Transformative pedagogies and technologies in online postgraduate education

Hosted by UNSW Canberra

On UNSW Canberra campus: Building 32, Lecture Theatre 07

Online: Join MS Teams session

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Time	Topic/Session	Presentation title	Abstract
9:30 – 10:00	Tea, coffee, networking	Tea, coffee, networking	
10:00 – 10:15	Welcome to Country & Opening	Opening Address and Welcome to Country Presenters: Dean and Rector, Prof. Emma Sparks and Indigenous Elder, Bradley Bell	
10:15 - 10:30	Short presentation 1	The role of teacher presence for student engagement in UNSW Online Presenter: Dr Wylie Breckenridge	Abstract
10:30 - 10:45	Short presentation 2	Immersive Technology, backward course design and the value of asking different questions Presenter: A/Prof. James Rooney	Abstract
10:45 - 11:00	Short presentation 3	The design, development and delivery of an engaging online short course for professional development Presenters: Dr Dhanushi Abeygunawardena, Dr Emma Palmer, Dr Emily Oates and Ms Bronwyn Terrill	Abstract
11:00 - 11:15	Short presentation 4	Enhancing Education: The Impact of 'PG Coursework 101' Seminars Presenter: Dr Lily (Li) Qiao	Abstract
11:15 - 11:30	Short presentation 5	Benefits of different forms of student feedback on weekly quantitative tasks in an asynchronous delivery mode Presenter: Kate Morgan	Abstract
11:30 - 11:45	Short presentation 6	Seeing the Teacher Presenter: Dr Steven Davis	Abstract
11:45 - 12:00	Short presentation 7	Empowering Data Science Capstone with Online Collaboration Tools: A Fully Online Experience Presenter: Dr Armin Chitizadeh	Abstract
12:00 - 12:15	Short presentation 8	Clear Leadership: How going 'under the hood' of their stories enabled positive, inclusive, and engaging team interactions for an executive education cohort Presenter: Dr Bradley Hastings	Abstract
12:15 - 12:30	Short presentation 9	Design Considerations for Fully Online Programs Presenters: Helen Flint and Dr David Bond	Abstract
12:30 - 12:45	Short presentation 10	Building a learning community in a large course using hybrid teaching Presenters: A/Prof. Timothy Dobbins, Ms Katrina Blazek, and A/Prof. Anita Heywood	Abstract
12:45 - 1:00	Short presentation 11	Fitness Industry Practices for Teaching Excellence: a cross-industry innovation approach Presenter: A/Prof. Dirk Primus	Abstract
1:00 - 1:15	Short presentation 12	The UNSW Online student Presenter: Dr Tom Townsend	Abstract
1:15 - 1:30	Closing	Closing remarks Presenter: Dr Dijana Townsend	





The role of teachers in UNSW Online courses

Presenter: Dr Wylie Breckenridge

UNSW Online courses are fully developed, with all learning materials available from the beginning of O-Week. In keeping with our slogan, "anywhere, anytime", students can work through the content of their courses largely at their own pace, with no requirement to be in any particular place at any particular time. So what role, if any, does that leave for teachers?



Dr Wylie Breckenridge Wylie is an Educational Developer with UNSW Online.



Immersive Technology, backward course design and the value of asking different questions

Presenters: A/Prof. James Rooney

This presentation outlines the first chapter of an immersive technology story, illustrating the benefits of asking different questions about intended student education outcomes for a core postgraduate course at UNSW Canberra.

The challenge was to redesign a recently created course to help students more actively engage with a complex but traditionally dry subject matter. The online course teaching mode is also a key consideration, driven by the student cohort namely, largely middle ranking military posted across the globe.

Prompted by participation in the CDI course, insights on concepts of student-centred classroom and backward design (or starting with the student learning end in mind), provided an opportunity to adopt and refine immersive education technology.

In particular, addressing the questions 'How can I make this course relevant to the career aspirations of students?' and 'How can I add an affective dimension to a technical course?' led to a more immersive student experience based on an evidence-based structured course design.

