



## Preparation guidance

### Engineering Professors' Council: Are you missing a trick? Designing inclusive assessment in Engineering Education

**Date:** 28<sup>th</sup> – 29<sup>th</sup> August 2025 (starting at 10:30am)

**Location:** The Sir Ian Wood Building, Robert Gordon University, Garthdee Rd, Aberdeen AB10 7GJ

**Use of the Social Model of Disability;** the event will consider inclusion of all students within well informed engineering education practice through the Social Model of Disability.

*An "...alternative to the individualised medical conception of disability by asserting that disabled people were disadvantaged not because of their impairments, but as a result of the limitations imposed on them by social, cultural, economic, and environmental barriers.*

*Disability according to this formulation is not about health or pathology but about discrimination and social exclusion."*<sup>i</sup>

## Engagement preparation

This event seeks to provide participants in combining a learning and sharing opportunity with co-created 'take-away' examples of neuroinclusive engineering assessments. To facilitate this and to derive maximum benefit from our time together we are providing some guidance on the background and current context of assessment within engineering education. In addition we draw attention to the embryonic state of how neuroinclusion is being addressed, particularly in relation to where PEI accreditation is required.

**Assessment practice;** For general guidance on assessment within engineering education the following text is suggested as it is comprehensive and readily available as an ebook through most university libraries as part of the IEEE/Wiley package;

The Assessment of Learning in Engineering Education. 2016, John Heywood. IEEE/Wiley  
Print ISBN:9781119175513 - Online ISBN:9781119175575 -  
DOI:10.1002/9781119175575

Chapter one gives an introduction to the field of assessment, particularly section 1.2 *Health warning; Ambiguities in the use of the term "Assessment"* and section 1.3 *The assessment of persons for the Professions*.

Chapter six more generally considers the impact of accreditation and introduction of Outcomes-Based assessment and taxonomies of learning. Progressing from; 'knows', 'knows how' and 'does' to 'shows how' through Bloom to Mastery of Learning.

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<sup>i</sup> Disability and Development – briefing note, The social model of disability, human rights and development  
[https://assets.publishing.service.gov.uk/media/57a08ca8e5274a31e0001356/RedPov\\_social\\_model\\_briefing.pdf](https://assets.publishing.service.gov.uk/media/57a08ca8e5274a31e0001356/RedPov_social_model_briefing.pdf)



Appendix A is a helpful reference as *A quick guide to the Changing Terminology in the Area of Assessment*

**Universal design for Learning (UDL)**; a core aspect of UDL is that of designing educational environments (curriculum, academic practices, assessment, educational spaces etc.) to be inclusive of the widest possible range of learners. Implementing measures that make the whole environment inclusive through use of multi-modal learning opportunities, flexibility in learning spaces and engagement and assessment that actively enables variation and choice to include a variety of learning preferences and needs.

Further reading is widely available but suggested sources are;

Martin, N., M. Wray, A. James, E.A. Draffan, J. Krupa, and P. Turner. 2019. Implementing inclusive teaching and learning in UK higher education – Utilising universal design for learning (UDL) as a route to excellence. London: Society for Research into Higher Education. <https://srhe.ac.uk/wp-content/uploads/2020/03/Nicola-Martin-SRHE-Research-Report.pdf> accessed 11-08-25

Sarrett, J.C. Autism and Accommodations in Higher Education: Insights from the Autism Community. *J Autism Dev Disord* **48**, 679–693 (2018). <https://doi.org/10.1007/s10803-017-3353-4>

Clouder, L., Karakus, M., Cinotti, A. *et al.* Neurodiversity in higher education: a narrative synthesis. *High Educ* **80**, 757–778 (2020). <https://doi.org/10.1007/s10734-020-00513-6>

Jones-Devitt, s. Donnelly, A. (2024) the inclusive curriculum in higher education: an integrative literature review. AdvanceHE. accessed 11-08-25 [https://my.advance-he.ac.uk/resource-download/?id=10804&document\\_type=document](https://my.advance-he.ac.uk/resource-download/?id=10804&document_type=document)

**The context of Engineering Education Accreditation**; it is anticipated that the many participants will be engaged in the design, development, management and delivery of engineering programmes designed to meet the accreditation requirements of the Engineering Council as set out in the [Accreditation of Higher Education Programmes \(AHEP\) Standard](#).

In addition the Engineering Council have recently produced [Guidance on the assessment of student work, and reasonable adjustments on recognised programmes](#) which enables participants to acknowledge and consider development of how further specific guidance may be created to assist those working in and supporting academic accreditation.

In addition various documents relating to the subject of the workshop are produced by the Professional Engineering Institutions of which a representative selection are included below;

[Guidance on the teaching and assessment of EDI](#) co-produced by the IET and IMechE  
[IMechE accreditation guidelines](#)

[IET Academic Accreditation: AHEP 4 - The Small Print](#)

[JBM guidelines for developing degree programmes](#) – see annex F

Other PEI's may have guidelines relating to programme learning outcomes and their assessment, we would welcome your bringing these to the event as they may not be widely available and give an important indication of the disciplines perspective on EDI within their sector.

