

## 6. The Tuning Project and HENRE

### European Higher Education Area

The Tuning Project contributes actively to the achievement of the Lisbon objectives which seeks to “enhance the attractiveness and competitiveness of higher education institutions in Europe” by the creation of the European Higher Education Area by 2010 [<http://www.bologna-berlin2003.de>]. The Bologna Declaration of June 1999 called for the establishment by 2010 of a coherent, compatible and competitive European Higher Education Area, attractive for European students and for students and scholars from other continents. The Bologna declaration and the follow up Prague Communiqué 2001 identified the following 9 action lines:

- Adoption of a system of easily readable and comparable degrees
- Adoption of a system essentially based on two cycles
- Establishment of a system of credits
- Promotion of mobility
- Promotion of European cooperation in quality assurance
- Promotion of the European dimension in higher education
- Lifelong learning
- Higher education institutions and students
- Promoting the attractiveness of the European Higher Education Area

### TUNING Educational Structures in Europe

#### **TUNING MOTTO: Tuning of Educational Structures and Programmes on the basis of diversity and autonomy**

The ‘Tuning Educational Structures in Europe’ project is co-ordinated by the universities of Groningen (Netherlands) and Deusto (Bilbao, Spain) and is a University lead response to the Bologna process initiated in 1999. The name ‘Tuning’ has been chosen to “reflect the idea that universities do not look for harmonisation of their degree programmes or any sort of unified, prescriptive or definitive European curricula but simply for points of reference, convergence and common understanding. The protection of the rich diversity of European education has been paramount in the Tuning project from the very start and the project in no way seeks to restrict the independence of academic and subject specialists, or damage local and national academic authority” [www.let.rug.nl/TuningProject/index.htm](http://www.let.rug.nl/TuningProject/index.htm).

### Tuning Methodology

In the framework of Tuning, ‘a methodology’ has been developed to understand and improve curricula. Five lines of approach have been developed which allow universities to “tune” their curricula without losing autonomy:

Line 1: **Generic competences**

Line 2: **Subject specific competences**

Line 3: **The role of ECTS as a credit transfer and accumulation system**

Line 4: **Approaches to learning, teaching, assessment**

Line 5: **The role of quality enhancement in the educational process**

The Tuning project with support from the European Commission has encouraged the development of competences for a variety of subjects and the Thematic Networks are seen to be in a good position to compile such information from educational institutes throughout Europe.

### Learning Outcomes & Competences – level cycle descriptors

The Tuning project describes learning outcomes (LO’s) in terms of competences, that is: what a learner knows or is able to demonstrate after the completion of a learning process. This concerns

both subject specific competences and generic competences, like communication skills and leadership. Learning outcomes are formulated by university staff, students and other stakeholders who have been consulted on the competences they expect from graduates. Competences are described by Tuning Phase I as “points of reference for curriculum design and evaluation, not as straightjackets. They allow flexibility and autonomy in the construction of curricula. At the same time, they provide a common language for describing what curricula are aiming at” [www.let.rug.nl/TuningProject/index.htm](http://www.let.rug.nl/TuningProject/index.htm). Essentially, learning outcomes allow for different ‘pathways’ to comparable levels of qualification from different institutions thereby ensuring autonomy of degree programmes.

Once subject-specific competences that should be obtained from successful completion of a first cycle level qualification are identified they can be translated into the curriculum content (topics to be covered) and structure (modules and credits) and translated into educational units and activities to achieve the defined learning outcomes. Approaches to teaching, learning and assessment and the development of teaching materials to facilitate learning outcomes identified can then be undertaken. HENRE partners, with their wealth of knowledge and experience at teaching first post radiographers are in a position to spearhead this process.

### **Does a learning outcomes approach allow a variety of learning to be assessed and compared at national and European level?**

There is a general consensus within HENRE about the value of a learning outcomes approach within the context of a European Higher Education Area. The identified benefits of a learning outcomes approach are many and include providing support for the development of student centred learning, improvements in transparency of programmes and choice for students and help facilitate recognition and transfer and encourage mobility within Europe.

Learning outcomes (LOs) may be used across a variety of programmes. It has also been indicated that they are more important than study week hours which may have limitations for assessment purposes. In addition, LOs allow flexibility of approach to learning, teaching and assessment and allow for comparison between levels of competency even if achievement of skills is different and the assessments are different. Learning outcomes may in time assist the development of qualifications frameworks, ECTS and Diploma supplements.

