

Learning Outcomes and Teaching/Learning Quality

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Vice Rector

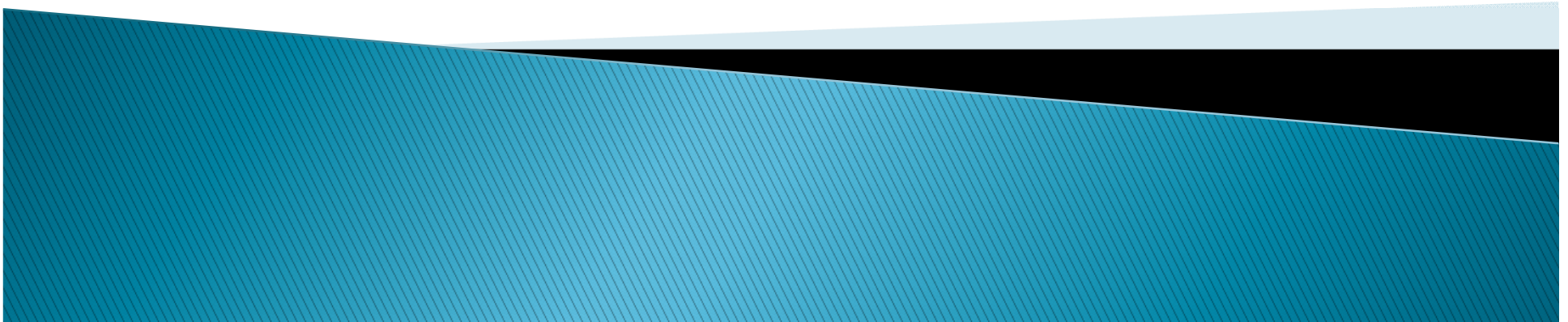
Professor of Computer Science

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Seminar – Accreditation of Programmes in Higher Education

Athens, 9th April 2014



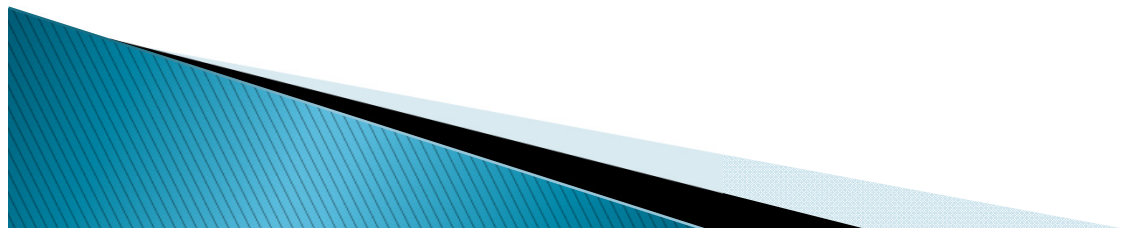


UNIVERSITY OF NICOSIA

ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ



EFQM  **Member**
Shares what works.

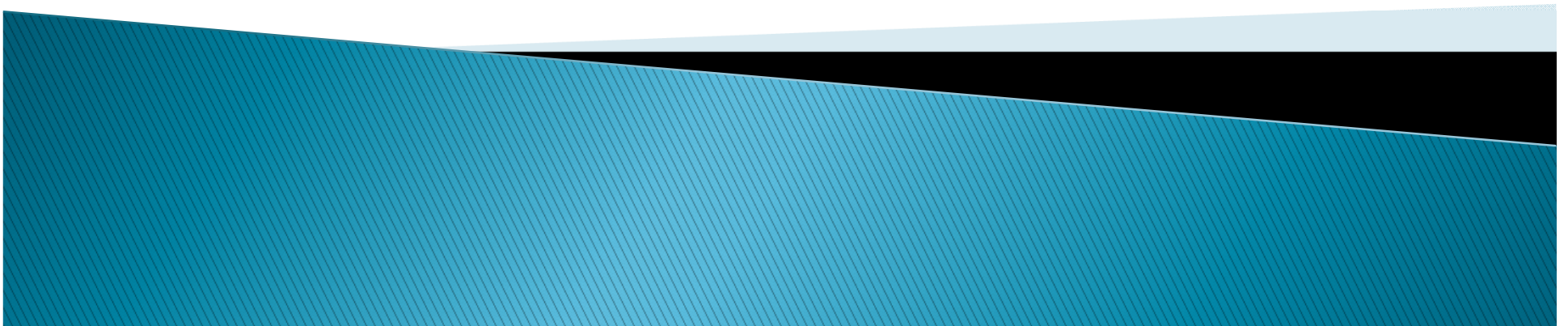


Presentation Topics


1. Aims of the Presentation
2. Intended Learning Outcomes of the Presentation
3. European Higher Education Area Reforms
4. Learning Outcomes
5. Re-engineering Academic Programmes Using Learning Outcomes
6. Learning Outcomes and Teaching/Learning Quality
7. Conclusions



1. Aims of the Presentation

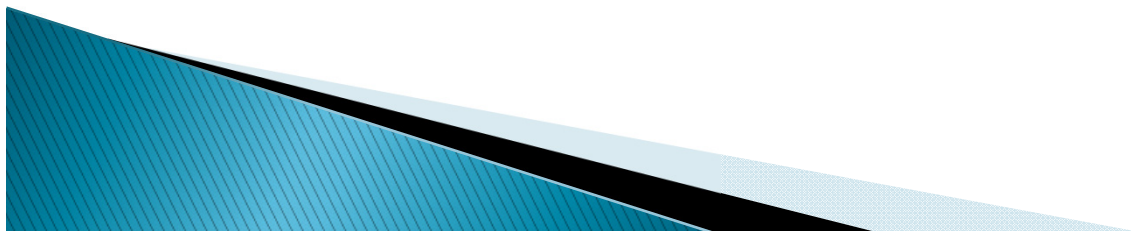


Aims of the Presentation

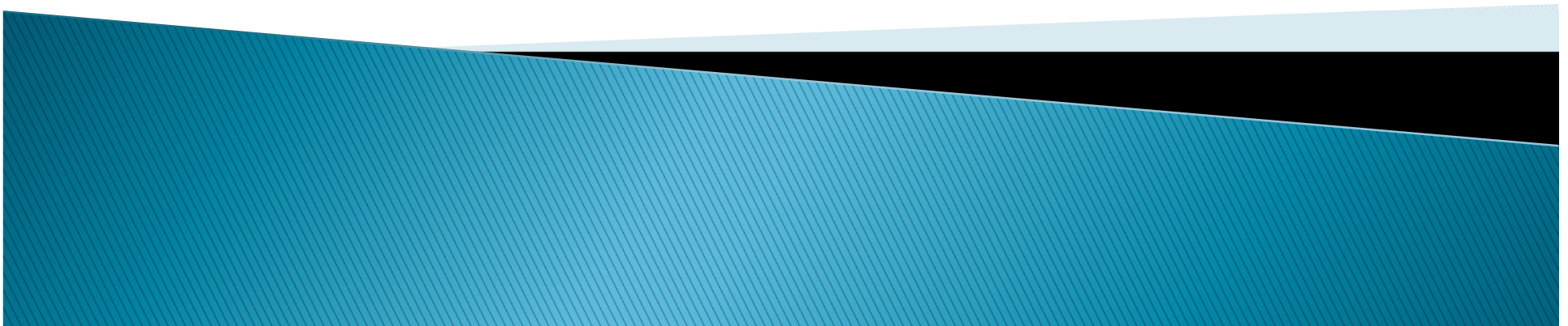
- ▶ Explain the European Higher Education Area (EHEA) Reforms
 - ▶ Introduce the concept of Learning Outcomes (LOs) and its relation to EHEA Reforms
 - ▶ Discuss the context/levels of LOs
 - ▶ Explain the relationship between courses and programme LOs
 - ▶ Discuss the LO approach in re-engineering academic programmes with the one currently used at your institution
- 

Aims of the Presentation

- ▶ Introduce LOs in relation to Academic Evaluation/Accreditation
- ▶ Discuss the link between LOS and all education stakeholders
- ▶ Explain the need for engaging social/labour market actors in developing LOs
- ▶ Highlight the need for developing programmes that meet labour market needs
- ▶ Explain and discuss how LOs can be used to improve the teaching/learning process



