Module Code	Pre-requisite Module codes	Co-Requisite Modules code(s)	ISCED Code	Subject Code	ECTS Credits	NFQ Level (CPD)#
					5	9
Module Title	Universal Design for Learning					

School Responsible:	Learning, Teaching and Technology Centre

TÁ LEAGAN GAEILGE DEN FHOIRM SEO AR FÁIL / AN IRISH LANGUAGE VERSION OF THIS FORM IS AVAILABLE

Module Overview:
Universal design is a philosophy which guides designers to consider all users when designing any product or service, and to provide all users with identical use whenever possible, or at the very least equal use. The philosophy is made concrete through the *Principles of Universal Design*, compiled by researchers at North Carolina State University. Though initially linked closely to the fields of architecture, built environment, ergonomics and product design, the philosophy of Universal Design has now gained relevance across a much broader set of domains, in many cases supplementing an already rich understanding of accessibility, and user-centred design, but in other cases it has been responsible for developing *ab initio* an interest in diversity and universality in design. In the education domain Universal Design for Learning (also known as Universal Design for Education) focuses on the design and development of learning materials and learning activities in such a way that there are: 1. Multiple means of representation that give learners various ways of acquiring information and knowledge 2. Multiple means of expression that provide learners alternatives for demonstrating what they know 3. Multiple means of engagement that tap into learners' interests, challenge them appropriately, and motivate them to learn. The history of education has seen technologies (from low-tech, to medium-tech, to hi-tech) that provide a steadily increasing number of learners with new opportunities for understanding and innovating. Online technologies and smartphones are blurring the cultural, political and social barriers that have existed heretofore, allowing people to understand issues from a global perspective and are at the same time redefining knowledge as an increasingly relativistic concept. The aims of this module are to: ● Motivate students to examine designs from the perspective of the user at the extremes of human ability, rather than designing for the average user. ● Provide students with the knowledge and skills to produce universal design and development of educational content. ● Critically assess designs, regulations, legislation and standards for their adherence to the principles and philosophy of universal design.

Learning Outcomes (LO): (to be numbered)	
For a 5ECTS module a range of 4-10 LOs is recommended	
On Completion of this module, the learner will be able to	
1	Demonstrate a clear understanding of the philosophy and principles of Universal Design for Learning and how they relate to a variety of educational standards, regulations and guidelines.
2	Critically assess designs for existing educational content according to the principles and philosophy of Universal Design for Learning.
3	Critically review relevant literature, including legislation, policy, directives, academic journals and industry standards to direct the development of guidelines and assessment of designs.
4	Identify the connections between gender, age, internationalisation and affective state and the study of Universal Design for Learning.
5	Select and employ appropriate teaching and learning methods for specific Universal Design contexts.
6	Select and employ appropriate technologies (including potentially adaptive or augmentative devices) for a defined Universal Design for Learning scenario.
7	
8	
9	
10	

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Indicative Syllabus:

Principles of Universal Design: Equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, size and space for approach and use. Also alternative principles: ergonomically sound, perceptible, cognitively sound, flexible, error-managed, efficient, stable and predictable, equitable. Definitions for universal design and contrast with adaptable design and accessible design.

Universal Design for Learning: Multiple means of representation, Multiple means of expression, Multiple means of engagement. Equity versus Equality. Consideration of gender, age, internationalisation and affective state.

Universal Design for Learning and Learning Theories: Multiple Intelligences, Differentiated Instruction, Inclusive learning, Differentiated Assessment, Differentiating the content, process, product or the environment.

Legislation and standards: Relevant Irish, European, United States and other legislation and standards, incorporating international human rights based legislation and standards, disability legislation and standards and references to universal design in legislation and standards.

Technologies for Universal Design for Learning: The World-Wide Web, Virtual Learning Environments, Blended Learning, Apps, New Technologies, Assistive Technology: Specialized Interfaces, Augmentative Alternative Communication.

Evaluation: Programme evaluation methods, performance indicators and assessment rubrics, balance scorecard.

Learning and Teaching Methods:

This module will employ teaching methods and learning situations in the traditional roles such as workshops, seminars and tutorials, as well as more innovative, student-centred activities such as problem solving in groups for both theoretical and practical situations.

