to holistically address the diverse challenges faced by SARIPS.

Early analysis of intervention data suggests it is bearing fruit, successfully preventing interrupted progress and enhancing both progression and throughput. This presentation will share insights on the design, implementation and outcomes of this strategic use of academic standing codes as an intervention tool, emphasising the critical role of data-informed student support measures in promoting academic success and equity in higher education. The intervention highlights how structured, data-driven academic policies can drive meaningful improvements in student retention and throughput.

8: Visual representations for qualitative analysis of data from students using smartphones as measurement tools in an undergraduate physics lab

Show & tell / stand up presentation

Mayhew Steyn, Saalih Allie & Dale Taylor

Smartphones have a number of sensors that can be used to measure the properties of physical phenomena, such as sound intensity, acceleration and magnetic field strength. In principle, smartphones can, therefore, be used as all-purpose measurement devices in teaching laboratory activities in physics. However, it is not clear to what extent such activities can be self-guided or need to be done in a classroom setting. For my PhD study, I explored this by designing a self-guided activity that uses smartphones to measure the Earth's magnetic field and determine its inclination. I used a design-based research methodology, consisting of three design cycles. In each cycle the activity was tested with student participants.

The data for this presentation come from the final cycle and consist of written responses from students, researcher observations, students' smartphone magnetometer sensor recordings and audio/video recordings. I will share how I analysed the data and produced different visual representations, using multiple technologies (Python, HTML, QualCoder, Excel, Typst). I combined different types of data into new representations and made use of these representations when analysing other parts of the data. The various representations provided me with new and complementary insights. A Sankey diagram showed me the trends across the different stages of the activity. A more detailed diagram shows the diversity and complexity of individual student learning journeys as they progressed through the activity. A key finding of the study highlights the challenges of using the smartphone for educational activities, whether self-guided or with in-class interventions.

9: Scaled vector diagrams: A lost art in teaching mechanics

Show & tell / stand up presentation

Trevor Cloete

Modern introductory textbooks on engineering mechanics (i.e. statics, dynamics, solids) are all written in a similar style, with a strong emphasis on an abstract vector algebra approach to problem solving. In this approach, after creating a free body diagram, students are encouraged to immediately resolve all forces into vector components, typically resulting in a large number of simultaneous equations. To be clear, in engineering practice, where problems involve many degrees of freedom and require numerical codes, this is a valid approach. However, in the junior years of an engineering degree, this approach encourages students to rely on the mathematics alone and prevents them from developing physical insight, 3D perception and the visceral 'gut-feel' that practicing engineers rely on and educators lament as lacking in contemporary students.

The purpose of this presentation is threefold. Firstly, it will be shown how the change of emphasis occurred in the 1970s due to the introduction of handheld computational devices, and can be traced by the evolution of standard introductory mechanics textbooks. Secondly, it will demonstrate that this need not be the case and that graphical methods, such as scaled vector diagrams, can still be used to great effect in teaching mechanics in harmony with the use of handheld computational devices. In particular, it will be argued that this multi-faceted approach is less time consuming, encourages greater physical insight and can lead to fewer mistakes under examination conditions. Lastly, some preliminary and anecdotal evidence will be presented to demonstrate how a more graphical approach can facilitate deeper understanding, but also how the present secondary and tertiary academic culture, which appears to prize abstract mathematics above all, hampers students, who are hesitant to embrace graphical techniques, even when the benefits are evident.

10: Using data in EBE to evaluate student and course performance

Presentation

Pierre le Roux

The Faculty of Engineering and the Built Environment (EBE) uses student admissions and performance data extensively to identify students at risk and stream first-year students into the ASPECT extended programmes, and EBE staff have been early adopters of UCT's Business Objects data warehouse. In 2025, EBE established the EBE Science Service Course Committee to monitor, assess and examine student performance in first-year science service courses and EBE core courses with the aim of improving student academic performance and experience. These joint discussions set in motion a number of initiatives which expand use of data to provide early and continuous indicators of student and course performance. These initiatives include:

- A reinvigoration of the Early Assessment System, which requires all first-year courses to upload a mid-term into PeopleSoft, enabling reporting through Business Objects.
- The development of a prototype dashboard in PowerBI to visualise mid-term and final course results across all courses taken by EBE students.

- The development of a proposal for automating the upload of mid-term grades from Amathuba to PeopleSoft to reduce effort and barriers to adoption.
- Discussions towards establishing guidelines for the consistent use of the Amathuba Gradebook in EBE and related service courses.
- prototyping an early warning Analytics Builder dashboard in Amathuba for Electrical Engineering to identify students at risk of falling behind in academic work.

The presentation will describe these inter-related initiatives and how they are building towards an integrated, real-time data-driven approach to supporting student success in EBE.

11: Student voice as data: From cohorts to co-creators

Presentation and discussion

Lauren Butler, Jade Smith, Lovejoy Marozhe & Nawaal Deane

The 'AI Literacies for Students Interactive Guide' hosted on Amathuba (UCT's Learning Management System) was developed by the Centre for Innovation in Learning and Teaching to provide students with the skills to navigate generative AI responsibly and in alignment with disciplinary contexts. Generative AI is rapidly reshaping higher education, yet students' voices are often absent from the conversations about how they learn to use these tools critically, ethically and effectively. Recognising that students are not passive recipients of such resources, but active co-constructors of their learning, we sought to meaningfully incorporate their perspectives in evaluating and shaping the guide.

Our project is exploring multimodal approaches to capturing student voice, combining surveys, collaborative engagements and focus groups. Pre- and post-guide surveys gather insights into students' existing practices, perceptions and ethical considerations around generative AI alongside their feedback on the guide itself. However, traditional survey distribution yielded limited responses, prompting us to experiment with more collaborative and relational approaches. Partnering with the Commerce EDU student organisation, we facilitated a two-hour session where students engaged directly with the guide, completed the surveys, and reflected collectively. This created a space where students' experiences were not just data points, but catalysts for dialogue, ownership and co-creation.

We share our experiences of working with students and together reflect on students as co-creators. We will present our findings, methodology, and reflections after which we will host a discussion with participants to further explore experiences and perceptions of partnering with students. By positioning students as partners, storytellers and knowledge contributors, this project begins to redress traditional power dynamics in educational design. It demonstrates how student voice, captured through multimodal methods, can move beyond feedback collection toward authentic partnership in shaping learning and teaching offerings.

12: Postgraduate student success: Lessons from the Humanities Faculty Writing Support Project

Scholarly, higher education research and project-based presentations

Shari Daya, Geetika Anand, Nicole Isaacs, Shannon Morreira & Tammy Wilks

The Umthombo Centre for Student Success in the Faculty of Humanities launched the Postgraduate Writing Support Project in 2024. Funded by a Department of Higher Education and Training University Capacity Development Grant for three years, the project's main aim was to build community within the Humanities Faculty postgraduate cohort. Studies show that belonging and connection are vital to ensuring a high-quality student experience and timeous completion, yet these aspects of postgraduate programmes are often neglected in higher education structures and processes.

The Umthombo team sought to build community among a cohort of 30 students through three main interventions: regular writing circles; twice-annual writing retreats; and an annual postgraduate indaba or research celebration. At the start of the project, we ran a survey to understand the writing and related needs of postgraduates in the faculty. From the project's inception, we gathered additional qualitative data from the first cohort of participants, as well as other stakeholders in the faculty to understand the experiences of students who participated in one or more elements of the project, as well as wider perceptions of postgraduate student needs. In this paper, we present some of the key findings from this research in the particular context of the Humanities Faculty at UCT, contextualised within the international literature on postgraduate experiences and support.

Our research suggests that the demography and writing needs of our postgraduate student body are different from those reflected in the bulk of the scholarly literature on the topic, but are probably similar to many contexts in Africa and the Global South where postgraduate student experiences are not well researched or understood. As academics, we are mindful of the multiple constraints on improving postgraduate students' experience, including chronic and deepening government underfunding of higher education, institutional financial austerity, heavy supervisor and academic staff workloads, individual student financial stresses, and the social and family responsibilities carried by many of our postgraduate students, to name just a few. Nonetheless, we suggest that our institution can do more to enhance the experience of this group of students, and that doing so is likely to yield measurable benefits in the medium to long term.

13: Targeted online remediation of muddy concepts in chemical pathology: Enhancing student performance through structured support

Show & tell / stand up presentation

Jaisubash Jayakumar, Rivak Punchoo & Jacqueline van Wyk

Undergraduate medical students often struggle with integrating complex biochemical concepts with clinical reasoning, particularly in chemical pathology (CP), where higher-order cognitive processing is essential. This study reports on a targeted three-week online remediation programme designed to support second-year medical students preparing for supplementary

exams. The intervention focused on clarifying 'muddy concepts' which were identified through student feedback and performance data and was delivered via Amathuba using narrated lectures, quizzes and case-based discussions.