Created by the TELS designers based in Canberra and the Immersive Technology team in Kensington, the immersive education technology took the form of online self-study module and simulation.

The resulting story of improved student outcomes resulting from these intervention is told here.



Dr James Rooney is an Associate Professor in accounting and governance at the University of New South Wales (Canberra). Jim's research concentrates on management accounting and expert decision-making associated with organisational risk, management control and social responsibility. This includes organisational governance influences and implications. The empirical focus of this research is supply chain sustainability. Accounting history of significant social movements such as labour migration is also a strong research interest.



The design, development and delivery of an engaging online short course for professional development

Presenters: Dr Dhanushi Abeygunawardena, Dr Emma Palmer, Dr Emily Oates and Ms Bronwyn Terrill

Incorporating genomic information to guide disease diagnosis and management decisions is an increasingly important part of healthcare delivery. A short continuing professional development (CPD) course in practical medical genomics was developed in collaboration between the faculties of Science, and Medicine & Health at UNSW to address this growing area of need. This talk will focus on the analysis, design, development, implementation, and evaluation (the ADDIE model of instructional design) of this online course.

The Capability, Opportunity and Motivation Model for Behaviour change (COM-B) underpinned the design of learning and assessment material as well as the evaluation of effectiveness of the course in improving perceived confidence and competence of participants in practising genomic medicine. Learning material is delivered both as interactive asynchronous online content as well as case-based live discussion sessions facilitated by course conveners and genomic champions. A pre-course survey enables participants to identify the aspects of the genomic testing process that are relevant to their respective roles while informing conveners of the diversity of participants in each cohort and their learning needs. Group project allows for application of course learning to solve a real-life challenge chosen while individual summative course assessment allows for focusing on a specific challenge/procedure and receiving personalised feedback. Results will also discuss the evaluation of the course (3 iterations, 96 participants) based on data collected from consented pre- and post-course surveys and formative assessments.



Dr Dhanushi Abeygunawardena is an education focused academic and a lecturer in the School of Biotechnology and Biomolecular Sciences, with a research background in regenerative

medicine. She convenes and teaches into various undergraduate courses in molecular biology and genetics in Faculties of Science, and Medicine & Health. She has a keen interest in Curriculum design, assessment and evaluation, and course development. Dhanushi co-designed and co-leads the evaluation of the short course in Practical Medical Genomics.



Ms Bronwyn Terrill is a genomics communicator, educator, researcher and writer working as the Education Project Officer at Australian Genomics, in the Clinical Translation and

Engagement team of the Garvan Institute and as a Conjoint Lecturer at the School of Clinical Medicine, UNSW Sydney. She is passionate about developing strategic approaches to engaging and educating public and professional audiences in genomic medicine. Bronwyn co-designed and co-leads the evaluation of the short course in Practical Medical Genomics.



Dr Emma Palmer is a clinical geneticist at Sydney Children's Hospital Network and a senior clinical lecturer in the School of Women's Health, Paediatrics & Child Health. She is a leader in clinical undiagnosed disease programs

nationally and internationally. She is passionate about providing equitable and person-centred genetic health care and leads the RArEST program and the GeneEQUAL research group. Emma co-designed and co-convenes the short course in Practical Medical Genomics.



Dr Emily Oates is a clinical geneticist and a neurogenetics consultant for the Sydney Children's Hospital Network. She is also a senior lecturer in the School of Biotechnology and Biomolecular Sciences and heads the UNSW Medical Genomics Research

Team. Emily convenes courses in clinical genetics and teaches undergraduate students in the Faculties of Science and Medicine & Health. She co-designed and co-convenes the short course in Practical Medical Genomics.





Enhancing Education: The Impact of 'PG Coursework 101' Seminars

Presenter: Dr Lily (Li) Qiao

In pursuit of UNSW's strategic objective of "Enhancing Student Experience and Feedback," we introduce "PG Coursework 101: Recorded Seminars on Teaching and Learning Basics." Launched in 2021, this collaborative effort between the School of Engineering and Technology and the School of Systems and Computing addresses the unmet needs of students and educators through 16 seminars so far (10 for students, 6 for educators).