2. Intended Learning Outcomes of the Presentation



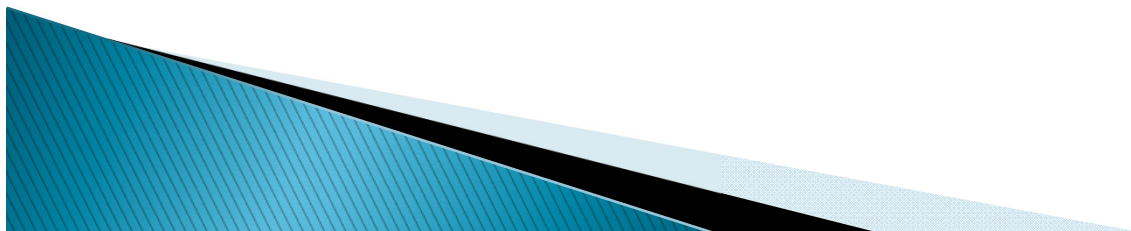
Intended LOs of the Presentation

- ▶ Adopt EHEA Reforms in your university/programmes/courses
- ▶ Compare and contrast the LO approach in re-engineering academic programmes with the one currently used at your institution
- ▶ Re-engineer your courses using LOs
- ▶ Work with colleagues in building a programme's LOs and ensuring that the supporting courses provide support for the LOs
- ▶ Provide supporting arguments as to how your courses achieve the programme's LOs

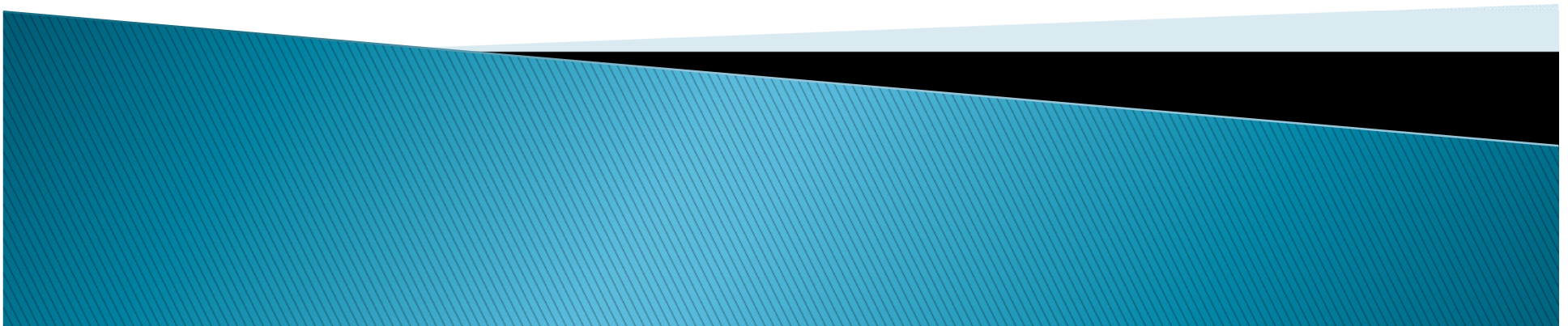


Intended LOs of the Presentation

- ▶ Defend your programmes and courses in front of evaluation/audit/accreditation teams
- ▶ Develop reports that provide evidence for the correct implementation of the LO approach
- ▶ Strengthen the link between academia and social actors/employers
- ▶ Engage all stakeholders in developing LOs
- ▶ Develop programmes that address labour needs
- ▶ Improve teaching/learning using LOs

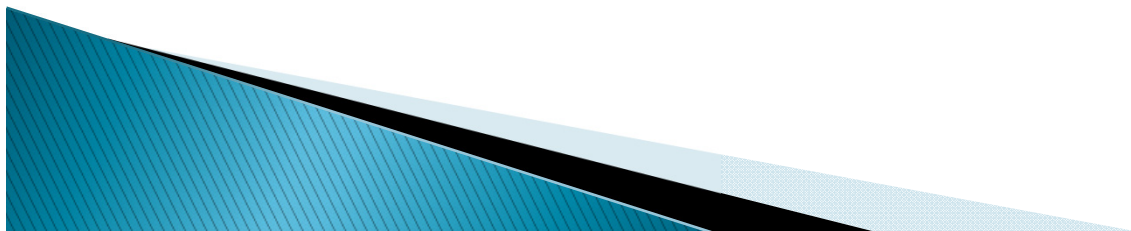


3. European Higher Education Area Reforms




European Higher Education Area Reforms (EHEAR)

- ▶ **Empowering the student**
- ▶ Learner (student) – centered learning
 - Active student participation in learning process
 - Faculty members become educators and facilitators of the learning process and not teachers
- ▶ Knowledge Triangle – Academia, Research, Business
 - partnerships with local industry/business, government and municipality authorities
 - applied research for the benefit of the society



European Higher Education Area Reforms (EHEAR)

- ▶ active involvement of stakeholders (students, alumni, social actors) in designing, delivering and evaluating (including internal and external evaluation) programmes of studies
 - ▶ industry/business-oriented programmes
 - ▶ graduates that meet labour needs
 - ▶ Inclusive/widening access to education
 - ▶ use of ICT in Education – preparing students to become e-citizens
 - ▶ E-learning/Blended Learning modes of delivery – virtual mobility
- 

European Higher Education Area Reforms (EHEAR)

- ▶ “New” Teaching/Learning methods/approaches
 - Problem Based Learning, Flip Teaching
- ▶ Internalization of Universities and cross border education
 - Student and Staff Mobility
 - Joint/double/multiple degrees
 - Project co-operations and strategic partnerships
 - Campuses abroad
 - Franchised degrees
- ▶ Transparency/Comparability of Qualifications
- ▶ Informal and Non-formal Learning
- ▶ Emphasis on teaching

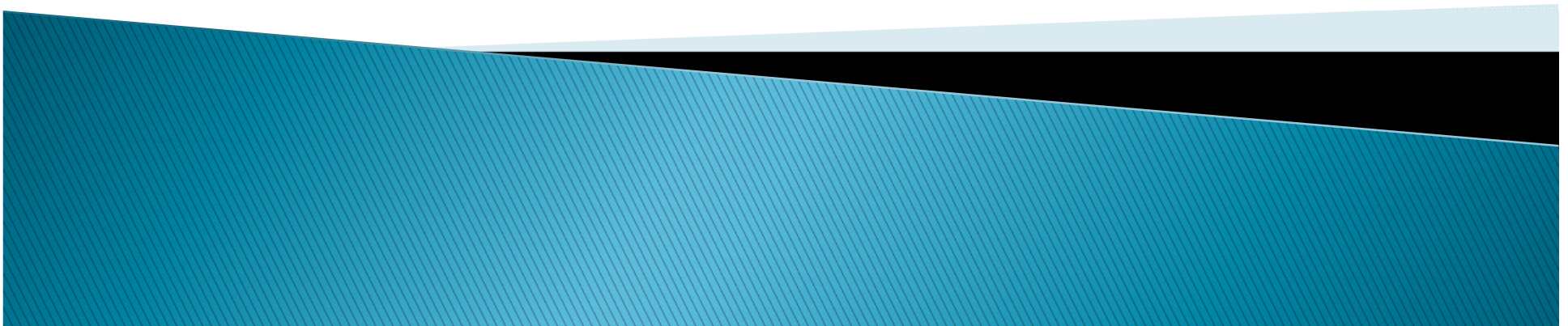
European Higher Education Area Reforms (EHEAR) Tools

- ▶ ECTS
- ▶ DS Label
- ▶ European Qualifications Framework
- ▶ National Qualifications Frameworks
- ▶ U–Multirank
- ▶ Erasmus +
- ▶ Standards and Guidelines for Quality Assurance in the European Higher Education Area
- ▶ Learning Outcomes

<http://www.ehea.info/>

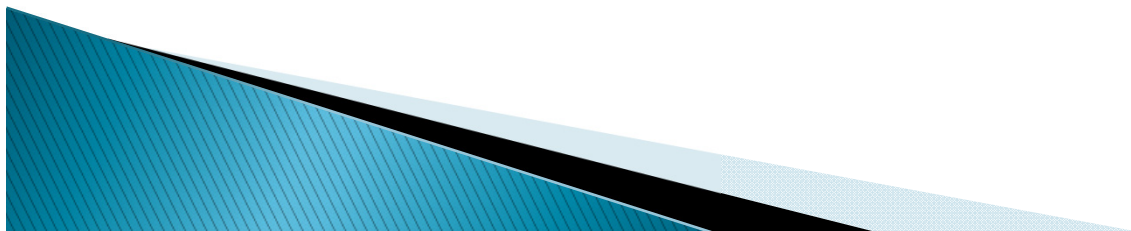


4. Learning Outcomes and EHEAR



Learning Outcomes

- ▶ *“Learning outcomes describe what a learner is expected to know, understand and be able to do after successful completion of a process of learning.”*
- ▶ *“Learning outcomes statements are typically characterised by the use of active verbs expressing knowledge, comprehension, application, analysis, synthesis and evaluation, etc.”*