All participating students engaged with the online content, with varying levels of interaction across resources. Formative assessments revealed stronger performance in multiple-choice questions (MCQs) assessing lower cognitive domains compared to short-answer questions (SAQs) embedded in clinical vignettes, which required higher-order thinking. Post-remediation summative assessments showed improved mean scores and pass rates across most CP topics, with MCQ scores rising from 55% to 67% and SAQ scores from 32% to 48%. The study underscores the importance of aligning remediation with Bloom's Taxonomy and integrating clinical and basic science knowledge. It also identifies underutilisation of peer and lecturer discussion forums as a missed opportunity for deeper conceptual engagement.

The findings support the feasibility and effectiveness of structured online remediation in improving academic outcomes. They also advocate for incorporating self-regulation theory into remediation design to enhance goal-setting, learning strategies and adaptive behaviours.

14: From numbers to narratives: Community data to reframe pedagogy in health promotion and political studies

Show & tell / stand up presentation

Dale Trimble

This presentation explores how community-generated data from national early childhood development (ECD) and caregiver support programmes can inform both research and pedagogy in the fields of health promotion and political studies. This session draws on mixed-methods data collected across under-resourced regions in South Africa – focusing on caregiver engagement, child development and health system access – to reflect on the process of transforming field research into pedagogical tools within the university classroom.

Rather than treating data as neutral or purely technical, numbers and indicators are situated within broader social, political and historical contexts. I will demonstrate how community data can challenge dominant policy assumptions and foreground questions of justice, access and epistemic agency. I will also demonstrate how programme-generated data from the Early Learning Resource Unit can be used within postgraduate teaching and supervision at UCT, prompting students to engage critically with the politics of evidence, ethics of engagement and the lived realities that often remain invisible behind development indicators. In an era where higher education increasingly valorises data-driven teaching, this presentation asks: What kinds of data are we privileging, and to what ends? Also, how can we resist reductive quantification while still drawing on rigorous evidence to inform learning? Moreover, how might the classroom become a space to reimagine policy and governance from the ground up? This presentation offers a grounded, politically responsive model for integrating community-based knowledge into university curricula, one that bridges research, teaching and social transformation.

15: Telling stories with data

Presentation

Michelle Kuttel

How do you make a complex data set compelling and interesting to viewers? This presentation highlights simple, effective (but not always obvious) ways to visualise and highlight data where the focus is on a message, a story or narrative.

16: From analytics to action: Co-designing culturally relevant pedagogies through AI-augmented study groups in engineering education

Scholarly, higher education research and project-based presentations

Athenkosi Nzala, Tafadzwa Chapara, Ntokozo Sibande & Hlengiwe Mazibuko

The presentation describes how we used a multivariate data set from 418 first-year engineering students to go beyond one-size-fits-all interventions and develope flexible, cultural-responsive pedagogical strategies. Using a compound orientation survey, we measured academic preparedness, mental well-being, language confidence and natural strategies of resilience. The study identified different types of student personas, from 'High Achievers' to 'Support Seekers', in terms of their pedagogical requirements. Using an AI algorithm that factored in course enrolments as well as the complementary needs, strengths and cultural contexts of the student personas, we generated study groups. This allowed us, for example to match strong abstract thinkers with strong concrete thinkers or provide safe spaces for language-averse students.

The approach was successful in creating over 20 active study groups (82%) in the faculty of Engineering and the Built Environment. We contend that building nuanced and responsive learning communities with educational data is a potent approach to developing inclusive pedagogical practices that respond to the diverse realities of the South African classroom.

17: 'The struggle for the soul of the university': Engaged research at UCT

Scholarly, higher education research and project-based presentations

Lesley Powell & Leon Tikly

Engaged research (ER) at UCT embodies both transformation and tension. Globally, universities are caught between neoliberal logics that commodify knowledge and civic imaginaries that position the university as a public good. At UCT, these tensions are evident: ER is central to Vision 2030's goal of being 'an inclusive and engaged African university', yet everyday systems and reward structures continue to reflect competitive and individualising logics – and an institutional culture that largely rewards traditional performance metrics of publications.

While ER has had broad and transformative impacts on communities and policy, this presentation, framed within a critical realist perspective, focuses on its internal effects within the university – transforming pedagogy, disciplinary boundaries and curriculum – through ER projects

that foreground relational forms of scholarship rooted in care, reciprocity and the co-creation of knowledge.

The presentation reveals three overlapping orientations that highlight the conceptual ambiguity surrounding ER and socially responsive research: an outreach model (based on unidirectional knowledge transfer and service); a co-production model (emphasising reciprocity and shared knowledge creation); and a site-of-struggle model (which situates ER within broader decolonial and transformational struggles). We show that while institutional frameworks endorse ER, staff identify bureaucratic rigidity, constrained funding, performance indicators that undervalue ER, and the invisibility of the relational and emotional labour involved in ER as significant barriers.

In sum, the presentation argues that ER reflects a contested global shift in how knowledge is valued and governed. It functions not only as a mode of research, but as an ethical and political project for epistemic justice and the future of higher education in a world in turmoil. Furthermore, it operates as a site of struggle where the tensions between ER's centrality to the university's vision and the lived realities of engaged researchers are most vividly played out. ER is a space where scholars, students and communities grapple with what the university is and what it could become. In this sense, the struggle to institutionalise ER is inseparable from the broader struggle for the purpose, and indeed the soul, of the university.

18: Automating assessment in a large practical-based course

Scholarly, higher education research and project-based presentations

Aslam Safla

In a practical-based, computer programming course setting, where one needs to evaluate the practical skills of translating a problem into code, debugging and the creation of a working program, appropriate assessment poses a unique challenge distinct from traditional, knowledge-based evaluation. Compounding this is the fact that these courses are in large-class settings, where the core challenge is the disproportionate instructor workload which restricts the quality and timeliness of feedback, hindering student engagement and deep learning.

This presentation explores the strategic implementation of automating assessment frameworks in large practical-based classes to address these constraints, focusing on the integration of various technological tools to enhance educational outcomes in undergraduate computer science programming courses. The first framework utilises a real-time feedback mechanism to streamline the grading of code and practical exercises, reducing the heavy workload associated with manual assessment. By providing immediate, consistent and impartial feedback, the system allows students to iterate on their work, correct programming errors and accelerate their skill development.

The second framework leverages the use of automated systems for grading both formative and summative assessment by using multiple-choice or short-answer questions, and the use of regular expressions to automatically process coding questions. By offloading routine assessment tasks, the framework frees up instructor time to focus on higher-level pedagogical activities, such as designing more engaging assignments. This framework also allows instructors to critically analyse student answers, use this data to identify struggling students, and design and implement

specific support strategies, such as conducting group-based workshops that address students' individual learning needs. This presentation details the system's design and its impact on student engagement and learning outcomes, and discusses a balanced approach that leverages technology while preserving the critical role of human expertise in education.

19: Regaining confidence: The intangible assets of the ECP in the Faculty of Health Sciences

Show & tell / stand up presentation

Nastassia Timothy, Jia Fan, Sharief Hendricks, Bronwynn Williams, Megan Petersen, Lunelle Pienaar, Shari Simpson, Gaironeesa Hendricks, Elmi Badenhorst & Busayo Ige

As students transition from school to university, learning can be a bewildering experience for those unfamiliar with an academic context – even more so when compounded by academic failure. Led by the Departments of Health Sciences Education and Human Biology, the Faculty of Health Sciences has developed an extended curriculum programme (ECP) that provides student support beyond the discipline-specific content. Drawing on social constructivism and decolonial theory, this presentation showcases how teaching and learning is shaped through a collective (yet respectful of disciplinary orientations) approach, culminating in holistic support for our students. Through this carefully designed ECP, we have seen how students rebuild confidence, strengthen their grasp of foundational content, and establish meaningful peer-connection.

This presentation will provide an overview of how the different discipline-specific educators in the programme draw on a scholarly understanding of teaching and learning, affording students the opportunity to gain a comprehensive understanding of the disciplinary content. The presentation will further showcase how parallel teaching and learning activities develop academic skills needed to acquire disciplinary knowledge, whilst providing inclusive, safe spaces for students to strengthen their agency. This approach recognises the importance of developing and strengthening foundational knowledge and skills, and foregrounds the importance of sense of belonging with peers in achieving academic success. We postulate that the curriculum can be strengthened by the sustained collaborative endeavours of educators and can benefit from incorporating elements of the pedagogical approaches discussed as we journey towards curriculum transformation.

