

Competences in Education and Cross-Border Recognition

Evaluation of the
usefulness of learning
outcomes and
competences
for international
recognition

Final Report

June 2007

Netherlands organization
for international cooperation
in higher education



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COMPETENCES IN EDUCATION AND CROSS-BORDER RECOGNITION

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1. INTRODUCTION

In response to the Bologna Process, a group of European universities has initiated a project called *TUNING Educational Structures in Europe (TUNING)*. The TUNING project was launched in 2000, in order to support universities across Europe to implement the Bologna Process at university level. In short, the TUNING project aims to make study programmes comparable and compatible, to facilitate transparency and academic recognition at European level and to build trust between institutions by offering a methodology to assure and enhance the quality of study programmes.

The ENIC and NARIC networks comprises (mostly) European national information centres that are responsible for the recognition of academic and professional qualifications. In principle, the outcomes of the TUNING project should be relevant to the recognition practice of the ENIC/NARIC networks. The Dutch NARIC and the UK NARIC have established a partnership to carry out a project called *Competences in Education and Cross-border Recognition (CoRe)*, in order to evaluate whether the TUNING project has succeeded in its aim to further facilitate transparency and academic recognition.

This document forms the final report of the CoRe project. The structure of the report is as follows: After this first introductory chapter, the background of the CoRe project will be elaborated upon in the second chapter. As the CoRe project was initiated to evaluate the value of degree profiles that are being developed by European institutions as a result of the TUNING project, background information will be given about the TUNING project here. In the third chapter, the goals and research questions, and the design of the CoRe project will be described. It will explain the initial project design and approach, and the slight changes that had to be made in the project approach during its conduction. In the fourth chapter the analysis results of the CoRe project will be illustrated. All the cases of degree profiles that have been evaluated will be described, and the clarity of the competences, the usefulness for credential evaluation and the recommendations for improving the degree profile are discussed. In the fifth chapter, overall conclusions of the CoRe project will be drawn, and recommendations will be given to the two main stakeholders in this project, the TUNING project and the ENIC/NARIC networks.

2. BACKGROUND OF THE CORE PROJECT

The CoRe project was initiated to evaluate the value of **degree profiles** (containing learning outcomes, defined in terms of competences) that are being developed as a result of the Europe wide initiative of the TUNING project. The main goal of the CoRe project was to evaluate whether these degree profiles provide credential evaluators with relevant additional insight in the level and content of educational programmes, and therefore improve the comparability and recognition of educational programmes across Europe. In order to fully understand the context in which the CoRe project was conducted, background information about the TUNING project has been provided in the paragraphs below¹.

2.1 Introduction to the TUNING project

The TUNING project was launched in 2000, in order to support universities across Europe in the implementation of the Bologna Process at university level. TUNING proposes and promotes the redefinition of educational programmes in an outcomes-oriented manner. Learning outcomes are expressed in terms of generic and subject-specific competences as well as ECTS credits that are based on workload. Currently, universities from about 35 countries in Europe work together in the TUNING process. Since 2005, the TUNING project has also been extended to the Latin American continent, from which institutions in a further 18 countries also joined the process. The focus of the TUNING project is not on the various educational systems of countries, but on the educational structures and content of educational programmes. Across all the participating countries, the project aims at identifying reference points for generic and subject-specific competences for both first (Bachelor) and second (Master) cycle graduates in a series of subject areas.

In order to be able to understand individual curricula and make them comparable, a methodology has been designed according to which common reference points could be identified. Within this methodology, the following five lines of approach were distinguished (González, J., & Wagenaar, R., 2005):

1. definition of generic (general academic) competences;
2. definition of subject-specific competences;
3. the role of ECTS as an accumulation system;
4. approaches to learning, teaching and assessment;
5. the role of quality enhancement in the educational process.

These five lines of approach will allow universities to *tune* their curricula without losing their autonomy and at the same time stimulate their capacity to innovate.

2.2 Linking learning outcomes, competences and ECTS credits

During the TUNING project execution, it was concluded that ECTS *workload based credits* should be linked to learning outcomes achieved by the students. These *learning outcomes* are to be expressed in terms of *competences* obtained by the students. The following definitions were formulated (González, J., & Wagenaar, R., 2005):

- **Learning outcomes** are statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of learning. They can refer to a single course unit or module or else to a period of studies, for example, a first or a second cycle programme. Learning outcomes specify the requirements for award of credit. They are formulated by academic staff.
- **Competences** represent a dynamic combination of knowledge, understanding, skills, abilities and values. Fostering competences is the object of educational programmes. Competences will be formed in various course units and assessed at different stages. Competences are obtained by the student.
- Learning outcomes are expressed in terms of competences. Competences may be developed to a greater degree than the level required by the learning outcome.

¹ This summary is derived from the main features of the TUNING project as described in González, J., & Wagenaar, R. (2005). TUNING Educational Structures in Europe II. Universities' contribution to the Bologna Process. Final report Project Phase II. Universidad de Deusto / Universiteit Groningen.

In order to facilitate the process of defining learning outcomes and generic and subject-specific competences, the TUNING project has developed a model for designing, implementing and delivering curricula. This model consists of the following main steps (González, J., & Wagenaar, R., 2005):

1. Meeting the basic conditions for a programme;
2. Definition of a **degree profile**;
3. Description of the **objectives** of the programme and the **learning outcomes** (in terms of knowledge, understanding, skills and abilities) that have to be met;
4. Identification of **generic and subject-related competences** which should be obtained in the programme;
5. Translation into the curriculum: content (topics) and structure (modules and credits);
6. Translation into educational units and activities to achieve the defined learning outcomes;
7. Deciding on the approaches to teaching and learning, and methods of assessment;
8. Development of an evaluation system intended to enhance its quality constantly.

The programmes from universities that take part in the TUNING process are currently undergoing a process of redefinition according to the above stated model.

2.3 A Summary of Outcomes for each subject area

Within the TUNING project, a selection of subject areas was chosen to start the process of redefinition. Until now, the following subject areas are included in the project: Business Administration, Chemistry, Educational Sciences, History, Geology / Earth Sciences, Mathematics, Physics, Nursing and European Studies. Each subject area group gained insight into and built on what constitutes the vital core of their subject area. In other words: what makes a business programme a business programme. All subject area groups have defined these sets of key features that a programme in their subject area should have, which are described in a so-called Template, or *Summary of Outcomes*. This Summary of Outcomes facilitates the readability and rapid comparison across subject areas. It aims to provide the basic element for a quick introduction into the subject area, and is intended to be the common reference point for the particular subject area.

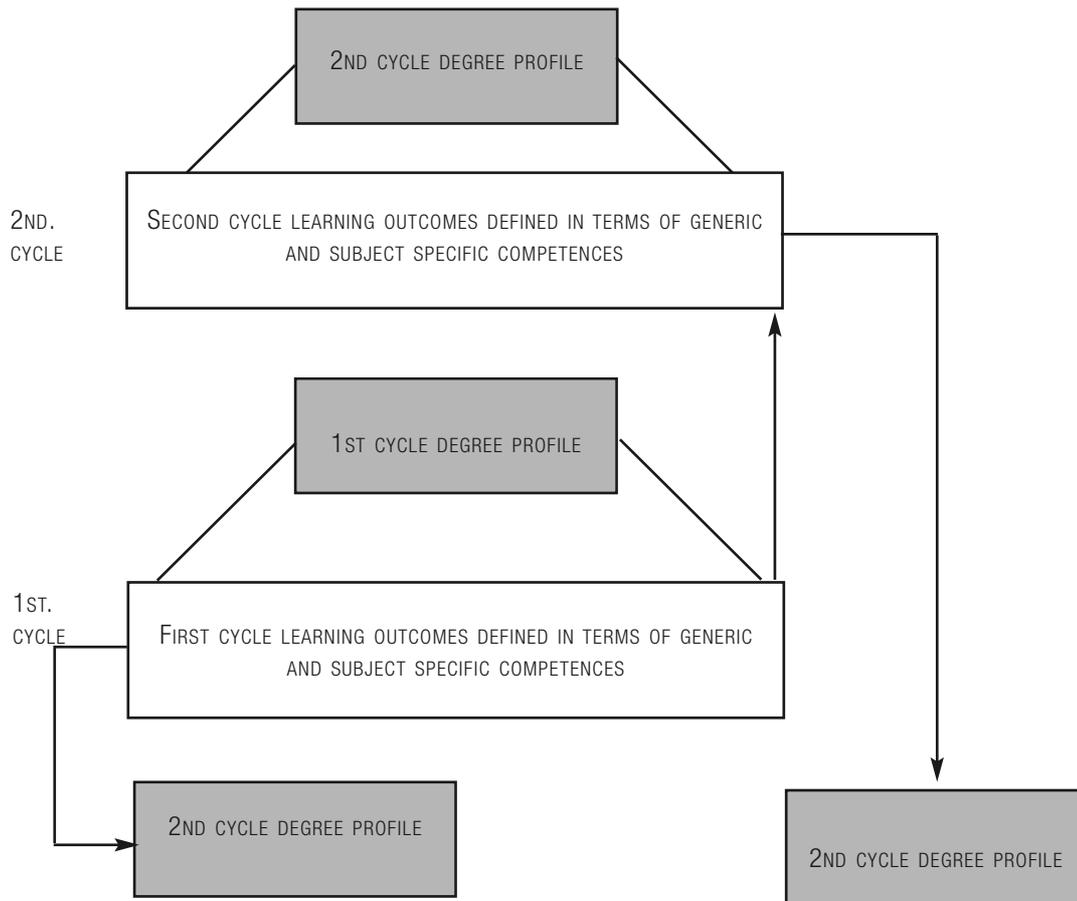
TUNING has discovered that in the vast majority of academic fields, second cycle degree profiles tend to be more diverse than first cycle profiles. This is not surprising since the second cycle is the period of specialisation and often reflects the particular expertise of the university concerned. Sometimes, these degrees are referred to as having a generalist or specific profile, a research profile or a professional profile. TUNING believes that this variety is to be kept, provided that:

