

ADVANCED ORGANIC CHEMISTRY LABORATORY CURRICULA IN AUSTRALIAN UNIVERSITIES: INVESTIGATING THE MAJOR TOPICS AND APPROACHES TO LEARNING

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KEYWORDS: undergraduate laboratories, graduate outcomes, industry stakeholders

A key goal of tertiary education is to prepare graduates with the training, skills, and knowledge necessary to thrive in the workforce. In chemistry, 50% of undergraduate students from Australia, New Zealand and the UK plan to pursue a career that uses chemistry (Ogunde et al., 2017). However, it has also been noted that there is a mismatch in the skills desired by industry when compared with what is taught to undergraduates (Martin et al., 2011; Yasin & Yueying, 2017). Laboratory work is an essential part of undergraduate programs with the objective of developing practical and interpersonal skills with 'real world' engagement in chemistry. It is therefore concerning to note the perception among industry stakeholders that the laboratory skills of high-achieving chemistry graduates do not meet the desired standard (Kirton et al., 2014).

To extend our understanding regarding the importance and value of undergraduate laboratory skills, techniques, and equipment usage; semi-structured interviews were conducted with key external stakeholders, academics, and post-graduate teaching staff. This presentation will discuss the key findings from our perspectives analysis interviews with various organic chemistry experts across the country from both industry and academia. Key findings include the belief: the purpose of second-year laboratory courses is to teach and developing competency with laboratory skills, whilst third-year laboratory courses should build on this with student application of learned skills whether through lab project design or problem-solving tasks/challenges.

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Proceedings of the Australian Conference on Science and Mathematics Education, The University of Tasmania, 30 August – 1 September 2023, page 10, ISSN 2653-0481.