

# 2012 Australian Awards for University Teaching

## CITATIONS FOR OUTSTANDING CONTRIBUTIONS TO STUDENT LEARNING



### Dr Paul Nelson

*School of Earth and Environmental Sciences*

#### TITLE

For enthusing students about soil science through a focus on discovery, critical environmental issues and the application of contemporary teaching and learning principles.

#### ABSTRACT

Is soil science relevant, interesting or useful? Since joining James Cook University (JCU) in 2004 I have developed a soil science curriculum through which students are motivated, inspired and equipped for work in environmental science and other diverse fields. The effectiveness of my approach is demonstrated by an exponential increase in student enrolments and outstanding feedback from students and peers. My teaching has seen a three-fold rise in enrolment in the main subject ('EA2007 Applied Soil Science') despite the national stagnation in tertiary science enrolments, and well above-average student evaluations of teaching and of the subject.

#### WHAT MOTIVATED YOU TO APPLY FOR A CITATION?

First, I'm always looking for opportunities to promote the discipline of soil science, and this is a good way of doing so within JCU and the higher education system. Soil science training can benefit students from a wide range of disciplines, including health, archaeology, ecology and planning, and it is highly valued by employers of many of our graduates. I think we need to be constantly thinking about what we teach and how we integrate our offerings. Secondly, the citations are a great way for academics to be recognised for our teaching efforts, which we put a lot into.

#### WHAT ARE THE KEY ELEMENTS OF YOUR TEACHING PRACTICE AND HOW ARE YOU SUPPORTED IN PURSUING THESE PRACTICES AT JCU?

The key elements of my teaching practice are a) determining student needs and desires, b) designing content that is relevant to the workplace and c) delivery techniques (lectures, tutorials, practicals, assessment) that are well-structured and as hands-on as possible. JCU supports these practices with well-articulated principles, effective online tools, well-equipped teaching spaces, expert Teaching and Learning Advisers, and a magnificent environment.

#### WHERE DO YOU SEE YOUR TEACHING PRACTICE HEADING IN THE FUTURE?

The main thing I want to concentrate on is matching my assessment more closely with defined graduate outcomes. For example, I'd like to test practical skills more than I have to date. I also aim to decrease face-to-face lecturing, leaving that to online delivery, and increase tutorial time instead (once students have watched the online lectures). But I still need to work out how to achieve that. Finally, the nature of my teaching will evolve as we restructure our offerings in environmental science and related disciplines. Students in these degrees have diverse expectations and end up in diverse fields, so we need constant development to keep up with the needs.