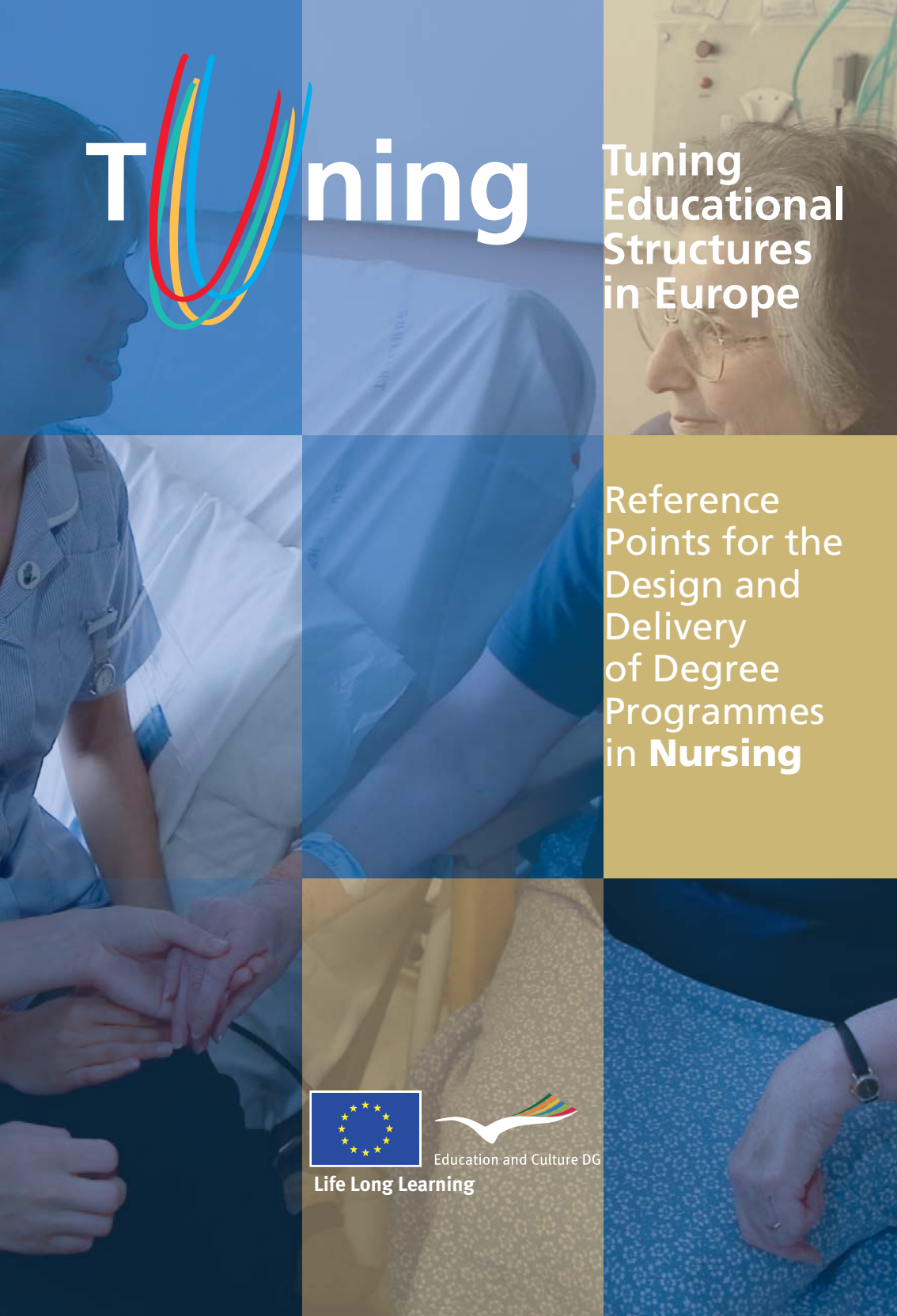

Tuning Educational Structures in Europe

Reference Points for the Design and Delivery of Degree Programmes in **Nursing**

Education and Culture DG
Life Long Learning

Reference Points for the Design and Delivery of Degree Programmes in Nursing

Reference Points for the Design and Delivery of Degree Programmes in Nursing

Tuning Educational Structures in Europe

The name *Tuning* was chosen for the project to reflect the idea that universities do not look for uniformity in 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 undermine local and national academic authority.

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Content

1. Introduction 9

2. List of Nursing Subject Area Group (SAG) Members 13

3. Nursing: Introduction to the Subject Area 17
   - 3.1. Background and context 17
   - 3.2. Typical Degree Profiles and Occupations 24
   - 3.3. Level Descriptors, Learning Outcomes and Competences 31
   - 3.4. Generic Competences 40
   - 3.5. Subject Specific Competences 43

4. Learning, Teaching and Assessment 49
   - 4.1. Quality Enhancement 52

5. Some Reflections on the Post Graduate Cycles 55
   - 5.1. Third Cycle Education 55
   - 5.2. Trends and Concerns 57

6. Other Useful Links and Information About Our Key Stakeholders 61

7. Update March 2011 65

Appendix 1a. Tuning Validation Conference on Health Care 67

Appendix 1b. Tuning Educational Structures in Europe 71

Appendix 2. 2008-Subject specific competences version 2 as stated for survey purposes 73

Appendix 3. Subject Specific Competences America Latina 77

Appendix 4. To the Ministerial Order on the Bachelor of Science in Nursing Programme, January 2008 79

1. Introduction

Tuning Educational Structures in Europe is a university driven project which aims to offer a universal approach to implement the **Bologna Process** at the level of higher education institutions and subject areas. The Tuning approach consists of a methodology to (re-) design, develop, implement and evaluate study programmes for each of the Bologna cycles.

Furthermore, Tuning serves as a platform for developing reference points at subject area level. These are relevant for making programmes of studies comparable, compatible and transparent. Reference points are expressed in terms of learning outcomes and competences. Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of a learning experience. According to Tuning, learning outcomes are expressed in terms of the level of competence to be obtained by the learner. Competences represent a dynamic combination of cognitive and meta-cognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, and ethical values. Fostering these competences is the object of all educational programmes. Competences are developed in all course units and assessed at different stages of a programme. Some competences are subject-area related (specific to a field of study), others are generic (common to any degree course). It is normally the case that competence development proceeds in an integrated and cyclical manner throughout a programme. To make levels of learning comparable, the subject area groups/Thematic Networks have developed cycle (level) descriptors which are also expressed in terms of competences.

According to Tuning, the introduction of a three cycle system implies a change from a staff centred approach to a student oriented approach. It is the student that has to be prepared as well as possible for his or her future role in society. Therefore, Tuning has organized a Europe-wide consultation process including employers, graduates and academic staff / faculty to identify the most important competences that should be formed or developed in a degree programme. The outcome of this consultation process is reflected in the set of reference points – generic and subject specific competences – identified by each subject area.

Besides addressing the implementation of a three cycle system, Tuning has given attention to the Europe-wide use of the student workload based European Credit Transfer and Accumulation System (ECTS). Ac-

cording to Tuning, ECTS is not only a system for facilitating the mobility of students across Europe through credit accumulation and transfer; ECTS credits can also facilitate programme design and development, particularly with respect to coordinating and rationalising the demands made on students by concurrent course units. In other words, ECTS permits us to plan how best to use students' time to achieve the aims of the educational process, rather than considering teachers' time as a constraint and students' time as basically limitless. According to the Tuning approach, credits can only be awarded when the learning outcomes have been met.

The use of the learning outcomes and competences approach might also imply changes regarding the teaching, learning and assessment methods which are used in a programme. Tuning has identified approaches and best practices to form specific generic and subject specific competences.

Finally, Tuning has drawn attention to the role of quality in the process of (re-)designing, developing and implementing study programmes. It has developed an approach for quality enhancement which involves all elements of the learning chain. It has also developed a number of tools and has identified examples of good practice which can help institutions to boost the quality of their study programmes.

Launched in 2000 and strongly supported, financially and morally, by the European Commission, the Tuning Project now includes the vast majority of the Bologna signatory countries.

The work of Tuning is fully recognized by all the countries and major players involved in the Bologna Process. At the Berlin Bologna follow-up conference which took place in September 2003, degree programmes were identified as having a central role in the process. The conceptual framework on which the Berlin Communiqué is based is completely coherent with the Tuning approach. This is made evident by the language used, where the Ministers indicate that degrees should be described in terms of workload, level, learning outcomes, competences and profile.

As a sequel to the Berlin conference, the Bologna follow-up group has taken the initiative of developing an overarching Framework for Qualifications of the European Higher Education Area (EQF for HE) which, in concept and language, is in full agreement with the Tuning approach.

This framework has been adopted at the Bergen Bologna follow-up conference of May 2005. The EQF for Higher Education has made use of the outcomes both of the Joint Quality Initiative (JQI) and of Tuning. The JQI, an informal group of higher education experts, produced a set of criteria to distinguish between the different cycles in a broad and general manner. These criteria are commonly known as the "Dublin descriptors". From the beginning, the JQI and the Tuning Project have been considered complementary. The JQI focuses on the comparability of cycles in general terms, whereas Tuning seeks to describe cycle degree programmes at the level of subject areas. An important aim of all three initiatives (EQF, JQI and Tuning) is to make European higher education more transparent. In this respect, the EQF is a major step forward because it gives guidance for the construction of national qualification frameworks based on learning outcomes and competences as well as on credits. We may also observe that there is a parallel between the EQF and Tuning with regard to the importance of initiating and maintaining a dialogue between higher education and society and the value of consultation -- in the case of the EQF with respect to higher education in general; in that of Tuning with respect to degree profiles.

In the summer of 2006 the European Commission launched a European Qualification Framework for Life Long Learning. Its objective is to encompass all types of learning in one overall framework. Although the concepts on which the EQF for Higher Education and the EQF for LLL are based differ, both are fully coherent with the Tuning approach. Like the other two, the LLL variant is based on the development of level of competences. From the Tuning perspective both initiatives have their value and their roles to play in the further development of a consistent European Education Area.

This brochure reflects the outcomes of the work done by the Nursing Subject Area Group (SAG) so far. The outcomes are presented in a template that was developed to facilitate readability and rapid comparison across the subject areas. The summary aims to provide, in a very succinct manner, the basic elements for a quick introduction into the subject area. It shows in synthesis the consensus reached by a subject area group after intense and lively discussions in the group. The more ample documents on which the template is based are also included in the brochure. They give a more detailed overview of the elaborations of the subject area groups /Thematic Networks.

The Tuning Management Committee

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The working group is co-ordinated by Mary Gobbi, who has edited the brochure. The SAG members listed below have all contributed to the construction of this brochure.

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3. Nursing: Introduction to the Subject Area

3.1. Background and context

As discussed in the introduction, one crucial plank of the Tuning project is the identification of points of reference for generic and subject specific competences of first, second and now third cycle graduates in their respective disciplines. Nursing joined the Tuning project in 2003 as the first 'harmonised' healthcare regulated discipline to apply the methodology. In this booklet, we present key material from the Tuning documents produced by the Nursing Subject Area Group (SAG). Given the emerging nature of the discipline both academically and professionally, the work of the SAG must be viewed as a work in progress. The competences and ideas debated within the project need to be tested within national contexts with the respective stakeholders. Further results will be available in the future on the Tuning website. For now, we hope that this brochure will consolidate the current position, outline further work to be undertaken, and emphasise the important issues within the nursing field of practice at the European level.

The Tuning project presents us with a unique opportunity to shape and influence the European context of Nursing within the Higher Education sector. During Autumn 2002, each University, via the Council of Rectors, would have received information about the project. In May 2003, the Nursing group met for the first time in Brussels. The Nursing group then comprised colleagues from Denmark, Finland, Germany, a consortium representative from Flanders, Ireland, The Netherlands, Norway, Spain, the then pre-accession countries, Slovak Republic, Hungary, Malta and Poland (the latter withdrew in 2005). In January 2005, the group was augmented by representatives from the Ukraine. In 2008 colleagues from the Republic of Georgia joined as participating observers.

One important feature of the Tuning Project for Nursing has been the development of competences for general nurses at first cycle (Bachelors or graduate) level with registration/licence to practice associated with what was originally known as the EC Directive 77/452/EEC and is now consolidated within the Directive 2005/36 on the recognition of pro-

fessional qualifications and its subsequent amendments The full text can be found here: http://ec.europa.eu/internal_market/qualifications/future_en.htm

Further discussion of the implications of this Directive is found in section **3.3.** Within the context of Bologna signatory countries and the wider European Space, not all countries are regulated by this EC Directive.