20: Chatbots: From conversation to insights

Presentation

Riashna Sithaldeen, Deepti Charitar, Qiraan Christians & Stephen Marquard

In an increasingly complex higher education environment, institutions need to be agile. This requires systems that can respond effectively to student needs while generating insights to guide decision-making. This presentation explores how chatbots can strengthen feedback loops between prospective and current students and a range of university stakeholders and decision-makers, transforming routine digital interactions into actionable insights.

The UCT Chatbot is an informational advising tool designed to support applicants and students at the University of Cape Town. Initially introduced to improve communication and service efficiency

for prospective students, it is now emerging as a powerful tool for capturing real-time data on the first experience which applicants have with UCT. The UCT Chatbot produces a continuous stream of data that reflects user questions, concerns, and points of confusion across the application and admissions process. By analysing these conversational datasets, student support teams can identify recurrent issues, seasonal trends in demand, and information gaps in institutional communication.

The Lumi Learnwise Tutor course-level chatbot draws on Amathuba course content to answer student questions and help students study. Conversations from pilot courses using the chatbot in October and November 2025 illustrate students seeking support in understanding course requirements, reviewing key concepts and finding appropriate study resources. These interactions can help inform course design and presentation.

21: Tutor reflections as relational data for inclusion

Scholarly, higher education research and project-based presentations

Lara Karassellos, Pragashni Padayachee & Shanali Govender

In higher education, 'data' is often equated with numbers: pass rates, grades or throughput statistics. These quantitative metrics do, however, only capture a fraction of the complex processes that shape student success. In this presentation, the UCT Tutor Development Programme (TDP) team shares insights from an ongoing research collaboration with the Faculty of Engineering and the Built Environment – the Tutored Reassessment Programme (TRP). The TRP takes the form of a week of intensive tutorial sessions designed and facilitated by tutors to prepare at-risk students for their supplementary examinations. Through this research collaboration, tutors engaged with structured reflection activities (pre, during, and post the TRP) that generate qualitative forms of data often overlooked in institutional conversations.

These reflections provide insight into the lived experiences of tutors and students as they navigate high-stakes learning environments. Tutors record their observations of students grappling with disciplinary thresholds, negotiating unfamiliar study strategies, and managing the emotional demands of reassessment contexts. Tutors also articulate how they themselves enact inclusion through care, empathy and responsive support, and track their own development. In this sense, tutor reflections serve as 'relational data': evidence of learning interactions, identity formation, and pedagogical practices that cannot be reduced to quantitative measures.

Hanlon's (2024) model of relational pedagogy in social care education is adapted for the tutor training, development and research context, with a particular focus on the caring practices and critical practices of this model. The TDP promotes care as an integral aspect of the tutor role, and the importance of care is particularly pertinent in the TRP context given the emotional demands at play in reassessment spaces. The model emphasises the importance of opportunities for critical reflection on practice, which include the practitioner's ability to interrogate the social justice implications of their work. As noted, the TDP provides various reflection opportunities for tutors' development and the relational data created in this regard forms the focus of this presentation.

The TDP also plays an important liaison role between the tutor cohort and academic staff in this project. These forms of evidence will be fed back into tutor training design and curriculum review,

showing how relational data can inform decision-making at multiple levels. By reframing reflections as data, this proposal widens the conversation about what 'counts' as evidence in teaching and learning. It also emphasises the value of centring diverse voices in institutional data practices, particularly those of tutors. Ultimately, the presentation demonstrates that tutor reflections are not simply anecdotal, but are critical resources for building more inclusive, responsive and relational approaches to student success.

22: When numbers and feelings collide: How can data educate us about the importance of positive student emotions in teaching and learning?

Scholarly, higher education research and project-based presentations

Chivaugn Gordon

During the Covid lockdowns, a UCT lecturer in obstetrics and gynaecology made numerous light-hearted and entertaining videos about core topics in the discipline in an attempt to induce deep as well as joyful learning. Her departure point was concerns around student mental well-being during this time of isolation. The videos were wholly unconventional in medical education, relying on humour and performances carried out by the lecturer. The student feedback was overwhelmingly positive and a formal research project was conducted to explore this phenomenon.

Phase one consisted of a survey with open-ended questions focussed on how positive emotions elicited while consuming the videos contributed to deep learning and enjoyment of learning. Phase two of the study consisted of two focus groups with undergraduate students (sourced from the survey) who had enjoyed the video content so as to explore survey themes in more depth. Convenience sampling was used. Students were interviewed by a researcher outside of the lecturer's department who was not involved in making the videos.

The most potent sentiment expressed by students was that their learning of the content was significantly enhanced by the positive emotions they felt towards the content and the teacher. Students experienced numerous positive emotions, ranging from joy, appreciation for the teacher, love, laughter, amazement and feeling energised – which facilitated motivation, diligence, enjoyment of learning, enthusiasm and even inspired students to want to specialise in obstetrics and gynaecology. They valued the effort, humour, authenticity, care and humanity that was evident in the content creation as much, if not more, than the actual content.

The importance of positive emotions in learning should be formally considered in higher education, since it has the potential to significantly improve students' experiences of learning. Furthermore, teachers are encouraged to retain their humanity and authenticity as touchstones to keep students connected to the teacher and to what they are learning.

23: Flipped Fridays: A teaching and learning intervention to build engagement and bridge the transfer gap in a first-year accounting course

Scholarly, higher education research and project-based presentations

Jimmy Winfield & Boitumelo (Tumi) Diale

In the years prior to the Covid-19 pandemic, lecture attendance in our large first-year accounting course had been steadily declining. Even before that, another pedagogical challenge persisted: while students could follow basic illustrative examples in class, they often struggled to apply the same concepts to more complex, scenario-based problems in homework and assessments.

During the pandemic, the academic team responsible for the course (Financial Reporting 1) developed a library of high-quality digital resources comprised of video lessons, knowledge-check quizzes and worked examples. When the pandemic subsided, these resources presented an opportunity to shift our core delivery model from traditional in-person teaching to a blended learning approach, in which key concepts are introduced online, allowing in-person time to focus on deeper learning.

To implement this shift, we introduced Flipped Fridays: weekly, in-person lectures where students are expected to arrive having already engaged with the week's core material online. The Friday lecture then serves not as a venue for content delivery, but as a structured opportunity to address the transfer gap – through collaborative, application-focused work on exam-style problems, with real-time guidance and feedback.

This presentation outlines how Flipped Friday operates as a pedagogical intervention – aiming to maximise engagement in the physical classroom and address a persistent weakness in student learning. We share the design principles behind the approach (e.g. flipped classroom, peer-to-peer learning and online quizzing); practical lessons learned (e.g. segmenting activities, prioritising learning in a fun, collaborative space and the importance of using the same instructor), and early indicators of success (e.g. improved attendance and greater depth of classroom engagement). The model may be of particular interest to educators seeking a highly interactive and fun way to help students transition from theory to application.

24: Use of computer simulations in an open-ended assignment for third-year fluid dynamics course

Show & tell / stand up presentation

Wei Hua Ho

Engineering is the use of science knowledge, mathematics and engineering design philosophy to solve problems and advance the state of the art within technology. In South Africa, it is regulated and accredited by the Engineering Council of South Africa and accreditation of engineering degrees are evaluated and granted based on a list of graduate attributes (GAs). This presentation presents a proposed open-ended assignment presented in a fluid dynamics course at second or third year, depending on the specific curriculum, for the purpose of supporting students in formal GA assessments. Discussions will be aligned to some of the GAs as well as the revised Bloom's

taxonomy. Finally, this assignment does not substantially increase the workload of staff and students and is potentially AI proof.

25: Science and engineering lecturers' experiences with using Gradescope

Show & tell / stand up presentation

Anita Campbell, Shajid Haque, Jumani Clarke, Michelle Henry & Zahraa Harnaker

Using semi-structured interviews with lecturers, our research explores patterns of usage, perceived benefits and challenges in implementing the 'Gradescope' digital assessment tool. Key areas of inquiry include feedback quality, grading efficiency, student engagement and variations in adoption practices. We also identify barriers and enablers to effective implementation.

Findings from this research provide evidence-based insights for using digital assessment tools to enhance teaching and assessment practices. By examining lecturers' experiences, this study contributes to understanding how assessment can be more inclusive, efficient, transparent and supportive of student learning. The findings provide practical guidance for using digital tools such as Gradescope, showing ways to give timely, useful feedback and support better student learning.