- a) it is articulated in a consistent manner at country and at subject area level, and
- b) with the adequate tools for transparency the differences between profiles can be identified and recognition is made possible.

This means that there will most probably be more similarity in the degree profiles of Bachelor programmes than in the degree profiles of Master programmes.

2.4 A degree profile for each programme

All TUNING subject area groups have agreed on the key features that comprise a programme in their field, which are described in the Summary of Outcomes. However, on top of these key features, there is the opportunity to add learning outcomes and competences which are a specialising feature of the particular programme. This means that each programme within a same subject area in Europe may have a slightly different degree profile. As a consequence, every degree profile is unique, but one has to take into account the specific features which are crucial for the subject area concerned. The degree profile is defined in learning outcomes, which are formulated in terms of competences. Degree profiles should be developed for each cycle, according to the following process:



Learning outcomes are formulated both at programme level and on the level of individual course units or modules. The learning outcomes of the individual course units add to the overall learning outcomes of the programme. The situation for competences is more or less comparable. Competences are developed in a progressive way. This means that they are formed in a number of course units or modules at different stages of the programme. Only competences which can actually be assessed should be mentioned explicitly.

3. APPROACH OF THE CORE PROJECT

As explained in the previous chapter, one of the goals of the TUNING project is to facilitate transparency and academic recognition across Europe, by making study programmes more comparable and compatible. One of the instruments being developed in TUNING to facilitate this goal is the degree profile, based on common reference points, and defined in terms of learning outcomes and competences.

As the international recognition of educational programmes is the main responsibility of the national ENIC/NARIC's, these centres are an important stakeholder that could benefit from the TUNING initiative. In order to evaluate to what extent the TUNING project has succeeded in the improvement of comparability and recognition of educational programmes across Europe, and to find out to what extent degree profiles provide valuable additional recognition information for ENIC/NARIC officers, the CoRe project was initiated.

In this chapter there will be reflection on the current methodology of credential evaluation, and on how the TUNING approach (which is a response to the already changing learning paradigms in European higher education) might affect this methodology in the future. Next, the goal and design of the CoRe project will be elaborated upon.

3.1 Current methodology of credential evaluation

Credential evaluation is a research activity in which the credential evaluator analyses what a student has learned during an (usually foreign) educational programme. This analysis is made based on documents that provide information on the content of the study programme. The outcome of the analysis is compared to the global content of a similar study programme in the country of application. Based on the outcome of this comparison, it is decided whether the level of education that the applicant has reached is sufficient to be granted admission to a certain study programme, profession or job in the country of application.

To be able to make an evaluation of a foreign programme, credential evaluators need to rely on certain documents that provide information about the programme. At present, the following documents are required to undertake a credential evaluation:

1. the diploma that has been awarded;
2. the Diploma Supplement and/or transcript, which contains information about the subjects that were followed, the grades that were received, and the study load.

Next to these documents, credential evaluators gather information themselves about issues concerning the educational system in which the diploma has been obtained, the quality and status of the institution and the programme (is a quality assurance system in place and has the programme been accredited), the design and learning goals of the study programme and the subjects that are being taught, etcetera.

Based on this information, credential evaluators evaluate the value of the foreign diploma, looking at least at the following criteria:

1. Entry requirements:
2. Formal duration/study load
3. Structure and contents
4. Formal rights associated with the obtained degree
5. Function of the programme

To improve the recognition of qualifications within the European region, several measures have been taken during the past decade. One of the most important initiatives was the development of the Lisbon Recognition Convention, which was jointly developed by the Council of Europe and UNESCO and came into force in 1999. The Lisbon Recognition Convention aims to facilitate the recognition of qualifications between countries in Europe. In the agreement it is stated that recognition requests should be assessed in a fair manner and within a reasonable time. Recognition can only be refused if the qualification is *substantially different* from that of the host country. The Lisbon Recognition Convention forms the legal framework according to which credential evaluators should work². However, the difficulty here is to make

² Formally, credential evaluators from a country that ratified the Lisbon Recognition Convention are only obliged to apply the LRC principles on countries that have signed the Convention as well, but many credential evaluators across Europe tend to apply them on all applications, irrespective of the country where the diploma was issued.

a fair decision on whether there are substantial differences, and to determine what is considered substantial. To be able to make a fair evaluation of this, it is of crucial importance that credential evaluators have *accurate information* at their disposal about the programme they evaluate and the national programme to which is compared. The degree profiles, containing more detailed information about the learning outcomes and competences of educational programmes and developed as a result of TUNING, could potentially be a source of valuable additional information that might help to conclude whether substantial differences do or do not exist between programmes.

3.2 Changing learning paradigms and credential evaluation

Many changes have taken place in education in Europe during the past years. Historically, curricula used to be developed according to a learning paradigm that was primarily based on obtaining knowledge and achieving learning goals. In general, curriculum designers determined which knowledge a student should obtain, on which basis the courses were designed, and learning goals were formulated. The forms of assessment and examination were primarily designed to measure whether a student did obtain this knowledge.

During the past decade it was mentioned from many sides that education should pay more attention to – in addition to teaching knowledge – teaching skills, behaviour and a certain attitude which are relevant at the work floor and in society at large. This initiated the development towards a more competency-based learning paradigm in education.

TUNING shared this vision, and joined the development towards an outcomes-oriented education approach. They wanted to redesign educational programmes in Europe based on a learning paradigm that focuses on the achievement of learning outcomes and the development of competences. They consulted the most important stakeholders of higher education, i.e. graduates, employers and academics, in order to determine the competences that should be developed during educational programmes within each subject area. As a consequence of this new learning paradigm, a different approach to teaching and assessment is required from educational staff. Teaching knowledge is different to teaching competences. Therefore, TUNING also pays attention to *developing approaches to teaching and learning*, and *methods of assessment* in their model for designing curricula.

This shift in learning paradigm also affects the work of credential evaluation, as it affects the meaning that can be attributed to a diploma. Since different abilities are being taught and assessed during educational programmes that have been designed according to the competency-based learning paradigm, this should also be noticed by a credential evaluator and potentially affect their evaluation conclusion. To clarify this: generally speaking, a graduate who obtained a diploma from a programme that has been designed according to the 'traditional' learning paradigm has shown to have obtained knowledge. A graduate with a diploma from a programme that has been designed according to the competency-based learning paradigm has demonstrated to have obtained knowledge, but also to have developed certain understanding, skills, abilities and values. The abilities that have been assessed and examined during the programme are different, which consequently also gives a different meaning to the diploma that has been obtained. This is certainly a factor that should be considered by credential evaluators.

For this reason it is very important that credential evaluators have access to adequate information about the design of the educational programme, and which aspects (knowledge, or also understanding, skills, abilities and values) have actually been assessed during the educational process, because this is what the diploma reflects. Consequently, to be able to make a fair evaluation, it is necessary to investigate what kind of learning a diploma reflects, based on what was intended in the design of the curriculum. The **degree profile**, containing information about the learning goals and competences that a graduate has developed after completion of the educational programme, could be an appropriate source of information on this for the credential evaluator.

