



# Linking Competences (Skills) & Learning Outcomes (based on approach developed by Dr. Declan Kennedy - UCC

- Outcome or Student Centred Approach to teaching and learning
- Module Learning Outcomes





## Competence – what is it? – Kennedy page 23





The lack of clarity in terms of defining the term competence is also apparent in the ECTS Users' Guide (2005), which describes competences as

"a dynamic combination of attributes, abilities and attitudes'

Competences are formed in various course units and assessed at different stages

They may be divided in subject area related competences (specific to a field of study) and generic competences (common to any degree course). ECTS User's Guide 2005





As there is no common understanding of the term competence in the literature, learning outcomes have become more commonly used than competences – Kennedy page 23





### ESG 1.2 - Learning Outcomes (ECTS Users' Guide p.47)

Learning Outcomes are statements of what a student is expected to know, understand and/or be able to demonstrate after completion of a process of learning





### A Learning Outcome has two parts:

To remember/know/understand/comprehend

> To do





## Learning Outcomes and internal Quality Assurance Systems

- Use Bloom's Taxonomy (or Revised Bloom's Taxonomy)
- Bloom (1956) proposed that knowing is comprised of 6 different levels arranged in a hierarchy – Kennedy page 27
- Effort to arrange various thinking processes into a hierarchy





Some examples of learning outcomes that demonstrate evidence of knowledge are:

- Recall genetics terminology: homozygous, heterozygous, phenotype, genotype, homologous chromosome pair, etc.
- Identify and consider ethical implications of scientific investigations.
- Describe how and why laws change and the consequences of such changes on society.
- List the criteria to be taken into account when caring for a patient with tuberculosis.
- Define what behaviours constitute unprofessional practice in the solicitor -client relationship.
- Describe the processes used in engineering when preparing a design brief for a client.

Note that each learning outcome begins with an action verb

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## Combine both professional and personal skills in a Learning Outcome

Incorporate the personal skills from the Life Long Competences – revised Jan, 2018 into Learning Outcomes





#### Kennedy page 28

On completion of this programme, it is expected that the students will be able to:

- Perform problem solving in academic and industrial environments.
- Use, manipulate and create large computational systems.
- Work effectively as a team member
- Organise and pursue a scientific or industrial research project
- Write theses and reports to a professional standard, equivalent in presentational qualities to that of publishable papers
- Prepare and present seminars to a professional standard





### General Guidelines for writing learning outcomes – Kennedy page 41

- When writing learning outcomes for a module, it is generally agreed that one should specify the minimum acceptable standard to enable a student to pass the module
- It is recommended that you have a small number of important learning outcomes rather than a large number of superficial ones
- There is good advice in the literature regarding the number of learning outcomes





# Programme Aims and outcomes – Kennedy page 43





Aims	Outcomes
Know Understand Determine Appreciate Grasp Become Familiar	Distinguish between Choose Assemble Adjust Identify Solve, Apply, List





Kennedy pag 29 - Map of programme Learning Outoomes and courses within programmes

Programme Learning Outcome	Course 1	Course 2	Course 3	Course 4
Outcome 1	X		X	
Outcome 2		X		X
Outcome 3	X		X	
Outcome 4	Х			
Outcome 5				X
Outcome 6		X	X	X





#### **Practical Session**

From the details developed in the last session

- build a Competence Matrix:
- Identify the aims/and or outcomes for the programme
- Adopt Bloom's hierarchy to the thinking process to develop the Learning Outcomes