The Tuning group sought to address the academic and professional domain of the general nurse, rather than other forms of nursing like children's, mental health and elderly care. The Nursing group collaborated to develop subject specific competences informed by many subject benchmarks and existing competences across the European Area. We were mindful of World Health Organisation and International Council of Nurses material. In 2004, the generic and draft subject specific competences were the subject of consultation via a questionnaire on the website of the Tuning project (section 4). Feedback from key stakeholders is included within the brochure and their contribution at national and European level has been invaluable. During this period, the European Group benefited from dialogue with their counterparts in Tuning America Latina. Following the 2007 validation exercise recommendations that are outlined in Appendix 1, some minor amendments were made to the competences and both the generic and subject specific competences were subject to a wider survey and consultation process in 2008. As we were keenly aware, achieving common professional competences across the enlarged EU/EEA as well as the Bologna Signatory countries is not only an important goal of the project, but is crucial to achieving (and sometimes raising) equivalent standards of nursing care while enabling practitioner mobility and promoting patient safety. Internationally, many countries have achieved - or are aspiring to attain - first cycle equivalence, frequently referred to as 'graduate' status for nursing at registration[1] level. Indeed, amongst many others, the World Health Organisation, the International Council of Nurses and the Global Alliance of Nurse Education and Scholarship all argue for a graduate profession at registrant level.

1 For the purposes of this paper, the term 'registration' is used to denote the nurse who is deemed to have achieved the national qualification which complies with, or is equivalent to, Article 31 of Directive 2005/36/EC. In some countries, the term 'license to practise' may be used. The student nurse in this context is the one undergoing a course of study to achieve this qualification

Nursing was the first healthcare regulated and harmonised (sectoral) applied practical discipline included in the Tuning project. It is a profession known by the action verb 'nursing' rather than by a traditional neutral noun (Agan, 1987). Nursing is a person - based profession, generally acknowledged to be both an art and science, drawing on knowledge and techniques derived from its own knowledge base, traditions, the established sciences and humanities. Nursing activity varies across Europe in relation to the role of registered nurses in society, the organisation of the health and welfare systems, the legal authority and accountability afforded to nurses and the available national resources of the labour market and economy. The scope of registered nursing practice includes the following spheres of responsibility: giving direct care, supervising others, leading, managing, teaching, undertaking research and developing health policy for health care systems (ICN, 2004). The International Council of Nursing (1998 and 2004) states that the title of 'nurse' should be legally protected and used only by those legally authorised to provide the full scope of nursing. The regulation of nursing (Registered Nurses) which encompasses all the above, ensures standards of education and practice to protect the person/patient. The European Council of Nursing (FEPI) believes that the European Citizen is protected when the above regulation of nursing is in place.

During the last few decades, the nursing profession has developed significantly moving from vocational training to Higher Education models in many countries. However this is not the case everywhere. It is therefore more challenging to 'tune' higher education reference points for nursing when compared to other all graduate disciplines. This is explored further in the Tuning paper on learning, teaching and assessment on the Tuning web site.

The location of higher education registered nursing programmes varies from polytechnics, university colleges, universities or a mixture of the three. Following registration, many countries report limited opportunities for continuing education and specifically post graduate activity. In countries where registration is not accompanied by a higher education qualification, nurses seek academic and/or professional study at first cycle level after registration (e.g. Germany). The development of the profession is such that post graduate/second cycle studies are often undertaken in disciplines other than nursing or through 'foreign' countries until the post graduate centres in nursing are established.

Within the professional /academic literature there is an extensive and established corpus of work concerning both the nature of nursing,

nursing competence, nursing pedagogy, clinical learning and decision making, and the struggles for professionalization within a group that is predominantly female in many countries. Historically, nursing is usually managed from Ministries of Health or Social Welfare rather than Education Ministries. Education Ministries are often involved when Higher Education qualifications are associated with registration. At this point, there is usually a protocol which determines the nature of the collaboration between the two Ministries. The Tuning 2 paper provides some illustrative European definitions of the nature of nursing to guide the non specialist reader; it also provides an overview of contemporary nursing issues (see Tuning website). For the purposes of this template, the registered nurse discussed in these papers is the one defined in the International literature as the first level professional nurse (e.g. the International Labour Organisation, 1977). This registered nurse is someone who has the education and training 'recognised as necessary for assuming highly complex and responsible functions and authorised to perform them'. For the purposes of the Tuning project, the first cycle competences were designed for the contemporary professional, first level registered nurse. At the SAG meeting in Athens 2003, the Tuning group adopted a working definition of the professional first cycle registered nurse, namely,

> This registered nurse is a professional person achieving a competent standard of practice at first cycle level following successful completion of an approved academic and practical course. The registered nurse is a safe, caring, and competent decision maker willing to accept personal and professional accountability for his/her actions and continuous learning. The registered nurse practises within a statutory framework and code of ethics delivering nursing practice (care) that is appropriately based on research, evidence and critical thinking that effectively responds to the needs of individual clients (patients) and diverse populations.

As the Validation Panel pointed out, the emphasis is on the development of a competent graduate who is an independent and autonomous practitioner well equipped to meet the current and future health care needs of society. At a European level, this definition will need further refinement, particularly at the postgraduate levels. Following registration, post graduate senior practitioners need to be equipped with the competences to become leaders of nursing and other health care services, able to contribute to policy and decision making at the highest levels of government. In the interests of public safety and student centred learning, we consider it necessary to facilitate a competence based frame-

work of education that enables greater flexibility in an interprofessional and trans-professional health and social care environment. Furthermore, the knowledge, skills and ethical awareness required by 21st Century nurses is more extensive in an era of gene and stem cell therapy, technology, complex health and social care needs, community based care, rising consumer expectations and increased mobility of populations. However the practical nature and employment demands of the discipline require distinct and different level descriptors for nursing practice. This has been one of the 'Holy Grail' pursuits of nursing education and practice during the past twenty years!

Consultation with Stakeholders

Associated with the original European Nursing Directive, an Advisory Committee on Training in Nursing (ACTN) was initiated. With the adoption of Directive 2005/36/EC (codifying (except for the lawyers' directive) all existing directives related to the recognition of professional qualifications came into one directive), the Advisory Committee on training in Nursing has been replaced by a more general Committee that still can set up working groups to discuss specific issues such as training for nurses.

When the SAG commenced activity in 2003, there were few common platforms to address the Nursing related Directives and to engage stakeholders. This was considered an ambitious but necessary undertaking if the Tuning work was to have practical outcomes. The European Federation of Nurses Associations (www.efnweb.eu) meet as a mutual space for National Nurses Associations and have several position statements on the Directive on the Recognition of Professional Qualifications, the Bologna Process and Continuous Professional Development. Pan European Activity emerged during this period with for example in April 2004, the Chief Nursing Officers convening under the Irish Presidency and the launch of a network of European Nurse Regulators (www.fepi.org). Other key actors are outlined in Section 6.

Stakeholder dialogue is crucial for patient safety and professional development. The Tuning members appropriately consulted within their own countries according to the national cultural and political traditions and communicated regularly with other non Tuning groups. Stakeholders who were invited to respond to the surveys, consultation and validation process included:

— Other Higher Education institutions in countries not represented by the Tuning membership.

— Chief Nursing Officers – or their equivalent- of the Member states, and through them the relevant Health Ministries and employers

— The competent authorities

— The professional associations and trade unions significantly representing nurses

— Student associations

— Service users where possible

— Other nursing networks (e.g. TENN)

Since 2006 in particular, the Tuning group particularly welcomed the collaborative support given by the European Federation of Nurses Associations, the European Council of Nursing Regulators, the European Federation of Nurse Educators, the European Nurse Directors Association and the International Council of Nurses. It is important not to underestimate the important contributions made by these key stakeholders. During 2008, the Tuning group was also supported by new collaborators who distributed the second Tuning survey within their countries and networks (see Appendix 6).

Directive 2005/36/EC

Within the European Union, educational programmes designed to enable general nurses to practice in the discipline with mutual recognition were previously subject to two European Directives relating to the qualifications of 'nurses responsible for general care'. These were Sectoral Directives 77/452/EEC and 77/453/EEC of 27 June 1977 and Directive 89/595/EEC of 10 October 1989 summarised in conselg 1977L0453 dated 31/7/2001. Other specialties in nursing were not subject to the specific, Sectoral Directives but were covered by the General Systems Directive (89/48/EEC of 21 Dec. 1988). These directives were superseded by Directive 2005/36/EC on the Recognition of Professional Qualifications which came into force on 20 October 2007.

There are some important terms associated with Directive 2005/36/EC which are outlined here for the purposes of clarity. Regulated profes-

sions are categorised into two categories, those professions for which the minimum training requirements have been harmonised at EU level and can therefore benefit from an automatic recognition (formerly Sectoral), and then, those professions for which there has not been a harmonisation of minimum training requirements at EU level and which benefit from (non-automatic) recognition under the general system (formerly General). For the sectoral professions like nurses responsible for general care, the national competent authorities must ensure that the minimum training requirements are met as well as ensuring that the national titles listed in the relevant annex comply with these minimum training requirements. Providing the appropriate conditions are fulfilled, then the professionals enjoy automatic recognition when they move to another EU, EEA country or Switzerland to practise. In contrast, the professional qualifications for which the minimum requirements have not been harmonised at EU level are viewed on a case by case basis by the competent authority against the national training requirements of the host EU country. At present the Directive minimum training requirements for the general nurse do not contain a list of competences, but they do contain a list of simple knowledge and skills (Article 31: 6). Rather they reflect their developmental origins in the early to mid 1970s in that they comprise a list of syllabus content and prescribed hours for clinical and theoretical instruction (for example theoretical and technical instruction in nursing, basic sciences and the social sciences; and clinical instruction in general and specialist medicine, general and specialist surgery, child care and paediatrics, maternity care, mental health and psychiatry, care of the old and geriatrics and home nursing). Some of the core content for contemporary nursing practice does not appear in the current prescribed content. However, changes to the subjects listed under Annex V, 5.2.1 can be modified by comitology procedure[2].

The Articles referring to general nursing do not specify the standard of academic or professional attainment, only years of education prior to admission**.** It is essentially an input-led education/training model rather than a student led or competence focussed educational model of regulation. Inevitably with the passage of time, while the Directive for the general nurse has contributed to a minimum standard of programme content and length, there has been a wide diversity in nursing courses both academically and professionally across the newly enlarged European Union and the wider European Area.

2 'Comitology' is the procedure through which the European Commission can be assisted by a committee in its work to implement legislation

The SAG group therefore faced the particular challenge of establishing common outcome competences for first and second cycle nursing programmes across a Pan European context where registration as a first level nurse is not uniformly associated with a required higher education academic level outcome with demonstrable practical competences. Mobility is also a challenge with respect to the scope of practice of the nurse and the challenges of measuring nursing competence. Cowan et al (2008) developed a psychometric self assessment tool for general nurses, however this tool only specifies the extent to which a nurse undertakes certain nursing activities rather than addressing the scope, independence and degree of autonomy with which the registered nurse actually performs these functions. These factors are crucial to safe mobility.

We consider that the ECTS combined with the Tuning methodology, may be the vehicle through which some of these challenges and anomalies may be addressed. However, we draw particular attention to the fact that the subject area of nursing operates within and between the ECVET (European Credit System for Vocational Education and Training, 2005), ECTS, the EQF for LLL and the Dublin Descriptors. The apparent lack of alignment between these systems is problematic for nurses, particularly when they may seek recognition of prior learning using ECVET or ECTS credits. Interestingly, in the ECVET technical specification, it is the 'competent body responsible for the qualification or its implementation' which 'allocates the ECVET credit points to each unit according to the relative volume, weight and level of knowledge, skills and competences to be acquired'. It is unclear therefore whether the ECVTS credits with respect to those programmes that meet the requirements of the EU Directive, are the responsibility of the vocational training institution (e.g. a hospital training school) or the national competent authority. Likewise, because the scope of nursing practice with respect to their degree of autonomy and authority varies from country to country, irrespective of their academic qualification, it is sometimes difficult to categorise an individual's achievements according to the descriptors or criteria of these two different Qualification or Credit Frameworks.

3.2. Typical Degree Profiles and Occupations

The representation of nursing within the Tuning project reflects the various stages of development and socio cultural influences of contemporary

European nursing. For example, the minimum academic level specified by the relevant competent authority -reveals first cycle programmes with registration (Denmark, Ireland, Spain, Wales, Scotland); a programme equivalent to two thirds of a first cycle programme that is now moving to a traditional first cycle (England), and fifty per cent (Malta[3]); countries that have made the transition from minimal higher education association to first cycle (Slovak Republic, Ukraine) and situations where nurses acquire their professional training at secondary school level with no higher education qualifications with registration (Germany[4]). In some countries, academic nursing is embryonic and often under the control of medical, science or humanities Faculties.

