

# Editorial

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## PAM Review

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PAM Review is the peer-reviewed student research journal of the School of Mathematical and Physical Sciences at the University of Technology Sydney. The journal was created to provide a student centered authentic learning experience in a theory heavy course which challenging and facilitates the Faculty of Science graduate attributes.

The student journal was first introduced in 2014 in the second-year physics course Energy Science and Technology (68412). Energy Science and Technology is a one-semester course which at UTS is an elective for Nanotechnology and Engineering students and compulsory for Applied Physics students. The course covers the thermodynamics of macroscopic and microscopic processes in the context of thermodynamic applications.

The compilation of this research journal provides students with an authentic, practical learning experience where scientific methods are applied to produce a peer-reviewed original research paper in the form of a meta-study which is intended to reach well beyond a mere literature review. The research task has been designed to create an authentic academic research environment. This includes conducting systematic scientific research as well as its dissemination in a professionally published and peer-reviewed journal. Each student's self-selected research project is expected to contribute new knowledge to the body of science and engineering. Students work in small research teams with a diverse range of expertise; gain expertise in a variety of scientific disciplines; consult professional scientific databases; research peer-reviewed scientific papers; synthesize relevant information; and produce a professionally written scientific paper for publication in a peer-reviewed widely indexed journal. The production of the original pieces of research published in the journal resented here provides students with an opportunity to acquire discipline specific professional skills of lasting impact while at the same time learning about the theoretical concepts behind state-of-the-art thermodynamic applications.

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