Editorial

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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. It was born out of the desire to create a practical student centered, authentic learning experience in a highly theoretical course that is exciting and challenging and facilitates to promote the desired graduate attributes.

The student journal was first introduced into the second-year physics course Energy Science and Technology (68412) in 2014. Energy Science and Technology is a one-semester course (class) open to students in Science and Engineering that covers the thermodynamics of macroscopic and microscopic processes in the context of energy production and efficiency.

The compilation of this research journal provides students with an authentic, practical learning experience in applying scientific methods to produce a peer-reviewed original research paper in the form of a meta-study that reaches well beyond a mere literature review. Each student’s self-selected research project is expected to contribute new knowledge to the body of science and engineering. The research task has been designed to create an environment similar to the creation of a real scientific research and publication process, including: working in a research team with a range of expertise; gaining expertise in a variety of scientific disciplines; consulting professional scientific databases; researching peer-reviewed scientific papers; synthesizing relevant information; producing a professionally written scientific paper for publication in a widely indexed journal. While learning about the theoretical physics concepts of energy production, here students have the opportunity to acquire discipline specific professional skills of lasting impact.

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