It is acknowledged that the qualifications at First, Second or Third cycle levels may be in Nursing Practice, Nursing Studies, Nursing Science or Humanities according to local custom. This is usually related to where the nursing department is situated in the higher education institution. For the purposes of clarity, the use of the term 'nursing' alone is reserved here for programmes where there are practice based competences as a requirement of the programme award. To distinguish this type of degree from others, the term nursing science will be used interchangeably with the term nursing studies. The use of the word 'science' is not meant to convey a commitment to a positivist model for nursing; rather this reflects common usage of this term in many parts of Europe. It is important to acknowledge that nursing is a practice based profession at all levels of its education. In programmes where practice competences are a requirement of the award, then the clinical learning experience and supervision is crucial to the student's development. This applies equally to first, second or third cycle studies.

First, second and third cycle degrees in nursing often comprise two main types, those that are associated with professional registration or the further development of practice based competences and those that are not. Students entering the profession who undertake first cycle degrees do so in the associated Faculty and predominantly study nursing itself. In many countries there is a range of provision, and in some cases paucity of opportunities, for nurse education, particularly with respect

3 Malta currently awards registration after achievement of a 4 year Diploma or a first cycle degree.

4 There are now six first cycle programmes leading to either a BSc or BA degree and professional qualifications at the University of Halle and the Universities of applies sciences in Berlin (EFB), Fulda, Hamburg, Mainz and Neubrandenburg.

to lifelong learning. Many countries are not familiar with mechanisms for the accreditation and recognition of prior learning and experience in nursing theory and practice. Broadly speaking academic qualifications at first or second cycle for registered nurses fall into five categories representing the typical current career routes of nurses:

— Leadership, management and administration of health services

— Clinical nursing specialities (including public health nursing)

— Nursing Science and research

— Research methods in health.

— Nurse education and pedagogy

Some of these courses are also assessed in clinical practice and in the United Kingdom the nurse regulators have different parts of the register, including for example Specialist Community Public Health Nursing and they record some additional qualifications like those of nurse and midwife prescribers.

These qualifications are now at post graduate second cycle level. These specialist qualifications do not benefit from automatic recognition. However, with the entry into force of Directive 2005/36/EC on the recognition of professional qualifications, these qualifications are recognised under the general system of recognition. The acknowledgement of reference points and first cycle competences that incorporate both academic and professional practice could facilitate recognition processes and thus increase mobility while ensuring patient safety.

In addition, registered nurses undertake a range of interprofessional/multidisciplinary courses with their health, social care and education colleagues, for example in health education, community studies, rehabilitation, nutrition, public health, counselling, asthma and elderly care. In some countries, specialisation occurs as vocational training rather than university/higher education. In contrast, others are now developing 'consultant nurses[5]' at professional and /or doctoral (third cycle level). An eight hundred page report[6] was produced by the European Commission

5 Consultant nurses are prepared at a minimum of second cycle level and have demonstrated advanced competences in expert clinical practice, leadership, research and education.

6 (http://europa.eu.int/comm/internal_market/en/qualifications/nursesintro.htm)

in 2000 analysing Specialist Nurses in Europe (XV/98/09/E). The main obstacles to mobility were identified and particular reference was made to 'the direct entry of nurses with a limited sphere of training'.

There are two types of doctoral studies in nursing. The first is the traditional empirical/theoretical based doctorate. The second is the 'professional or clinical' doctorate. The latter is emerging in nursing as nurses have more academic and professional opportunities to become more specialist and can lead and advance practice managing a user case load as an independent and autonomous practitioner (see Section 5). With respect to employment after 3rd cycle education, it was noticed that most of the graduates are employed by academic faculties, either as educators, researchers or in joint appointments, e.g. 75% teaching combined with 25% research. They also work in nursing colleges or polytechnics as senior educators in vocational or professional education. Another opportunity is employment as a researcher in a research institute. Health services and the Hospital sectors also employ 3rd cycle graduates in nursing / nursing science in nursing or hospital management, or as consultant nurses or leaders. Those with a clinical doctorate might work as clinical specialists, nurse consultants or as clinical researchers in the area of their expertise. Third cycle graduates have also found work opportunities as policy makers or high ranking civil servants in the health or social care field.

Tables 1 and 2 outline the typical degree profiles at first and second cycle.

Table 1
First cycle profiles and occupations

	First cycle with registration for non nurses	First cycle for registered nurses with enhanced practical competences (nursing practice)	First cycle for registered nurses without practical competences
Typical name of degree	According to Faculty tradition, BSc, BA, or BN in Nursing, Nursing Studies or Science	According to Faculty tradition, BSc, BA, or BN in Nursing or Clinical Practice	According to Faculty tradition, BSc, BA, or BN in Nursing Studies Nursing Science Nursing and Health Management (as first degree after the professional degree in Germany)

	First cycle with registration for non nurses	First cycle for registered nurses with enhanced practical competences (nursing practice)	First cycle for registered nurses without practical competences
Profile of studies	Where appropriate, will ensure requirements for EC Directive have been met- 3 years or 4600 hours. Specified content of theoretical and clinical instruction. Requirements for registration by competent authority will have been met. Academic standards will meet national frameworks. Some countries have national standards/ competences for nursing theory and practice. May have interprofessional or multidisciplinary components	Study programme for registered nurses to gain a first cycle degree. Usually in one or more of the following areas: Leadership, management and administration of health services Clinical nursing specialities and public health General nursing studies Research methods in health. Nurse education and pedagogy May have interprofessional or multidisciplinary components In addition a strong focus on increasing practice based competences.	Study programme for registered nurses to gain a first cycle degree. Usually in one or more of the following areas: Leadership, management and administration of health services Clinical nursing specialities and public health General nursing studies Research methods in health. Nurse education and pedagogy May have interprofessional or multidisciplinary components
Assessment of practical competences	yes	yes	no
Most relevant competences- subject specific	All relevant but less emphasis on leadership, management and administration of health services and research skills. National focus according to the health and education systems and health needs of population.	Focus on clinical competences and related humanities and science basis. Research skills in health and nursing practice Management skills	Emphasis according to the main speciality of the degree. Research skills in health and nursing.

	First cycle with registration for non nurses	First cycle for registered nurses with enhanced practical competences (nursing practice)	First cycle for registered nurses without practical competences
Most relevant competences- generic	Application of knowledge to practice. Ethical Commitment.	Application of knowledge to practice. Ethical Commitment.	Application of knowledge to practice. Ethical Commitment.
Occupational destinations	Registered nurse according to country tradition in governmental, voluntary and private sectors. Access to other occupations in health and social care. Access to other person centred occupations/ professions	Registered nurse according to country tradition in governmental, voluntary and private sectors. Access to other occupations in health and social care. Access to other person centred occupations/ professions	Registered nurse according to country tradition in governmental, voluntary and private sectors. Access to other occupations in health and social care. Access to other person centred occupations/ professions

Table 2
Second cycle profiles and occupations

	Second cycle with enhanced clinical/practice competences for nurses	Second cycle for registered nurses according to area of focus
Typical name of degree	According to Faculty tradition, MSc, MA, or MN in Nursing or Clinical Practice.	According to Faculty tradition, MSc, MA, or MN in Nursing, Nursing Studies or Science or topic areas named below.
Profile of studies	Study programme for registered nurses to gain a second cycle degree. Usually in one or more of the following areas: Leadership, management and administration of health services. Clinical nursing specialities/ public health. General nursing studies. Research methods in health. Nurse education and pedagogy.	Study programme for registered nurses to gain a second cycle degree. Usually in one or more of the following areas: Leadership, management and administration of health services. Clinical nursing specialities/ public health. General nursing studies. Research methods in health. Nurse education and pedagogy.

	Second cycle with enhanced clinical/practice competences for nurses	Second cycle for registered nurses according to area of focus
Profile of studies	May have interprofessional or multidisciplinary components. Academic standards will meet national frameworks. Some countries have national standards/ competences for nursing theory and practice. More specialist knowledge related to nursing practice. In addition a strong focus on increasing practice based competences.	May have interprofessional or multidisciplinary components. Academic standards will meet national frameworks.
Assessment of practical competences	yes	No, although this will depend upon the speciality and subsequent occupation.
Most relevant competences- subject specific	Focus on clinical competences and related humanities and science basis. Research skills in health and nursing practice. National focus according health and education systems and health needs of population.	Emphasis according to the main focus/speciality of the degree outlined above. Research skills in health and nursing.
Most relevant competences- generic	Emphasis according to the main focus/ speciality of the degree outlined above. Analysis, problem solving, Research or evidence based skills. Self reflection. Ethics, Leadership and Team Working.	
Typical occupational destinations	Clinical speciality focus- nurse specialist, clinical nursing leadership, nurse teacher or lecturer of nurses.	Leadership/management or administration focus- Nurse or health services manager. Education focus- Teacher or lecturer of nurses. Research methods- Research career in nursing. Academic career or based in health services for research or audit.

Role of the subject area in other degree programmes

Given the regulated nature of the academic and professional programmes associated with nursing, the subject area itself rarely contributes to other degree programmes. This is not to say that there may

not be shared learning and teaching with other health /social care disciplines and professions. For example, there may be joint programmes to develop individuals as registered nurses and social workers. Similarly, registered nurses may undertake modules/units of their programme with other disciplines, (e.g. pharmacology, ethics, research, sociology, public health, leadership and management or psychology of health), but the 'pure' nursing units are rarely undertaken as part of other degree programmes. Interprofessional learning at first cycle pre-registration level is increasing where competences are held in common with other health/social care students.

3.3. Level Descriptors, Learning Outcomes and Competences

In designing the level descriptors for nursing, we were cognizant of the Dublin descriptors (see www.jointquality.org), the descriptors in the Qualifications Framework for the European Higher Education Area and other (national) frameworks where relevant. The level descriptors were revised following the Validation Panel feedback and remain a work in progress at the second and third cycle due to the evolving state of nursing practice, education and research in the majority of European Countries. They **must** be viewed in the context of the scope of practice of the general nurse within a given country. The competences outlined later should also be expressed in the context of both the level descriptors and the nurse's scope of practice. The format for outlining the level descriptor for the nurse is as follows:

— Summary Competence profile

— Goals of the competences- intellectual, professional and academic and where appropriate the practical competences

— Associated formal requirements: admission requirements, programme length and further education opportunities.

Cycle Level Descriptors

First cycle level descriptors

Competency profile for the qualification with registration

A Bachelor in Nursing / Nursing Science will have achieved specified competences acquired during a development-based study programme located in an academic environment with research affiliation. The programme will include relevant mandatory theoretical and practical components agreed in dialogue with stakeholders and competent authorities.

The graduate should possess basic knowledge of, and insight into, the central disciplines, research processes and methodologies used in the nursing profession. These attributes should qualify the graduate to carry out vocational functions and to act independently within the area targeted by the study programme. The graduate should be equipped to undertake further work/practice based learning and, where appropriate, for further study in a relevant professional area, second or third cycle programme.

Competency goals

A Bachelor in Nursing / Nursing science is able to:

Intellectual competences

- describe, formulate and communicate profession –related issues and options for taking action
- analyse profession-oriented issues theoretically and consider them in practice
- structure own learning

Professional and academic competences

- apply and evaluate different methodologies relevant to nursing
- demonstrate insight into central theories, methodologies and concepts within the nursing profession
- document, analyse and evaluate the various approaches or models of nursing practice
- utilize research and development to develop evidence-based nursing and nursing activities

Practical competences

- demonstrate proficiency in the practical nursing competences/ skills required for the registration or licence (see list of first cycle competences)
- make and justify decisions based on his or her own nursing experience
- show personal integrity and act within the framework of nursing ethics
- demonstrate ability and willingness to function in a multidisciplinary setting
- participate and conduct development work / projects relevant to the nursing profession

Formal aspects

- ***Admittance:*** Should meet University requirements or equivalent (includes aptitude for person based discipline and ethical commitment-'good character')
- ***Programme Length:*** 240 ECTS credits (we recommend that future programmes should include a minimum of 90 credits designated for the practical competence and that the programme length should be at least 240[7]. Please see section 'Student workload and ECTS credits'.
- ***Further education options:*** Second cycle /Master programmes, Professional theoretical and practical programmes. Development as leader/manager, clinical specialist, educator or researcher.

Second cycle level descriptors

Competency profile for the qualification

A Master in Nursing Science/Studies will have achieved competences that have been acquired via a course of nursing studies situated in a research environment context. The graduate is qualified for employment

7 We consider that nursing constitutes a special case (see ECTS users guide, August 2004). The 2009 ECTS guide provides more flexibility.

in the labour market on the basis of his or her academic discipline (nursing science), professional competence (nursing) as well as for further research (doctoral studies). When compared to a first cycle graduate in nursing / nursing science, the second cycle graduate will have developed his or her academic knowledge and independence so as to be able to apply scientific theory and method on an independent basis within both an academic and professional context.