3.3 Goal and research questions of the CoRe project

In the previous chapter, the main features of the TUNING project were described. It must be emphasised that this description reflects the *intentions* of how the TUNING approach is to be implemented, however it does not necessarily correspond with the actual implementation at most institutions taking part in the TUNING process.

Therefore, the main goal of the CoRe project is to investigate to what extent the degree profiles developed by educational institutions do provide relevant information about learning outcomes and competences of a particular

educational programme, and how this information can be improved. This leads to the following research questions:

1. *What information about the objectives, learning outcomes, and competences of an educational programme (as determined within the TUNING project) is currently produced by institutions taking part in the TUNING process (e.g. in the Degree Profile)?*
2. *Is this information appropriate and sufficient for the purpose of credential evaluation? If not, how can this be improved?*
3. *Does the information about the objectives, learning outcomes and competences of an educational programme give better insight in the level of the programme, and therefore have an additional value for the purpose of credential evaluation?*
4. *Would credential evaluators be able to use the documentation that describe the objectives, learning outcomes and competences in their daily practice of credential evaluation?*

3.4 Design of the CoRe project

For the conduction of the CoRe project, a practical exercise of credential evaluation was performed in order to obtain a realistic insight of the usability of the learning outcomes and competences as formulated by institutions in the degree profiles. Programme documents from twenty institutions (that participate in the TUNING project) from four different subject areas (five per subject area) were planned to be collected and evaluated. The subject areas that have been chosen for the project are: History, Chemistry, Business Administration and Nursing.

The credential evaluation process was performed by two teams of credential evaluators, one from the Dutch NARIC, and one from the UK NARIC. To be able to make a good comparison with the national programme, a programme from a Dutch institution and a programme from a UK institution should be included in the document collection for each subject area. The UK NARIC would evaluate the four foreign programmes (including the Dutch programme) and compare to the UK programme. The Dutch NARIC would evaluate the four foreign programmes (including the UK programme) and compare to the Dutch programme. Besides, as it was expected that the comparison between European countries will be somewhat easier because of a greater similarity of the design of the programmes, also one programme of a Latin American country³ was proposed to be included for each of the four subject areas.

For each programme, the following documents should be received from the institutions:

1. the **Diploma Supplement** and/or transcript, which gives information about the subjects that were followed, the grades that were received, and the study load;
2. a **degree profile**, which gives information about the learning outcomes and competences that are intended to be developed during the programme.

However during the process of document collection it became apparent that many educational institutions taking part in the TUNING process had not yet developed a degree profile, and therefore could not provide the documents required for the conduction of the CoRe project. As a result it was difficult to collect documents from the planned number of institutions. Unfortunately it seemed impossible to receive documents from any Latin American institution for any of the subject areas. The subject area groups of Business and History were only able to collect documents from three European institutions, instead of the four originally planned. Figure 1 below illustrates the selection of institutions that were proposed, and the institutions from which documents were actually received during the project.

A second remark that has to be made here is that there seemed to be no consensus about the meaning of the word degree profile. Many institutions called the document providing information about the learning outcomes and competences that are intended to be developed during the programme competence profile instead of a degree profile. As the term competence profile clearly covers the listings of competences that have been evaluated during the project, it has been chosen to use this term in the rest of this document.

³ Since 2005, Latin America also joined the TUNING project.

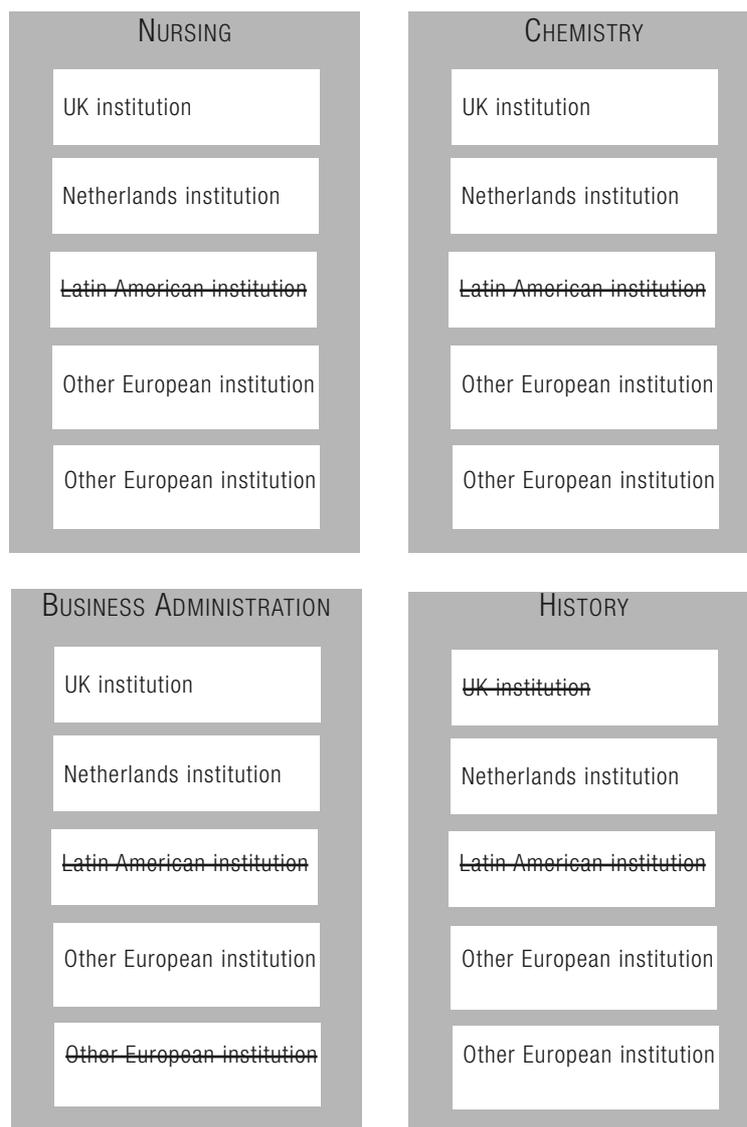


Figure 1: Overview of institutions from which documents were planned to be collected and actually received

Based on the information that was provided in the documents of the institutions, an evaluation of the study programmes and the value of the information for the purpose of credential evaluation were made. During the evaluation process, the following questions were asked:

1. Does the competence profile provide relevant additional information about the programme, which facilitates the making of a fair evaluation?
2. Are the formulations of learning outcomes and competences clear, brief and specific so that good insight can be gained into the level of achievement of the graduate?
3. Are the formulations of learning outcomes and competences that are used by the various educational institutions similar, so that they are comparable?
4. What information is missing to be able to make a fair evaluation, and therefore should be added in the degree profile?

To conduct the evaluation of the value of the information in the degree profiles for the purpose of credential evaluation, three evaluation steps were taken during the project.

Step 1: Evaluation of information necessary for credential evaluation

For each programme it was evaluated which information relevant for the making of a credential evaluation was provided in the received documents. An overview of the relevant information per document (diploma supplement, transcript, degree profile) was made in an evaluation form, discussing the five criteria that are taken into consideration in the process of credential evaluation:

1. Entry requirements
2. Formal duration and study load
3. Structure and contents
4. Formal rights
5. Function of the programme

Based on the information provided in the documents, a comparison was made with the national programme for this subject area. Potential differences of substantial or non-substantial nature were recorded in the evaluation form, after which an evaluation conclusion was drawn.

See Annex 1 for the evaluation form, containing the criteria for credential evaluation.

Step 2: Evaluation of information in the degree profile

After the evaluation of information necessary for credential evaluation of a programme, a more general evaluation of the value of the information in the competence profile was made. For each competence profile received, the following questions were asked:

1. Does the competence profile contain relevant additional information?
2. Are the formulations of competences clear, brief and specific?
3. What information is missing in the degree profile?
4. Does the information in the competence profile give you a better understanding of the level and content of the programme?
5. Does the information in the competence profile affect your evaluation conclusion?

To answer question 2, examples were identified of a) competences that provided relevant information for recognition purposes and/or were clear, brief and specific, b) competences that need further clarification and/or should provide more specific information, c) competences that didn't give any relevant information and/or were stating the obvious. Based on the answers to the questions above, comments and/or recommendations were formulated for the improvement of each particular competence profile for recognition purposes.

See Annex 2 for the analysis form, for the evaluation of the information in the degree profile.

Step 3: Evaluation of the design of the competence profile

Before the start of the project it was expected that within the TUNING project a format for the degree profiles had been determined, and guidelines had been developed on the level and type of information that should be given. However, during the evaluation process it became apparent that the formats of the degree profiles that were received from the sample institutions varied greatly, both in terms of the structure, the presentation and the level and type of information given. Therefore it was decided to include a further step in the evaluation process, that being an evaluation of the design of the degree profiles.