Learning Outcomes

- ▶ ‘Learning Outcomes’ means statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence.
- ▶ ‘Knowledge’ means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.
- ▶ ‘Skills’ means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
- ▶ ‘Competence’ means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

http://ec.europa.eu/eqf/terms_en.htm

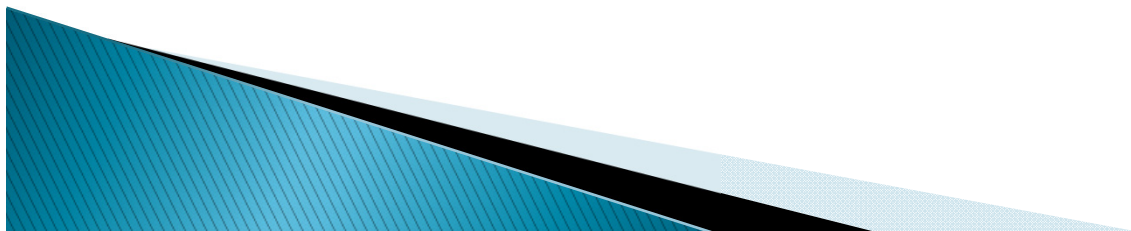
Writing Learning Outcomes – Verbs

▶ To be Used

- create, plan, revise, analyze, design, select, utilize, apply, demonstrate, prepare, use, compute, discuss, explain, predict, assess, compare, rate, calculate, etc

▶ Not to be used

- know, become aware of, appreciate, learn, understand, become familiar with, etc.




Verbs to be Used


COMPREHENSION		APPLICATION		EVALUATION	
KNOWLEDGE			ANALYSIS	SYNTHESIS	
	Associate		Analyze	Arrange	Appraise
Cite	Classify	Apply	Appraise	Assemble	Assess
Count	Compare	Calculate	Calculate	Collect	Choose
Define	Compute	Classify	Categorize	Compose	Compare
Draw	Contrast	Demonstrate	Classify	Construct	Criticize
Identify	Differentiate	Determine	Compare	Create	Determine
List	Discuss	Dramatize	Debate	Design	Estimate
Name	Distinguish	Employ	Diagram	Formulate	Evaluate
Point	Estimate	Examine	Differentiate	Integrate	Grade
Quote	Explain	Illustrate	Distinguish	Manage	Judge
Read	Express	Interpret	Examine	Organize	Measure
Recite	Extrapolate	Locate	Experiment	Plan	Rank
Record	Interpolate	Operate	Identify	Prepare	Rate
Repeat	Locate	Order	Inspect	Prescribe	Recommend
Select	Predict	Practice	Inventory	Produce	Revise
State	Report	Report	Question	Propose	Score
Tabulate	Restate	Restructure	Separate	Specify	Select
Tell	Review	Schedule	Summarize	Synthesize	Standardize
Trace	Tell	Sketch	Test	Write	Test
Underline	Translate	Solve			Validate
		Translate			
		Use			
		Write			

Hartfield, 2004 (adapted from Bloom's Taxonomy)

Example– The Objectives of the Course are to:

- ▶ make students aware of the various database models (emphasis on post-relational models) and database systems
 - ▶ provide students with deep knowledge for developing database applications and fundamental knowledge for developing web-based database applications
 - ▶ cover in detail all aspects of the SQL language (including security, authorization, optimization, embedded SQL)
 - ▶ thoroughly discuss the object-oriented database model, standards and languages and compare this model with the relational model
 - ▶ discuss Data Warehousing, OLAP, Data Mining, Web Technology and XML
 - ▶ introduce state-of-the art research in the area of databases.
- 

Example – After Completing the Course Students are Expected to be Able to:

- ▶ critically compare and evaluate database models and database systems
 - ▶ design and develop database applications using commercially available database systems
 - ▶ enhance and fine-tune database applications with regards to security, authorization and optimization
 - ▶ develop web-based database applications at an intermediate level
 - ▶ critically assess post-relational database models and especially the object-relational database model, standards and languages
 - ▶ develop advanced queries using the SQL language
 - ▶ research in state-of-the art areas in databases systems.
- 

Another Example

ec.europa.eu/eqf/documents?id=99

Knowledge

On successful completion of the programme the graduate will:

- ▶ Have detailed knowledge and understanding of a wide range of business disciplines and the manner in which these are combined in the overall process of business management.
- ▶ Have a good understanding of mathematics, statistics and their applications.

Know-How and Skill

On successful completion of the programme the graduate will:

- ▶ Be able to analyse business problems and propose solutions.
- ▶ Be able to confidently engage in and successfully resolve building services engineering projects in both the technical and managerial aspects and be able to communicate effectively their resolution.

Another Example

ec.europa.eu/eqf/documents?id=99

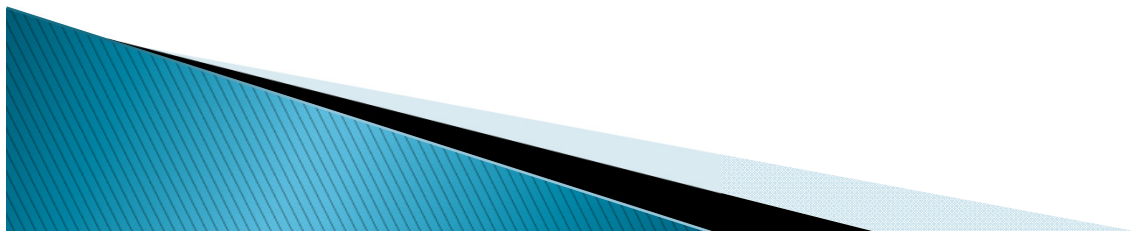
Competence

On successful completion of this programme the graduate will:

- ▶ *Have an appreciation of the necessity of national and global sustainable development.*
- ▶ *Be able to apply concepts and skills learnt in a variety of contexts.*
- ▶ *Be able to research management issues and solutions to issues.*
- ▶ *Appreciate the importance of professional development and of the resources available to keep up to date with new developments in business management.*
- ▶ *Be able to work independently.*
- ▶ *Be able to work effectively in a team.*
- ▶ *Be able to take responsibility for his/her own learning.*
- ▶ *Be able to learn from experiences gained in different contexts.*
- ▶ *Have insights into the dynamics of the management function in the business world.*

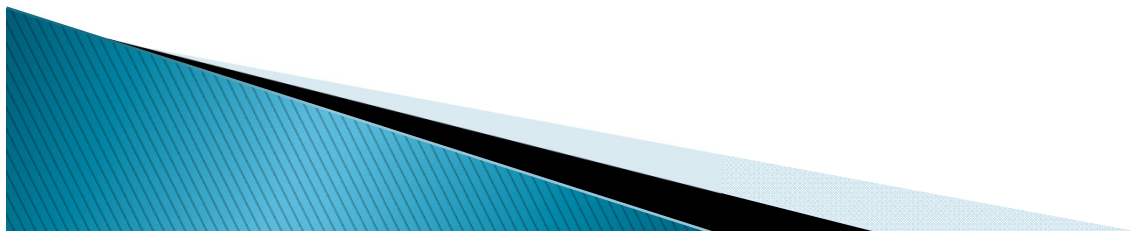
LOs should be SMART

- ▶ **Specific** (clear and unambiguous, clearly communicated to and understood by students)
- ▶ **Measurable** (objectively assessed)
- ▶ **Attainable/Achievable** (at the right level and possible to be achieved by students)
- ▶ **Realistic/Relevant**
- ▶ **Time Specific** (possible to be achieved within the timeframe of the programme/course)



LOs at Various Levels

- ▶ European Qualifications Framework
- ▶ European Standards in Disciplines/Subject Areas
- ▶ National Qualifications Framework
- ▶ Institutional Level (generic)
- ▶ Programme Level (subject specific)
- ▶ Course Level
- ▶ Task Level