In the case of a candidate studying for a second cycle degree in clinical nursing with associated practice competences, then the person will be able to perform advanced and/or specialist nursing activities as defined by their scope of practice. At the European level, the specific subject clinical/practical competences for the Master in Nursing (Practice) are to be developed as they currently vary from one country to another and reflect institutional options and the scope of practice for the nurse.

Competency goals

In addition to the competences described for the first cycle/Bachelor's degree, a second cycle/Masters in Nursing / Nursing Science graduate is able to:

Intellectual competences

— Communicate complex professional and academic issues in nursing and nursing science to both specialists and lay people in an clear and unambiguous manner

— Formulate and analyse complex scholarly issues in nursing and nursing science independently, systematically and critically in the relevant specialisation

— Continue own competency development and specialisation in a manner that may be largely self-directed or autonomous

Professional and academic

— Evaluate the appropriateness of various methods of analysis and complex issues in nursing and nursing science from an academic and advanced professional nursing perspective

— Demonstrate:

— specialist understanding in extension of the Bachelor degree

— a broader academic perspective for his or her Bachelor degree

— new academic competences in addition to his or her Bachelor degree

— Demonstrate comprehensive understanding of research work in nursing science and therefore be capable of being active in a research context

— Demonstrate practical insight into the implications of research in a practice based profession (research ethics and governance).

Practical competences

— Make and justify decisions reflecting on social and ethical responsibilities as well as nursing and nursing science issues and if necessary carry out analysis that results in an adequate basis for decision- making

— Comprehend development work based on scholarly, theoretical and / or experimental methods in nursing and nursing science

Formal aspects

— ***Admittance requirements:*** Selected first cycle degree programmes with a satisfactory performance or professional equivalent (for professional practice programmes this includes aptitude for person based discipline and ethical commitment and may include specified professional practice experience).

— ***Length:*** 90 or 120 ECTS credits (we recommend that future programmes that focus on advanced/specialist practice should assign designated credits for the practical competence and that the programme length in this case should be at least 120 credits)

— ***Further education options:*** Doctoral programmes or specialist nursing.

Third cycle level descriptors

Competency profile

A doctoral studies graduate in nursing science will have achieved competences that have been acquired through a course of nursing studies

that has been based on empirical work that included original research conducted on an independent basis. Within an international context, the graduate is able to conduct research, development and teaching tasks at academic, health care settings and other organisations where a broad and detailed knowledge of research in nursing science is required. Their research will have been based on an appropriate research method in, or applied to, nursing and thus yields a research effort that equals the international standard for doctoral studies.

A clinically focused doctorate graduate will have conducted empirical work that is work/practice focused and will have gained increased competences in work based functions (see section later). At the European level, the specific subject clinical/practical competences for the Doctorate in Nursing (Practice) are to be developed as they currently vary from one country to another and reflect institutional options and the scope of practice for the nurse.

Competency goals

In addition to the competences described for the second cycle, a third cycle nursing graduate is able to:

Intellectual competences

- Communicate, and defend, a substantive, contemporary and detailed knowledge of a specific area of nursing both orally and in writing
- formulate and structure a long-duration, continuous research project on an independent basis

A 'professional 'doctorate graduate would be able to:

- Communicate, and defend, a substantive, contemporary and detailed knowledge of a specific area of nursing practice both orally and in writing to / with peers, the larger scholarly community and with society in general
- Lead, formulate and structure a long-duration, continuous work based project.
- Achieve designated advanced practice competences related to their work based function

Professional and academic

- Conduct nursing research on an international level and in an international context
- Initiate, formulate, structure, lead and evaluate the appropriateness of nursing science methods for research projects on an independent basis
- demonstrate specialist nursing science understanding of cutting-edge theories and methods in nursing at an international level
- display responsibility in relation to own research (research ethics)

A 'professional' doctorate graduate is able to:

- Conduct nursing projects in their field fully aware of the international application and relevance of the project.
- evaluate the appropriateness of nursing science methods for clinically based projects on an independent basis
- demonstrate and promote specialist nursing knowledge and practice derived from cutting-edge theories and methods in nursing. This knowledge should be adapted for the social and cultural context of practice.
- display ethical responsibility in relation to own research /work based practice (research and practical ethics)

Practical competences

- plan and maintain academic and professional responsibility for complex tasks based on scientific nursing theories and / or skills and methods of research
- make decisions supported by complex documentation/clinical evidence
- Critically analyse, evaluate and synthesise new and complex information that is relevant for professional/clinical practice, society and policy development
- develop innovative approaches to nursing practice that are patient/client centred

Formal aspects

— ***Admittance requirements:*** Selected second cycle degree programmes with satisfactory performance or professional equivalence. (For professional doctorate and practical competences, this includes aptitude for person based discipline and ethical commitment and may include requirements for professional experience).

— ***Length:*** 180 ECTS-240* ECTS credits to include professional competences where this is an option. In some countries the length of the programme has not been specified in terms of credits.

— ***Further education options:*** No degree-conferring further education options. Membership of learned societies and professional associations.

Student Workload and ECTS Credits

The EC Directives although subject to national interpretation by the relevant 'competent authority', comprise a list of syllabus content and prescribed hours for clinical and theoretical instruction. This prescription is that the registration programme must be of at least 3 years or 4600 hours. ECTS credits, combined with the Tuning methodology, would be a good vehicle through which some of the historical anomalies may be addressed. The practical nature and employment demands of the discipline require distinct and different level descriptors for practice to ensure the provision of patient safety and to provide benchmarks for practitioners.

The interesting permutations using the programme length outlined in the Directive with respect to ECTS credits are as follows:

— 1 ECTS credit = 25-30 hours of workload. 1 academic year of is 60 ECTS credits. However in many countries, student nurses work more hours than 'typical' university students in other subjects and therefore may need more credits assigned to their programme. For example in some countries, nursing students work 45 weeks per year, where their non-nursing peers would have an academic year of only 30-35 weeks.

— 4600 hours registration programme may range from 184 credits to 153 /4 credits according to the application of ECTS credit hours of workload.

— 3 years full time academic study is 180 ECTS credits; this implies a programme of 4500 – 5400 hours based on 60 ECTS credits per annum.

— If 50% of the registration programme should be assigned to clinical learning, then the ECTS credit values should be at least 90 ECTS credits for clinical practice learning or 50% of the credits if the programme has more than 180 ECTS credits.

Mindful of these permutations and the implications for the development of practical competence, our stakeholders confirmed how crucial it is that any revised system leading to an academic award with registration should fully acknowledge the role and credits associated with clinical learning experiences. In other words, the credits and learning achievement associated with acquiring the practical competences that are necessary to be a competent nurse must be seen as an integral component of the academic award. As mentioned earlier, this principle should also apply to European reference points for specialist nurses. It would seem sensible therefore that when a nursing programme is designed and validated, there should be an accompanying statement that clearly demonstrates how the credit allocation relates to the theoretical and practical components of the programme, the level and achievement of the necessary competences.

Table
Suggested ECTS credit range recommended by the Validation Panel

	Nursing programmes with registration or practice competences	Nursing Programme that excludes assessment of practice competences
First cycle	240	180
Second cycle	90 minimum 120 suggested	90
Third cycle • 'Professional' doctorate • Traditional doctorate	180 minimum 210-240 suggested Not specified	180 minimum

3.4. Generic Competences

In the first phase of Tuning a broad consultation was undertaken on the importance of 'generic competences' at the first cycle level. This consultation involved employers, students and academics, but not from within the nursing community. A four point scale with 4 being the most important was used with respect to the importance of the competences. When this survey was undertaken with nurse educators, the most distinguishing, but not surprising, feature was the marked first preference for the capacity to apply knowledge to practice as being the most important competence (figure 1). The remaining competences were clustered in six groups with interchangeable ranking within the group. The second group comprised ethical commitment and the skills of analysis, synthesis, problem solving and interpersonal skills. The third group predominantly comprised skills relating to the capacities to learn, reflect, adapt and make decisions in an interdisciplinary context. The least important competence was knowledge of a second language, while skills associated with leadership, management; research and enterprise were found in the fifth and sixth groups. Not withstanding these differences, the lowest score ranking was 2.9 (1-4) for three competences, while the rest were over 3, that is to say the majority of the competences were rated as being at least 'considerably' important.

Figures **1** and **2** graphically display the ranking of the competences when respondents chose the top 5 competences and ordered them from 1st to 5th. The higher the score the higher the importance of the item, so competences in the graph have been ordered from least to most important (top to bottom).

The Tuning generic competences were then modified in the light of feedback and the survey was repeated in 2008, this time involving the nursing stakeholders. The nursing responses once again demonstrated the importance of the generic competences concerning the ability to apply theory to practice and ethical commitment, with mean scores outlined in Figure 2.

With respect to the **second cycle**, each competence gained in importance from the first cycle. In 2004 the most marked differences were in the fifth and sixth groupings, namely leadership, management, research where they have an increased importance at second cycle. Once again, these are not surprising findings and reflect the natural career progression of a registered nurse.