Radiography programmes provide by their very nature a variety of teaching and learning methods in both teaching centres and clinical departments and therefore a variety of assessment techniques are employed. HENRE has facilitated discussion and helped provide ideas about how a learning outcomes approach would allow a variety of learning to be assessed and compared at national and European level.

For more information on learning outcomes and competences see [[www.bologna-bergen2005.no/EN/Bol\\_sem/Seminars](http://www.bologna-bergen2005.no/EN/Bol_sem/Seminars)] for the report from the UK Bologna seminar (2004). This seminar explored the meaning of the term ‘Learning Outcomes’ and illustrated how this approach is being used in HE systems across Europe and how this approach links with the Bologna action lines.

### **HENRE and TUNING**

The HENRE Thematic Network has recognised and is committed to developing according to the Tuning approach, a state of the art in radiography education at the European level. HENRE was appointed in 2004 a Tuning councillor to assist with implementing the Tuning methodology into the framework of the network.

HENRE has already begun to map subject specific competences in line with the Tuning programme (lines 1 and 2) for first cycle radiography degree programmes in Europe. It is the goal of HENRE to

propose recommended first and second cycle level competences agreed in dialogue with stakeholders and competent authorities. HENRE will recommend the minimum number of credits that future programmes should include.

### **The subject-specific first cycle questionnaire**

A pilot survey looking at first cycle generic and subject-specific competences was conducted by HENRE partner members at the annual conference in October 2004. This survey was based on the UK QAA Benchmark statements for Radiography, 2001 [[www.qaa.ac.uk](http://www.qaa.ac.uk)]. Since then, on the advice of the appointed HENRE Tuning Councillor, Subgroup I has put together a final version of the questionnaire *first cycle subject-specific questionnaire*.

The questionnaire has been designed for academics involved in the education and training of radiographers. The questionnaire required them to indicate in their opinion the importance of the skill or competence for work in the profession and the level to which each skill or competence is developed by the degree programmes in radiography offered at their institution. These competences are to be ranked and eventually compared with desirable competences required by employers of first post radiographers. A data analysis is to be carried out by the Tuning programme.

Conceivable limitations identified included: A limited amount of data collected: The questionnaires were not always answered by the most appropriate person; The survey may not have been perceived as a formal research project; A limited understanding of some terminology in some of the questions and some problems with translating the questionnaire into different languages – (translation was thus abandoned).

The questionnaire is available to download on the HENRE website [[www.henre.co.uk](http://www.henre.co.uk)] and is also available for completion on-line at the TUNING website [[www.relint.deusto.es/login.asp](http://www.relint.deusto.es/login.asp)]. All new data is to be gathered via online completion from this site only. Registration and login to this questionnaire is via the HENRE administration at [henre@ucsm.ac.uk](mailto:henre@ucsm.ac.uk).

### **AGM Tuning Workshops**

Tuning Workshops were held at the 3<sup>rd</sup> annual meeting whereby four ‘Tuning’ themes were explored by all delegates in each of the workshop groups. Feedback was given in the plenary session following the workshops.

#### *4 Tuning themes:*

Academic Learning and Teaching Terminology  
 Generic Competences  
 Subject Specific Competences  
 European Credit Transfer and Accumulation System (ECTS)

#### **Academic Learning and Teaching Terminology**

Workshop participants were asked to provide a common definition or understanding of words related to teaching and learning. The intension of this exercise was to try to achieve a common language and a shared understanding of the terminology used in higher education. A list of agreed terminology can be found in appendix A.

#### **Generic Competences**

Workshop participants were presented with a questionnaire on generic skills and asked to estimate in their opinion the importance of the skill or competence for work in the profession and the level to which each skill or competence is developed by the degree programmes in radiography offered at their institution. In addition they were asked to rank the top 5 most important competences.

#### **Subject Specific Competences**

Workshop participants were presented with a pilot questionnaire on subject specific skills and asked

to estimate in their opinion the importance of the skill or competence that a first cycle degree holder should be able to demonstrate. The list of competences were adapted from the Academic and Practitioner standards in Diagnostic Radiography compiled by the UK Benchmark Group 2001 for the award of UK honours degree. The importance ratings were analysed by \*Graciano Paulo, Superior School of Health Technology of Coimbra, Portugal.

The rankings for each category of questions is shown below: those ranked 1 were of the highest importance and those ranked 8 were considered least important.

