

DEVELOPING A FACULTY WIDE WIL PROGRAM FOR SCIENCE

Tina Botwright Acuna^a, Rebecca Gehling^b, Nicole Herbert^c, Susie Haley^d, Shane Powell^a, Robert Kingsley^d, Andrew Seen^d

Presenting Author: Tina Botwright Acuna (Tina.Acuna@utas.edu.au)

^aSchool of Land and Food, University of Tasmania, Hobart TAS 7001, Australia

^bSchool of Physical Sciences, University of Tasmania, Hobart TAS 7001, Australia

^cSchool of Engineering and ICT, University of Tasmania, Hobart TAS 7001, Australia

^dFaculty of Science, Engineering and Technology, University of Tasmania, Hobart TAS 7001, Australia

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Problem

Uptake of Work-Integrated Learning (WIL) is far less in the natural and physical sciences than other STEM disciplines at the University of Tasmania, many of which have a requirement for WIL for professional accreditation, including ICT, Engineering, surveying and agriculture. This disparity is consistent with national trends (Edwards et al. 2015). Despite these pockets of activity in specific disciplines, we currently lack a generic WIL program suited to broad implementation across the Faculty of Science, Engineering and Technology and a mechanism for students and academic staff to identify and engage with industry partners.

Plan

This is one of six 'Lighthouse Projects' co-funded by the Australian Council of Deans of Science, in the sub-theme of 'Setting up Faculty WIL programs' with the project undertaking a review of WIL programs, including student preparation and program delivery and support, to inform the development of a generic science unit for on- and off-campus WIL in our Faculty.

WIL is generally understood to be the approaches and strategies that integrate theory with its practice in the workplace. WIL allows students to develop depth of understanding through the application of the knowledge and skills of their chosen discipline, while enabling students to improve their future employability outcomes.

The University of Tasmania aims to provide graduates with the skills required for participation in the national and international work environments, and this project aims to extend the curriculum by providing real world experiences for our students. Our project aims to include provision for student placement in industry, but also for on-campus simulation of the workplace, combining an authentic experience with critical reflective practice.

Action

Phase 1 of the project involved a review of established placement and project-based WIL units and/or programs in Science or related disciplines. Three of these units are offered by our Faculty in the disciplines of Agriculture and Food Systems, Engineering, and Information and Communication Technology (ICT), with one other from the Tasmanian School of Business and Economics. Another three WIL programs were from the Science faculties at Deakin University, Monash University and The University of Melbourne. Collated information was used to inform the development of learning outcomes, support, delivery and assessment of a generic WIL elective unit for the natural and physical sciences at the University of Tasmania.

Our reflections on the project

A common assessment strategy in WIL is for students to critically self-reflect on the application of knowledge and skills in their professional work. Our review of existing programs indicated that students are taught and practice critical self-reflection to understand their strengths and development needs in the context of their readiness for work. Academics and students in the Faculty will be consulted in the next phase of the project to benchmark the use of critical self-reflection and authentic assessment. A Faculty Industry Reference Group will be formed for consultation and networking purposes. Collated information will inform the development of activities to ensure that students from diverse science disciplines can achieve the intended learning outcomes in the generic WIL unit.

Focus group discussions with academic staff will be a precursor to developing a framework for a program in WIL in the Faculty that is aligned with the strategic aims of the university.

References

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