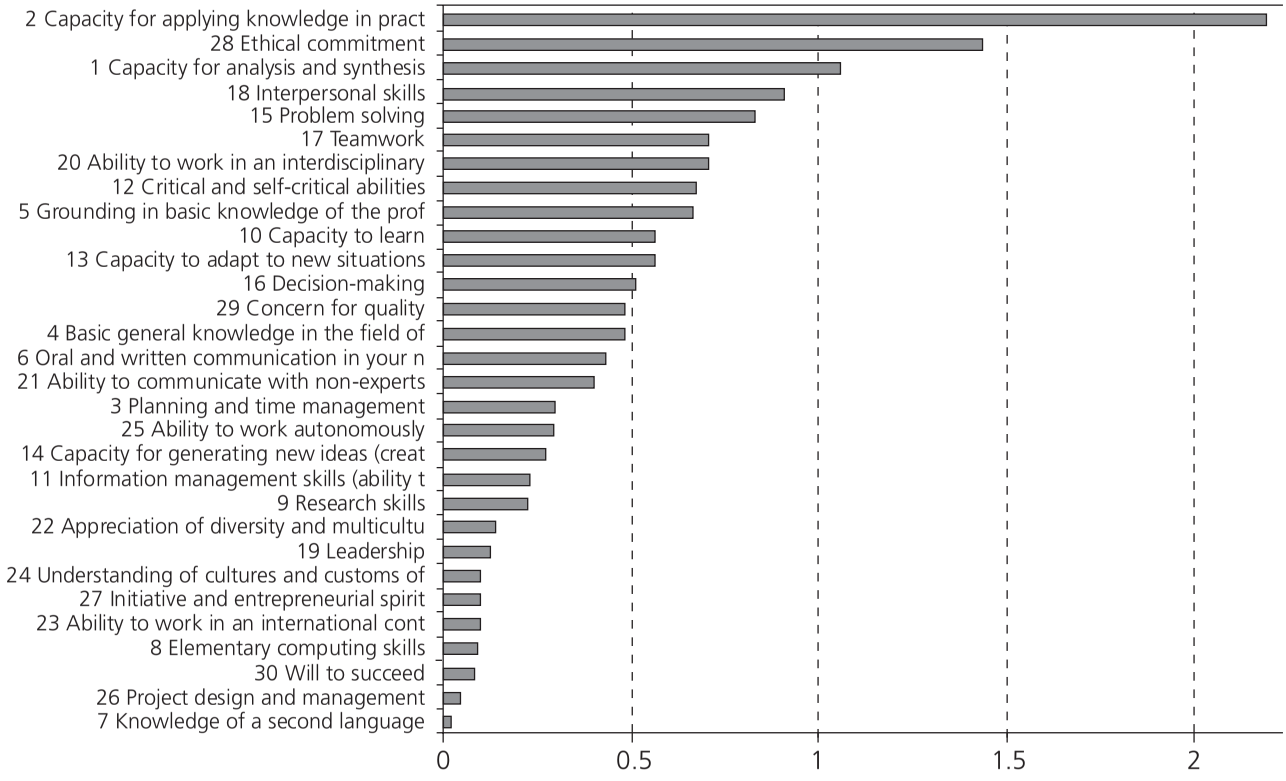

Figure 1
Ranking of generic competences 2004

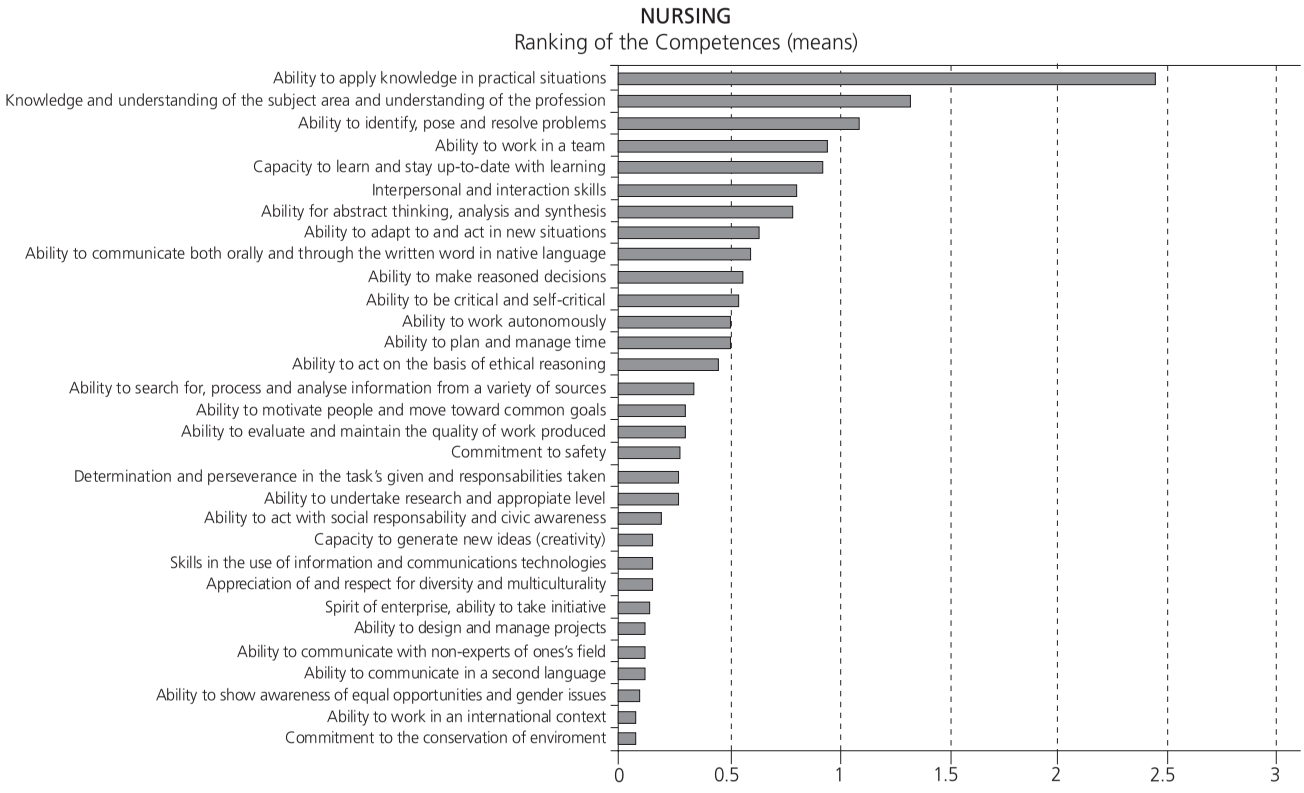

Figure 2
Ranking of generic competences 2008

3.5. Subject Specific Competences

Following the 2004 survey with nurse educators, it was found that there appeared to be consensus and agreement concerning the subject specific competences. A four point scale with 4 being the most important was adopted. At **first cycle** level no mean score was below 2.6 (minimum range at 2.3), with 33 being ranked 3 or over. Those rated below 3 were competences associated with policy, leadership, evaluation, fiscal matters, research, supervision and the assessment of risk. These are all competences that one would **not** expect a student to be experiencing with a significant degree of autonomy. Indeed, ethically and professionally it would not be appropriate for them to do so. Following feedback received after the survey, an additional competence has been added to address the specific research skills required for the modern registered nurse. Similar patterns occurred in the 2008 survey, with the only mean scores below 3 being those related to use of technology, life sciences and policies. Nonetheless, given that the 2008 survey included more countries and stakeholders, there was not one mean scores amongst students, employers, academics, graduates and other stakeholders that was less than 2.6.

At second cycle level in 2004, the mean responses were all within the range of 3.5 or above indicating that each competence was considered very important for professional practice and its study. While the highest ranking competence at 3.9 demonstrated the importance of self reflection, accountability and continuous learning (no 6), the top 8 scores were associated with the professional role of the nurse, leadership and management and problem solving. Differences between first and second cycle reflect the career progression of nurses and the nature of professional practice and its study. In some areas an acquired competence would be expected to be sustained (e.g. health and safety, medications), in others its importance would gain significance (leadership, management, research, communication) and in others the development would be incremental (nursing practice, decision making, knowledge).

Given the tendency for agreement within these results, there would appear to be a degree of consensus as to the appropriate competences at first, second and third cycle for nursing degrees. Country differences did not appear significant, tending to reflect cultural differences and the developmental stage of nursing within that country (for example knowledge of a second language and the ordering of research skills).

Subject specific competences

The following subject specific competences are those expected of the first cycle graduate nurse at the point of registration. The competences are listed under the five domains of:

— Professional values and the role of the nurse

— Nursing practice and clinical decision making

— Knowledge and cognition

— Communication and interpersonal skills (including technology for communication)

— Leadership, management and team working.

Competences associated with the professional values and the role of the nurse

1) Practices within the context of professional, ethical, regulatory and legal codes, recognising and responding to moral/ethical dilemmas and issues in day to day practice.
2) Practices in a holistic, tolerant, non judgmental, caring and sensitive manner, ensuring that the rights, beliefs and wishes of different individuals and groups are not compromised.
3) Educates, facilitates, supports, promotes and encourages the health, well-being and comfort of populations, communities, groups and individuals whose lives are affected by ill health, distress, disease, disability or death
4) Within the scope of his/her professional practice and accountability, is aware of the different roles, responsibilities and functions of a nurse, and is able to adjust their role to respond effectively to population/patient needs. Where necessary and appropriate is able to challenge current systems to meet population/patient needs
5) Accepts responsibility for his/her own professional development and learning, using evaluation as a way to reflect and improve upon on his/her performance and to enhance the quality of service delivery.
6) Is able to justify and articulate the relevant theoretical and research underpinnings to their professional practice.

Competences associated with nursing practice and clinical decision making

7) Undertakes comprehensive and systematic assessments using the tools/frameworks appropriate to the patient/client taking into account relevant physical, social, cultural, psychological, spiritual and environment factors

8) Is able to undertake an effective risk assessment and take appropriate actions

9) Is able to recognise and interpret signs of normal and changing health/ill health, distress, or disability in the person (assessment/diagnosis).

10) Responds to patient/client needs by planning, delivering and evaluating appropriate and individualised programmes of care working in partnership with the patient/client, their carers, families and other health/social workers.

11) Is able to critically question, evaluate, interpret and synthesise a range of information and data sources to facilitate patient choice, and to make sound clinical judgments to ensure quality standards are met and practice is evidence based.

12) Is able to use modern technologies to assess and respond appropriately to client need (for example through telenursing, multimedia and web based resources).

13) Is able to appropriately use a range of nursing skills, medical devices, interventions/activities to provide optimum care. For example:

    a) maintains patient/client dignity, privacy and confidentiality;

    b) practises principles of health and safety, including moving and handling, infection control; essential first aid and emergency procedures;

    c) safely administers medicines and other therapies;

    d) considers emotional, physical and personal care, including meeting the need for comfort, nutrition, personal hygiene and enabling the person to maintain the activities necessary for daily life;

e) responds to individuals needs through the life span and health/illness experience e.g. pain, life choices, revalidation, invalidity or when dying;

f) informs, educates and supervises patient/carers and their families.

Knowledge and cognitive competences

14) Has sufficient current and relevant knowledge of the following and can appropriately apply this knowledge to nursing practice, patient care and situations of uncertainty:

a) Theories of nursing and nursing practice

b) Theories and views concerning the nature and challenges of Professional practice

c) Natural and life sciences

d) Social, health and behavioural sciences

e) Ethics, law and humanities

f) Technology and health care informatics

g) International and national policies

h) Problem solving, decision making and managing tension or conflict

i) Theories of personal and professional development

15) To have sufficient knowledge of the Research Process and current nursing research, so as to be able to apply this knowledge to clinical practice and other nursing activities and therefore provide nursing care which is rigorous and evidence based

Communication and interpersonal competences (including technology for communication)

16) Is able to communicate effectively (including the use of new technologies): with patients, families and social groups, including those with communication difficulties.

17) Enables patients and their carers to express their concerns and worries and can respond appropriately e.g. emotional, social, psychological, spiritual or physical.

18) Is able to appropriately represent the patient/client's perspective and act to prevent abuse.

19) Can use a range of communication techniques to promote patient well being. For example the ability to appropriately:

    a) use counselling skills;

    b) identify and manage challenging behaviour;

    c) recognise and manage anxiety, stress and depression;

    d) give emotional support and identify when specialist counselling or other interventions are needed.

20) Identifies opportunities for health promotion and health education activities

21) Is able to accurately report, record, document and refer care using appropriate technologies.

Leadership, management and team competences

22) Realises that patient/client well-being is achieved through the combined resources and collaborative actions of all members of the health/social care team, and is able to lead and co-ordinate a team, delegating care appropriately and meaningfully.

23) Able to work and communicate collaboratively and effectively with other nurses in the best interests of the patient.

24) Able to work and communicate collaboratively and effectively with other members of the interprofessional team in the best interests of the patient.

25) Able to work and communicate collaboratively and effectively with all support staff to prioritise and manage time effectively while quality standards are met.

26) Able to assess risk and actively promote the well-being, security and safety of all people in the working environment (including themselves).

27) Critically uses tools to evaluate and audit care according to relevant quality standards.

28) Within the clinical context, demonstrates the ability to educate, facilitate, supervise and support nursing students and other health/social care students / workers.

29) Is aware of the principles of health/social care funding and uses resources effectively

It is expected that the clinical learning experience respects the Annex of the Directive

Two illustrative examples of countries that have utilised the Tuning methodology or competences are Spain and Denmark. In 2003, legislation in Spain was passed to admit Nursing as an autonomous profession in the Health Professional law. Following a debate about the Bologna Process prompted by the Minister for Universities, the Nursing Profession used the Tuning survey to facilitate change. As a consequence, in 2005 ECTS was adopted and Masters and doctorial level studies were implemented. In 2008, Denmark designed a new modular organised curriculum for the Bachelor Programme in Nursing Science. The Learning Outcomes for the Bachelor of Science in Nursing in Denmark, added as Appendix 3, is part of the Danish legislation on the nursing programme. These Learning Outcomes are based on the Tuning Project. Most recently (2009), the competences have been used to inform the UK Nursing and Midwifery Council's revision of its national competences for nursing.

4. Learning, Teaching and Assessment

Some illustrative good practice examples used to develop the nursing competences are outlined on the Tuning web site (http://tuning.unideusto.org/tuningeu/index.php?option=content&task=view&id=29&Itemid=52) and demonstrate the range and diversity of pedagogies used in nurse education.

The notion of differentiation is crucial to nursing to enable development, progression and achievement of safe, intelligent practice in the world of patients and their families/loved ones. There is a case for the sub first cycle level descriptor to demonstrate the developmental stage of the student nurse. Many typologies of learning do not accord value to the role of apprenticeship, craft knowledge and skill acquisition that are often fundamental to learning in a person - based practice. Through our analysis of nursing in our representative 14 countries, we considered that while there is a place for a variety of learning and teaching models in nurse education, these are used in different proportions according to the resources available and the developmental stage of the learner. Traditional models still have an important place in teaching/learning nursing for novices, or at the early stage of a more complex competence acquisition. These methods are relevant to the development of safe practice, for example learning lifting and handling of patients and the ability to carry out procedures safely. What is now known as 'Craft knowledge' is often passed on from person to person, and it is appropriate to do so in workplaces where role modelling and coaching develop practices ahead of the evidence base. This applies to both novices and experts.

When human and material resources become available, there is an increase in small group work and technology assisted teaching/learning. This includes the use of reflective and critical approaches to learning together with the use of informatics that support web based and work place learning. Practical skills are often developed through observation of practice, demonstrations, simulations, role play and exposure and engagement in clinical experiences. However, many countries reported the challenges encountered during clinical placements with student supervision and the quality of patient care. The reality is that when they become available, resources are now being allocated to support learners in practice, to prepare students for practice through clinically based wards, clinical skills laboratories and through the use of simulations or virtual practice. The Tuning group and the collaborating stakeholders

consider it unsatisfactory, and potentially hazardous to patients, when student nurses are not adequately supported in the clinical learning environment. As the website paper on learning, teaching and assessment explores further, students require support from suitably qualified registered nurses who have been specially prepared to help students learn and achieve their practical and professional competences in the workplace. This means that students should be 'free' to observe care; practice under supervision, receive feedback on their performance and have sufficient learning opportunities to develop the necessary competences. However, while a student may be provided with what is known as 'supernumerary' time to learn in practice, if their mentor or supervisor is not available to support them, the student learns without the necessary supervision, goal setting or feedback.

