EMBEDDED CAREER-BUILDING CURRICULUM – LESSONS LEARNED

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Employability is desired outcome for most matriculating students and a key graduate outcome on which universities are ranked nationally and internationally. However, in many science-related degrees, the curriculum is primarily focused on development of disciplinary content and skills. Typically, only limited time is spent preparing students for entering the workforce after graduation. (Carpenter 2024) As a result, students often lack perspective and understanding of career pathways and how to translate their learning and experience to be successful in the job market. This is especially true for degrees that don't have a well-defined job-profile. Recent statistics indicate employment for science graduates is often much lower than in other, more vocational areas. (Jorre de St Torre et al., 2019)

In order to address this shortcoming, we have scaffolded career preparation across the 3-year curriculum of all our Bachelor of Science degrees. Students are supported to build a comprehensive portfolio that allows them to submit competitive applications after graduation. The curriculum is embedded in three core units, one per year, in years 1, 2, and 3 of each degree program. In these units, the career preparation articulates with the development of learning and development of the science discipline application of key transferable skills (critical thinking, ethical reasoning, reflective practice, etc.). In year 1, students are introduced to the idea of consciously building towards their professional identity, year 2 refines skills further and give first exposure to potential employers and in year 3 students work in a simulated work environment with external stakeholders.

We have now completed the first cohort of students in the structures and can evaluate the effectiveness of the design. Initial analysis of student surveys as well as student artefacts shows a significant improvement in the preparedness of graduating students for the workforce, an enhanced awareness of the importance of career building activities and an overall increased knowledge of their own employability skills.

We will present the overall curriculum design and results showing how students improve over the years.

REFERENCES

Carpenter, L., Hubbard, S., Basinski, N. S., & Rowland, S. (2024). Science students develop multiple employability literacies from large, early-year courses without employability modules. *Journal of Teaching and Learning for Graduate Employability*, 15(1), 66-90.

Jorre de St Jorre, T., Elliott, J., Johnson, E.D., & Bisset, S. (2019). Science students' conceptions of factors that will differentiate them in the graduate employment market. *Journal of Teaching and Learning for Graduate Employability*, 10(1), 27–41.

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