European Qualifications Framework

	KNOWLEDGE	SKILLS	COMPETENCE
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of EQF, competence is described in terms of responsibility and autonomy.
LEVEL 6** The learning outcomes relevant to <u>Level 6</u> are	<ul style="list-style-type: none"> advanced knowledge of a field of work or study, involving a critical understanding of theories and principles 	<ul style="list-style-type: none"> advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study 	<ul style="list-style-type: none"> manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups
LEVEL 7*** The learning outcomes relevant to <u>Level 7</u> are	<ul style="list-style-type: none"> highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research critical awareness of knowledge issues in a field and at the interface between different fields 	<ul style="list-style-type: none"> specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields 	<ul style="list-style-type: none"> manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
LEVEL 8**** The learning outcomes relevant to <u>Level 8</u> are	<ul style="list-style-type: none"> knowledge at the most advanced frontier of a field of work or study and at the interface between fields 	<ul style="list-style-type: none"> the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice 	<ul style="list-style-type: none"> demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

National Qualifications Frameworks

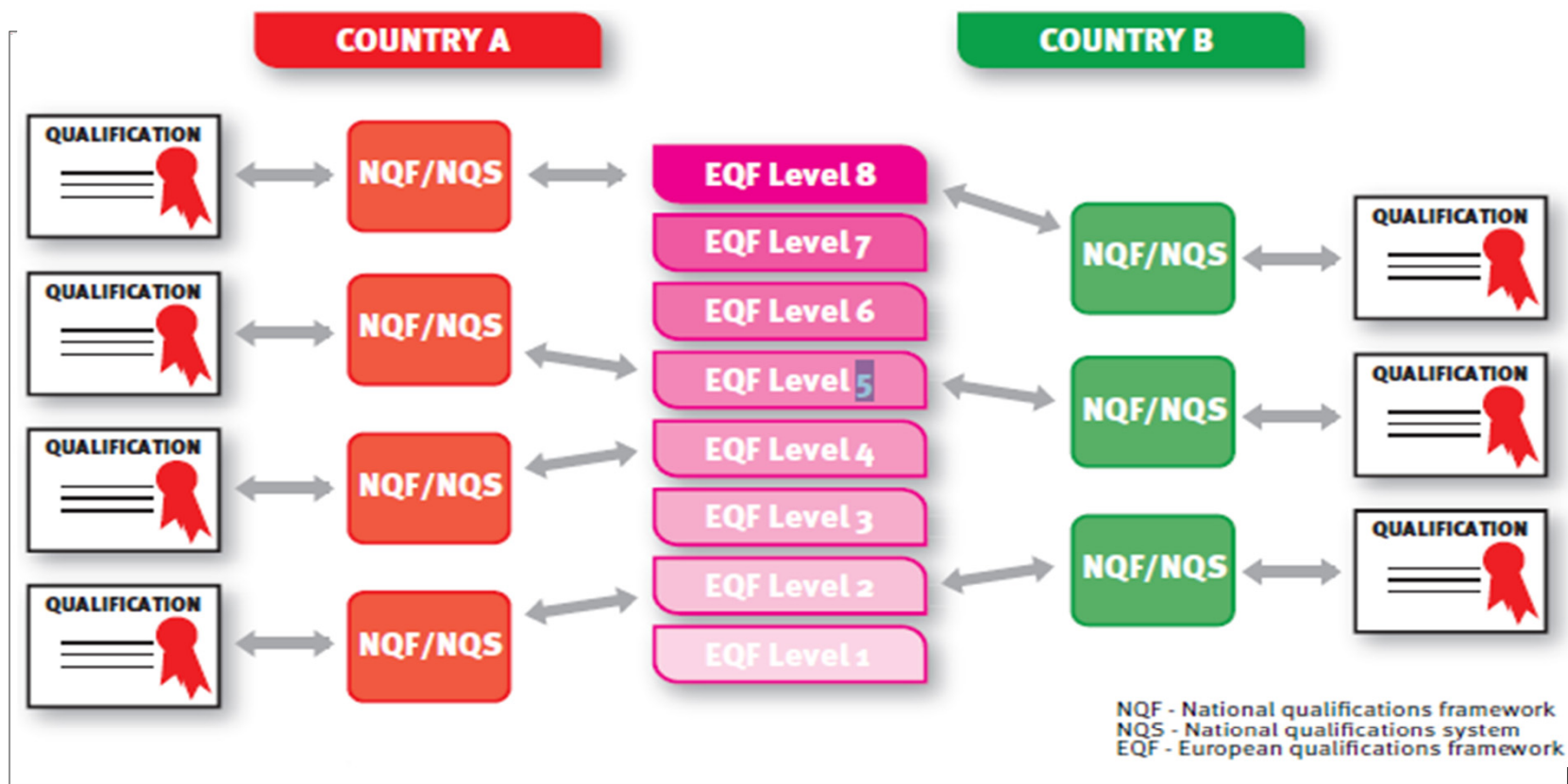


Figure 1 : Mapping NQFs to EQF (adopted from EQF Newsletter April 2010 eac-efq-newsletter@ec.europa.eu)

LOs and EHEAR

▶ ECTS and LOs

- ECTS Label requires that all programmes and courses are expressed using LOs

<http://www.unic.ac.cy/bachelor-degrees/dance-4-years-bachelor-of-arts/learning-outcomes>

<http://www.unic.ac.cy/bachelor-degrees/social-work-4-years-bachelor-of-science-0/learning-outcomes>

http://www.unic.ac.cy/ECTS_Syllabi/COMP-511.pdf

http://www.unic.ac.cy/ECTS_Syllabi/NUTR-520.pdf

http://www.hqaa.gr/index.php?option=com_content&view=article&id=154&Itemid=253&lang=en


▶ Diploma Supplement Label and LOs

- section on LOs of the programme


http://dcbhm58xdznta.cloudfront.net/files/diploma_supplement_sample_sep_2013-2.pdf




LOs and EHEAR

- ▶ European Qualifications Framework
 - is defined using LOs
 - ▶ National Qualifications Frameworks
 - are defined using LOs
 - ▶ Erasmus+ learning agreements are based on Course LOs
 - ▶ Quality Assurance Agencies require:
 - programmes and courses to be expressed using LOs
 - LOs to be clearly defined
 - LOs to be publically available and known to students
 - the involvement of all stakeholders in creating/reviewing LOs
- 

Usefulness of LOs

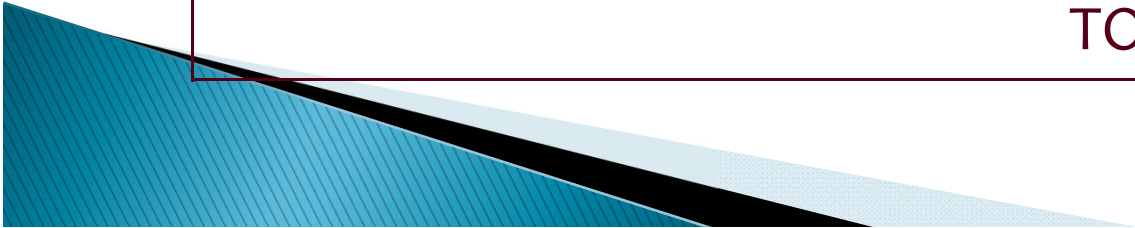
- ▶ Provide a common language/platform for transparency, comparability, transferability and recognition of programmes/courses
 - ▶ Students become aware of what they will be able to do after completion of the courses and the programme
 - ▶ Professors are forced to rethink of the curriculum and make sure that each LO is assessed
 - ▶ Employers know what graduates are/should be able to do
 - ▶ Careers Officers can match employers requirements to graduates knowledge, skills and competences (LOs)
 - ▶ Erasmus+ co-ordinators and Academic Departments are facilitated when developing exchange agreements for students and academic staff
 - ▶ Professional Associations can map Programmes to their requirements
 - ▶ Quality Assurance Agencies are facilitated when conducting audits of programmes and when evaluating European awards (through the EQF-NQF mapping)
 - ▶ Enforce Accountability
- 

Quality Assurance Agencies and LOs

- ▶ QAA are in the process of modifying their accreditation/validation rules and procedures to incorporate LOs. QAA audits look for evidence that
 - all stakeholders were involved in the formulation of a programme's LOs
 - there is consistency of LOs according to their level (e.g. 1st Cycle LOs match EQF and NQF corresponding level)
 - there is consistency of a programme's LOs with the LOs specified in European Standards/Sector frameworks, benchmarks, etc.)
 - a programme's LOs comply with technical qualifications frameworks at National Level
 - there is consistency and comparability among LOs across the institution and its programmes
 - the institution provides all resources so that LOs are SMART, are assessed and are met by students
- 

Accreditation in Lithuania

Evaluation area	Points
Programme aims and learning outcomes	1-4
Curriculum design	1-4
Teaching staff	1-4
Facilities and learning resources	1-4
Study process and student assessment	1-4
Programme management	1-4
TOTAL	6-24




Accreditation in Lithuania

- ▶ Programme aims and learning outcomes
 - The programme aims and learning outcomes are well defined, clear and publicly accessible
 - the programme aims and learning outcomes are based on the academic and/or professional requirements, public needs and the needs of the labour market
 - the programme aims and learning outcomes are consistent with the type and level of studies and the level of qualifications offered
 - the name of the programme, its learning outcomes, content and the qualifications offered are compatible with each other.



