

Hosted by the  
**SCHOOL OF MATHEMATICS AND STATISTICS**

**Teachers Symposium**

**"Keeping up with the Curriculum"**

**Tuesday 11 December 2018**  
**Te Toki a Rata Lecture Theatre 1**

**Programme**

<b>Time</b>	<b>Activity</b>	<b>Who</b>
8.30am	Check in and Meet and Greet	
8.45am	Karakia and Welcome	
9am	A Vision of NZ Secondary School Maths and Stats for the 21st Century	<a href="#">Dr Cami Sawyer</a>
10am	NCEA Online	John Oldroyd
11am	Networks of Expertise	<a href="#">Derek Smith</a>
12pm	Lunch	
12.45pm	Interrogating transitions to university after NCEA: Implications for mathematics educators	<a href="#">Dr Michael Johnston</a> and <a href="#">Dr Bronwyn Wood</a>
1.45pm	Breakout Session	<a href="#">Dr Peter Donelan</a>
2.45pm	Data Science @ VUW	
3.15pm	Networking and Nibbles	

**Outcomes**

- Strengthen the teaching and learning community to share best practices and celebrate accomplishments
- Discuss new learning and teaching practices and theories in a forum dedicated to enriching the student learning experience
- Pivot our attention to contextual learning
- Accelerate progress toward excellent educational experiences for our students and for ourselves

**Abstracts**

[Dr Cami Sawyer, Massey University](#)

**A Vision of NZ Secondary School Maths and Stats for the 21st Century**

The world we are in is changing rapidly due to new technologies. What does this mean for Mathematics and Statistics? There has been a big shift in how and what we teach in statistics. Now its mathematics' turn.

John Oldroyd, NZQA  
**NCEA Online**

John will present information about NCEA digital exams. John will talk about what's been done to date and what schools can expect in 2019 and beyond. With support from other NZQA staff, a break-out session is planned to gather teachers' ideas on the future of digital Maths and Statistics exams.

NZQA will be using Pigeonhole as an interactive part of their presentation on Tuesday. This is a digital engagement tool. They have opened up the Q & A section of Pigeonhole early so that you can ask questions about digital exams before Tuesday. You'll be able to begin entering questions and voting from 6am Friday 7 December. Here's what to do:

- 1) Go to [www.pigeonhole.at](http://www.pigeonhole.at)
- 2) Enter the passcode: MATHS1
- 3) Ask away. Note that responses to questions will be covered during NZQA's presentation based on the most popular questions/themes.

[Derek Smith, University of Otago](#)  
**Networks of Expertise**

Networks of Expertise (NoE) seeks to grow and develop existing and new curriculum, teaching and learning networks. The support, funded by the Ministry of Education (MoE), is aimed to meet the specific needs of teachers. The NoE is part of the broader redesign of Professional Learning and Development (PLD). The NoE should strategically resource local, regional and national networks of curriculum, teaching and assessment support. Educators across the entire pathway will have greater opportunities for just-in-time, peer to peer support which is crucial to successful outcomes for Kāhui Ako, schools and kura. So, in a nutshell, this is where we are at and 2019 will see national and regional initiatives to support teachers and kaiako from Y1-13 to deliver greater opportunities for just-in-time, peer to peer support which is crucial to successful outcomes for Kāhui Ako, schools and kura. One of these initiatives from NZAMT is Maths Craft, in this session we will explore aspects of the Maths Craft philosophy through problem solving.

[Dr Michael Johnston](#) and [Dr Bronwyn Wood](#), School of Education, VUW

**Interrogating transitions to university after NCEA: Implications for mathematics educators**

NCEA has now been in place for 16 years, but in many ways the impacts of this system of assessment and qualifications on New Zealand students' learning and motivation, and on the curriculum they experience in the senior secondary school, have only recently become fully evident. In this presentation we draw on a large scale ( $n = 1,656$ ) study of first year students at Victoria University in 2017 and their experiences of transition from high school to university. The study involved three surveys at the beginning of Trimester 1, after Trimester 1 and after Trimester 2. In this presentation we examine the strategies students developed in approaching NCEA and explore ways in which these strategies affected their transition to the University setting. We also investigated the associative relationships between internal and external assessment for NCEA and 100-level university assessment in a number of curriculum areas. Our analysis highlights some concerning trends in this transition, illuminates ways in which teaching, learning and assessment in the NCEA years could be enhanced, and indicates ways in which the University might better accommodate the transition from NCEA to 100-level.