These seminars have a dual purpose: they enhance UNSW Canberra's PG students' academic journey and equip educators with contemporary insights into PG course delivery. For instance, students have expressed concerns about their academic skills rusting after previous degrees. To address this, we've organised seminars focusing on specific skills. Simultaneously, seminars for academics, including sessionals, provide the latest teaching methods and strategies for PG courses.

Our approach, akin to "how-to movies," aligns with modern preferences for interactive, visually engaging content, surpassing traditional written reports. Feedback from participants has been enthusiastically positive, with students praising the seminars for bridging knowledge gaps, aiding their return to academic studies, and enhancing their learning journey.

"PG Coursework 101" underscores our commitment to nurturing a dynamic, supportive learning environment, elevating UNSW Canberra's PG programs, and ensuring maximum engagement and satisfaction for students and educators alike.



Dr Lily (Li) Qiao, a Senior Lecturer at UNSW Canberra with a PhD in Guidance Navigation and Control, specializes in intelligent systems design. She teaches in the Space Master Education Program, convening core courses in Space Systems Design and Global Navigation Satellite System. Since 2011, she's served as the Postgraduate Assessment Coordinator, introducing the PG Coursework 101 seminar series to aid postgraduate students and educators.



Benefits of different forms of student feedback on weekly quantitative tasks in an asynchronous delivery mode

Presenter: Kate Morgan

A challenge with asynchronous delivery is creating a learning community and developing a connection with students. Prior research suggests this connection with the facilitator and peers improves the students' sense of belonging and learning outcomes. I teach in an asynchronous delivery mode for a postgraduate quantitative accounting course. The change I discuss focuses on developing the student and facilitator interactions early in the course. This has been done by changing the feedback approach to weekly participation activities. I have received positive feedback from students indicating this approach helped their understanding of the course content, meant they felt comfortable to ask follow-up questions and improved their sense of belonging within the online environment.



Kate Morgan is a Senior Lecturer (Education Focussed) in the Business School. She teaches in the Master of Professional Accounting and the AGSM MBA programs. Kate has published research on accounting education and has received the John Prescott Outstanding Teaching Innovation Award and Commendation Award for Teaching Excellence by Adjunct Faculty.



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Seeing the Teacher

Presenter: Dr Steven Davis

Lecture recordings are important for online students. Typical lecture recordings do not show the lecturer, or only show the lecturer from a distance, making it hard to see their face. This makes it difficult for the student to engage with and feel connected to the lecturer. This presentation will describe how using a head tracking camera and associated software, the lecturer was shown as part of the recording, overlaying the lecture presentation and other learning activities used during the lecture.

Students responded with appreciation for the "little camera" and commented that it helped them keep focused.



Dr Steven Davis is an education focussed academic from UNSW Engineering. He teaches postgraduate courses on Engineering Economics, Project Planning and Control, and Risk Management to both online and in-person students in a hybrid format.



Empowering Data Science Capstone with Online Collaboration Tools:

A Fully Online Experience

Presenter: Dr Armin Chitizadeh

The Data Science Capstone course (ZZSC9020) introduces students to research methods for applying data science techniques to real-world projects, serving as the culmination of the UNSW Online Master of Data Science program. The course is entirely online, with students located in various cities across Australia and around the world.

Thanks to advancements in online collaboration tools such as Github, Google Cloud Platform, Tableau, Jira, and Confluence, team collaboration has become more accessible for our students. They engage in collaborative efforts to visually and verbally present their work.

We provide students with real-world data sets that we use in our own research, ensuring the relevance of their projects. Our course is guided by three instructors representing different disciplines: Computer Science and Engineering, Mathematics and Statistics, and the Business School. Additionally, we offer Q&A sessions with industry experts.

Our student body is diverse, including career changers, CTOs of data science companies, and senior lecturers in bioinformatics. They consistently produce impressive final projects. This year, we're supporting students in publishing their work in data science journals and conferences, offering an excellent opportunity for them to showcase their skills.

The student satisfaction on myExprience survey was 100%.