Accreditation in Lithuania

▶ Curriculum Design

- the curriculum design meets legal requirements
 - study subjects and/or modules are spread evenly, their themes are not repetitive
 - the content of the subjects and/or modules is consistent with the type and level of the studies
 - the content and methods of the subjects/modules are appropriate for the achievement of the intended learning outcomes
 - the scope of the programme is sufficient to ensure learning outcomes
 - the content of the programme reflects the latest achievements in science, art and technologies.
- 

Accreditation in Lithuania

▶ If (total number of points ≥ 18) and
(each evaluation area ≥ 3) then
6 years Accreditation

else if

(total number of points ≥ 12) and
(each evaluation area is ≥ 2) then
3 years Accreditation

else

no accreditation;

if 3 years accreditation in year X and
3 years accreditation in year X+3 and not
6 years accreditation in year X+6 then
no accreditation.

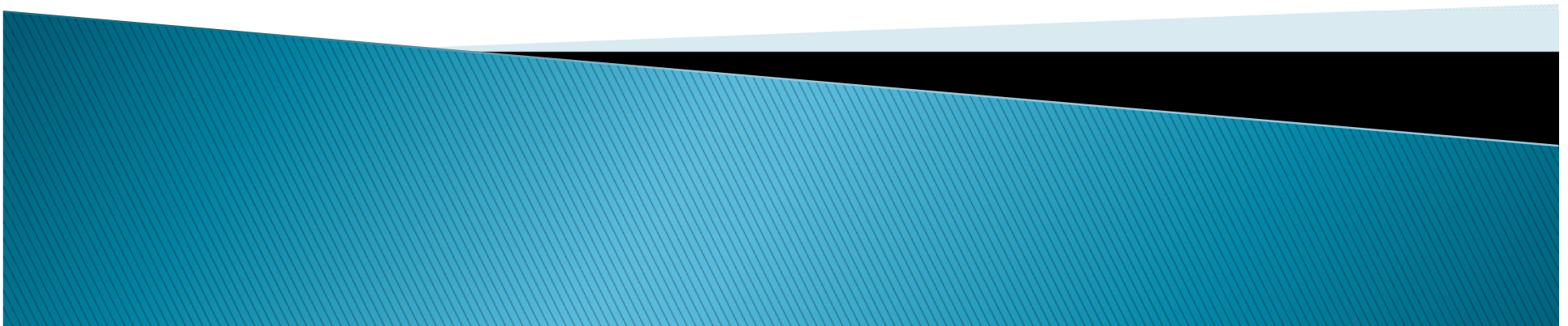


Trends in European Higher Education 2015 EUA Survey

- ▶ Expected Benefits of LOs
 - Revision of Course Content
 - Change of Teaching/Learning Methods
 - Improved co-operation among teaching staff
 - Improvement of teaching quality
 - Revision of examinations and assessment methods
 - Improvement of transfer/recognition of credits
 - Easier recognition of prior learning
 - Increased awareness of students with regards their learning objectives
 - Improvement of student pass grades

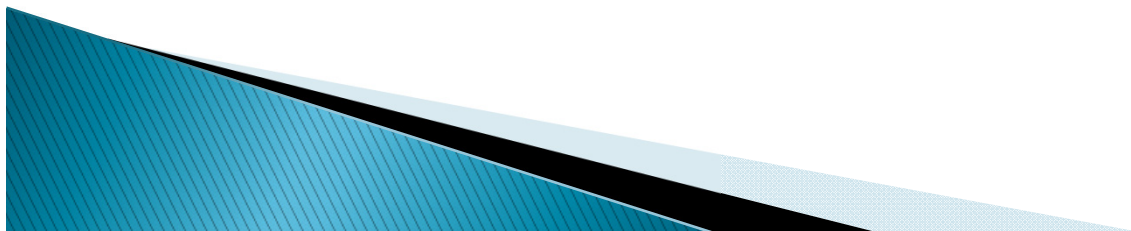


5. Re-engineering Academic Programmes Using Learning Outcomes



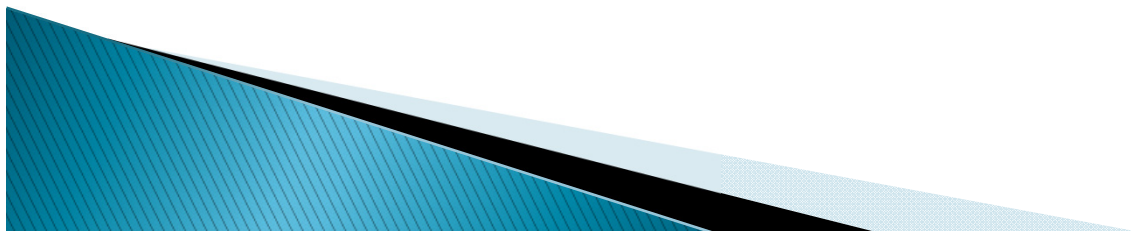
What is Re-engineering in terms of Business Information Systems?

- ▶ Rethinking of the Business Processes
- ▶ Not automating existing processes
- ▶ Redesigning Business Processes
- ▶ Restructuring the organization
- ▶ Automating the newly designed processes



What is Re-engineering in terms of academic programmes?

- ▶ Rethinking of the academic programmes
- ▶ Redesigning the academic programmes
- ▶ Restructuring the academic programmes



Academic Programme

- ▶ Programme Structure (thematic areas and clusters of courses, core, elective, etc. courses, pre-requisites, co-requisites, semester breakdown, etc.)
- ▶ Programme and Course Content
 - Aims and Objectives usually expressed from the programme/course point of view and referring to knowledge and skills to be given to /cultivated in students
 - Topic areas and description of material to be covered
- ▶ Delivery Methods
 - Teaching and Learning
 - Resources (Labs, Books, etc.)
 - Assessment



LOs and Re-engineering of Academic Programmes

- ▶ LOs force you to re-think carefully the content of the programme from the point of view of the student (Learning Outcomes (LOs) vs. Aims and Objectives)
- ▶ LOs forces you to re-think carefully the delivery methods of the programme/courses (Teaching and Learning and Assessment of Learning Outcomes)





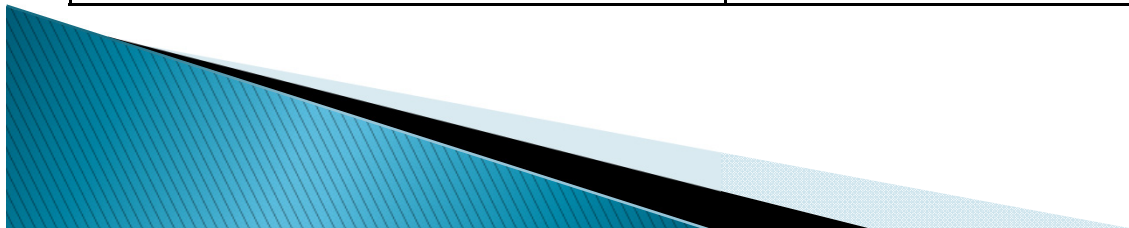
**PLANNING FORM FOR AN EDUCATIONAL
MODULE - University of Nicosia**
(to be completed by the teacher)

Learning outcomes By the end of this course a student is expected to:	Educational activities	Assessment	Estimated student work time in hours
critically compare and evaluate database models and database systems	Lectures, project 1	Project, 1 Final Exam	20
design and develop database applications using commercially available database systems	Lectures, problem-solving sessions, laboratory sessions, project 2	Project 2	40
enhance database applications with regards to security, authorization and optimization	Lectures, laboratory sessions, homework	Final Exam	20
develop web-based database applications at an intermediate level	Lectures, laboratory sessions, project 2	Project 2	10