27: The evolving ethical landscape of learning analytics

Invited Speaker Presentation

Paul Prinsloo

Concerns about the boundaries and purposes of monitoring students' progress predate the 2011 launch of learning analytics (LA) as a field, and its focus on research and practices in learning. Has the adjacency between monitoring student progress and surveillance become an overlap? Ethical considerations such as student privacy and the responsible use of LA formed part of the early research, including the 2013 map of the ethical landscape in LA that resulted in the first institutional framework for the ethical collection, analysis and use of student data at the Open University in the UK in 2014. The evolution of ethics in LA further includes attempts to collect, analyse and use multimodal student data – *outside* the confines of classrooms and learning management systems – which highlights ethical considerations of boundaries in LA.

As some LA research has 'followed' students into their social media spaces, and invited students to share journal reflections, it has become increasingly clear that we should consider the conventions of responsible conduct of research. Under what conditions should LA be considered research and comport with the governance of ethical issues in research? The digitalisation, platformisation, datafication and artificialisation of teaching and learning also raise new ethical considerations in LA. Are the institutional processes of ethical clearance and governance ready and available to help chart the new boundaries and purposes of LA?

28: Cutting to the CORE of gender inequality in economics

Scholarly, higher education research and project-based presentations

Robert Hill

The economics discipline has long been criticised for a lack of female representation. This lack of representation in the profession likely stems from a lack of representation of women amongst economics students at tertiary institutions. Literature has suggested numerous reasons behind this lack of representation, as well as potential interventions in order to counter it and restore gender imbalances. One of these is through active curriculum change.

Using the case study of the Curriculum in Open-access Resources in Economics (CORE) curriculum, which was introduced to first-year economics students in 2019, we investigate whether the introduction of a new curriculum can lead to increased female representation in economics, as well as the narrowing of gender gaps in performance. The analysis makes use of data from UCT Student Records for all entering students who registered for first-year mainstream economics courses between 2014 and 2023. Exploiting this quasi-natural experiment, we find that the introduction of the CORE curriculum, while not having any differential effect on encouraging female students to declare or change their majors to economics, did have a positive and statistically significant effect on narrowing the gender gap in academic performance by between 1.1 and 2.5 percentage points for microeconomics courses at UCT.

29: Where they learn, what they learn: Mapping the Faculty of Health Sciences clinical platform

Scholarly, higher education research and project-based presentations

Philip Dambisya, Kerrin Begg, Lakshini McNamee & Kirsten Reichmuth

There is growing recognition within health professions education that the location where students are trained impacts the implicit lessons that affect their workplace readiness and subsequent practices upon completion of their studies. The UCT Faculty of Health Sciences (FHS) is currently undertaking a curriculum transformation process across its five undergraduate programmes. By interrogating content, structures, philosophies, graduate attributes and established pedagogies, we aim to cultivate clinicians that are socially just, adaptable and proactive in addressing health matters within their scopes of influence. This means developing health professionals that have cognisance of the environmental and sociocultural needs of the contexts they serve.

To help address this goal, we mapped the clinical platform – facilities used for health service provision and training – to understand what facilities and geographic areas our students are trained in, identify areas where we lack presence and explore opportunities for enhanced interprofessional education and collaborative practice.

Drawing on Greenwood's (formerly Gruenewald) critical pedagogy of place (Greenwood, 2008), we undertook comprehensive mapping using interactive data visualisation software (Greenwood, 2008). Location data were compiled by FHS staff with expertise in coordinating clinical training across all FHS undergraduate programmes.

The visualisation revealed that the FHS clinical platform extends far beyond Cape Town, reaching areas as far away as Saldanha Bay and Knysna. The mapping demonstrated that multiple health professions operate within the same clinical contexts, creating previously unrecognised opportunities for students to engage with and learn from fellow emerging health professionals across disciplines. It further highlighted opportunities to learn from different communities and enhance the participatory practices that have governed the FHS curriculum transformation endeavours.

This data visualisation made the extensive reach of the FHS footprint visible to a broader audience and identified concrete opportunities for interprofessional learning. The mapping has helped spark an inter-university collaboration between the four Western Cape universities and the Western Cape Government to better expand and coordinate the opportunities and constraints faced across the province's clinical platform, supporting our transformation goals of developing contextually responsive health practitioners.

30: Making student feedback work for everyone

Presentations and discussion

Shameemah Abrahams, Nompumelelo Mazibuko & Stephen Marquard

This session explores student feedback through course evaluations and other mechanisms, and how we can design feedback practices and systems that balance the interests of multiple stakeholders in complex university environments: students, lecturers, academic managers and leaders and quality assurance practitioners.

30a: Reframing the student voice from a weapon against a lecturer to a lecturer’s arsenal

Shameemah Abrahams

The feedback ecosystem is a transformative process including feed-up (lecturer-driven, prepatory task instructions), feedback (lecturer-driven, post-task critique) and feedforward (student actioning feedback) mechanisms. This potentially enables lecturer and student co-creation and collaboration. Previously, student evaluations have highlighted delivery mode, language, timing and lecturer credibility as key to their understanding of feedback. Although these evaluations are useful, they are increasingly used as a critique of lecturer performance. Thus, the aim of this reflection is to gain insights from the journey of a lecturer becoming reflexive, by reclaiming the student voice.

From the perspective of an early-career black, female academic, a reflection is given on receiving harsh criticism from student course evaluations in 2022 and 2023. The subsequent punitive ramifications on lecturer performance led to implementing a feedback intervention to improve student perception in 2024.

Diverse student cohorts (47% black, 84% female) commented that lecturer feedback was inadequate and did not equip them to improve their performance. This criticism had detrimental effects on management’s review of the lecturer’s performance, the lecturer’s self-confidence, and

the lecturer's in-class leadership style. This led to lecturer apprehension of student course evaluations. Self-reflection by the lecturer and open discussions with peers and students led to the initiation of a feedback intervention. This included an empathic approach and timeous delivery of feedback to students, which received positive comments. Themes highlighted from this reflection were the weaponisation of student voice, becoming an empathic and reflexive lecturer, and reframing the student voice from antagonistic to collaborative.

Notably, valuing both lecturer and student voices within the feedback ecosystem fosters co-creation, inclusion and best practice in teaching and learning.

30b: Navigating change: From evaluation data to institutional development in South African higher education

Invited Speaker Presentation

Nompumelelo Mazibuko

This presentation provides insights into how evaluations from the central quality assurance (QA) office can guide institutional development within the evolving landscape of higher education in South Africa. Drawing on multi-year student feedback data and discussions across universities, the session investigates emerging trends in student evaluation practices. This includes the shift towards digital feedback systems, the need for inclusive question design, and the importance of closing the feedback loop.

It emphasizes that institutional analysis of evaluation data can transcend mere performance monitoring to facilitate evidence-based decision-making, enhance curricula, and foster the professional development of academic staff. The presentation also reflects on the sectoral lessons gained through collaboration and benchmarking within the national higher education community, illustrating how shared challenges such as low response rates, feedback fatigue, and contextual interpretation can be transformed into opportunities for collective enhancement. Ultimately, it advocates for an integrated approach where the student voice actively drives institutional growth and the co-creation of quality learning experiences.

31: AI in constructive alignment

Adheesh Budree & Marilette Pretorius

In the evolving landscape of higher education, the integration of AI offers timely opportunities to enhance curriculum design without compromising pedagogical integrity. This workshop and accompanying presentation introduce a practice-based framework for constructive alignment (CA), a widely adopted model for designing coherent learning experiences, and explore how generative AI can support educators in applying CA effectively and efficiently.

Grounded in Biggs and Tang's principles of outcomes-based education, this interactive session engages participants in aligning intended learning outcomes, teaching and learning activities, and assessment tasks using real-world prompts and AI tools (e.g. ChatGPT, Claude). Participants will co-create and critique curriculum prototypes, assess alignment using a peer-review rubric, and reflect on the pedagogical implications of using AI as a design partner.

Targeted at curriculum developers, convenors and lecturers, the workshop offers both conceptual grounding and hands-on experimentation. It positions AI not as a replacement for academic expertise, but as a cognitive scaffold to support deeper learning design. The session supports UCT's vision of innovation in teaching and learning by combining evidence-based pedagogy with emerging technologies to empower reflective, data-informed and agile curriculum practices.

32: An early warning system dashboard for identifying students at risk

Presentation and discussion

Mary-Ann Fife & Dale Taylor

Early interventions can help at-risk students stay on track but we need an early warning system (EWS) to identify these students. In this presentation, we demonstrate an EWS dashboard that harvests Amathuba data across courses along with PeopleSoft data to inform this process. The Performance+ suite of analytics tools in Amathuba enables this compilation of data across sources and makes it available to the relevant individuals.