Dr Armin Chitizadeh is an Associate Lecturer at the School of Computer Science and Engineering, UNSW CSE. He holds a PhD in Artificial Intelligence and a Bachelor's in Software Engineering both from UNSW. His expertise includes Artificial Intelligence, Data Science, and Software Engineering Project Management. He has contributed to various capstone courses at UNSW Sydney, such as Requirements and Design Workshop (SENG2021), Engineering Design and Professional Practice (DESN2000-SENG), and DataScience Project (ZZSC9020).



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Clear Leadership: How going 'under the hood' of their stories enabled positive, inclusive, and engaging team interactions for an executive education cohort

Presenter: Dr Bradley Hastings

I often observe students come away from a meeting thinking that they were super clear on what was agreed, then watch them become humbled when they realise that others had a completely different version of events. Clear Leadership provides a transformative pedagogical approach to achieving interpersonal clarity in both our work and personal lives. What's unique about this approach is that it starts with the stories that we use to communicate, then goes under the hood to help explore the four elements of experience that precipitate these narratives. Deconstructing stories in this way provokes clarity and participation, making difficult conversations far easier. In this session, I will outline this approach as well as present the outcomes of a recent research project, showing how this method enabled positive and inclusive team dynamics for an executive education cohort.



Dr Bradley Hastings Brad works with students and partners to decode leadership and, in doing so, enable brighter futures. Drawing from the latest theories he creates simple, practical, and fun learning solutions that help people reimagine themselves and their environment. Implementing these new ways of working, his teams often achieve what was previously thought to be impossible. Brad has recently returned to academia following a 20-year career focussed on helping government and business leaders positively transform their organisations.

Design Considerations for Fully Online Programs

Presenters: Helen Flint and Dr David Bond

UNSW Online has been supporting the development and delivery of fully online programs for postgraduate students with professional experience since 2019 and gained extensive experience in this domain. One of the key contributors to a successful program is provision of a consistent and coherent student experience. Planning for this experience should be conducted prior to the commencement of course design, otherwise inconsistencies arise between courses.

To address this need UNSW Online developed a Program Design Consideration workshop which takes stakeholders through a structured discussion to agree on a key set of design considerations. This workshop supports stakeholders to make consistent course and program design choices at a program level that makes sense for their specific discipline while still being aligned to UNSWO design principles e.g. consistent approaches to webinars, LMS/platform, use of Gen AI, assessment and deadlines.

This presentation will be co-presented by professional and academic staff working on UNSW Online programs. It will provide an overview of the workshop and the process of faculty engagement (UNSW Online Officer) and also provide an academic perspective on why this is important in launching new programs, how it impacts on the course design process and the student experience, and downstream impacts on reviewing programs and maintaining course quality (Director, UNSW Online).



Helen Flint is a Senior Program Officer at UNSW Online and has been part of the team since its inception in late 2018. Helen's role focuses on supporting development and delivery of online programs and works closely with colleagues across UNSW. Helen's background is in government and prior to joining UNSW she worked in government market analysis and with state and federal agencies. Helen holds a Master of Marketing from UNSW.



Dr David Bond is currently the Director of Online Programs at the AGSM at the UNSW Business School. Prior to joining UNSW he was Program Director for the Master of Business Analytics at the UTS Business School. He has a PhD in Accounting from UTS, and has published in journals including the British Accounting Review, Journal of Accounting and Public Policy and Accounting & Finance.

Building a learning community in a large course using hybrid teaching

Presenters: A/Prof. Timothy Dobbins, Ms Katrina Blazek and A/Prof. Anita Heywood

Postgraduate students are increasingly engaging with teaching content using online methods. While online teaching increases accessibility, there are questions around how engaged learners feel when they study online.

Foundations of Biostatistics is a core course for UNSW's School of Population Health post-graduate programs. The course has run using hybrid teaching since 2021, after being split from a combined Epidemiology and Biostatistics course. This is a large course, with almost 400 enrolments in 2023. Students can learn in-person, online synchronously or completely asynchronously via recordings of online teaching sessions.