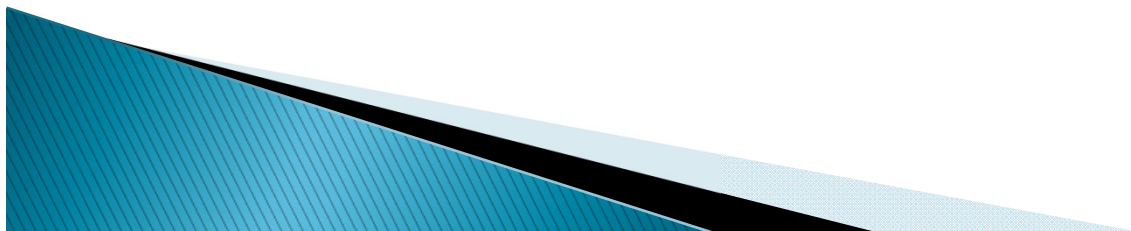
**PLANNING FORM FOR AN EDUCATIONAL
MODULE - University of Nicosia**
(to be completed by the teacher)

Learning outcomes	Educational activities	Assessment	Estimated student work time in hours
critically assess post-relational database models and especially the object-relational database model, standards and languages	Lectures, project 1	Project 1, Final Exam	35
develop advanced queries using the SQL language	Lectures, laboratory sessions, homework, project 2	Project 2, Final Exam	20
research in state-of-the art areas in databases systems	Lectures	Final Exam	15
			160



Programme LOs vs Course LOs

- ▶ A programme consists of many courses
- ▶ A Programme has a number of programme LOs (PLOs)
- ▶ A Course has a number of course LOs (CLOs)
- ▶ A PLO must be supported by at least one course
- ▶ A course can support many PLOs



Programme LOs vs. Courses

REPROTOOL Welcome FAC1! [\[Log Out\]](#)


[Home](#) [About](#) [Guest](#) [Help](#) [Faculty](#)

You are currently viewing **Information about the ReProTool project** programme
In the tab menu below you can view and edit the program that you have selected.

[Details](#) [Key LOs](#) [Course Categories](#) [Breakdown](#)

[Manage Key LOs](#) [Map Key LOs to Courses](#)

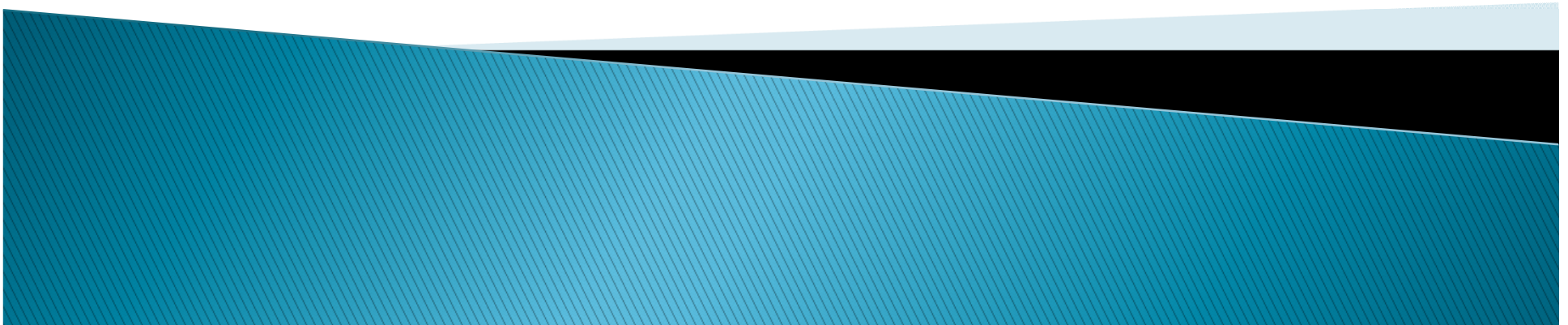
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COMP-111	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COMP-112	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECE-110	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



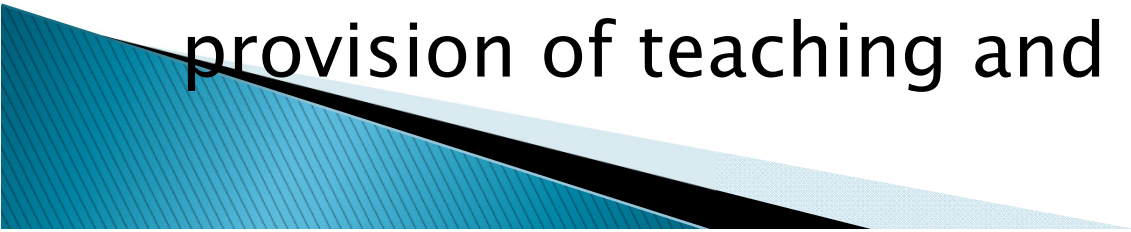
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6. Teaching/Learning Quality and LOs

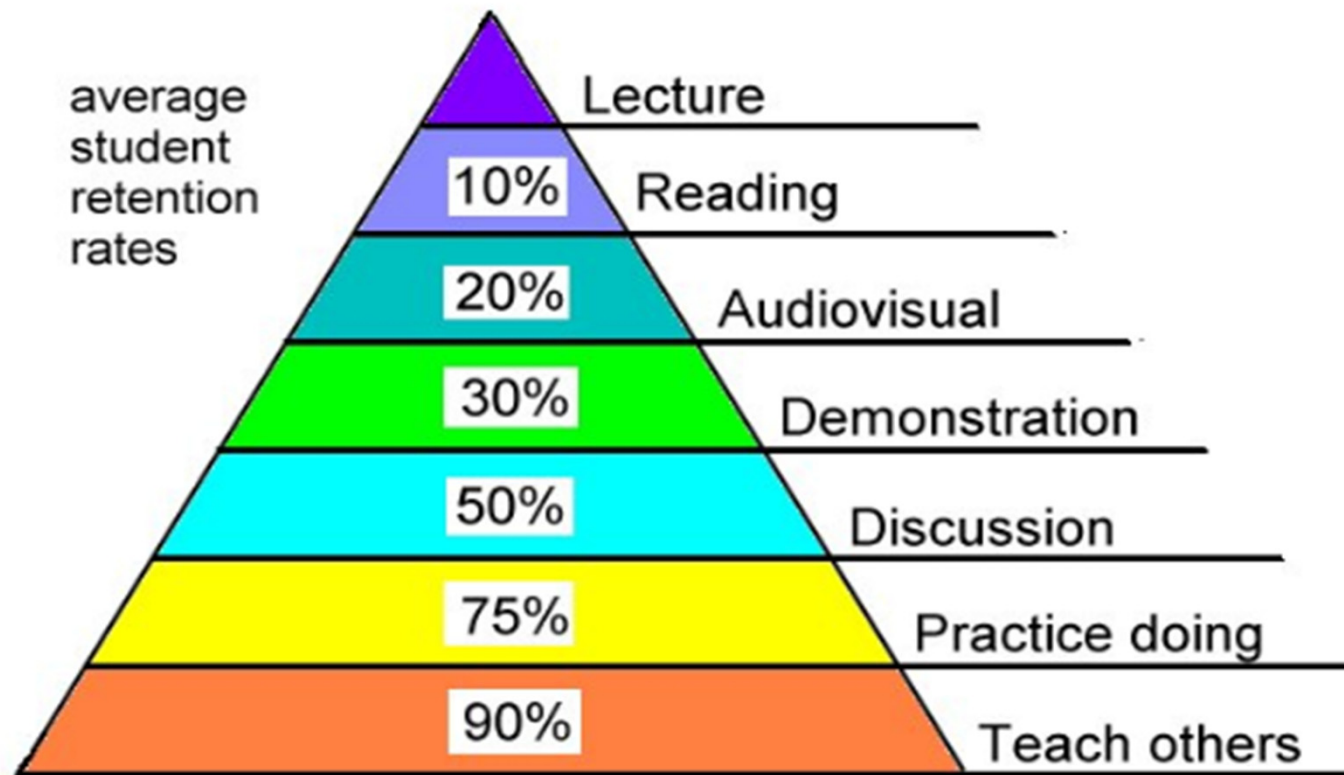


The Importance of Teaching

- ▶ Teaching quality is becoming a strategic direction of the EHEA reforms.
 - ▶ Its importance is recently gaining more and more recognition by both the policy makers as well as the various providers of higher education.
 - ▶ The vision and mission of Universities, even of those universities who have been traditionally focused mainly on basic research address now a more balanced provision of teaching and research.
- 

Teaching/Learning

Learning Pyramid



Source: National Training Laboratories, Bethel, Maine

EC Report “Improving the quality of teaching and learning in Europe’s higher education institutions”



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

EC Report “Improving the quality of teaching and learning in Europe’s higher education institutions”

- ▶ teaching and learning are fundamental core missions of universities and colleges
- ▶ active student involvement is essential in governance, curricular design, development and review, quality assurance and review procedures
- ▶ preference of research over teaching in defining academic merit needs rebalancing
- ▶ academic staff are employed not just to teach, but to teach well, to a high professional standard

http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

EC Report “Improving the quality of teaching and learning in Europe’s higher education institutions”

- ▶ a key responsibility of institutions to ensure their academic staff are well trained and qualified as professional teachers not just qualified in a particular academic subject; this responsibility extends to
 - ensuring new staff have a teaching qualification or equivalent on entry or have access to credible teacher training courses in the early years of their career
 - providing opportunities for continuous professional career development as a professional teacher and not just as a subject/discipline specific academic;
- ▶ it is a key responsibility of academic staff to ensure they are qualified to teach and able to teach well; this responsibility extends over their entire career from start to finish so that they remain up-to-date and proficient in the very best pedagogical practices and all that quality.