The way that curricula are developed is not only cultural, but in nursing reflects the stage of development of nursing within that country and where it is situated and controlled. Historically, there is a tendency for nursing to initially reflect a biomedical model before emerging its own models and theories of practice, as the model changes so do the pedagogies and assessment strategies. Curriculum expression reflects also the curriculum design, resources available and teacher/student capabilities. Assessment strategies in nursing at first cycle with registration need to address both theoretical and practical based learning. Diverse strategies are used to reflect the assessment of knowledge, skills, attributes and professional values. In the interests of public safety, each programme will identify core components that must be 'passed' in order to achieve the necessary licence/registration to practice.

Table 3
An example of learning, teaching and assessing strategies to achieve a nursing competence relevant to the subject area

Competence to be achieved at the end of the course. What does this competence mean for students?	Potential learning outcomes (LO) found in units/ modules during the course to achieve the competence. Placed in order of increasing complexity. (Ability to...)	Possible learning and teaching strategies/ methods/ pedagogies. How are students helped to acquire this competence?	How do you assess whether, or to what degree they have achieved this competence (progression)? How do students know whether, or to what degree they have achieved this competence and if not why they have not achieved it?
Ability to practice within the context of professional, ethical, regulatory and legal codes, recognising and responding to moral/ethical dilemmas and issues in day to day practice. **Awareness of the different roles, responsibilities and functions of a nurse.** *The student can fully realise what it means to be a registered nurse, and to carry out the duties, responsibilities and practices that are associated with this role within the health care team and society.*	Demonstrate an understanding of nursing as a subject/science and as a profession. Explain and demonstrate the legal and ethical responsibilities of a registered nurse and other health care workers. Apply knowledge of the relevant Acts to the patients' legal rights. Apply knowledge of the relevant Acts and policies to the patient as a citizen and their rights and duties in financial and social matters. Explain and practice according to the legal and ethical codex for nurses. Updates knowledge in this field. Awareness of the intentions in general legislation as it applies to the nursing context.	Lectures or e-learning packages to introduce the topic. Guided reading of ethical concepts and application, codes of practice. Videos and analysis of critical incidents. Discussions and debates focused in practice examples: professional/ ethical dilemmas in practice. Role plays and simulation exercises. Group work. Presenting in plenary sessions. Supervised clinical practical experience in different health and social care settings. Increasing responsibility in practice.	This competence would be assessed throughout the course both theoretically and practically. It is common to have specific assessment criteria related to this competence. Persistent failure to achieve this competence is usually very serious. This competence would be assessed directly and also indirectly through inferences made in others. It covers several generic competences for example ethical commitment. Feedback from academic assessments would guide the student towards their theoretical understanding and application to practice. The style of theoretical assessments would be scrutinised for evidence of understanding and applying these. Feedback from clinical practical assessments would indicate level of achievement (often through portfolios, structured assessments and clinical reports from practising nurses).

4.1. Quality Enhancement

Quality enhancement in nursing addresses theoretical and clinical, practical or work- based learning, so as to enable the student to meet the aims and outcomes of the curriculum. The current situation relating to the roles and respective accountability for the quality of the clinical learning environment are outlined on the web site where a table demonstrates the complex stakeholder involvements in student learning in practice and the role of competent authorities. In some countries, there are now mandatory requirements for **learning and development** after registration. There are also countries with specified competences or expectations associated with advanced or specialist nurse practitioner roles.

There is significant evidence to confirm that quality in the clinical learning environment is related to how students are treated (humanistic or not), team spirit, leadership and management style of the senior clinician and available support for teaching and learning. Audits of clinical learning environments may be undertaken by the educational provider, regulatory bodies or quality assurance agencies. In these situations it is typical for the following items to be considered:

— Number, experience, qualifications and mix of clinical staff

— Motivation of staff

— Research or evidence base of clinical practice

— Patient/staff ratios

— Relationship between educationalists and clinicians

— Philosophy of nursing care

— Learning opportunities and supervision

— Development of staff

— Quality of patient care

These elements augment the previously identified issues within the TUNING methodology for quality enhancement and can be applied to other similar work based learning programmes. They also indicate the dilemma faced by Higher Education Institutions who may have limited control over the clinical environment where their students are placed. The involvement of stakeholders in quality enhancement is therefore crucial.

This is achieved through partnership and finance arrangements, staff development, audit, action plans, and feedback from students, external agencies and academic staff.

In the overview to this brochure, it was acknowledged that countries are at different stages of development with respect to the nursing profession and the education of its members. Similarly, resource allocation is variable. In the transition from content based, input led curricula to competence based, ECTS and Qualifications Framework compatible curricula, staff and students will need development. Such a transition will also affect non nursing personnel in Higher Education and Health Care settings (for example academic registrars, medical staff, administration systems). There will be an associated additional workload to achieve a quality based and rigorous 'new model' of nurse education. In some countries this will stretch already overworked facilities. We support the view of our stakeholders that the development of tools to enable countries to make impact assessments would be a helpful way forward. This impact assessment should take into account the impact upon university and non university sectors, the availability of academic and practice staff to support learners and the capacity (in terms of resources) to transfer significant numbers of students to degree programmes and to provide post registration opportunities with recognizable qualifications.

5. Some Reflections on the Post Graduate Cycles

Before discussing the doctoral context, it is important to consider the current second cycle situation (masters' level) in nursing and nursing science in Europe. While there is a trend towards graduate status in many countries, second cycle education is witnessing rapid expansion within the economic constraints of the countries concerned and the availability of academic and clinical lecturers /supervisors in nursing. The current situation in second cycle programmes at Universities in the Tuning countries can be grouped in to types, which are (1) a theoretical type (e.g. nursing science) and (2) a clinical type (e.g. Advanced Nurse Practitioner, Nurse Specialist). The development of the second cycle programmes is an essential platform for the achievement of a valid and sufficient research capacity at doctoral and post doctoral level.

The student is usually supported through **supervision** (academic and /or clinical) particularly if there is a special project or dissertation or required clinical experience. The **assessment strategy** uniformly comprised a mixture of different methods, e.g. as VIVA, thesis, examination, projects or by credits in a modular system. A thesis is compulsory for all countries. After passing the assessments and gaining the qualification, graduates work as a lecturer, teacher in practice and/or theory, clinical specialist/ advanced nurse practitioner, a researcher or have a function in the management or policy area.

5.1. Third Cycle Education

As Meleis points out, doctoral education in nursing is fairly recent when compared with other traditional disciplines (Meleis in Ketefian and McKenna, 2005). For example, according to their analysis in 2003, only 11 European countries provided doctoral education in nursing (see their Table 12.1 'International nursing doctoral programmes'). Our data augments this work and reflects the rapidly emerging developments in nurse education at post graduate level.

The current situation in third cycle programmes at Universities in the Tuning countries can be grouped in three categories, namely (1) Coun-

tries with PhD in nursing or nursing science; (2) countries with a clinical or a taught doctorate in nursing; and. (3) countries with no third cycle education in nursing in their own country. In the latter situation doctoral students have to continue their education in countries with a PhD in nursing or – as it was the case in the beginning of nursing science in all countries – continue their studies in their own country in related disciplines i.e. social science, public health, anthropology, education, philosophy etc. The ability to supervise nursing as a discipline in its own right can thus be enriched or hindered by the expertise and experience of the supervisor with respect to nursing practice and theory. The dominance of 'out of discipline' influences upon the study of nursing theory and practice is well documented. There is also a variation in the countries with a third cycle nursing / nursing science programme. In some countries the main subject can be nursing science when in others it (is) could be nurse education, epidemiology or public health. This echoes earlier comments where nurses may or may not be supervised by academics that are themselves nurses, or academically qualified in the theory or practice of nursing.

Admission criteria for the 3rd cycle studies in nursing/ nursing science is mainly through the successful completion of a 2nd cycle degree, with the exemption of Germany, where students currently have to complete four years of study after their academic diploma RN. In the UK a good first cycle degree may give direct access to doctoral studies. The current situation can be defined as a transitional period, meaning that clinical work experience and studies are differently valued in the participating countries, also reflecting the role and scope of practice of nurses. Where this transition period is being supported by the recognition of prior learning, sometimes exemptions are given on the basis of competences/learning demonstrated from work experience and studies. There may be additional requirements, especially for the professional/ clinical doctorates where specified academic/clinical competences may be necessary.

The normal length of the third cycle education is specified in some countries e.g. three years) while in others, like Finland it is completed with 60 ECTS credits (worth) of advanced studies or doctoral courses in addition to the thesis. The more recent Clinical or Professional doctorate programmes usually have credit allocations that reflect three years full time study according to the respective National Qualification Framework (e.g. UK). They can also include credit for the achievement of clinically or work related competences at this level. The Tuning members considered that there was merit to the research training programme having a

specific credit allocation for demonstration of the generic research skills training competences. It was less clear how to allocate credit for the research output or practice competences.

Assessment

There are a variety of assessment strategies used for the empirical traditional 3rd cycle PhD these include, thesis, publication (which might be part of the thesis), a thesis defence or viva, examinations, and/or a project (from proposal development to defence), and doctoral courses. Within the professional doctorate, there may be project work, assignments and the development of a portfolio of competence in the work related activities. Peer assessment, presentations at international conferences or of poster work may be expectations of the doctoral student/ candidate during the course of their studies.

Research, Learning and Supervision environment

Currently, eight of the 14 countries involved in the Tuning nursing project offered third cycle education in nursing/ nursing science. In some countries, only one or two universities offer the programme, while in others, all or several research active universities have established nursing departments or units. There is no doubt that a good supervisory relationship situated in a research active environment is crucial to the support and achievement of the doctoral students. With the professional/clinical doctorate students, it is essential that this is also complemented by a supportive working environment to enable the student to have access to the learning opportunities that will enable them to achieve the necessary work/clinically based outcomes.

5.2. Trends and Concerns

It has been previously noted that Nursing is an emerging academic discipline, particularly vulnerable to socio economic constraints due to its personnel costs and relationships with the Health Sector and medicine. In order to expand post graduate education and research outputs in nursing, there is a need for second cycle programmes, research active environments and sufficient quality supervisors who are themselves re-

search active. A major concern is the paucity of funding, whether at national or international level, to support doctoral education for nurses in nursing and more crucially, to develop sufficient research capacity in the field of nursing. This is in direct contrast to nurse researchers and academics being viewed as 'research assistants or adjuncts' to medicine or bioscience. Another concern is the lack of research funding assigned to nursing research or nursing related issues that are of practical relevance to patients, clients and their families. For example current and predicted epidemiological demands associated with longevity suggest the need for research into challenging and enduring care issues like dementia, rehabilitation, continence, immobility and the best utilisation of the nursing workforce for optimal public health and quality of life. The contribution of nurses to the social, educational and economic development of Europe cannot be underestimated given the well known demographic and migration patterns in Europe, and the role of women who form the largest proportion of the nursing workforce.

Developing robust third cycle and research programmes in nursing are crucial if nurses are to be significant international research collaborators and politically represented at leadership and policy making levels in the fields of health and social care. Post doctoral research fellowships, specialist training and 'emerging researcher' funding streams specifically designated or 'ring fenced' for the discipline are also necessary. They are noticeably absent in most countries. The absence of the experienced academic/researcher nursing 'voice' in multidisciplinary research, public health and policy making is detrimental to the development of national/ European policy and the best use of public monies.

Third cycle education, whether funded by the individual or sponsored fully or partially by employers / government agencies is expensive, particularly if senior practitioners or educators require salary protection during their study period. It is therefore important that career opportunities and structures enable the best utilisation of graduate achievements and enable further development of the profession in a scientific, robust and evidence based practice manner. International co-operation, exchange visits and multilevel institutional and research collaborations would enable higher education institutions to share their expertise and build the research capacity in nursing practice and theory.

There are growing international networks of nurse researchers and associations concerned with doctoral education and research. For example: the International Network for Doctoral Education in Nursing- http://

www.umich.edu/~inden/ provides information on quality standards for doctoral education and ways of collaborating internationally. Ketefian and McKenna (2005) have provided a comprehensive global overview of doctoral education in nursing that offers substantive data in this area.

6. Other Useful Links and Information About Our Key Stakeholders

The SAG members received significant support and encouragement from the European stakeholders and offer their sincere thanks for their contribution to the current Tuning outcomes.

