

2012.1 EFRS Statement on

## **RADIOGRAPHY EDUCATION IN EUROPE**

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#### INTRODUCTION

"Radiography involves the safe use of ionising and non-ionising radiation to achieve a diagnostic or therapeutic health gain. Radiographers require an ability to interpret and effectively execute information referred from other health care professionals, in order to maximise health gain whilst minimising radiation dose to the patient. The profession of radiography is unique in that all of its practitioners accept individual responsibility for minimising the radiation dose to both individual patients and the genetic inheritance of the public at large" [1].

The radiographer is a healthcare team member who interacts with other professionals in the primary and secondary healthcare environment to provide an optimum diagnostic or therapeutic outcome.

Radiographer education therefore requires that the curriculum covers a wide range of scientific, medical, pathological, sociological, ethical and technical subjects together with the development of appropriate clinical skills. The curriculum should also include the development of research and audit skills to ensure the constant improvement of service quality for the benefit of service users.•

### THE RADIOGRAPHER

It is expected that the radiographer will have professional autonomy and accountability, develop good professional relationships, develop personal and professional skills and demonstrate an ethical and knowledgeable understanding of the profession. It is also expected that the application of radiographic and radio therapeutic practice in securing, maintaining or improving health and well-being; the development of knowledge, understanding and skills that underpin their education and training will contribute to future health and wellbeing of the patient. It is considered vital that professional advancement arises out of evidence-based practice and is informed through focused research.

Radiographers are able to plan, organize, apply and evaluate their work process with the aims of promoting health, preventing disease, making the diagnosis and/or treating diseases. Radiographers practise within an ethical and legal framework. A key part of the radiographer's role is to manage complex interpersonal dynamics, and to act as an advocate for the individual patient. Radiographers are the interface between the patient technology.

Team work is a notable feature of practice in both inter-professional and intra-disciplinary frameworks with individual and autonomous practice being a significant feature of the radiographer [2].•

# THE PRESENT SITUATION OF RADIOGRAPHER EDUCATION IN EUROPE

Across Europe, according to the EFRS 2011 survey, 90% of respondents indicated that in their country a radiographer undertakes education within the Higher Education sector at Bologna 1st cycle bachelor level. Variations in the nature, coverage and length of bachelor programmes across individual European countries see radiography graduates emerging with either separate or combined imaging and radiotherapy competencies [3].

Radiography education in Europe is also seen to still take place in a small number of countries within the Vocational Education and Training (VET) system, often in close collaboration with the hospital sector, with the radiographer emerging with a professional diploma.

Worryingly, there are also a few countries in Europe where individuals carrying out radiography undertake limited or non formal training in imaging or therapy techniques.

The content, level and duration of national education programmes depend very much on the status of the radiography profession in the individual country with national professional/governmental/legislative registration being a requirement for practice in some countries. This system is designed to protect the interests of the service user with the title of radiographer being legally protected in many countries.

The radiography profession is typically governed by national Ministries responsible for Education and for Health. Furthermore, the radiography profession is regulated by the Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications; member states retaining the right to lay down the minimum level of qualification required to ensure the quality of the services provided on their territory.•

#### THE TUNING TEMPLATE FOR RADIOGRAPHY

The original HENRE<sup>1</sup> project, which now forms the educational wing of the EFRS, developed radiography-focussed generic and specific competences at Bachelor level and produced a Tuning<sup>2</sup> template for radiography 1st cycle degrees in Europe [2].

Programmes of radiography education should be cognizant of the importance of equipping radiographers with those subject specific and generic competencies which will provide an optimum service to support local, national and international needs with the health and well being of the patient being paramount.

The radiography Tuning template has been influential in this present document.

### **OUALIFICATIONS FRAMEWORKS**

Qualifications frameworks describe education descriptors agreed under the qualifications of an education system and how they interlink. Unlike certain other countries, development in Europe focuses on comprehensive National Qualifications Frameworks (NQFs), including qualifications awarded in general education, VET, HE and adult learning [4].

NQFs are being developed or have been developed in 28 European countries covering all types and levels of qualifications and increasingly countries see the qualifications framework for higher education (QF-EHEA) as an integrated part of their comprehensive NQFs and have decided to carry out the referencing to the EQF and the self-certification to the QF-EHEA in one go [4].

The EQF is fully compatible with the QF-EHEA. Specifically, the EQF descriptors<sup>3</sup> at levels 5-8 refer to the higher the Bologna process.

The formulation of the EQF level descriptors differs from the Bologna level descriptors because as a lifelong learning framework the EQF also encompasses vocational education and training (VET) and work contexts, including at the highest level.

In order for countries to make comparison of radiography qualifications easier, the EFRS is in the process of developing radiography learning outcomes at EQF level 6. It is expected that national radiographer societies will use these learning outcomes in their negotiations with the appropriate Ministries in order to put forward a case for radiography education at the Higher Education level, where this does not yet exist, and that a pan European standard for radiography education be achieved in the long run.

<sup>&</sup>lt;sup>1</sup> Higher Education Network for Radiography in Europe.

<sup>&</sup>lt;sup>2</sup> Tuning Educational Structures in Europe, an EU funded life long learning programme, developed a methodology to design and deliver degree programmes using a learning outcomes and competence framework approach linked to ECTS credits.

<sup>&</sup>lt;sup>3</sup> Developed specifically for Higher Education needs

#### RECOMMENDATIONS

#### The EFRS Board recommends:

- That all European countries accept that pre registration radiography education courses be at 1st cycle Bologna/bachelor level
- Radiography qualification to be at appropriate NQF level referenced to QF-EHEA level 6 and corresponding to EQF level 6
- Total course duration: 180 ECTS or 210 ECTS or 240 ECTS (1 ECTS = 25-30 study hours).
- Clinical placement to be 25% minimum of course duration
- Qualifications initially obtained as corresponding to EQF level 5/QF-EHEA level 5 should enable through a LLL approach to achieve level 6 in both frameworks
- Those generic and subject specific learning outcomes outlined through the Tuning and EFRS EQF publications be reflected in radiography course documentation alongside national benchmarks should these exist

These recommendations are addressed to organizations in Europe with a vested interest in the development of the radiography profession to ensure the continued development and improvement of the service for the benefit of the patient.

#### REFERENCES

- [1] Challen V (ed) 2008 Radiography Tuning Template: an overview, http://www.unideusto.org/tuningeu/images/stories/Summary\_of\_outcomes\_TN/Overview\_of\_the\_Tuning\_Template\_for\_Radiography\_in\_Europe.pdf
- [2] Cedefop 2012 Development of NQFs in Europe; Working Paper 12 Luxembourg: Publications Office of the EU, http://www.cedefop.europa.eu/EN/Files/6112 en.pdf
- [3] EFRS education survey 2010 and 2012, www.efrs.eu
- [4] Overarching European Qualifications Frameworks, http://www.ond.vlaanderen.be/hogeronderwijs/bologna/qf/overarching.asp