Recommendation 2 – Every institution should develop and implement a strategy for the support and on-going improvement of the quality of teaching and learning, devoting the necessary level of human and financial resources to the task, and integrating this priority in its overall mission, giving teaching due parity with research.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 3 – Higher education institutions should encourage, welcome, and take account of student feedback which could detect problems in the teaching and learning environment early on and lead to faster, more effective improvements.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 4 – All staff teaching in higher education institutions in 2020 should have received certified pedagogical training. Continuous professional education as teachers should become a requirement for teachers in the higher education sector.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 5 – Academic staff entrance, progression and promotion decisions should take account of an assessment of teaching performance alongside other factors.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 6 – Heads of institutions and institutional leaders should recognise and reward (e.g. through fellowships or awards) higher education teachers who make a significant contribution to improving the quality of teaching and learning, whether through their practice, or through their research into teaching and learning.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 7 – Curricula should be developed and monitored through dialogue and partnerships among teaching staff, students, graduates and labour market actors, drawing on new methods of teaching and learning, so that students acquire relevant skills that enhance their employability.



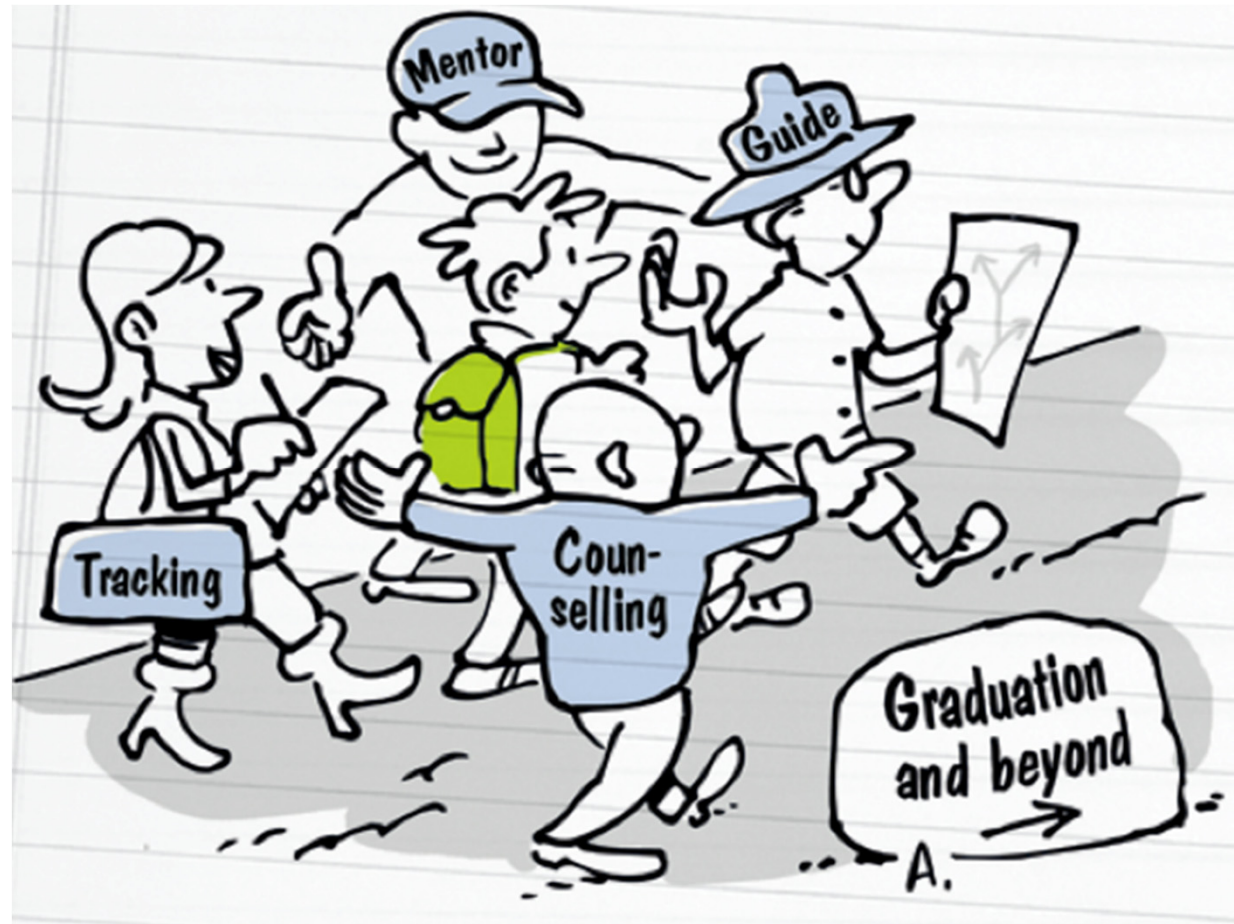
http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 8 – Student performance in learning activities should be assessed against clear and agreed learning outcomes, developed in partnership by all faculty members involved in their delivery.



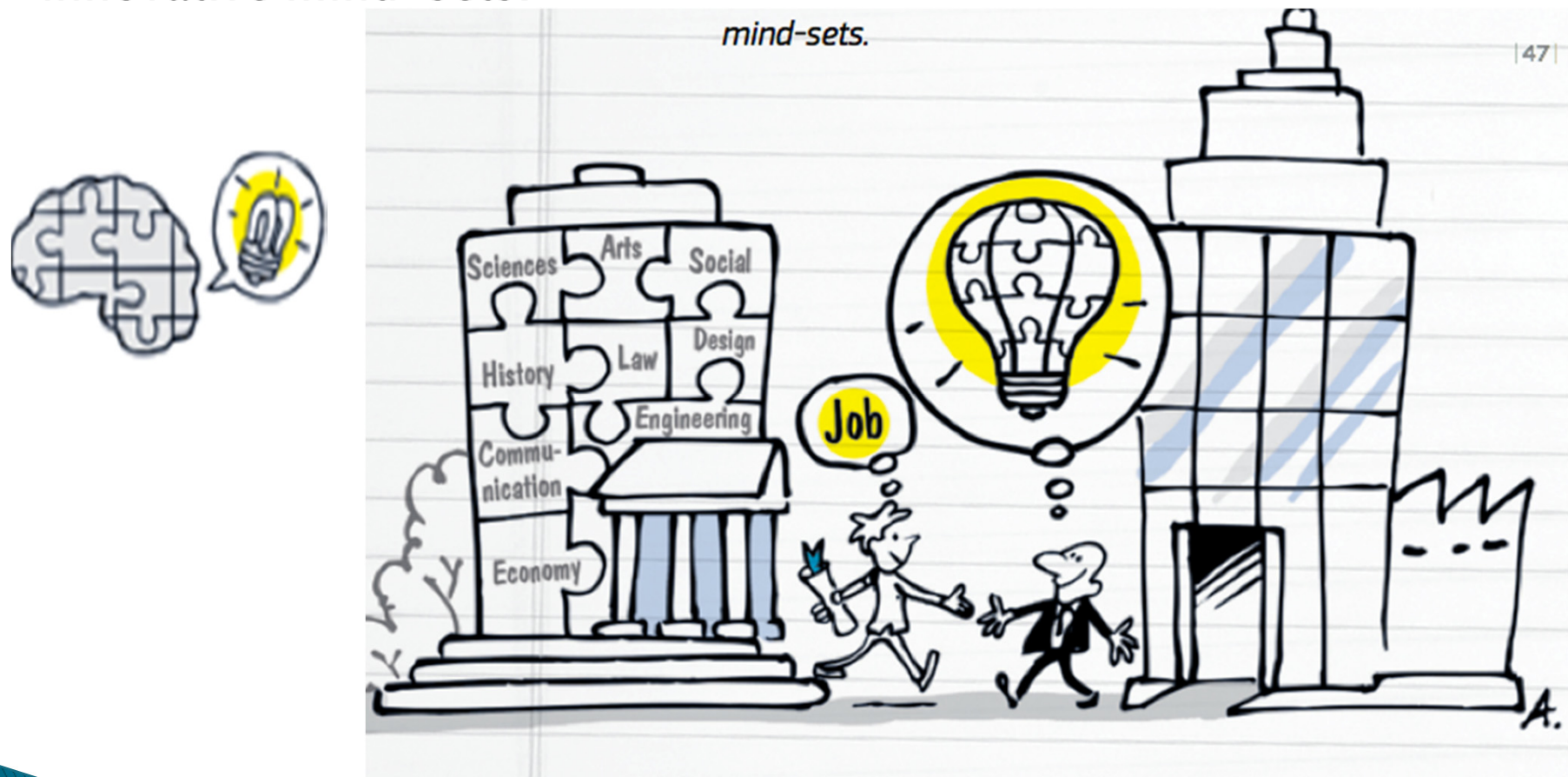
http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 9 – Higher education institutions and national policy makers in partnership with students should establish counselling, guidance, mentoring and tracking systems to support students into higher education, and on their way to graduation and beyond.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