In addition, the 2008 Tuning survey was supported by contributions from the following countries and contacts:

France
Anne Lekeux, as the then Vice President of FINE

Italy
Giuseppe Alesso and IPASVI, the Italian Council of Nursing

Lithuania
Kaunas University of Medicine, Lithuania
Jurgita Gulbiniene, Jovita Demskyte and Daiva Kriukelyte

Portugual
The Portuguese Nurses Order- Council
Teresa Oliveira Marçal

EFN The European Federation of Nurses Associations (EFN), former Standing Committee of Nurses of the EU (PCN), was established in 1971, to represent the nursing profession and its interests to the European Institutions, based on the nursing education and free movement Directives being drafted by the European Commission then, and is the independent voice of the nursing profession, representing more than one million nurses at European Level. EFN members are drawn from the National Nurses Associations from the twenty-seven EU Member States (+ Croatia, Norway, Iceland and Switzerland), which are in membership with the International Council of Nurses (ICN) and the Council of Europe, and its Associated members are three mandated representatives of the European Nursing Specialist and Generic Organisations. The International Council of Nurses (ICN), the World Health Organisation (WHO) and the European Nursing Students Association (ENSA) are holding observer status within EFN General Assembly. www.efnweb.org The mission of EFN is to safeguard the status and practice of the profession of nursing and the interests of nurses in the EU and Europe. Clos du Parnasse, 11A - B-1050 Brussels – Belgium

FEPI European Council of Nursing Regulators (FEPI- Federazione Europea Professioni Infermieristiche). FEPI is a new European network of nursing regulators which is working together to influence EU policy development and provide advocacy for nursing regulation. It also provides a platform for the exchange of information among regulatory bodies and competent authorities for nursing. FEPI's mission is patient safety and public protection through high nursing standards for education and practice and thus the protection of the European citizens. www.fepi.org FEPI c/o IPASVI, Coudenberg 70, Brussels 1000, Belgium

FINE European Federation of Nurse Educators- was established in 1995 and its objective is to promote the continuing development of excellence in nursing education in Europe. C/o CEFIEC - 6, rue Jean Jaures - 94 190 Villeneuve St Georges – France. **http://www.fine-europe.eu**

IDEN: the International Network for Doctoral Education in Nursing- http://www.umich.edu/~inden/

ENDA: The European Nurse Directors Association was established in 1995 in order to support nursing leadership. The key aims for the Association are to strengthen the nursing contribution to policy making in the context of healthcare management in Europe, to further the development of the art and science of nursing leadership and management in Europe and to establish formal links between Nurse Directors across Europe to support a communication network of experts. www.eu-nurse-leaders.org Prof. J Wilkins. Hon President. Woodside Mill, West Woodside, Wigton. CA7 OLW UK. Email jacquifilkins@hotmail.com

ICN The International Council of Nurses is a federation of 129 national nurses associations representing the millions of nurses worldwide. ICN is the international voice of nursing and works to ensure quality for all and sound health policies globally. Web: www.icn.ch 3, Place Jean Marteau - 1201 - Geneva – Switzerland

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Cowan, DT, Wilson-Barnet J, Norman IJ and Murrells T. 2008 Measuring Nursing Competence: development of a self assessment tool for general nurses across Europe. International Journal of Nursing Studies 45. 902-913.

International Council of Nurses (ICN) 2003 ICN Framework of Competences for the Generalist Nurse. ICN, Geneva.

ICN 2004 Scope of Nursing Practice. ICN Geneva. Revision of 1998 version.

International Labour Conference (63rd:1977: Geneva). Employment and conditions of work and life of nursing personnel / sixth item on the agenda [of the] International Labour Conference, 63rd session, 1977. Geneva: ILO, 1976.

Ketefian, S and McKenna H. 2005. Doctoral Education in Nursing: International Perspectives. Routledge, London.

Official Journal of the European Communities. Legislation. Vol. 20. No. 176. 15th July 1977.

Official Journal of the European Communities. Recommendations of the European Parliament and of the Council 10 July 2001: On the Mobility within the Community for Students, Persons Undergoing Training, Volunteers, teachers and Trainers. Vol.30. No. L215.

World Health Organization & Sigma Theta Tau International. 2007. Global Standards for Initial Nursing and Midwifery Education.

7. Update March 2011

Since the first version of this brochure was prepared in 2009/2010, there have been several significant developments that are relevant to the first cycle programme for nursing with registration. These include the evaluation and testing of the Tuning Nursing Competences by the United States (US) National Council of State Boards of Nursing[8], the incorporation of the Tuning competences within the UK Nursing and Midwifery Council's revised Standards for pre-registration nursing education in 2010[9] and the evaluation of the EU Directive 2005/36/EC.

In the US study, 47 nursing education Tuning competency statements were used as the basis for their investigation. Similar stake holder groups tested the competences in the US context. This detailed study concluded that:

> There is evidence to suggest that the basic nursing education competencies are equally important, regardless of nursing role or geographic setting. Average importance ratings were very similar for the 47 competencies. Correlations for the 47 competencies were high and statistically significant. A limitation of the study may be the construction of the competencies. Some of the education competency statements were long and contained multiple concepts. The researchers of this study recommend that the education competency statements be revised to increase ease of use and interpretation prior to inclusion in future research studies. (p3)

The Tuning SAG group welcomed these comments, as we had similarly concluded that some of the competences could be refined for survey purposes. We were delighted that this external scrutiny of the competences reinforced their reliability, importance and generalisabilty. It also confirmed that the large number of competences was justifiable. The US methodological reviewers noted that the methodology was psychometrically sound and in compliance with professional standards for survey studies.

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8 National Council of State Boards of Nursing. (2010). *Report of Findings from the 2009 TUNING Analysis: A Comparison of U.S. and International Nursing Educational Competencies*. Chicago: Author.

9 Nursing and Midwifery Council. (2010) Standards for pre-registration nursing education. NMC, London.

In the UK, the new standards for pre-registration nursing education (NMC, 2010, p8) specified that the 'required minimum outcome award for a pre-registration nursing education programme is a degree in nursing'. Furthermore, the 'intellectual, professional, academic and practical competencies' that nursing graduates must acquire were informed by the European Tuning project. The five Tuning domains were collapsed to four, professional values, communication and interpersonal skills, nursing practice and decision-making, leadership, management and team working.

In our earlier discussion on the European Directive 2005/36/EC, we outlined some of the strengths and weaknesses of the current Directive, particularly with respect to its currency of scientific and technical progress, the input led format, the educational model, educational standards and the perceived threats to patient safety. The Directive is currently being evaluated and the following policy update has been issued by DG Internal Market. The purpose of the evaluation is to:

> Verify whether full use has been made of all the opportunities offered by Directive 2005/36/EC. The system must also take account of the considerable changes that have occurred in the Member States' educational and training systems. For this reason the Commission has begun work on evaluating the 2005 Directive which will culminate in a Green Paper in 2011 and a revision of the Directive in 2012. See http://ec.europa.eu/internal_market/qualifications/policy_developments/index_en.htm

The Tuning SAG are delighted that their work makes a significant contribution to the debates and consultation surrounding the evaluation of the Directive. We encourage readers to take every opportunity to participate in the appropriate political and legal process to ensure that the minimum training requirements contribute effectively to patient safety, staff mobility and student experience in the 21st Century.

Appendix 1a. Tuning Validation Conference on Health Care

Report of the Nursing Group

The Validation Panel for Nursing met in Brussels on Friday, 22nd June 2007. Its conclusions were as follows:

1. The panel congratulated the Tuning Nursing team on producing clear and concise documents that integrated nursing within the "Tuning Education Structure in Europe." The panel noted that the nursing team had developed their proposals with the involvement of educational organisations in 11 of the 27 countries of Europe. Further development of these proposals would, however, benefit from a wider representation of countries and a greater breadth of institutions within countries in order to strengthen the prospect of the document being implemented across Europe. One possible method of broadening the partnership for implementation would be to use the auspices of the regulatory/competent authorities for nursing in Europe to bring this process to the second stage.
2. It was agreed by the panel that it was appropriate that the educationalists had led the way in the early stages; the time was now opportune for involvement of other stakeholders to the process within Europe. The stakeholders were identified as the regulators/competent authorities, managers of nursing, educationalists, nursing associations, patient/service users and students of nursing. It was recommended that a formal advisory committee of representative groups of these stakeholders should be developed as an overarching mechanism for the project and this structure should be mirrored within each country to identify significant local issues for the official advisory committee.
3. It was acknowledged that the introduction of a new system of assessment of competence will require further support and development in some countries to ensure skilled nurses graduate from the educational programmes. It was also emphasised that there is a mutual responsibility shared between educators of nursing, and nurses in clinical practice, to ensure that the graduates of programmes meet the expectations of practice. The difficulty for some pro-

grammes to obtain sufficient valid placements was highlighted as a major concern. The advent of new teaching methodologies and simulated learning (skills) laboratories was seen as a possible solution for overcoming these difficulties. The context of where ECTS credits for practice may be accumulated was discussed, and the importance of real practice within a programme was emphasised. The team was asked to consider developing this theme further

4. The importance of establishing the 1st Bologna cycle using the Tuning methodology for nursing had the overwhelming support of the panel. The aspiration is for a minimum of a bachelor's level of education for nursing throughout Europe, with the associated transfer of nurse education to Higher Education Institutions. Nevertheless, the diversity of established approaches to nurse education varied from country to country and this also needs to be respected. The new order of nurse education may take some time to be introduced throughout Europe. It was noted that a number of countries in Europe have achieved the transfer of nursing to Higher Education Institutions with the associated programmes accruing 240 ECTS credits. The aim should be to implement this system throughout Europe to ensure safe and equal care for the European citizen.

5. The panel believes that the project, in its next phase, needs to work with the DG Internal Market and the DG Education to initiate appropriate changes in the sectoral directive for nursing. This is necessary to meet the expectations of the modern role of the nurse, to acknowledge the complexity of the role, to ensure patient safety and to emphasise the high-level knowledge base that is required. The project in this phase could utilise a variety of work from organisations such as the Royal College Nursing (2003) and the European Nursing Directors Association to develop a "Tuning" definition for the modern role of the nurse. An interesting model of considerable merit has been undertaken in Denmark, in which a competence profile is used to define the first cycle graduate nurse, with the intention of building this into legislation. The panel encouraged the project to secure EU funding to support the next phase of the project in which these ideas could be explored further.

6. It was emphasised by the panel that the project needs to ensure that it is outward looking in its perspective involving specialist groups in nursing and other health care professionals. The eco-

nomic value of the nurse as a contributor to health in Europe is an aspect of the project that could be marketed.

7. The documentation was reviewed by the panel. The following changes were suggested for the final edition of the brochure:
   a. Throughout, the nuances of language for translation should be carefully taken into account; for example, it was suggested that the nurse as an independent autonomous practitioner needs further emphasis
   b. The generic competences should include numeracy skills (in the context of nursing particularly for risk and safety) and "elementary computing skills" should be strengthened to, say, "familiarity with the use of computing in a professional context" (*Note:* the responsibility for the generic competences is that of the main Tuning Group)
   c. The subject-specific competences should include:
      i. the concept of risk management
      ii. I.T. skills, telenursing and other new technologies
      iii. The art of meaningful delegation
      iv. Team nursing (developed through management training)
   d. The references to air stewardess and service industry (Table 1) should be removed
   e. The reference to "occupation" needs to be replaced by "profession" in a number of areas in the document
   f. There is a typographical error relating to FINE on pages 27 and 33 of the validation document (since corrected)
   g. The contact details of ENDA are:
      Prof. J. Filkins
      Hon. President, ENDA
      Woodside Mill
      West Woodside
      Wigton
      CA7 0LW
      United Kingdom

      Tel: +44(0) 16973 44178
      Mobile: 07746 84 36 71
      email: jacquifilkins@hotmail.com

8. The panel suggested that further work in the next phase of the project should address aligning the competencies with the identified Dublin Descriptors, as some of the competencies are at level 2 in some countries while they are at level 1 in others. The panel also suggested that the brochure would benefit from further clarity regarding the link between the generic and specific competencies.

Appendix 1b. Tuning Educational Structures in Europe

Validation Conference Health Care
Validation Panel Nursing

Kathy Apple
Executive Director, National Council of State Boards of Nursing, Inc (NCSBN), USA

Anne Lekeux
Vice-President, European Federation of Nurse Educators (FINE)

Antonio Manuel Silva
Vice President, Secretary General, European Association of Nurses Associations (EFN)

Professor Anthony Mercer
Former Pro Vice-Chancellor at Kingston University; Chair of the Panel

Roxana Radulescu
Policy Officer, European Patients' Forum (EPF)

Paul De Raeve
Secretary General, European Association of Nurses Associations (EFN)

Professor Loredana Sasso (morning session Panel)
President Federazione Europea Professioni Infermieristiche (FEPI)
(European Federation of Nursing Regulators)

Dragica Simunec (afternoon session Panel)
Board member Federazione Europea Professioni Infermieristiche (FEPI)
(European Federation of Nursing Regulators)

Dr. Anne-Marie Ryan
Chair of Working Group on Education, Training and Competences,
Federazione Europea Professioni Infermieristiche (FEPI)
(European Council of Nursing Regulators)- Secretary to the Panel

Professor Jacqueline Filkins
Honorary President European Nurse Directors Association (ENDA)
The student representative was unable to attend on the day

In addition the following observers were present and contributed to the discussions

Dr Carol Hall (Royal College of Nursing and EFN), Professor Nedyalna Krasteva (FINE –President). Claire.Nuyttens, Dean University College Arteveldehogeschool.