For each degree profile, the following questions regarding the design and structure of the competence profile were answered:

1. Information about what aspects of the programme is being provided in the degree profile?
2. How is the information presented (descriptive, in lists with bullet-points, in tables, or a combination of these forms)?
3. In how many categories are the competences clustered? And what are the names of these categories?
4. How many competences are given?
5. From which perspective are the competences formulated (i.e. what has a graduate learned vs. what should a professional be able to do)?

In the next chapter, each competence profile that was received will be discussed individually and a summary of the analysis results of the 3 steps that formed the evaluation process will be provided.

4. ANALYSIS RESULTS

4.1 Overview of received documents

In total, documents have been received from 14 institutions. It became quickly apparent that for some institutions it was going to prove a difficult task to provide the required documents i.e. 1) Diploma Supplement and/or transcript, and 2) degree profile. Many institutions that were approached for participation in the CoRe project couldn't provide the required documents, probably because they hadn't developed a degree or competence profile yet. The documents that eventually were received from the institutions mentioned above appeared to vary greatly. Only few institutions provided a Diploma Supplement and a degree or competence profile as preferably was required. Other institutions provided a transcript instead of Diploma Supplement, probably because the Diploma Supplement wasn't implemented at their institution yet. Besides, the Diploma Supplements that were received were also quite different in format and type of information provided, even though a standard for the Diploma Supplement format has already been determined by UNESCO/CEPES. Again other institutions sent more extensive programme documents out of which the transcript or competence profile should be distilled by the credential evaluators. These varying combinations of documents and also varying formats of Diploma Supplements and competence profiles made the work of credential evaluation much more complicated, because it was hard to compare the available information with each other, and it took more time to find out what information was provided in which section of the documents, because it was presented in such different ways. More uniformity in the presentation of information in the Diploma Supplement and competence profile would definitely further facilitate the transparency and increase the comparability of educational programmes in Europe. An overview of the institutions per subject area and country from which documents were received, and the type of documents that were provided is given in the table below.

	Case	Country	Name of institution	Document 1: Diploma Supplement or Transcript	Document 2: Competence profile
Nursing	A	Denmark	University College Jutland	Diploma Supplement	Competence profile
	B	Malta	L-Università ta' Malta	Transcript	Competence profile
	C	United Kingdom	University of Southampton	Transcript	Competence profile
	D	Netherlands	Hogeschool Groningen	Diploma Supplement	Competence profile
Chemistry	E	Austria	Technische Universität Wien	Transcript described in <i>Studienplan für das Bakkalaureats-studium Technische Chemie</i> (13 pages)	Competence profile + Learning outcomes described in <i>Self-evaluation Report for the Application for the Chemistry Eurobachelor Label</i> (69 pages)
	F	Belgium	Universiteit Gent	Transcript described in <i>Self-evaluation Report for the Application of the Eurobachelor Label</i> (120 pages)	Competence profile
	G	United Kingdom	Nottingham Trent University	Transcript	Competence profile described in <i>Programme Specifications for The Chemistry Cluster of Programmes</i> (37 pages)
	H	Netherlands	Universiteit van Amsterdam	Diploma Supplement	Competence profile described in section 'Objective' of the Diploma Supplement + Learning outcomes described in <i>Self-evaluation Report for the Application of the Eurobachelor Label</i> (17 pages)

	Case	Country	Name institution	Document 1: Diploma Supplement or Transcript	Document 2: Competence profile
Business	I	Germany	Fachhochschule Osnabrück	Diploma Supplement	Competence profile
	J	United Kingdom	Leeds Metropolitan University	Diploma Supplement	Competence profile described in <i>Programme Specification for the B.A. (Hons) Business and Management Studies</i> (16 pages)
	K	Netherlands	Rijksuniversiteit Groningen	Diploma Supplement	Competence profile
History	L	Iceland	Háskóli Íslands	Diploma Supplement	Competence profile
	M	Italy	Università di Bologna	Diploma Supplement	Competence profile described in section 4.2 of the Diploma Supplement
	N	Netherlands	Rijksuniversiteit Groningen	Diploma Supplement	Competence profile attached as annex to section 4.2 of the Diploma Supplement

Table 1: Overview of institutions from which competence profiles have been evaluated, and documents that have been provided

4.2 Evaluation of competence profiles

In the paragraphs below, the competence profiles of all countries/institutions that were received per subject area will be discussed. First of all the structure of the profile will be described, then comments are provided on a selection of competences that were found in the profile, listed from good to less good examples. Next, comments are given on the usability of the competences for the purpose of credential evaluation. Last, suggestions are made for the general improvement of the competence profile, and their usability for credential evaluation.

4.2.1 Nursing – 4 institutions

A: Denmark, School of Nursing Silkeborg

Name of the institution	University College Jutland
Country	Denmark
Name of the qualification	Bachelor Degree in Nursing
Level of the programme	Bachelor
TUNING subject area	Nursing

Design of the competence profile - structure and format

The competence profile starts with a description of the purpose and function of the educational programme. Then it gives information about the kind of working environment students are prepared to work in. It is mentioned that the student is educated according to the following dimensions of nursing: *to conduct, manage, communicate and develop nursing.*

After this description, competence targets are given clustered in the following categories:

- Intellectual competences (10 competences)
- Professional competences (13 competences)
- Practice competences (14 competences)

Competences are described from the perspective of *what a newly graduated nurse can do or has learned.*

Clarity of competences

The competences in the competence profile are generally quite clear and brief, providing valuable information on the specific skills a graduate has obtained as a result of the programme. Examples of competences and evaluation comments are given below.

Competence description	Evaluation Comment
<i>Masters basic academic working methods, which are prerequisites for acquiring post-graduate competences at master and candidate level</i>	Indicates that the graduate has obtained academic skills that qualify for entrance to a research master's programme; this is interesting information as this is not usual for a nursing programme.
<i>Can independently identify nursing needs, set targets, conduct, evaluate and adjust nursing to selected patient groups</i>	Indicates that the graduate is able to independently provide nursing care
<i>Knows the organization of the health services, including distribution of responsibility between different sectors, departments and players and is able to analyse nursing practice in the light of organizational and administrative framework and conditions of society</i>	Indicates the ability to refer to related sectors in the health care service system, outside the nursing field
<i>Has in-depth knowledge of central areas of nursing, health science, science, humanities and social science</i>	Information is lacking about the level of competence that has been developed and raises the question what are considered as central areas
<i>Can communicate in one of the main languages</i>	This gives no information about the level of communication competence and raises the question which languages are considered 'one of the main'

Usefulness for credential evaluation

The key skills of a nurse are easy to identify in the degree profile, and for credential evaluation purposes it provides additional information regarding the abilities of a graduate. The competence profile gives relevant information with regard to some essential professional and academic skills, which is not provided in the diploma supplement.

A key issue in evaluating nursing programmes (especially for the purpose of entrance to the profession) is whether a nurse is capable of making a diagnosis and a treatment plan, or whether she is only able to work under supervision and instructions of a medical doctor. The competence profile makes it clear that the graduated nurse is able to function independently in these (and other) aspects of the profession.

The information that the graduate masters basic academic working methods, which are prerequisites for acquiring post-graduate competences at master and candidate level could affect the credential evaluation, especially in the case of the graduate seeking admission to a research Master's programme. In the case of professionally oriented programmes such as nursing, this information is quite relevant, since there are many nursing programmes which do not include preparation for academic research.

Recommendations for improving the competence profile

There is no connection between either the four dimensions of the nursing field that are mentioned in the first section of the degree profile, or the list of subjects in the diploma supplement. Describing competences that have been developed in this specific field or subject would make it easier to relate the competences to the structure/content of the programme.

There is no division made between generic and subject-specific competences (although a few generic competences are listed under intellectual competences). This measure would increase the usability of the competence profile for the purpose of comparing educational programmes for international recognition.

Only a few competence descriptions explicitly mention about a certain level of competence that has been acquired. This information is most interesting for credential evaluators and may give them further insight into potential differences in level between programmes. Most other competences describe content, but for a credential evaluator it is hard to assess whether this issue is dealt with more in-depth or more shallow if there is no indication of level, and no information about this particular aspect of content is available from the other programme with which is being compared.

See Annex 3 for the competence profile of this programme.