Recommendation 10 – Higher education institutions should introduce and promote cross-,trans- and interdisciplinary approaches to teaching, learning and assessment, helping students develop their breadth of understanding and entrepreneurial and innovative mind-sets.



http://ec.europa.eu/education/higher-education/doc/modernisation_en.pdf

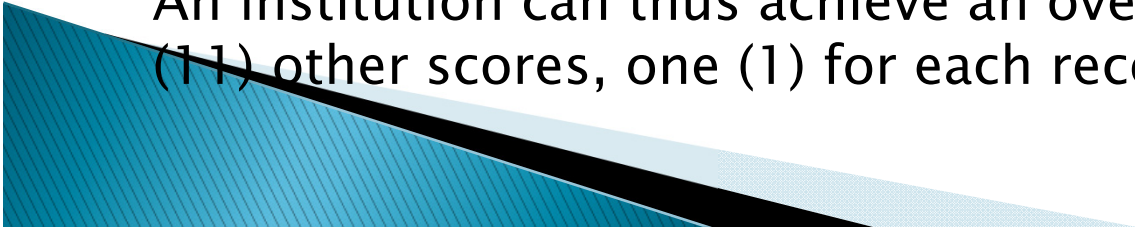
Recommendation 11 – Higher education institutions – facilitated by public administrations and the EU – should support their teachers so they develop the skills for online and other forms of teaching and learning opened up by the digital era, and should exploit the opportunities presented by technology to improve the quality of teaching and learning.



Recommendation 12 – Higher education institutions should develop and implement holistic internationalisation strategies as an integral part of their overall mission and functions. Increased mobility of student and staff, international dimension of curricula, international experience of faculty, with a sufficient command of English and a second foreign language and intercultural competences, transnational delivery of courses and degrees, and international alliances should become indispensable components of higher education in Europe and beyond.




The Teaching in Higher Education Quality Model (THEQM)

- ▶ A Model based on the EC Report
 - ▶ THEQM calculates for each institution an overall score (0 to 100) and a score within each recommendation (0 to 9).
 - ▶ There are eleven (11) recommendations and each recommendation has nine (9) indicators.
 - ▶ Each index is either satisfied (in which case a score of one (1) is given) or not satisfied (in which case a score of zero(0) is given).
 - ▶ Thus ninety-nine (99) indicators are provided giving a maximum 99 points if all are satisfied.
 - ▶ Another point is given by satisfying the following Overall Quality Indicator. *The institution does not consider any other activity more important than teaching.*
 - ▶ Thus a maximum of one hundred (100) points can be achieved. An institution can thus achieve an overall score as well as eleven (11) other scores, one (1) for each recommendation.
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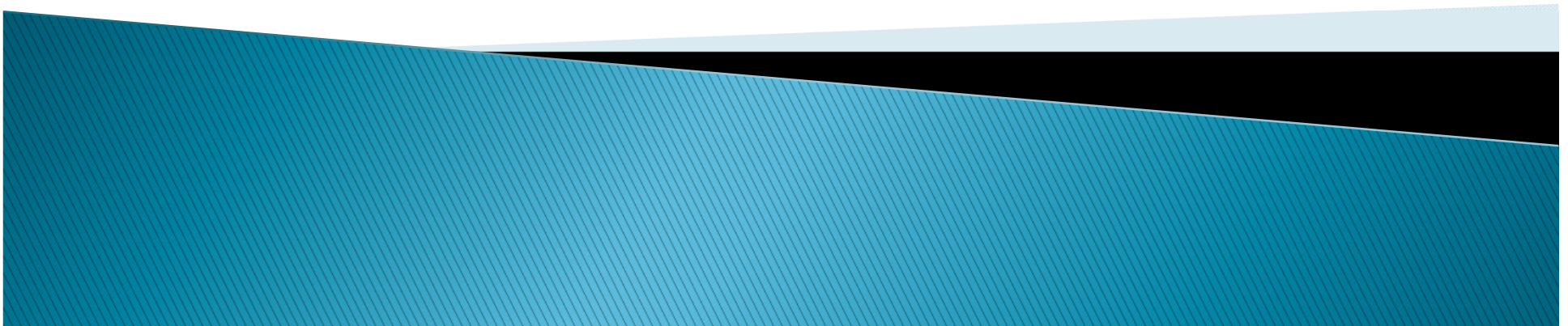
Recommendation 8 Student performance in learning activities should be assessed against clear and agreed learning outcomes, developed in partnership by all faculty members involved in their delivery

1. The institution regulations provide for a methodology and a process for designing/evaluating the curriculum using Learning Outcomes.
2. The institution's regulations ensure that Programme and Course Learning Outcomes are built with input from all stakeholders (teachers, students, labour market actors).
3. The institution's regulations ensure that a process/mechanism exists for checking whether Programme Learning Outcomes can be achieved through the programme's courses.
4. The institution's regulations ensure that Learning Outcomes are SMART (Specific, Measurable, Achievable, Realistic, Time-Specific).
5. The institution's regulations provide for checking the Learning Outcomes against the student workload as estimated/provided/calculated by the students.
6. Each Learning Outcome at the Programme and Course level is associated with learning methods and assessment methods and is allocated a specific workload.
7. Learning Outcomes are associated with knowledge, skills and competences.
8. The assessment of Learning Outcomes focuses on the assessment of competences.
9. The institution's regulations provide for a feedback process/mechanism for reviewing Learning Outcomes and their assessment.


LOs and Teaching/Learning Quality

- ▶ Developed/reviewed using input from all stakeholders
 - ▶ Programme LOs (PLOs) in line with name of programme and curriculum design
 - ▶ PLOs are checked whether they are met by courses
 - ▶ Re-thinking of the curriculum (shifting from aims and objectives to LOs)
 - ▶ Re-thinking of learning/assessment methods
 - ▶ Estimating student workload for achieving LOs
 - ▶ Soliciting student feedback for LOs workload
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7. Conclusions



Conclusions

- ▶ There are some different definitions in the literature with regards to LOs
 - ▶ There is ignorance and confusion amongst the various stakeholders with regards to LOs
 - ▶ LOs are still being implemented at various levels (NQF, Universities, QAA)
 - ▶ Educational models and University and QAA rules/regulations/procedures are being re-engineered using LOs
 - ▶ Re-engineering academic programmes using LOs provides a great opportunity to improve the programme, the delivery and assessment methods and the student learning process
 - ▶ LOs benefit all stakeholders and contribute to the mobility of students/graduates/faculty/employees within Europe
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My Applied Research in EHEAR

- ▶ ReProTool– funded by the Cyprus Research Promotion Foundation
 - Software tool supporting the use of LOs
- ▶ MapQFTool
 - Software tool supporting the mapping of National Qualification Frameworks to the European Qualifications Framework and thus the mapping between the qualifications of various EU countries
- ▶ THEQMTool
 - Software tool supporting the Teaching in Higher Education Quality Model

Papers available at

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Thank you! Questions?

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