Using Analytics Builder, a dashboard creation tool in Amathuba, colleagues from CILT and the Science Faculty co-developed a dashboard that identifies students who may require early intervention based on their preliminary grades contained in the gradebook for the courses they are taking. The dashboard has gone through a couple of rounds of iteration to improve its usability. There are also future plans to onboard staff to set up their gradebooks to optimise data collection which will allow further insights.

The Science Faculty has used the dashboard to identify students to include in a WhatsApp nudging campaign through the UCT chatbot; these students received a WhatsApp message and were asked to respond to a poll, so that appropriate action could be taken.

We share this experience and demonstrate how the dashboard works as an example of how data can be used to support student advising at UCT.

33: Working with student teachers to disrupt Anglonormativity: A reflective account from the PGCE programme

Scholarly, higher education research and project-based presentations

Carolyn McKinney, Soraya Abdulatief, Kate Angier & Hannah Carrim

This presentation shares and reflects on our experiences as teacher educators working with pre-service student teachers in two language and literacy modules that form part of a compulsory 11-module inter-disciplinary education theory course in a year-long Postgraduate Certificate in Education (PGCE) programme. The PGCE is a pre-service teacher education programme for high school teachers of a wide range of disciplines. The aim of the two modules is to disrupt racialised colonial language ideologies and implement bi/multilingual pedagogies.

We describe our decolonial pedagogies, including the strategic use of countertexts in a documentary film and bi/multilingual learning materials created by our student teachers. Using the concept of 'Anglonormativity' (the expectation that all children should be proficient in English

and are deficient if they are not), as well as the coloniality of language, we show how we make visible to teachers and challenge a number of inter-connected myths embedded within a colonial matrix of power. Through a multimodal analysis of the multilingual teaching resources produced collaboratively by a class of 183 student teachers in a limited time towards the end of our course, we show how students are beginning the journey of embracing a decolonial stance and resisting the colonial language ideologies that are dominant in the education system. We reflect further on how to strengthen our approach to enhance student participation and take up of multilingual strategies in their own teaching.

34: The introduction of workplace-based assessment for general surgery training

Scholarly, higher education research and project-based presentations

Daniel Nel

Assessment in postgraduate general surgery training in South Africa has traditionally focused solely on knowledge objectives. There is currently a movement to introduce workplace-based assessment (WBA) to evaluate trainee clinical competence. However, concerns have been raised regarding the feasibility of this approach in a South African context. Similar concerns about feasibility and other issues with WBA implementation have been identified in general surgery in different settings. The aim of this study was to determine if it was possible to introduce WBA and to identify the characteristics of a WBA strategy that would ensure successful implementation at a South African university.

The design-based research methodology was used to define the educational problem, generate guiding principles for a solution, test the solution through cycles of implementation and refinement, and finally reflect on the implementation process to derive a final set of design principles. The study was conducted in the Division of General Surgery at the University of Cape Town from 2022 to 2023. The planning of the design and the interpretation of the findings were considered in the context of socio-cultural learning theory.

Fifteen guiding principles, underpinned by theory, were used to design the WBA strategy. Three cycles of testing and refinement showed relatively high perceived feasibility, acceptability and appropriateness among trainees and supervisors. The lessons learned from each cycle enabled the solution and design principles to be modified in consultation with a stakeholder team to further enhance participant perceptions and implementation. This process resulted in 15 final design principles, of which six were substantive and nine were procedural. The substantive principles related to the selection of activities for assessment, assessment tools, the supervisor base and the digital platform. The procedural principles related to the pace of introduction, team development, managing the formative-summative tension and change management approach.

WBA is viable strategy for postgraduate general surgery training. Design principles have been identified to ensure feasible implementation. These principles may assist others in implementing new or refining existing WBA strategies.

35: SASSE and LSSE 2025: A first look at the UCT results

Presentation

Stephen Marquard

The 2025 South African Survey of Student Engagement (SASSE) and Lecturer Survey of Student Engagement (LSSE) are national surveys which are run at UCT every 2 years.

The student survey SASSE "gathers comprehensive information … relating to high-impact experiences and behaviours identified as having an influence on the teaching and learning experience", including students' participation in educationally purposeful activities; interaction with lecturers and their peers; the degree to which they engage with diversity; and how students perceive the university environment.

The lecturer-focused LSSE measures lecturers' experiences of their students' engagement in effective educational practices and complements SASSE. Together, these surveys provide a multifaceted view of current staff and student experiences of teaching and learning at UCT.

The UCT SASSE and LSSE surveys closed on 10 October 2025 and the results are now available through two interactive dashboards. This short presentation will introduce the surveys and the dashboards, highlight some key findings, and explore how different stakeholders can use these rich data sets to support evidence-based change.

36: The transhuman student: Implications for pedagogy and equity in post-apartheid higher education

Scholarly, higher education research and project-based presentations

Yunus Omar

This presentation critically engages the emergent concept of 'transhuman student' in the context of post-apartheid higher education. The transhuman student is the student enhanced by, implicated in and iteratively engaging with advanced technologies, such as artificial intelligence, neuro-enhancements and biometric monitoring. This notion of the student is a radical ontological re-orienting of the pedagogic subject. The paper draws on a framework postulated from critical posthumanism (Braidotti, 2013) and the sociology of educational technology (Selwyn & Facer, 2014).

This engagement explores the implications of this ontological shift for pedagogical practice, as well as the uneven project of educational and social equity in post-apartheid South African higher education. The paper argues that technological augmentation promises the nirvana of democratisation of access. It does so through the hyper-personalisation of learning. Simultaneously, however, the risks of re-inscribing historical and present inequalities and producing newer forms of exclusion are stark. The post-apartheid state, which today wrestles with intersecting forms of inequalities, is faced with non-biological knowledge and data enhancements that create new axes of discrimination, privilege and marginalisation, at the very moment that the state seeks to create a post-apartheid reality that provides the fruits of society to all.

The presentation examines the emergent categories of an augmented elite minority and a technologically impoverished majority, with its racialised realities all too familiar. It assesses how these developments pose fundamental challenges to the very purpose of a university education and contends that the transhuman moment requires a radical re-imagining of pedagogical ethics and calls for a justice-oriented framework that moves beyond a reductionist 'access to technology' discourse towards a critical pedagogy of technology in order to ensure that we do not abandon the transformative impulse and mandate of post-apartheid South African higher education.

37: Evaluating the effectiveness of near-peer teaching in undergraduate surgical skills

Scholarly, higher education research and project-based presentations

Urvashini Pillay, Ben Daniel & Morne Visser

Procedural skills such as suturing and knot-tying remain core competencies for medical graduates. Yet, in low- and middle-income country (LMIC) contexts such as South Africa, structured opportunities for surgical skills training are often undermined by limited resources, limited access and the high cost of training that is usually reserved for postgraduates. These systemic barriers raise critical questions of equity and sustainability in medical education.

Near-peer teaching (NPT), where senior students instruct junior peers, has emerged as a scalable and cost-effective response. This presentation reports on a review of recent literature comparing NPT to traditional surgeon-led teaching, with a focus on undergraduate surgical education in resource-constrained settings.

Findings indicate that NPT produces outcomes comparable to faculty-led teaching in basic surgical competence, while offering superior gains in learner confidence and engagement. Social and cognitive congruence between peers appears to enhance inclusivity and reduce the intimidation often associated with faculty-led instruction. Furthermore, evidence highlights NPT's sustainability and cost-effectiveness in LMICs, where human and financial resources remain constrained.

The presentation demonstrates how student-centred, data-informed teaching strategies can address systemic inequities in surgical training. Insights will guide the design of a quasi-experimental cohort study at a South African medical school, exploring how NPT can be embedded to enhance competence, confidence and equitable access to surgical education.

Wednesday 19 November

38: What is counted and what counts? Thinking about data in a UCDG project through an emergent and relational lens

Critical conversation

Shanali Govender, Pragashni Padayachee, Lara Karassellos, Matt Kingwill & Luna August

This critical conversation uses the UCT Tutor Development Project (TDP), funded by a Department of Higher Education and Training University Capacity Development Grant, as a site for investigating the implications of discourses about data for project design.

Tutors often become key intermediaries between students and the academic curriculum, providing both academic and personal support. They significantly contribute to student success through peer learning, student well-being, and the cultivation of future academics. While tutoring is a well-established and long-standing practice across the higher education sector, sectoral changes are reshaping the role and form of tutoring, and consequently the experiences of tutors, students and staff. Faced with a need to improve student experience and outcomes, while increasingly hampered by financial constraints, many universities are turning to 'cheaper' strategies, such as peer support in the form of tutors.

