

# PhD Specialising in Engineering Education



## Introduction and Objectives

Pursuing postgraduate studies in Engineering Education is an attractive option for engineering lecturers who want to advance their studies. However, Masters candidates who are employed as lecturers struggle to find the time to engage in quality research while managing heavy teaching and administrative loads. In addition, lecturers with their first qualification in engineering or science face the challenge of moving from their disciplinary specialisation into education research. The PhD programme in Engineering Education addresses these challenges.

## Who should apply?

This programme will be of benefit to anyone who is either currently involved with the education of engineers – such as academic staff members – or engineering graduates who are interested in this area.

## Our approach

Engaging in postgraduate in Engineering Education requires a transition from the relatively narrow perspectives and practices of disciplinary specialisations to far broader, multidisciplinary perspectives and practices of engineering education scholarship. Successful transitions like these tend to be transformative development processes. This programme is designed to facilitate such transformative development processes based on principles such as experiential learning. PhD students participate fully (at no extra cost) in preparatory MPhil-level courses during their first year of registration.

These courses consist of three 20-credit courses offered by CREE. They are:

### Course 1: Knowledge and Practices in Engineering Education

This course intends to provide students with an introduction to conceptual frameworks in teaching and learning as appropriate to engineering education. The aim is to enable a critical approach to engineering knowledge and to enable reflection on higher education practice.

### Course 2: Methodologies in Engineering Education

This course aims to provide the candidate with an introduction to methodologies appropriate for research and scholarly work in engineering education. This includes engagement with philosophies, methodologies and appropriate methods for application to problems associated with educating engineers.

### Course 3: Theoretical Foundation in Engineering Education Research

Theoretical foundation intends to provide the candidate with an introduction to substantive theories that address key educational concepts. These broad concepts will revolve around the notions of: identity; discourse; knowledge; student experience; and social structure.

In addition to these preparatory courses, PhD students also work closely with academic staff to refine their interest in a topic, develop a research proposal and identify the most appropriate supervisory team.

### Further details

For more information, please visit the CREE website:

[www.cree.uct.ac.za](http://www.cree.uct.ac.za)

You may register online [here](#).

Alternatively, please contact Reneé Smit at [renee.smit@uct.ac.za](mailto:renee.smit@uct.ac.za)