B: Malta, L-Università ta' Malta

Name of the institution	L-Università ta' Malta
Country	Malta
Name of the qualification	Diploma and Bachelor of Science (Honours) in Nursing Studies
Level of the programme	Diploma and Bachelor (Honours)
TUNING subject area	Nursing

Design of the competence profile – structure and format

The profiles of the Diploma and Bachelor (Honours) programme only contain descriptive information, no list of competences is provided. The description is structured along the following three subjects:

- *Course Objectives and Competences* – describes the general aim of the programme and the formal rights awarded after completion of the programme
- *The Profession* – describes the main activities a nurse has to do to provide nursing care to various groups of patients in various health care settings
- *Personal Qualities and Skills for Nurses* – describes the personal characteristics and physical requirements someone should have to be a nurse

The information is described from the perspective of what a professional nurse should know or be able to do. No direct information is given about whether this knowledge, skills or attitudes have been taught and practiced during the programme. Much of the information is also no competence information, but rather general information about the nursing profession. The section about *The Profession* describes the role of a qualified nurse in Malta, while the section *Personal Qualities and Skills for Nurses* describes the personal and physical requirements for the professional. This information is valuable for individuals who wish to be nurses, but is not relevant from a credential evaluation viewpoint. Neither sections mention the learning outcomes and competences being developed during the programme.

The information in the section about *Course Objectives and Competences* for the Diploma and the Bachelor (honours) programme is different, but the information concerning *The Profession* and the *Personal Qualities and Skills for Nurses* is exactly the same. As a result of this, the difference in the level of learning outcomes between these two programmes cannot be identified.

The information is described in paragraphs instead of in bullet-point lists. The result of this format is that it is difficult to identify the specific outcomes of the course. Because no list is given, each sentence in the description of the competence profile has been considered as 'one piece of competency information'. Feedback on the value of this information on some examples of sentences is given below.

Clarity of competences

Competence description	Evaluation Comment
<i>The nurse responsible for the patient(s) assesses their nursing requirements and draws up a care plan outlining their needs and treatment schedule.</i>	Indicates the ability to diagnose and develop a care plan.
<i>Students are also academically prepared to meet the health care needs of different sectors of the population</i>	This raises the question at what level students are academically prepared. And what are the health care needs of which sectors? It should be specified what a graduate has learned to meet which needs.
<i>The nurse educates the patient throughout the stay in hospital and in preparation for discharge home.</i>	Indicates the ability to inform / educate patients. However it is not stated that a graduate has learned to do these things.
<i>Community based nurses may work in a health centre or clinic or may visit people in their own homes.</i>	This is not a competence.
<i>Technological advances mean that an understanding of, and interest in science is useful.</i>	Whether understanding of and interest in a certain topic is useful is no competence information. Information should be given about what level of understanding about which technological advances the graduate has acquired.
<i>Carrying out treatment requires nursing competence and good observational skills.</i>	This is so obvious such a statement doesn't have any information value. What nursing competence is required, and at which level?
<i>Much of the day may be spent walking, standing and lifting – one must be fit and strong enough to cope with this.</i>	This is not a competence, but rather a physical prerequisite for the nursing profession.

Usefulness for credential evaluation

A key issue in evaluating nursing programmes (especially for the purpose of entrance to the profession) is whether a nurse is capable of making a diagnosis and a treatment plan, or whether she is only able to work under supervision and instructions of a medical doctor. The competence profile makes it clear that the graduated nurse is able to function independently in these (and other) aspects of the profession.

Otherwise, this competence profile is not useful for credential evaluators, since most information is general information about the nursing profession, instead of information about the knowledge, skills or attitudes that have been acquired during the programme.

Recommendations for improving the competence profile

The information given could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular (nursing) knowledge, skills and attitudes have been acquired.

There is no connection between the competence profile and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

The information should be presented more consistently in lists, instead of in plain text.

See Annex 4 for the competence profile of this Diploma and Bachelor (Honours) programme.

C: United Kingdom, University of Southampton

Name of the institution	University of Southampton
Country	United Kingdom
Name of the qualification	Bachelor of Nursing (Honours)
Level of the programme	Bachelor (Honours)
TUNING subject area	Nursing

Design of the competence profile – structure and format

The competence profile starts with a list of six main aims of the educational programme, including its function. Separately mentioned is the fact that the programme *has been designed to prepare you to provide the nursing care required by patients/clients, safely and competently, so that you may assume the responsibilities and accountabilities necessary for entry onto the Professional Register and to ensure public protection.*

Also information is given about the quality assurance by stating that *all programme development is in accordance with Subject Benchmark Statements and the National Qualification Framework, published by the Quality Assurance Agency for Higher Education.*

After this description, intended learning outcomes are given for a) the Common Foundation Programme and b) the Branch Programme, clustered in the following NMC (Nursing and Midwifery Council) domain areas:

Common Foundation Programme

- Professional and ethical practice (5 competences)
- Care delivery (10 competences)
- Care management (3 competences)
- Personal and professional development (2 competences)

Branch Programme

- Competencies and Standards (9 competences)
- Principles and concepts: application (10 competences)
- Subject knowledge, understanding and associated skills (8 competences)

Competences are described from the perspective of what a graduate has achieved at the end of the programme.

Finally, information is provided on the assessment strategy for the programme, the main subject groupings and the criteria for admission.

Clarity of competences

Competence description	Evaluation Comment
<i>Critically evaluate research findings and suggest changes to planned care</i>	Indicates the ability to do this task independently
<i>Critically evaluate outcomes of nursing and other interventions, adjusting care accordingly.</i>	Indicates the ability to do this task independently
<i>Contribute to the planning of nursing care, involving patients and clients and, where possible, their carers, demonstrating an understanding of helping patients and clients to make informed decisions</i>	Indicates that the graduate can contribute to the planning of nursing care, but raises the question to what extent, which tasks can he do independently and which he cannot?
<i>Select and apply knowledge and skills to complex and unexpected situations</i>	This is so general, it raises the question what kinds of knowledge and skills the graduate has gained which he can use in complex and unexpected situations
<i>Demonstrate critical understanding of research-based knowledge and the application to practice</i>	This raises the question at what level graduates have developed understanding of research-based knowledge.
<i>Discuss in an informed manner the implications of professional regulation for nursing practice</i>	This is not a competence, but rather an activity. What should a graduate know/be able to do in relation to the implications of professional regulation for nursing practice?
<i>Discuss methods of, barriers to and the boundaries of effective communication and interpersonal relationships</i>	This is not a competence, but rather an activity. What should a graduate know/be able to do in relation to effective communication and interpersonal relationships?

Usefulness for credential evaluation

The competence profile gives relevant additional information on the specific skills of the qualified nurse in making a diagnosis, a treatment plan and in working independently, which is not available in the transcript.

Recommendations for improving the competence profile

There is no connection between the NMC domain areas and the categories of main subject groupings, which makes it difficult to relate the competencies being developed to the subjects being taught.

There is no division made between generic and subject-specific competences, or subject-specific competences and personal values/attitudes that should be developed. It would be easier to compare programmes with each other if these different types of competences would be clustered.

Many competence descriptions in this profile mention that the graduate is able to contribute to something. This raises the question at which level the student can contribute; which tasks can he do independently and which he cannot? Information about the level of competence is very important for credential evaluators, as this may provide clues for potential differences in level between programmes.

What is interesting about this profile is that competences have been formulated for different end levels in the programme: the Common Foundation Programme (after 1 year), and the Branch Programme (after another 2 years). Although only the Branch Programme competences are relevant for credential evaluators to look at when students have completed the programme, it certainly is valuable to also formulate competences at other levels in the programme, for the purpose of evaluating the capabilities of students who didn't complete the programme, or for flexible enrolment in the programme.

In the competence profile also information is given about the assessment strategy for the programme, the main subject groupings and the criteria for admission. However, this type of information is actually a duplication of information that is already should be given in the diploma supplement.

See Annex 5 for the competence profile of this programme.

D: The Netherlands, Hogeschool Groningen

Name of the institution	Hogeschool Groningen
Country	The Netherlands
Name of the qualification	Bachelor of Nursing
Level of the programme	Bachelor
TUNING subject area	Nursing

Design of the competence profile – structure and format

The competence profile describes competences which should be developed to be able to fulfil various roles in the nursing profession. The following 5 roles are discerned:

- Care provider
- Director
- Designer
- Coach
- Professional practitioner

For each role, one or more goals (key competence) are described. For each goal the competences that are needed to achieve this are given. Then the desired result is described. Each goal belongs to a certain domain and domain specification. Roles can be active in the same domain and domain specifications.

Divided over de several domain specifications, the following numbers of competences are listed: care provider (30 competences in total), director (19 competences in total), designer (33 competences in total), coach (15 competences in total), professional practitioner (16 competences in total).