UCT has faced several challenges concerning its existing tutoring practices. These include a lack of consistency at the policy level, development of a mutual understanding of the varied and evolving role of tutors, and a lack of training and support, resulting in variable working conditions and preparedness levels among tutors. The goal of the TDP is to provide consolidated and integrated support and training for tutors across the university, so that they may feel better supported in their roles and, in turn, offer better quality support to students in their academic journeys.

Our work in the TDP, while unequivocally pragmatic in its orientation, seeks to simultaneously understand and thoughtfully engage with the structuring discourses and orientations that shape our project. Not insignificant among these has been conversations about data – specifically, a question about 'what is counted, what counts, and who decides?' This question has come to be entangled with imaginations of the tutor, the student, the lecturer, the institution and the relations in which they function.

In this critical conversation we ask: What happens to a teaching and learning intervention, in terms of its design and being, when neoliberal and countable logics of transparency and accountability replace relational and qualitative ways of understanding data? We discuss strategies for creating 'wiggle room' in the project to create space for invisible data generation that informs and transforms the work, as opposed to data that solely accounts for the funding, and the challenges that come from the assumption that teaching and learning interventions can exist outside of scholarly and critical engagements with these practices.

39: Beyond feedback: A scoping review of medical students' perceptions of feedforward in clinical education

Scholarly, higher education research and project-based presentations

Sunali Parbhoo, Jaisubash Jayakumar & Shameemah Abrahams

This presentation provides insights into the way undergraduate medical students comprehend, receive and implement feedforward strategies within formative assessments in clinical education. Feedforward strategies are essential in undergraduate medical clinical education, as they focus on providing students with guidance that enhances their performance in future learning and clinical tasks (Molloy, 2010). In the context of formative assessment, which is used to shape rather than grade a student's performance, the feedforward approach empowers students to proactively refine their learning styles and objectives by providing specific, forward-looking guidance that assists them with understanding how to apply feedback effectively to future tasks and improve their clinical reasoning and performance.

In the scoping review reported on, Arksey and O'Malley's (Westphain et al., 2021) five-stage framework and PRISMA-ScR (Haddaway et al., 2022) reporting standards were consistently applied in retrieving and collating information regarding students' perceptions and use of feedforward strategies. A total of 3,426 articles were identified from six databases, from which 86 full-text studies were screened and 15 studies met the inclusion criteria.

Students reported a range of perceptions, including positive perceptions which were directly related to reduced anxiety and improved academic planning, whereas mixed or negative perceptions correlated with students struggling to apply feedforward strategies. Findings suggest that undergraduate medical students are more likely to respond positively to the feedforward approach, provided it is timely, constructive and follows an effective feedback loop. However, insufficient institutional support, educator unpreparedness and deficient student feedback literacy limit the consistent implementation of feedforward strategies. It is imperative to design and adapt feedforward strategies to overcome these barriers.

40: UCT AI Teaching Innovation Grants

Presentations, lightning talks and discussion

Lukas du Plessis, Colin Tredoux, Liza Hitge, Jaisubash Jayakumar, Katia de la Cruz Garcia, Marwaan Rylands, Jeffrey Bagraim& Gerhard Venter

The AI Teaching Innovation Grants support UCT staff in exploring practical, ethical and creative uses of artificial intelligence in teaching and learning. In 2025, funding was awarded to 14 projects across faculties, focusing on areas such as AI-assisted assessment, tutoring, academic writing support, and student skill development. These projects aim to enhance teaching practices and student learning through thoughtful integration of AI tools.

Project leaders from the following nine projects will describe their initiatives, followed by a Q&A session:

- Lukas du Plessis & Wolfgang Knupp: AI-assisted grading for MEC4124W design reports
- Colin Tredoux: AI-enhanced writing improvement assistant

- Liza Hitge: AI to scale reflection assessment in the informal curriculum
- Jaisubash Jayakumar: Next-generation medical education: AI-driven innovation in pathology through student-staff collaboration
- Katia de la Cruz García: Exploring AI writing support tool
- Marwaan Rylands: AI-assisted reflection and assessment support: Toward designing better organic chemistry exams
- Jeffrey Bagraim: AI-enhanced learning in organisational psychology: Developing cultural intelligence in tomorrow's change leaders
- Gerhard Venter: Chemistry mentor: A multilingual AI tutoring system for undergraduate chemistry education

40a: AI-assisted grading for MEC4124W design reports

Lukas du Plessis & Wolfgang Knupp

This presentation highlights lessons from a pioneering UCT pilot exploring how AI can transform assessment in engineering education. By integrating generative AI and web-based tools into Mechanical Engineering design reports — rich with calculations, CAD visuals, and technical reasoning — the project demonstrates how automation can streamline grading and feedback without compromising fairness, precision, or accreditation integrity.

40b: Intelligent textbooks as ways of delivering material to students in two courses at UCT

Colin Tredoux & Ella Mendelow

This presentation outlines a mixed-methods, dose-response investigation into the efficacy of two artificial intelligence (AI) interventions embedded in undergraduate teaching at UCT. The study will deliver and test an intelligent textbook that delivers automated formative feedback on short-answer and short-essay questions within a second-year cognitive neuroscience course, alongside a 'Socratic chatbot' that engages students in conversational reflection after each chapter or lecture block. (An intelligent textbook is a digital learning resource that uses embedded assessments, analytics and AI tutoring to adapt to students' needs).

A parallel intervention in a third-year research methods course where students complete AI-mediated reflective evaluations after each 12-lecture module, is also presented, along with data regarding its efficacy.

The research design incorporates a minimum engagement threshold contributing to course credit, with voluntary usage beyond that threshold enabling estimation of dose-response effects. Primary outcomes include end-of-course grades and performance on chapter-level, multiple-choice quizzes; while secondary outcomes encompass longitudinal trajectories of writing quality, time-on-task and engagement indices logged by the platform. Multilevel regression models controlling for baseline GPA test hypotheses that greater AI engagement predicts superior academic performance.

The study adheres to the South African Protection of Personal Information Act and international data-protection standards by routing all learner data through a server that is compliant with European Union data protection requirements. Data sent via API (application programming interface) calls to the AI agent are stripped of student identity. Risk mitigation strategies include a pilot phase, human review of a percentage of automated feedback interactions, opt-out provisions for research use of data, and comprehensive data securification procedures. Findings will inform policy on AI-supported learning and contribute to the empirical literature on intelligent textbooks and automated tutoring.

41: Logics at Play: A serious game – data analytics, equity and student success

Interactive boardgame

Megan Bam & Yusra Price

This 90-minute session combines play and reflection to surface the trade-offs, assumptions and conflicts that underpin data-driven strategies for student success.

Institutional logics provide valuable insights into decision-making and strategic planning by exploring the cultural beliefs, rules, and values that shape organisational and individual behaviours when implementing disruptive innovations (Christensen and Eyring, 2011), such as data analytics. Institutional logics are '...the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organise time and space, and provide meaning to their social reality' (Thornton & Ocasio, 1999, p. 804). In laymens terms 'an institutional logic is the way a particular social world works' (Thornton & Ocasio, 2012, p. 101).

Universities are shaped by the pursuit of knowledge, academic autonomy and high standards of excellence. At the same time, they face competing pressures from government regulation, financial sustainability, market competitiveness and professional academic values. These demands reflect the influence of different institutional logics, such as the state, market, business and academic/professional, which often pull institutions in conflicting directions. In South Africa, these tensions are heightened by persistent inequities in student participation, completion and success rates.

Data analytics has emerged as a prominent strategy to address such disparities through tools such as dashboards, predictive models and early warning systems. However, critiques highlight the risks of deficit framing, racial profiling, surveillance and a loss of trust, raising questions about whether data-driven approaches really advance equity and success in higher education. Logics at Play is an interactive boardgame designed to investigate how institutional logics shape the implementation of data analytics in universities. Participants will work in teams of four to six people, adopting different institutional logics to navigate real-life dilemmas using event and data cards inspired by South African higher education contexts.

Participants will gain a deeper understanding of how institutional logics influence equity and success initiatives; have greater insight into the tensions between data, trust and social justice;

and be familiarised with a practical tool to engage staff and students in meaningful dialogue about equity and student success.

42: Building institutional capacity for using data to improve teaching and learning in South African universities: Insights from the SAAIR and Siyaphumelela communities

Invited speaker presentation

Elizabeth Booi

Across South Africa, universities are strengthening their capacity to use data for teaching, learning, and student success through national networks such as SAAIR and Siyaphumelela. These communities foster collaboration among institutional researchers, academics, and learning analytics practitioners committed to ethical and evidence-based practice. The session will present a national view of how these collaborations build data literacy, inform governance, and embed analytics in decision-making.