Appendix 2. 2008-Subject specific competences version 2 as stated for survey purposes

Competences: professional values and the role of the nurse
1. Demonstrates the ability to practise within the context of professional, ethical, regulatory and legal codes, recognising and responding to moral/ethical dilemmas and issues in day to day practice.
2. Demonstrates the ability to practise in a holistic, tolerant, non judgmental, caring and sensitive manner, ensuring that the rights, beliefs and wishes of different individuals and groups are not compromised.
3. Demonstrates the ability to educate, facilitate, promote, support and encourage the health, wellbeing and comfort of populations, communities, groups and individuals whose lives are affected by, ill death, distress, disease, disability or death.
4. Within the scope of his/her professional practice and accountability, demonstrates awareness of the different roles, responsibilities and functions of a nurse.
5. Within the scope of his/her professional practice and accountability, demonstrates the ability to adjust their role to respond effectively to population/ patient needs. Where necessary and appropriate is able to challenge current systems to meet population/patient needs.
6. Demonstrates the ability to accept responsibility for his/her own professional development and learning, using evaluation as a way to reflect and improve upon his/her performance so as to enhance the quality of service delivery.
Competences: nursing practice and clinical decision making
7. Demonstrates the ability to undertake comprehensive and systematic assessments using the tools/frameworks appropriate to the patient/client taking into account relevant physical, social, cultural, psychological, spiritual and environment factors.
8. Demonstrates the ability to undertake an effective risk assessment and take appropriate actions.
9. Demonstrates the ability to recognise and interpret signs of normal and changing health/ ill health, distress, or disability in the person (assessment/ diagnosis).

10. Demonstrates the ability to respond to patient/client needs by planning, delivering and evaluating appropriate and individualised programmes of care working in partnership with the patient/client, their carers, families and other health/social workers.
11. Demonstrates the ability to critically question, evaluate, interpret and synthesise a range of information and data sources to facilitate patient choice.
12. Demonstrates the ability to make sound clinical judgments to ensure quality standards are met and practice is evidence based.
13. Demonstrates the ability to use modern technologies to assess and respond appropriately to patient/client need (for example through telenursing, multimedia and web resources).
14. Demonstrates the ability to appropriately use a range of nurse skills, medical devices and interventions/activities to provide optimum care.
15. Using nursing skills, medical devices and interventions/activities to provide optimum care, demonstrates the ability to maintain patient/client dignity, advocacy and confidentiality.
16. Using nursing skills, medical devices and interventions/activities to provide optimum care, demonstrates the ability to practice principles of health and safety, including moving and handling, infection control; essential first aid and emergency procedures.
17. Using nursing skills, medical devices and interventions/activities to provide optimum care, demonstrates the ability to safely administer medicines and other therapies.
18. Using nursing skills, medical devices and interventions/activities to provide optimum care, demonstrates the ability to consider emotional, physical and personal care needs, including meeting the need for comfort, nutrition, personal hygiene and enabling the person to maintain the activities necessary for daily life.
19. Using nursing skills, medical devices and interventions/activities to provide optimum care, demonstrates the ability to respond to a person's needs throughout the life span and health/illness experience e.g. pain, life choices, revalidation, invalidity or when dying.
20. Demonstrates the ability to inform, educate and supervise patient/carers and their families.
Knowledge and cognitive competences
21. Demonstrates current and relevant knowledge of the theories of nursing and nursing practice that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.

22. Demonstrates current and relevant knowledge of theories concerning the nature and challenge of professional practice that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
23. Demonstrates current and relevant knowledge of the natural and life sciences that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
24. Demonstrates current and relevant knowledge of the social, health and behavioural sciences that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
25. Demonstrates current and relevant knowledge of ethical theory, law and humanities that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
26. Demonstrates current and relevant knowledge of technology and health care informatics that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
27. Demonstrates current and relevant knowledge of international and national policies that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
28. Demonstrates current and relevant knowledge of problem solving, decision making and conflict theories that can be appropriately applied to nursing practice, patient/client care and situations of uncertainty.
29. Demonstrates current and relevant knowledge of theories related to personal and professional development so as to enhance their professional practice.
30 Demonstrates current and relevant knowledge of the research process and current nursing research that can be appropriately applied to nursing actions nursing activities to provide nursing care that is rigorous and evidence based.
Communication and interpersonal competences (including technology for communication)
31. Demonstrates the ability to communicate effectively (including the use of new technologies): with patients, families and social groups, including those with communication difficulties.
32. Demonstrates the ability to enable patients and their carers to express their concerns and worries and can respond appropriately e.g. emotional, social, psychological, spiritual or physical worries.
33. Demonstrates the ability to appropriately represent the patient/client's perspective and act to prevent abuse.

34. Demonstrates the ability to appropriately use counselling skills to promote patient well being;
35. Demonstrates the ability to identify and manage challenging behaviour (using communication techniques to promote patient well being).
36. Demonstrates the ability to recognise anxiety, stress and depression (using communication techniques to promote patient well being).
37. Demonstrates the ability to give emotional support and identify when specialist counselling or other interventions are needed.
38. Demonstrates the ability to identify and use opportunities for health promotion and health education activities.
39. Demonstrates the ability to accurately report, record, document and refer care using appropriate technologies.
Leadership, management and team competences
40. Demonstrates the ability to realise that patient/client well-being is achieved through the combined resources and actions of all members of the health/social care team.
41. Demonstrates the ability to lead and co-ordinate a team, delegating care appropriately and meaningfully.
42. Demonstrates the ability to work and communicate collaboratively and effectively with other nurses in the best interests of the patient/client.
43. Demonstrates the ability to work and communicate collaboratively and effectively with all support staff to prioritise and manage time effectively while quality standards are met
44. Demonstrates the ability to assess risk and actively promote the well-being, security and safety of all people in the working environment (including themselves).
45. Demonstrates the ability to critically use tools to evaluate and audit care according to relevant quality standards.
46. Within the clinical context, demonstrates the ability to educate, facilitate, supervise and support nursing students and other health/social care students or workers.
47. Demonstrates an awareness of the principles of health/social care funding and uses resources effectively.

Appendix 3. Subject Specific Competences America Latina

1. Capacity to apply knowledge in the holistic care of patients, families and the community, taking into account the different phases in the life cycle in processes of illness and health.
2. Skill in applying the nursing methodology and theories that underlie and organize intervention, guaranteeing the care relation.
3. Capacity to document and communicate information fully and completely to patients, families and community to provide continuity and security in care.
4. Capacity to utilise information and communication technologies for assertive decision-making and healthcare resource management.
5. Capacity to show respect for culture and human rights in nursing interventions in the healthcare field.
6. Skill in interacting in interdisciplinary and multi-sector teams, with problem-solving capacity to meet priority, emergent and special healthcare needs.
7. Capacity to design and manage research projects concerned with nursing and health care.
8. Skill in resolving healthcare problems using research in one's nursing practice.
9. Capacity to participate actively in the development of healthcare policies, respecting cultural diversity.
10. Capacity to plan, organise, execute and evaluate disease prevention and recovery campaigns, using quality criteria.
11. Capacity to work within a context of the codes of ethics, rules, standards and laws governing the profession.
12. Capacity to design, execute and evaluate formal and non-formal health education programmes addressing local needs.
13. Capacity to participate in multidisciplinary and transdisciplinary teams set up to formulate educational projects.

14. Skill and capacity to promote ongoing learning among persons, groups and the community to foster good health habits and healthy life styles in relation to the surrounding environment.
15. Knowledge of and capacity to apply technology and computers in nursing and healthcare research.
16. Knowledge of the different functions, responsibilities and roles to be undertaken by nursing professionals.
17. Capacity to apply in practice the principles of safety and hygiene in nursing care.
18. Knowledge of and skill in using the instruments inherent in human care procedures.
19. Capacity to participate actively in ethics committees for the practice of nursing and bioethics.
20. Capacity to defend the dignity of the individual and right to life in interdisciplinary healthcare.
21. Capacity to administer safely drugs and other treatments necessary in providing quality nursing care.
22. Capacity to recognise, respect and support people's spiritual needs.
23. Capacity to participate effectively in local, regional, national and international collective bodies that promote the development of the profession.
24. Capacity to establish and maintain a caring relationship with patients, families and community faced with different care requirements, with greater emphasis in critical situations and in the terminal phase of life.
25. Capacity to promote and undertake actions designed to stimulate public participation and community development within the chosen field of healthcare competence.
26. Capacity to demonstrate solidarity in situations of disaster, catastrophe and epidemics.
27. Capacity to manage autonomously new nursing services.

Appendix 4. To the Ministerial Order on the Bachelor of Science in Nursing Programme, January 2008

Learning Outcomes for the Bachelor of Science in Nursing

The study results comprise the knowledge, skills and competences that a Bachelor of Science in Nursing has achieved in the programme.

Knowledge

A Bachelor of Science in Nursing:

1) can describe central knowledge areas in nursing, and the areas in the medical, natural and social sciences and the humanities that are relevant to the nursing profession;
2) can describe general and specific nursing-related problems from different perspectives;
3) can describe and explain the use of central nursing interventions in relation to different patient groups and contexts;
4) understands different analytical methods used in the profession;
5) can account for and reflect on methods, processes and barriers in relation to quality and development work and the implementation of results of research and development work in professional practice;
6) can account for and reflect on methods and procedures used in assessments and actions in professional practice;
7) can account for and reflect on general documentation strategies, classification systems and standards;
8) has knowledge of theories of science and research methodologies in the nursing profession;

9) can account for the legal basis for professional nursing practice;

10) can account for the organisation of the healthcare system, including the division of responsibilities between the different sectors, departments and operators, and can see the professional practice in the light of organisational and administrative frameworks and social conditions.

Skills

A Bachelor of Science in Nursing:

1) can search for, organise and assess information about general and specific nursing issues, and analyse and interpret these based on relevant national and international research;

2) can search for, organise and assess information about clinical guidelines and the use of relevant research and development work in nursing;

3) can search for, organise and assess information about central nursing interventions;

4) can analyse concrete nursing-related problems and discuss possible connections, reasons and consequences;

5) can use nursing-related analytic methods to deal with general and specific nursing-related problems;

6) can take a patient perspective in the analysis of professional issues, and can identify possible dilemmas and power relations in the professional practice or in its framework;

7) can use data collection methods linked to the nursing profession and can use them to analyse empirical data;

8) can communicate and argue for nursing-related observations, insights, analyses, assessments and suggestions for interventions verbally and in writing, in a clear professional terminology;

9) can use principles for the preparation and updating of nursing and treatment programmes;

10) masters central instrumental nursing treatments, methods and standards;

11) can identify and analyse ethical dilemmas and problems in the healthcare sector and in nursing;
12) masters medical numeracy and dispensing;
13) can justify suggestions for interventions in nursing tasks that involve promoting health, preventing and treating illness, rehabilitating patients and relieving pain;
14) masters ordinary documentation practice and administrative procedures;
15) can use IT in connection with nursing activities; and
16) can read and understand international health care research in English.

Competences

A Bachelor of Science in Nursing:

1) independently identifies nursing needs, formulates objectives, carries out, evaluates and adjusts nursing for selected patient groups;
2) cooperates with patients, their relatives and other professional people in planning, coordinating, delegating, carrying out and assessing nursing;
3) masters nursing activities in relation to central clinical patient situations, e.g. patients in pain, patients with changed perceptions, patients with nutritional and fluid problems, or patients who are suffering or dying;
4) practices independent nursing in relation to patients with different views of life and different cultural, social family circumstances;
5) supports patients in coping with their life circumstances and takes a pedagogical approach to healthcare;
6) communicates with patients with a respect for different values, cultures, intellectual levels and emotional states;
7) identifies potential dilemmas and power relations in nursing and treatment situations and in structural relationships in the

healthcare sector and acts based on ethical guidelines, rules for patient safety and environmental risk factors;

8) takes part in diagnostic investigations, treatments and observations associated with the above;

9) helps ensure continuity in the nursing and treatment processes, e.g. by cooperating with other professional groups and across sectors and institutions;

10) carries out quality and development work in nursing and can follow, apply and take part in research work in the healthcare sector;

11) handles management and coordination tasks with a view to creating continuity in nursing and treatment processes;

12) adheres to ethical nursing guidelines;

13) can find, organise, acquire and assess information relevant to nursing, including new national and international research;

14) has insight into his or her own learning process and masters reading and study techniques as a condition for ongoing professional learning and development; and

15) masters basic academic methods, which are a condition for continuing with qualifying further education at master's level.

Contact us

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