Ranked	Category of questions
1	Psychomotor Skills
2	Subject Knowledge
3	Professional Behaviours
4	Clinical Outcomes
5	Clinical Reasoning Skills
6	Clinical Skills & Behaviours
7	Transferable Skills
8	Communication, Management Skills

*Other competences identified as important by respondents:*

Ability to understand how mechanisms of injury influence trauma outcomes; Paediatric considerations; Understanding of ethical principles/theories; Demonstrate adequate knowledge of different imaging modalities; Demonstrate an understanding of the role of the procedure in the context of the patients care journey; Recognise and value diversity and promote equality, acting as an advocate for the patient where necessary; Willingness to keep up to date with developments in the profession and to impart new knowledge to colleagues; Willingness to improve practice to benefit patient; Ability to accept discipline and obey hierarchy; Ability to adapt to working under pressure especially in A & E; Demonstrate an understanding of the importance of QA in Radiography; Demonstrate understanding of the physiological principles underpinning diagnostic imaging.

### **European Credit Transfer and Accumulation System (ECTS)**

ECTS are defined as “**The currency to measure student workload in terms of notional learning time required to achieve specified learning outcomes**”.

#### **Activity one:**

The workshop participants were asked to provide for each year of their radiography programme: the actual number of teaching weeks; the number of clinical weeks; the number of independent study weeks and the preparation time for exams/assessments.

Summary of data for **three year** programmes (data provided was approximate only)

Study	Number of study weeks per year					
	Year 1		Year 2		Year 3	
	highest	lowest	highest	lowest	highest	lowest
<b>Teaching weeks</b>	32	2	30	12	25	6
<b>Clinical study weeks</b>	16	0	20	3	25	8

Summary of data for **four year** programmes (data provided was approximate only)

Study	Number of study weeks per year							
	Year 1		Year 2		Year 3		Year 4	
	highest	lowest	highest	lowest	highest	lowest	highest	lowest
<b>Teaching weeks</b>	32	15	30	15	26	1	24	4
<b>Clinical study weeks</b>	20	0	15	8	40	10	26	4

Numbers of weeks indicated for independent study time was considered too unreliable as the numbers given may or may not include examination weeks and or dissertation time.

### Tuning across the Sub-groups

The implications of Tuning have been considered at all sub-group meetings. It has been recognised that it is essential for all subgroups to collaborate and share knowledge and experience with regard to addressing the Tuning action lines and where appropriate the principles of Tuning were adhered to in developing strategies and action plans for ongoing subgroup work. Carmel Caruana, from the University of Malta, singled out major imaging physics (including radiation protection) components in his report on 'Radiography Subject Specific Competences'. This Competence report and the Competence Evaluation Questionnaire are to be found on the Tuning page of the HENRE website.

The importance of Tuning with regard to approaches to teaching and learning, Assessment and Performance and Quality cannot be over-emphasised and has led subgroup 2 to attempt to familiarise themselves with the use of learning outcomes and competences and to look for areas of common understanding. It is understood that only by looking and defining learning outcomes at programme level that standards can be set with regard to the required level of radiographic knowledge, skills and competences. This has required how learning outcomes and competences fit into a framework of qualifications and the exact nature of what a radiographer is and does.

Subgroup 3's involvement with the Tuning methodologies has focussed on a proposed a scheme of work designed to incorporate the principles of Tuning into a Continuing Professional Development (CPD) strategy for radiographers across Europe. This scheme of work will make full use of recommended benchmarks identified in the next phase of HENRE; HENRE 2, for the development of acceptable European style higher degrees.

Tuning has provided a positive way forward for the sharing of experiences and expertise, expertise that will be invaluable for the success of meeting the HENRE 2 goals in the future.

*Summary of useful websites:*

UK Bologna seminar on Learning Outcomes: [www.bologna-bergen2005.no/EN/Bol\\_sem/Seminars](http://www.bologna-bergen2005.no/EN/Bol_sem/Seminars)  
 The Bologna declaration (1999) and Prague Communiqué (2001): <http://www.bologna-bergen2003>  
 UK QAA Benchmark statements for Radiography, 2001: [www.qaa.ac.uk](http://www.qaa.ac.uk)  
 University of Deusto, Bilbao (Spain): [www.relint.deusto.es/TuningProject/index.htm](http://www.relint.deusto.es/TuningProject/index.htm)  
 University of Groningen, (The Netherlands): [www.let.rug.nl/TuningProject/index.htm](http://www.let.rug.nl/TuningProject/index.htm)