Drawing on examples from network members, I will reflect on practices that have gained traction, including early alert systems, data-informed curriculum design, and participatory approaches to analytics. The presentation considers how collective learning within these communities is shaping a more reflective and socially responsive higher education data culture in South Africa.

43: Failure to complete: A grounded theory exploration of the experiences of students who do not complete the EMBA degree in the prescribed time

Scholarly, higher education research and project-based presentations

Lionel Green-Thompson & Gavin Andersson

South African higher education is characterised by high attrition rates and poor throughput with multiple barriers and enablers having been described. There are calls for personalised support for postgraduate students coupled with improved quality and consistency of supervisory support. The Executive Master of Business Administration (EMBA) at University of Cape Town is a postgraduate degree in the Faculty of Commerce. The throughput for postgraduate degrees in the Graduate School of Business, which is home to the EMBA, is 3.1 years.

The situation of concern framing this study included the experiences of those who did not complete on time and how these could frame support. The primary research question sought to explore the experiences of the students who did not complete within the minimum time (2 years) for the degree.

A social constructivist qualitative grounded theory methodology was employed. Eleven in-depth interviews were conducted between October and December 2024 and more than 50 initial codes were distilled into ten focused codes.

The participants' experiences, expressed through the codes, were distilled into three main categories of experiences: the disorienting encounter with higher education, the challenges and substance of the transformative learning expected and their reactions to being seen as failing even though they were recognised leaders in their workspace.

This study proposes a humanising development theory for postgraduate students. It describes the journey from admission and making the immersion into learning explicit to facilitate personal transformation. The theory offers four phases as enabling successful emergence from the course.

Recommendations arising from the study include personalised support for students and focused faculty development to enhance the pedagogy of supervision.

44: GenAI in learning and teaching at UCT: Exploring staff perceptions, practices and literacies

Scholarly, higher education research and project-based presentations

Mishka Reddy, Lara Karassellos, Mashudu Raudzingana & Janet Small

The ubiquity and influence of generative artificial intelligence (GenAI) in the contemporary higher education landscape is undeniable. Tools like ChatGPT, Copilot and Gemini are now widely used in educational settings to generate text, images, numerical solutions, code, etc. University centres of teaching and learning are often called on to provide guidance and support in this regard, particularly for teaching staff. These centres are expected to navigate both the rapidly evolving technological developments in the field, and the learning and teaching needs of staff and students.

In this presentation, colleagues from CILT will share initial findings from the research project 'Exploring AI literacies development at UCT: Evaluating interventions for staff, student, and assessment practices'. This project investigates how staff and students develop practices to engage ethically and critically with GenAI in teaching, learning and assessment through CILT interventions.

This presentation focusses on the first round of data collected in the staff stream of the project, namely: interviews, workshop observations, perusal of workshop artefacts and post-workshop survey data. We draw on sociomateriality as a theoretical and analytical lens to explore how GenAI practices in teaching and learning are performed into being through heterogeneous sociomaterial assemblages. These assemblages include an entanglement of staff and students, AI technologies, institutional interventions, disciplinary contexts, and discursive materialities around ethics and academic integrity.

Initial findings illuminate the wide spectrum of current practices around GenAI in learning, teaching, and assessment at UCT, including intentional integration of GenAI into learning and teaching activities, resistance and hesitancy, and a return to traditional invigilated assessments in some cases. It is evident that practices are configured differently across diverse disciplinary contexts, and this creates distinct possibilities and constraints. Further, these findings reflect the diverse ways in which ethical and critical engagement with GenAI are conceptualised. We note narrow conceptions of this engagement which are limited to academic integrity and evaluation of

outputs, and argue for CILT's role in broadening the coversation to interrogate the entanglements of the technological and the social.

45: Scales of success: Exploring the challenges of defining and evaluating student success in a writing centre

Scholarly, higher education research and project-based presentations

Natashia Muna, Taahira Goolam Hoosen, Christianah Kehinde, Thando Kubheka, Juandre Makaka & Lenschen Greyling

Defining and evaluating the concept of student success has long challenged writing centres, such as the Faculty of Health Sciences Writing Lab, which are typically soft-funded spaces that are required to both service the institution and 'sing for their supper'. And the song most frequently requested is quantitative measurement of student success, a catchy little number.

Yet despite the obvious appeal of quantitative data, in contexts like writing centres they are inadequate and at times even inappropriate as measures of 'success'. While more authentic indicators may lie in students' narrative feedback of their experiences of learning, growth and development, these data are typically viewed as secondary and supplementary to statistics, making it difficult to honour our values that prioritise process over product and transformation over performace, while still satisfying our funders' expectations.

It has become our view that gaining meaningful insight into student success journeys and the impact of our role in their experience requires both multiple touch points and sources of data. Reflecting on a decade of Writing Lab student participation, feedback and evaluation data, we discuss how we have come to understand success as something that exists along a scale or continuum between the immediate observable moment and the long-term developmental experience. However, within the context of a quantitatively driven grade-point system, the scale of success is pulled into tension, putting students at odds with themselves between learning and performance. Within the university ecosystem, writing centres offer a refuge for the risky, messy work of trying and failing. In this way, writing centres can function as protected territories or 'learning reserves' in the highly performative academic environment. To sustain and safeguard this vital function, writing centres must resist the dominant narratives that privilege standardised, quantitative measures of success in favour of enabling authentic and transformative learning journeys.

46: In defence of less: Integrating principles of privacy in data analytics

Invited Speaker Presentation

Rob McLaughlin & Paul Prinsloo

As research continues to grow ever more data-driven, this session examines some ethical and practical limits of data accumulation in educational data analytics. Can less be more? As curators and custodians, is it possible to distinguish valuable data from noise? What is necessary to achieve replicable and reproducible results? Are there hidden burdens of data to you, to others, and to institutions—ranging from storage space to energy consumption, vulnerability to compelled disclosure to governments and legal demands, and long term risks to persons? Do the

risks outweigh the benefits of some studies, or merit data retention and destruction plans to harmonize research and evaluation objectives with competing ethical principles. Possession and control present challenges: your data are not exactly yours when they belong to someone else (too).

In the session, we will consider whether using fewer data may avoid trespass upon others' interests, and deliberate on strategic choices. For example, evaluators and researchers alike value how anonymous respondents are freer than identified subjects to share information including secrets, and to explore topics of shame, intimacy, fear, embarrassment (over bad grades), and even wrongdoing (such as cheating). In that freedom, is there potential to learn even more from your data?

47: Student voice as data: Investigating teaching pedagogies in Swahili communications

Scholarly, higher education research and project-based presentations

Eliza Mahenge

This presentation provides an overview of student feedback on pedagogies for teaching Swahili 1B. Students were asked to give their views on pedagogies on a scale of like, dislike, like and dislike (undecided) and do not know. Pedagogies involved were: watching videos or listening to music specifically added for the subject; discussions and bringing personal experiences into learning; provision of related video and audio content on Amathuba; classroom lectures; tutorials; a language lab session focused on watching, listening and discussion; role-playing in which students create their own dialogue and take up a role and character; reading texts together by taking up different roles and characters according to the topic being taught that week; asking questions if they don't understand; translating texts from Swahili-English and vice versa; composing their own sentences; and singing songs related to the subject being taught.

It submits that dialogic mode of engagement with learners has the potential to bring about a narrowing of the gap in educational outcomes, as Skidmore (2007) has found. I argue that the effective pedagogies for teaching-and-learning in Swahili 1B are those created by different patterns of teacher–student interaction.

Workshops Monday 17 November

1: Towards an AI-enhanced personalised learning metamodel for dynamic educational experiences

Show & tell / stand up presentation

Adheesh Budree & Gabriel Daniel Hoffman

In an era characterised by rapid technological advancements and evolving educational paradigms, integrating AI in education emerges as a domain of immense potential and significant complexity. This research explores the transformative potential of AI in enhancing learning

experiences within the Southern African educational context by investigating how AI can be effectively utilised to cater to diverse learning styles and preferences, aligning with the strategic objectives of South Africa's National Development Plan (NDP) and addressing the demands of the 5th Industrial Revolution.

This presentation provides an overview of findings from a study which examined how AI can be harnessed to create inclusive, effective and engaging learning environments, assessing the current state of AI integration in Southern African education. It aimed to evaluate AI's efficacy in accommodating diverse learning styles and explore its broader implications in the education sector, including understanding the cultural sensitivity and contextual relevance of AI applications and ensuring that AI tools are aligned with learners' diverse backgrounds and needs. The research intends to offer actionable recommendations for policy and practice aimed at optimising the use of AI to enhance educational outcomes in South Africa. These recommendations address the need for ethical governance, infrastructural development and the continuous professional development of educators to effectively leverage AI in their teaching methodologies.