Competences are described from the perspective of what a HBO nurse does. Most competences are more described as activities that belong to the work package of a role a HBO nurse can fulfil rather than as competences (knowledge, skills, attitudes) a graduate has developed during the educational programme.

Clarity of competences

The use of terms such as *professional standards* and *social standards* seem a little vague, therefore an explanation about what is meant by this in the form of a glossary or footnote may be useful. Equally, the rather vague reference to the use of Information Technology does not provide the reader with a clear picture of the skills possessed by the graduate. For recognition purposes, it would be much more useful to explain which machines the graduate is able to use and their level of computer skills, in order to match their competences against those required in another country. Examples of competences and evaluation comments are given below.

Competence description	Evaluation Comment
<i>Makes an assessment or diagnosis on the basis of scientific knowledge</i>	Indicates the ability to do this task independently
<i>Formulates, elaborates and evaluates a care plan in accordance with professional standards</i>	Indicates the ability to do this task independently
<i>Influences the environment so that it becomes safer</i>	This raises the question how far the circle of influence of a graduate should go; which environment has a graduate be able to influence, and which aspects?
<i>Takes initiatives for improving quality at the departmental level</i>	This raises the question what knowledge a graduate has gained about quality assurance in the nursing care profession?
<i>Offers physical, psycho-social and (medical) technical aid</i>	This is an activity, not a competence. Besides no information is given about the kind of aid a graduate is able to give.
<i>Organizes activities</i>	This is an activity, not a competence. Besides no information is given about the kind of activities a graduate should be able to organize.

Usefulness for credential evaluation

The use of key competences to underline the most important elements of the various roles within the job profile is certainly very useful. They provide a clear and easy-to-find outline of the competences required for the job, which assists the credential evaluation process in a different country. The subsequent list of ways in which the nurse fulfils this competence describes these tasks in more detail, thus encouraging transparency. Furthermore the use of outcomes for these competences demonstrates how their application has a positive impact on the patient/care requester. This patient-centric approach provides an insight into organisation of the sector.

A key issue in evaluating nursing programmes (especially for the purpose of entrance to the profession) is whether a nurse is capable of making a diagnosis and a treatment plan, or whether she is only able to work under supervision and instructions of a medical doctor. The competence profile makes it clear that the graduated nurse is able to function independently in these (and other) aspects of the profession.

Otherwise, this competence profile is not useful for credential evaluators, since most information is general information about the nursing profession, instead of information about the knowledge, skills or attitudes that have been acquired during the programme. Besides, the length of the profile of 11 pages is too excessive for a credential evaluator, and would therefore in its current form only be valuable for those who require a more detailed analysis of the professional competences of a Dutch graduated nurse.

Recommendations for improving the competence profile

The competence profile is a list of tasks a nurse that works in a certain professional role has to be able to fulfil. This means that the competence profile in its current form gives a good indication of what a Dutch graduated nurse can do in professional terms, which could be very useful for prospective employers. However, the profile doesn't really describe what knowledge, skills and attitudes a graduate from this programme has developed, and no direct relation with the educational programme can be found, so that for credential evaluation purposes the information is less valuable. The classification in professional roles is valuable as this gives information about the roles in which a graduate is able to function, but no information is given about the extent to which attention is paid to which roles in the programme, and which of the competences that are needed to fulfil these roles are actually practiced and developed during the programme. The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular (nursing) knowledge has been acquired during the programme.

The structure of the competence profile with roles, domains and domain specifications is rather complicated. This makes it difficult to quickly scan the list of competences, which should be possible for the purpose of credential evaluation. Although most competences are described quite briefly and to the point, the list of competences is very long, due to the fact that the competences required to achieve a certain goal (belonging to a certain role) are described separately. There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

See Annex 6 for the competence profile of this programme.

4.2.2 Chemistry – 4 institutions

E: Austria, Technische Universität Wien

Name of the institution	Technische Universität Wien
Country	Austria
Name of the qualification	Bakkalaureus (Technische Chemie)
Level of the programme	Bachelor
TUNING subject area	Chemistry

Design of the competence profile – structure and format

The competence profile consists of half a page of written text. It starts with a few sentences describing the general purpose and outcomes of the programme. Next, there are two lists of competences under the following headings:

- *The graduates acquire* (consisting of 4 competences)
- *The graduates know* (consisting of 3 competences)

Finally, there are a few more lines of text, in which some further competences are described.

It is not clear why some of the competences are listed and why others are described in the main text. It is not clear whether there is any distinction between the two lists of competences. In the first list (*The graduates acquire*) there is a mention of generic competences, in the following way: generic skills which are applicable in many other contexts. No other generic skills are mentioned.

The competences are described from the perspective of what graduates are able to do or have learned.

Clarity of competences

Competence description	Evaluation Comment
<i>The graduates are able to evaluate and compare different chemical processes with regard to their industrial application (e.g. from an economical, environmental, or legal point of view)</i>	This gives specific information on clearly described skills which could be very helpful for an employer. In the transcript, no economical, environmental or legal subjects are mentioned, so this information is only available in the degree profile.

<i>The graduates are able to interpret the obtained data and evaluate these on a broader context</i>	This raises the question what kind of data the graduates are able to interpret, and in what kind of broader context they are able to evaluate the data
<i>The graduates are familiar with standard operations on laboratory as well as on industrial scale</i>	This raises the question which standard operations the graduates are familiar with
<i>The graduates acquire generic skills which are applicable in many other contexts</i>	This is stating the obvious
<i>The graduates know subject specific methods</i>	This is so vague as to be meaningless

Usefulness for credential evaluation

This competence profile is not useful for credential evaluators, since the descriptions are too vague and do not add much to the information which can be obtained from the transcript of the programme.

On the other hand, one of the competencies described could be useful to employers, namely that the graduate is able to compare the industrial application of chemical processes from an economical, environmental or legal point of view. This information cannot be obtained from the transcript.

Recommendations for improving the competence profile

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular (chemical) knowledge has been acquired. There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

There is almost no information on generic competences.

The competences could be presented more consistently in lists, instead of partly in lists and partly in plain text.

Outcomes in Self-Evaluation Report for the application of the Eurobachelor Label

Besides a degree profile, also a Self-evaluation Report for the Application of the Chemistry Eurobachelor Label was received from this institution. This report also included a list of outcomes expected within the course (page 8-11). The value of this information for the purpose of credential evaluation has also been evaluated.

Design of the competence profile – structure and format (outcomes in self-evaluation report)

The section of the self-evaluation report describing the learning outcomes of the programme is divided into 2 parts:

- subject knowledge outcomes (consisting of 15 competences)
- generic competences (consisting of 11 competences)

Each section is structured differently; the subject knowledge outcomes section includes a table of outcomes, with a second column indicating the unit codes in which those outcomes would be expected. These outcomes are not formulated as competences, but rather as aspects of the subject area that are covered in the programme. The second part provides the generic competences, followed by an explanation of how these competences are accomplished within the programme, identifying the specific units where that competence is demonstrated. This layout makes it easy to identify key skills and competences, in specific areas.

Clarity of competences

As mentioned before, the elements of subject knowledge are actually not formulated in terms of competences, but rather as aspects of the subject area. Although it is clear and specific which aspects of the subject area are meant, it is not made clear to what level and in what context the graduates obtain this knowledge, and have learned to apply it in practice.

The generic competences are more specific to the context and application of the outcomes expected of graduates from this programme.

Usefulness for credential evaluation

The self-evaluation report provides an interesting insight into the different elements involved in the structuring of a Bachelor programme. However the report is very lengthy (69 pages) and complex; therefore it is not appropriate to be read by credential evaluators, institutions and prospective employers. For the purpose of this project, only the learning outcomes described on the pages 8-11 have been considered.

The generic competences are helpful in providing an insight into the specific outcomes of the course. The subject knowledge competences in their current format do not provide enough information on the outcome within that area to have any influence on the evaluation process.

Recommendations for improving the competence profile

The structure of the outcomes within the subject knowledge competences (i.e. in table format) is very clear, particularly the added value of linking the competences directly to the specific unit codes of subjects. However, the competences included need further explanation. Formatting the generic competences in the same way, from a credential evaluation perspective, makes it easier to examine the specific outcomes necessary for analysis of the qualification.

As an independent document for credential evaluation purposes these two tables are not sufficient. It would therefore be advisable to attach the competence profile as an appendix to or incorporate it within the Diploma Supplement.

See Annex 7 for the competence profile and the outcomes described in the self-evaluation report for the application of the Eurobachelor label of this programme.