Initially, most students report feeling anxious about learning statistics (60% endorsement in 2023). Despite initial student anxiety, this course receives excellent scores for overall satisfaction (96% agreement, 2023). Importantly, students also report feeling part of a learning community (91% agreement, 2023). The results for learning community have increased consistently over time, from a base of 66% for the combined Epidemiology and Biostatistics course (2021).

In this presentation, I will outline strategies to engage learners in a core course with a large number of anxious learners when hybrid teaching. I will discuss a strategy to create smaller learning communities within the larger class, to foster a sense of belonging while not exposing students to the entire student body, and present the results of this strategy.



A/Prof. Timothy Dobbins has taught biostatistics to non-statisticians for over twenty years, and recognises the anxiety that many students feel around studying statistics. Timothy sees his role as a teacher to encourage learning, and not simply delivering content. He creates an inclusive and welcoming environment for students by using practical motivating examples, providing opportunities for informal student self-assessment, and welcoming student questions and discussion. He also loves dad jokes.



Ms Katrina Blazek is a Lecturer in Health Data Science, convening biostatistics courses in the School of Population Health for both undergraduate and postgraduate students. Katrina's teaching philosophy considers the student as an individual and takes a student-centred approach. She creates equitable learning opportunities across the different modes of delivery offered – face to face, synchronous online and asynchronous online, developing a sustainable teaching practice that meets the students where they are at and scaffolding their learning.



A/Prof. Anita Heywood is an infectious disease epidemiologist with a research focus on vaccine-preventable disease epidemiology and immunisation program evaluation. She is also an educator, and has taught Epidemiology to a large postgraduate cohort, in multiple modes since 2015. She also convenes an elective in Immunisation Policy and Practice. She is Associate Dean Education (Quality) at UNSW Medicine and Health.



Fitness Industry Practices for Teaching Excellence: a cross-industry innovation approach

Presenter: A/Prof. Dirk Primus

This session will present the first findings from an EI grant-funded project exploring the import of Fitness Industry Practices for Teaching Excellence in Business Education. The study employs a cross-industry innovation approach (Vullings , 2015). Its creative inquiry phase of this project aims to generate a collection of practices originating in the Fitness Industry via discovery, ideation and evaluation. The initial discovery involved interviews with fitness industry professionals and an examination of leading fitness industry communities, such as Les Mills(R). The ideation was carried out by a team of 5 researchers with the aim to' translate' practices with potential for a business school context. It incorporated creative methods for diverging and converging. The evaluation involved searching for empirical support in exercise science journals and clustering into themes. In the generative phase, the team will carry out pilot testing on minimum viable versions of the practices, validate the outcomes and articulate them for a business school context and the possible range of delivery modes. In the session, the presenter will provide an overview of the current themes, share first experiences with several practices that were already pilot-tested and make room for a conversation with the audience. The final collection of practices will be added to the teaching toolkit of UNSW.



Dirk J Primus is an Associate Professor at UNSW. Dirk's areas of interest in teaching and research are at the intersection of Co-Creativity and Technology and Innovation Management. His teaching draws from 15 years of experience in the Life Sciences Industry. His recently published articles are featured in leading TIM journals, like Technovation and Research-Technology Management. Dirk is certified as a Lego Serious Play and as a Design Thinking Facilitator.



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The UNSW Online student

Presenter: Dr Tom Townsend

UNSW Online services post-experience students who are looking to upskill or transition in their careers by delivering fully online postgraduate programs in the 7-week long hexamester calendar. These students and the choices that lead them to study with UNSW Online are not well understood. Hear from one of our past students about who they are, where they are in their professional and educational careers, why they've chosen to study online with UNSW Online and what they got out of their experience.



Dr Tom Townsend is the Co-Director for the Master of Cyber Security (Online), delivered in collaboration with the Faculty of Engineering, UNSW Online and Keypath. He has a 20+ year career in IT and Cyber, across both operational and leadership roles. He has predominantly worked in the higher education sector, with some time spent consulting into Federal Government. While always having some involvement in academic endeavours, he has recently made the move to full time academia.