2: Pre-Texts protocol workshop: A contemplative pedagogy for the humanities in the age of AI

Mara Boccaccio & Katia de la Cruz Garcia

Considering the current discussions surrounding the integration of AI in education and the challenges faced by humanities educators, there is an urgent need to explore active and intentional ways to use AI rather than risk the replacement and atrophy of particularly human capacities. These include critical thinking and creativity. Users, as opposed to followers, of technology exercise imagination and judgment – activities developed by the humanities – as antidotes to mental shortcuts that reduce our capacities to robotic accumulation of data.

An effective approach to develop creative and responsible users of technology is a simple teaching methodology that combines vanguard pedagogies – the Pre-Texts protocol (Sommer, 2013), a practically intuitive, interactive approach to teaching reading and writing. This methodology has been shown to improve mental health, while promoting creativity, collaboration, civic engagement and, most importantly, critical thinking.

This two-hour workshop is designed to facilitate a Pre-Texts experience and is based on work with Doris Sommer (Sommer, 2013). Both of us have successfully employed this protocol in teaching Italian and Spanish literature at the senior undergraduate level (second and third year). We firmly believe in the value of the Pre-Texts protocol as a form of contemplative pedagogy with significant educational potential.

The workshop will be both practical and theoretical. You can access the full protocol here.

3: ‘Know Your Course and Students’ report: A DASS workshop on data analytics

Greig Krull, Kende Kefale, Jaamia Galant & Stephen Marquard

The Data Analytics for Student Success (DASS) team at UCT has dedicated several years to the development and enhancement of the ‘Know Your Course and Students’ (KYCS) reports. KYCS reports provide data analytics that give you a profile of your students and the historical performance of students on the course, before the course starts.

Join us in this workshop to learn how to interpret and use the KYCS report to inform your teaching and learning approaches. This informative, interactive workshop will empower you to gain deeper insights into your courses and students. Using a few courses as cases, we will discuss and reflect on what we can learn about the needs of a particular student cohort based on the data and the implications for learning and teaching in particular contexts. The workshop is targeted at course convenors and lecturers.

4: Ethics hotseat

Rob McLaughlin and Paul Prinsloo

Stakeholders in universities have a special responsibility to think before they act. With that responsibility comes a range of questions: Is something possible? Is it feasible? Is it ethical? Is it lawful? Years from now, what is the relative likelihood of the decision to pursue it being seen as wise or foolish? Bring your ethics questions to this session (by submitting them in advance or on the day). Using different perspectives, we’ll explore up to 10 different scenarios involving ethical questions and dilemmas.

Come along to get practical advice or just to stretch your thinking about ethics in teaching and learning, and in relation to the collection and use of student data in institutional and public-facing research as we explore ethical challenges, including more recent emergent issues introduced by GenAI.

5: Using AI for qualitative analysis of teaching and learning datasets

Stephen Marquard, Sukaina Walji & Francois Cilliers

This hands-on workshop will explore the opportunities and challenges of using machine learning and generative AI to assist in analysing, coding, classifying and summarizing qualitative data in different teaching and learning contexts. Such data could include written student feedback in course evaluations, responses to open survey questions, or reflections from students or staff. We’ll demonstrate applications of some of the tools available at UCT for qualitative analysis, including Explorance MLY, Google’s NotebookLM and Microsoft’s Copilot Chat.

To get the most out the workshop, bring along your own data set and a laptop, and if you’ve worked with AI-supported qualitative data analysis tools, we’d love you to show & tell.

6: Embedding ethics in AI for education: A practical guide using the IEEE 7000 standard

Sampath Jayalath

AI is rapidly reshaping assessment, tutoring, admissions and classroom analytics, but adoption often outpaces structured ethical design. This two-hour, interactive workshop equips educators with a practical, evidence-informed method to embed ethics into AI-enabled teaching and learning systems using the IEEE 7000-2021 standard (Model Process for Addressing Ethical Concerns During System Design).

Participants will translate high-level values such as fairness, transparency, privacy, bias, and accountability into testable requirements for real educational use cases (automated grading, adaptive learning tutors, student-risk early warning and proctoring/monitoring). Through short demos and guided activities, attendees will practice stakeholder elicitation, value-to-requirement mapping, ethical risk assessment and verification planning (e.g. bias audits, explainability checks, data minimisation).

By the end of the session, attendees will understand what it means to develop and deploy ethical AI systems in their classrooms and what factors to look out for. Practical take-aways include templates and checklists to support implementation.

7: A toolkit for interdisciplinary landscape studies

Shari Daya, Pippin Anderson & Olivia Thompson

This project, funded by a UCT Teaching Innovation and Curriculum Change Grant in 2024, is developing a 'toolkit' in the form of an online and printed resource, aimed at scholars, artists and other creative practitioners and educators interested in exploring the theory and materialities of landscape through interdisciplinary readings and methods. It grows out of a fieldwork-based postgraduate course that the collaborators have co-taught for several years and a recent walking-workshop series, group art exhibition and symposium that we co-led. The project seeks to widen the curriculum beyond the confines of our home discipline of geography, and beyond the boundaries of the university. The project is not just aimed at an interdisciplinary audience; it is intended to serve artistic, scientific and educational communities beyond academia who are interested in creatively exploring landscapes.

In this workshop, we will share the rationale for the project, lead a guided walk using the materials that we are developing for the toolkit, and facilitate a plenary discussion. The workshop will be interactive and mobile, moving between a meeting room space and the outdoor environment for hands-on experimentation as well as conversation.

8: Data organisation in Amathuba: Preparing your Gradebook

Thomas King & Mary-Ann Fife

Collecting and organising your course data is important for institutional reporting, allowing students to track their own progress, and allowing you to identify struggling students or groups for

early intervention. Having a well-designed, comprehensive Gradebook is fundamental to being able to access and interpret these kinds of course and assessment data.

In this workshop, we'll focus on how to optimise your Grades tool to serve as a comprehensive and usable data collection and management tool, starting with making the best use of the settings in the tool, to linking to internal and external assessment tools, to incorporating automatic functions for reporting and communication purposes.

While the workshop uses examples from large classes, we encourage all lecturers, administrators and other staff involved in teaching to attend. It will be a practical workshop – please bring laptops and course outlines to work with during the session.

This workshop forms part of CILT's Amathuba Accelerate project, which supports lecturers in making the best use of the Amathuba platform by providing in-depth, personalised consultation to identify problems or areas for improvement in course sites – from getting useful information on class performance through using the Grades tool, to refining assessments and grading procedures through Rubrics, to reworking the structure and flow of learning materials within the course.

Workshops Wednesday 19 November

9: Using data for dialogue: Co-creating a feedback culture

Shameemah Abrahams, Jaisubash Jayakumar & Sunali Parbhoo

Do you ever feel that conversations about teaching and learning, especially around feedback, are a missed opportunity?

Students want their experiences to be understood, educators want to create effective learning environments, administrative staff want to provide seamless support, and the institution wants to facilitate academic excellence. While giving or receiving feedback generates data in written, visual or verbal forms, what is the value and impact of this data? How intentional, empathic and open are we when approaching both giving and receiving feedback?

This interactive workshop brings students and academic staff together to move beyond giving and receiving feedback as purely a tick-boxing exercise. Our goal is to listen and understand each other's perspectives, thereby co-creating practical and actionable steps to improve how we approach feedback. Let's transform the teaching and learning space into a truly collaborative and inclusive one.

10: SASSE and LSSE: A deep dive into student and lecturer perceptions of learning and teaching at UCT

Greig Krull and Stephen Marquard

This workshop will present and compare UCT data gathered from the 2025 South African Survey of Student Engagement (SASSE) and Lecturer Survey of Student Engagement (LSSE). This session offers a guided exploration of the survey dashboards.

The student survey, SASSE 'gathers comprehensive information … relating to high-impact experiences and behaviours identified as having an influence on the teaching and learning experience', including students' participation in educationally purposeful activities; interaction with lecturers and their peers; the degree to which they engage with diversity; and how students perceive the university environment.

The lecturer focused LSSE measures lecturers' experiences of their students' engagement in effective educational practices and complements SASSE. Together, these surveys provide a multifaceted view of current staff and student experiences of teaching and learning at UCT.

The SASSE and LSSE interactive dashboards allow the survey results to be explored across different dimensions, including filters for faculty, Programme and student demographics, and how responses for some SASSE questions have changed from 2023 to 2025.

Come along to explore insights related to your own teaching context and practice, test your assumptions against survey data, and discuss how SASSE and LSSE can help support a trajectory of improving key aspects of teaching and learning at UCT.