F: Belgium, Universiteit Gent

Name of the institution	Universiteit Gent
Country	Belgium
Name of the qualification	Bachelor of Chemistry
Level of the programme	Bachelor
TUNING subject area	Chemistry

Design of the competence profile – structure and format

The competence profile consists of almost a page of written text. The competences are divided in three categories:

- chemistry-related cognitive abilities and skills
- skills related to the conduct of laboratory work
- generic skills

The competences are described in long-winded sentences, rather than summed up in concise lists. This makes it difficult to identify key points and areas. Initially, the competences are described from the perspective of which abilities and skills the students acquire during their study. However, halfway through the degree profile, the perspective changes to what graduates are able to do or have learned.

Clarity of competences

Competence description	Evaluation Comment
<i>The students acquire knowledge and understanding of essential aspects concerning the relation between bulk properties of matter and the properties of the individual particles</i>	Sums up concisely the ability to combine and apply various branches of chemistry, although the level of knowledge and understanding is not mentioned
<i>Graduates are able to conduct a whole range of laboratory procedures and use of instrumentation in synthetic and analytical work</i>	This raises the question what range of laboratory procedures graduates are able to conduct
<i>Graduates have acquired numeracy and calculation skills and correct use of units</i>	This is so general, it raises the question at what level graduates have acquired numeracy and calculation skills
<i>Graduates are able to apply the knowledge to solve qualitative and quantitatively problems of a chemical nature</i>	This is so vague as to be meaningless

Usefulness for credential evaluation

This competence profile is not useful for credential evaluators, since the descriptions are in general too vague and do not add much to the information which can be obtained from the transcript of the programme. Besides, due to its long and convoluted layout, it is not easy to quickly scan the degree profile, and as a result the information may be ignored.

Recommendations for improving the competence profile

This programme is quite general in nature, which partly explains the general nature of the competences described. Still, the descriptions could be made more specific by providing more qualifying information on the level of understanding acquired.

There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

The competences themselves lose clarity as a direct result of the structure. It would be preferable to present the competences in lists, and to describe them in shorter sentences.

See Annex 8 for the competence profile of this programme.

G: United Kingdom, Nottingham Trent University

Name of the institution	Nottingham Trent University
Country	United Kingdom
Name of the qualification	Master of Chemistry (Chemistry in Europe)
Level of the programme	Bachelor + Master
TUNING subject area	Chemistry

Design of the competence profile – structure and format

The competence profile forms part of the Programme Specifications for The Chemistry Cluster of Programmes of the Nottingham Trent University, which provides programme information in a style similar to that of the Diploma Supplement. The competence profile can be found in section 7 (Programme outcomes) of the Programme Specifications.

It consists of two lists of competences:

- *Knowledge and understanding* (6 chemistry-based competences)
- *Skills, qualities and attributes* (8 competences, mostly generic).

The competence profile is limited in scope and does not reflect the specifics of the programme. As some of the other sections of the Programme Specifications already offer key information on many aspects of the programme, it may have been a deliberate decision of the institution to provide a competence profile which is quite general in nature.

The competences are described from the perspective of what students should be able to do by the end of the programme.

Clarity of competences

Competence description	Evaluation Comment
<i>By the end of the programme you should be able to demonstrate understanding (BSc –awareness) of major issues currently at the frontiers of chemical research and developments</i>	This gives specific information on the level of the graduate's understanding of the frontiers of chemistry, which is not (as to be expected of a Master's programme) at MSc-level, but at BSc-level
<i>By the end of the programme you should be able to demonstrate knowledge and understanding of the essential terminology, facts, concepts, principles and theories of chemistry and related topics, critically evaluating concepts and applying them in qualitative and quantitative problem solving</i>	This raises the question at what level knowledge and understanding is demonstrated and in which essential terminology, facts, concepts, principles and theories of chemistry and related topics it is demonstrated.

<i>By the end of the programme you should be able to analyse, interpret and evaluate critically data and information retrieved from a variety of sources</i>	This is so general, it raises the question what kind of data the graduate should be able to analyse, interpret and evaluate, and from what variety of sources
<i>By the end of the programme you should be able to solve problems from qualitative and quantitative information</i>	This is so vague as to be meaningless

Usefulness for credential evaluation

The information that the graduate should demonstrate 'BSc-awareness' of major issues currently at the frontiers of chemical research could affect the credential evaluation, especially in the case of the graduate seeking admission to a PhD programme in chemistry in countries where it is required for admission to have research experience at Master's level. This information might be taken as evidence for a substantial difference in content: the graduate has no experience of chemistry research at the Master's level.

Recommendations for improving the competence profile

The competence profile should reflect more on the particulars of the programme, it should not be too general. For instance, the competence profile fails to mention any international or intercultural skills, although the programme includes an industrially based project outside the UK.

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular (chemical) knowledge has been acquired. There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

The subject-specific and generic skills could be separated more clearly.

See Annex 9 for the competence profile of this programme.

H: The Netherlands, Universiteit van Amsterdam

Name of the institution	Universiteit van Amsterdam
Country	The Netherlands
Name of the qualification	Bachelor of Chemistry
Level of the programme	Bachelor
TUNING subject area	Chemistry

Design of the competence profile – structure and format

The competence profile forms part of the Diploma Supplement, described in the section Objective. It consists of three lists of competences:

- *The objectives of the Chemistry bachelor's programme* (7 competences)
- *The final attainment levels of the Chemistry bachelor's programme* (12 competences)
- *General skills* (6 competences)

For some reason, all of the competences listed under General skills are also mentioned under The final attainment levels of the Chemistry bachelor's programme. Some of the other descriptions of competences are also repetitive.

The competences are described from the perspective of what the graduate is able to do or has learned.

Clarity of competences

Competence description	Evaluation Comment
<i>The graduate has an independent, scientifically critical method of working and attitude</i>	Indicates that the graduate has been trained to conduct academic research
<i>The graduate has acquired a solid foundation for teacher's training</i>	This raises the question how 'solid' the foundation for teacher's training of the graduate is, and whether the

	graduate has actually already been trained in pedagogics and didactics
<i>The graduate is familiar with the safety and environmental aspects of chemistry</i>	This is so general, it raises the question how familiar the graduate is with what kind of safety and environmental aspects
<i>The graduate is able to collect and process information</i>	This is stating the obvious

Usefulness for credential evaluation

The competence profile makes it clear that the graduate has been specifically trained in order to enrol in an academic, research-oriented Master's programme. In countries with a binary system of higher education this could be useful information.

Recommendations for improving the competence profile

There should be much less repetition in the competences described.

In our opinion, the competence profile may suggest that the programme contains elements of a teacher's training programme, which to our knowledge is not the case. It should be avoided that misleading suggestions can be read in the degree profile.

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular (chemical) knowledge has been acquired. There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

Outcomes in Self-Evaluation Report for the application of the Eurobachelor Label

Besides the competences that are described in the section Objective of the Diploma Supplement, also a Self-evaluation Report for the Application of the Chemistry Eurobachelor Label (17 pages) was received from this institution. This report also includes a list of outcomes expected within the course (page 8-11). The value of this information for the purpose of credential evaluation has also been evaluated.

Design of the competence profile

The section of the self-evaluation report describing the learning outcomes of the programme is divided into 2 parts:

- *subject knowledge outcomes* (consisting of 15 competences)
- *generic competences* (consisting of 11 competences)

Each section is structured differently; the subject knowledge outcomes section includes a table of outcomes, with a second column indicating the unit codes in which those outcomes would be expected. These outcomes are not formulated as competences, but rather as aspects of the subject area that are covered in the programme. The second part provides the generic competences, followed by an explanation of how these competences are accomplished within the programme, identifying the specific units where that competence is demonstrated. This layout makes it easy to identify key skills and competences, in specific areas.

Clarity of competences

As mentioned before, the elements of subject knowledge are actually not formulated in terms of competences, but rather as aspects of the subject area. Although it is clear and specific which aspects of the subject area are meant, it is not made clear to what level and in what context the graduates obtain this knowledge, and have learned to apply it in practice.

The generic competences are more specific to the context and application of the outcomes expected of graduates from this programme.

Usefulness for credential evaluation

The self-evaluation report provides an interesting insight into the different elements involved in the structuring of a Bachelor programme. However the report is too lengthy (17 pages) and complex; therefore it is not appropriate to be

read by credential evaluators, institutions and prospective employers. For the purpose of this project, only the learning outcomes described on the pages 8-11 have been considered.

The generic competences are helpful in providing an insight into the specific outcomes of the course. The subject knowledge competences in their current format do not provide enough information on the outcome within that area to have any influence on the evaluation process.

