Evidence Based Teaching: Teaching as Research

Aimed at those interested in improving their teaching practice from the known literature in engineering education. The target audience ranges from the new instructor to experienced, senior faculty interested in advancing the quality of the teaching practice. This workshop provides an overview of relevant research literature, and provides participants with hands-on advice on choice of research approaches, data collection methods, and analysis techniques in the Scholarship of Teaching and Learning in Engineering.

The workshop consists of presentations, group discussions and review of case studies in the engineering education literature. Workshop activities and materials are drawn from engineering faculty development courses in engineering education offered at FIE since 2016. Registration and additional information available soon on the registration page.

Workshop goals.

- Acquire portfolio of best practices in STEM education
- Read and discuss selected articles from the STEM higher education research literature
- Review models for systematic investigation of learning phenomena
- Reflect on application of STEM education theories to their own teaching
- Presentation and discussion of project initiatives from the 2017 workshop

Outcome: participants leave the workshop equipped to conduct evidence based innovation and evaluation of university education.

Full day workshop: \$200 (including coffee breaks and lunch)



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John Heywood is author of "Engineering Education: Research and Development in Curriculum and Instruction" which received the 2006 award for the best research publication from the Division for the Professions of the American Educational Research Association. He has just published "The Assessment

of Learning in Engineering Education: Practice and Policy". He is a Fellow of the American Society for Engineering education and a Fellow of the institute of Electrical and Electronic Engineers. Before retiring he was Professor and Director of teacher education in the University of Dublin and is author of "Instructional and Curriculum Leadership: Toward Inquiry Oriented Schools".