



Australian Council of Deans of Science

Dear subscriber,

A few items in this first 2020 Newsletter:

- It is time to start planning for ACSME 2020. How will you contribute this year?
- A progress report on the work of the ACDS inaugural fellows,
- The ACER national study on how pass rates in first year science subjects relate to students' uptake of and performance in Year 12 mathematics subjects,
- An important statement on what authentic assessment looks like.

As usual, we welcome your contributions of articles, and pointers to conferences and publications that may of interest to the readership.

Best regards

Cristina Varsavsky



ACSME 2020

This year the Australian Conference on Science and Mathematics Education (ACSME) will be held in **Perth, September 30 to October 2**. The organising team is working hard to make another memorable event for networking and sharing new developments and challenges of teaching science and mathematics at university level. As usual, there will be a variety of activities and presentation formats.

The conference theme is ***An education for all - Accessible, Equitable, Sustainable***.

Submission of abstracts will open on **April 13** and close on **5 June**. What will you be presenting on? [Check the website](#) for all important dates and other information.

An update from the ACDS Fellows

The inaugural ACDS Fellows, Tina Acuña and Jo-anne Kelder, have been hard at work, giving talks and facilitating workshops to introduce the Curriculum Evaluation and Research framework for STEM (**CER-STEM**) – a conceptual framework with resources that prompt and enable scholarship. The framework has been developed to assist deans, education leaders and teachers of STEM disciplines to ensure effective, rigorous and valid assessment of learning and teaching under their watch.

Read about their achievements to date [here](#). You can find the project resources on the [CER-STEM website](#).



New study on the impact of Year 12 mathematics on first year science performance

The Australian Council of Deans Science (ACDS) commissioned the Australian Council for

Education Research (ACER) to undertake a study of the impact of year 12 mathematics on first year university science performance. To our knowledge it is the first such national study, albeit quite modest, that has been undertaken.

The study looked at 16,436 first year students in biology, chemistry, mathematics, and physics from twelve universities covering a range of types. It looked at their pass rates against the level of mathematics that they studied in year 12, including whether they had studied any mathematics of significance to a science degree.

The findings are quite interesting and should inform the ongoing debate on mathematics prerequisites for university courses. Read the summary and a full report [here](#).

ATN joint statement on authentic assessment

The recent **ATN Authentic Assessment Conference** held at UTS brought together academics from each of ATN's member universities – Curtin University, RMIT University, University of South Australia and University of Technology Sydney. More than 100 delegates contributed to the discussions. Together, they affirmed the importance of authentic assessment through this joint statement.

See the full statement on authentic assessment [here](#).

Upcoming conferences of interest

University Assessment, Learning and Teaching -- New Research Directions for a Post-digital World, Melbourne, 19 to 20 October 2020

- Call for papers closes 23 March

The conference, hosted by Deakin University's Centre for Research in Assessment and Digital Learning (CRADLE), aims to provide a focused forum for higher education research as a discipline. Cutting-edge conversations will centre around rigorous, high-quality conceptual and theoretical contributions exploring the future of higher education research in a post-digital age. Keynote speakers include Professor Monika Nerland (University of Oslo) and Associate Professor Alyssa Wise (NYU).

Conference themes:

- assessing for learning
- learning in a digital world

- learning through, and for, work.

See further information on conference website: <https://www.cradleconference2020.org/>

Recent ACDS publications

- [Performance in first year mathematics and science subjects in Australian universities: Does senior secondary mathematics background matter?](#)
 - [WIL in science snapshot study report](#)
 - [Quality and standards for work integrated learning](#)
 - [Successful WIL in science final report](#)
 - [Australian University Science: Energy Futures](#)
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