Participants will be encouraged to be proactive in their approach to learning through the use of case studies and simulation exercises, working independently and in groups. In some cases participants will be expected to use online materials to supplement studies.

The practical element of the module will be supported through the medium of supervised practical sessions. Participants will be able to explore the characteristics, advantages and limitations of approaches learnt through their application to suitable case studies and simulation exercises. Where appropriate, participants will provide feedback from group research through cascading the knowledge to peers and through presentations. Guest lecturers from industry and academia will be invited where appropriate to expose participants to how topics covered in this module are used within the broader area of assistive technology.

As befits a Masters programme there will be considerable emphasis placed on independent research and study, problem-solving skills, effective communications and the ability to work in teams. The module is aimed at achieving an appropriate balance between knowledge and skills. Participants will be expected to develop independence in, and responsibility for their own learning.

Total Teaching Contact Hours	15
Total Self-Directed Learning Hours Supported online activity 2*5 = 10	75

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Module Title	Universal Design for Learning

Module Delivery Duration:

This module will be delivered over five weeks in one semester.

Assessment

Assessment Type	Weighting (%)	LO Assessment (No.)
Continuous assessment – all elements must be passed to pass the module: ● Individual short weekly exercises (online and offline) to consolidate material discussed during workshops. These will include production of lesson plan, selection of a frequently used technology to assess its accessibility, discussion of policy, reflection on learning. ● One structured group activity: for example software evaluation (for example, existing student artefacts), customisation of commonly used interfaces or other adaptation of educational materials. ● One group journal club activity to discuss a case study from relevant research. ● Individual capstone reflection (750-1000 words) on learning from the module inclusive of action plan related to own discipline/professional context.	100%	1-6

Module Specific Assessment Arrangements (if applicable)	
(a) Derogations from General Assessment Regulations	Assessment on Pass/Fail basis
(b) Module Assessment Thresholds	
(c) Special Repeat Assessment Arrangements	

Essential Reading:

Burgstahler, S.E. (2015). Universal Design in Higher Education: From Principles to Practice, Harvard Education Press

Meyer, A., Rose, D.H., Gordon, D. (2013). *Universal Design for Learning: Theory and Practice*, Cast Incorporated

Bracken, S., Novak, K. (2019). *Transforming Higher Education Through Universal Design for Learning: An International Perspective*, Routledge.

Tobin, T.J., Behling, K.T. (2018). *Reach Everyone, Teach Everyone: Universal Design for Learning in Higher Education*, West Virginia University Press.

Supplemental Reading:

Lidwell, W., Holden, K., Butler, J. (2010). *Universal Principles of Design, Revised and Updated: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make ,Better Design Decisions, and Teach through Design*, Rockport Publishers.

Cook, AM. & Hussey, SM. (2001). *Assistive Technologies: Principles and Practice*, Mosby

Hall, T.E., Meyer, A., Rose, D.H. (2012). *Universal Design for Learning in the Classroom: Practical Applications*, Guilford Press.

Erlandson, R. F. (2007). *Universal and Accessible Design for Products, Services, and Processes*. CRC Press.

Norman, D. (1990). *The Design of Everyday Things*, Doubleday Business.

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Web references, journals and other:

Story, M., Mueller, J. & Mace, R., 1997. The Universal Design File: Designing for People of All Ages and Abilities. Available at:
http://design-dev.ncsu.edu/openjournal/index.php/redlab/article/viewFile/102/56

University of Cambridge, Inclusive Design Toolkit. Available at:
http://www.inclusivedesigntoolkit.com/

UsabilityNet, Available at: http://www.usabilitynet.org/.
W3C, 2008. Web Content Accessibility Guidelines (WCAG) 2.0. Available at:
http://www.w3.org/TR/WCAG

Version No:		Amended By	
Commencement Date		Associated Programme Codes	

Modules that are to be offered as Stand-Alone CPD Programmes must have an NFQ level assigned
*Details of the assessment schedule should be contained in the student handbook for the programme stage.

Date of Academic Council approval ………………………….