



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieve International Excellence



Threshold Concepts: An Approach to Improve Engineering Education

<http://www.ecm.uwa.edu.au/engineeringthresholds>

Workshop

for people who teaching engineering and related disciplines

Participants will learn about the threshold concepts identified in foundation (1st and 2nd year) engineering courses for all engineering disciplines. Participants will learn to use threshold concept theory to improve teaching and learning in engineering courses. All teachers in engineering, chemistry, computing, mathematics, and physics are welcome.

Threshold concept theory is a recent development in discipline-based Higher Education research. Meyer, Land and others realised that there were certain concepts, central to the discipline, that would open up required systems and ways of thinking and yet were troublesome for students. It has been discovered that, not only can threshold concept theory help in focusing students' and teachers' attention, it can also be a curriculum development tool where there is a strong tendency to overcrowd the curriculum (Cousin, 2006; Land *et al.*, 2005; Meyer *et al.*, 2006).

Facilitators

Dr Sally Male, Dr Andrew Guzzomi

The University of Western Australia (UWA)

Sally has a background in electrical engineering and PhD in engineering education and at UWA and Curtin. She undertakes research on the engineering thresholds project. Andrew, a mechanical engineer, has taught at the University of Bologna and UWA and is a course developer for the new engineering science major at UWA.

Support

The workshop is one of three held in Australia in 2012. They are part of the project *Engineering thresholds: an approach to curriculum renewal* supported by the Australian Learning & Teaching Council. The workshops are further supported by The Australian Council of Engineering Deans (ACED). The venue is kindly provided by University of Technology, Sydney.



Date: Friday 13 April 2012

Place: CB02.7065
Building 2, Level 7 (adjoining tower)
University of Technology, Sydney

Time: 10.00am until 2.00pm

Refreshments: Light lunch provided

Cost: Free to participants

Registration Deadline: 7 March 2012

Further Information: sally.male@uwa.edu.au

Tel +61 8 6488 1242

<http://www.ecm.uwa.edu.au/engineeringthresholds>



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieve International Excellence



Threshold Concepts: An Approach to Improve Engineering Education
Workshop on Friday, 13 April 2012
at CB02.7065, Building 2 (adjoining the tower), Level 7,
University of Technology, Sydney

REGISTRATION

Title (Prof/Dr/Mr/Ms ...): _____ Full Name: _____

University: _____

Position Title: _____

Email: _____ Telephone: _____

Postal Address: _____

Engineering discipline/subject you have taught or studied: _____

Any special dietary or access requirements: _____

How did you find out about the workshop? _____

Please return to Sally Male by 7 March 2012

Email: sally.male@uwa.edu.au (requested details are sufficient without the form)

Fax: +61 8 6488 1015

Post: School of Environmental Systems Engineering (M015),
The University of Western Australia, 35 Stirling Hwy, Crawley Western Australia 6009

References

Cousin, G. (2006), An introduction to threshold concepts, *Planet* No 17, December 2006.

Land, R., Cousin, G., Meyer, J.H.F. and Davies, P. (2005), *Threshold concepts and troublesome knowledge (3): implications for course design and evaluation*, in C. Rust (ed.), *Improving Student Learning – diversity and inclusivity*, Proceedings of the 12th Improving Student Learning Conference. Oxford: Oxford Centre for Staff and Learning Development (OCSLD), pp. 53–64

Meyer, J.H.F., Land, R. and Davies, P. (2006), *Implications of threshold concepts for course design and evaluation*, in Meyer, J.H.F. and Land, R. (eds.), *Overcoming Barriers to Student Understanding: threshold concepts and troublesome knowledge*, London and New York: Routledge, pp. 195–206

Support for this project has been provided from the Australian Learning & Teaching Council Ltd, an initiative of the Australian Government Department of Education, Employment and Workplace Relations.