Recommendations for improving the competence profile

The structure of the outcomes within the subject knowledge competences (i.e. in table format) is very clear, particularly the added value of linking the competences directly to the specific unit codes of subjects. However, the competences included need further explanation. Formatting the generic competences in the same way, from a credential evaluation perspective, makes it easier to examine the specific outcomes necessary for analysis of the qualification.

As an independent document for credential evaluation purposes these two tables are not sufficient. It would therefore be advisable to attach the competence profile as an appendix to or incorporate it within the Diploma Supplement.

See Annex 10 for the competence profile and the outcomes described in the self-evaluation report for the application of the Eurobachelor label of this programme.

4.2.3 Business Studies – 3 institutions

I: Germany, Fachhochschule Osnabrück

Name of the institution	Fachhochschule Osnabrück
Country	Germany
Name of the qualification	Bachelor and Master in Betriebswirtschaft und Management
Level of the programme	Bachelor and Master
TUNING subject area	Business Studies

Design of the competence profile – structure and format

From this institution, both a competence profile from the Bachelor programme and from the Master-programme have been provided.

Both degree profiles form part of a German-language document that gives the *Lernergebnisse und Niveaustufen* (learning outcomes and levels) of the *3-jähriger Bachelorstudiengang* (3-year Bachelor's programme) and the *2-jähriger Masterstudiengang* (2-year Master's programme) in *Betriebswirtschaft und Management*. These learning outcomes are listed in a table, which gives the competences that are acquired at level 1, 2 and 3 (corresponding to the three years of the Bachelor's programme) and at the level 4 and 5 (corresponding to the two years of the Master's programme). This way of structuring is quite interesting, as it allows to plot personal progression over the course of the programme. This would be a particularly useful tool if issued at the end of each academic year, for example if the student wishes to transfer to another programme, as it illustrates the appropriate expected outcomes.

As a credential evaluator normally only evaluates the final level that has been attained during a programme, we have only looked in more detail at the competences at the final level of the programmes (level 3 for the Bachelor's programme, level 5 for the Master's programme).

The competencies in both the Bachelor and the Master profile are clustered in the following categories:

- Wissen und Verstehen
 - Wissensverbreiterung (Bachelor: 2 competences, 1 example; Master: 1 competence, 1 example)
 - Wissensvertiefung (Bachelor: 1 competence, 1 example; Master: 4 competences, 1 example)

- Können – Wissenserschließung
 - Instrumentell – ICT und numerische Fähigkeiten/Fertigkeiten (Bachelor: 2 competences, 1 example, Master: 3 competences, 1 example)
 - Interpersonell/kommunikativ – Generische kognitive Fähigkeiten/Fertigkeiten (Bachelor: 4 competences, 1 example; Master: 2 competences, 1 example)
 - Systemisch – Anwendung des Wissens und Verstehens (Bachelor: 4 competences, 1 example; Master: 11 competences, 1 example)

Specific examples of competences for the subject of *Strategische Marketingplanung* (strategic planning of marketing) are given for all the above categories.

The competences are described from the perspective of what a student is able to do at a particular level of the programme (at the end of year 1, 2, 3, 4 or 5).

At the end of both documents, there is a list of 7 competences for both the Bachelor and the Master programme in the English language under the heading of *Ein Bachelor-Absolvent eines betriebswirtschaftlichen Studiengangs sollte folgende Lernergebnisse erreicht haben* (a graduate of a Bachelor's programme in Business Studies should have attained the following learning outcomes).

Generally spoken, this competence profile has a structure which is quite different from the other degree profiles that were received.

Clarity of competences

Competence description	Evaluation Comment
<i>Der Studierende hat die Fähigkeit Routinemethoden der Anfragen und / oder Forschung zu üben</i>	This indicates that the student is able to use routine methods of research, rather than conducting original research
<i>Die Fähigkeit zu belegen und/oder arbeiten mit/auf eines breiten und integrierten Wissens und Verstehens des Umfangs, der Hauptgebiete und der Grenzen eines Lerngebiets / einer Disziplin</i>	This raises the question how broad and integrated the knowledge and understanding are, and what the range, main fields and boundaries of a discipline are
<i>Die Fähigkeit zu belegen und/oder arbeiten mit/auf ein kritisches Verständnis einer Auswahl der wichtigsten Theorien, Prinzipien, Konzepten und Terminologie</i>	This raises the question what the most important theories, principles, concepts and terminology are
<i>Ein vertieftes Wissen in einigen Bereichen und/oder Wissen einer oder mehrerer Vertiefungen, die von aktuellen Entwicklungen getragen werden</i>	This is so obvious, such a statement doesn't have any information value, it doesn't offer any further insight in the subject matter of which the student develops a deeper understanding.
<i>Interface with other functions</i>	It is not clear what is meant here
<i>Have self-awareness</i>	This is so vague as to be meaningless

Usefulness for credential evaluation

The competence profile gives detailed information about the competences that a student develops on a year-by-year basis, which enables the credential evaluator to understand what the graduate is able to do on completion of the programme, but also the level that has been attained after completion of parts of the programme.

The examples of how certain competences have been developed are quite valuable, as they demonstrate how these competences apply to a degree in business management.

However, the competence profile does not make it clear whether this programme prepares students for academic research or for the job market (a distinction which is usually quite clear in the German binary system of higher education).

Recommendations for improving the competence profile

The competence profile should more specifically reflect the goals and nature of the programme, and not make too many claims.

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular knowledge has been acquired. This specifically applies to the subject-specific competences.

The competences should be presented in simple lists, rather than in a complicated table.

There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

The information concerning the generic competences (like ICT competences) and how they relate to the modules of the programme may be very useful for employers, especially in an international context. However, in order to improve transparency, it would be useful to develop a set of standard descriptors for generic competences that could be used on a Europe-wide basis.

What is interesting about this profile is that competences have been formulated for different levels in the programme. Although only the competences that have been developed at the end of the three year programme are relevant for credential evaluators to take into consideration when students have completed the entire Bachelor-programme, it certainly is valuable to formulate competences at other levels in the programme, for the purpose of evaluating the capabilities of students who did not complete the programme, or for flexible enrolment in the programme.

See Annex 11 for the competence profile of these Bachelor and Master programmes.

J: United Kingdom, Leeds Metropolitan University

Name of the institution	Leeds Metropolitan University
Country	United Kingdom
Name of the qualification	Bachelor of Arts (Honours) Business and Management Studies
Level of the programme	Bachelor (Honours)
TUNING subject area	Business Studies

Design of the competence profile

The competence profile forms part of the Programme Specification of the B.A. (Hons) Business and Management Studies of the Leeds Metropolitan University, which provides programme information in a style similar to that of the Diploma Supplement. The competence profile can be found in section 9 (Specific learning outcomes) of the Programme Specification.

It consists of six lists of competences, two each for the 3 levels of the programme. For our purpose we have selected only the two lists of level 3, the final level of the programme.

These two lists are divided in:

- *unnamed skills* (6 competences in business and management)
- *skills and other attributes* (8 competences, partly generic).

The competences are described from the perspective of what students should be able to do on successful completion of level 1, 2 or 3.

Clarity of competences

Competence description	Evaluation Comment
<i>On succesful completion of Level 3 students should be able to evaluate ethical and international issues facing organisations when formulating and implementing strategies</i>	This description gives the information that ethical and international issues are part of the programme, which can not be obtained from subjects listed in the diploma supplement

<i>On successful completion of Level 3 students should be able to contribute to research into business and management issues using appropriate data, sources and methodologies</i>	This raises the question what kind of contribution students should be able to provide to research, and what the appropriate data, sources and methodologies are
<i>On successful completion of Level 3 students should be able to address a range of contemporary and pervasive issues in relation to the management of change and innovation</i>	This is so general, it raises the question which contemporary and pervasive issues students should be able to address
<i>On successful completion of Level 3 students should be able to undertake appropriate further training or study of a professional or equivalent nature</i>	This is stating the obvious

Usefulness for credential evaluation

The competence profile makes it clear that the programme does have an international orientation, which is not apparent from the Diploma Supplement. This might influence the evaluation, especially in case a comparison is made to a programme in international business studies.

Recommendations for improving the competence profile

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular knowledge has been acquired. There is no connection between the competences and the list of subjects in the transcript. A description of competences that have been developed in specific subjects would make it easier to relate the competences to the structure/content of the programme.

The subject-specific and generic skills could be separated more clearly.

What is interesting about this profile is that competences have been formulated for different levels in the programme. Although only the competences that have been developed at the end of the programme are relevant for credential evaluators to take into consideration when students have completed the entire Bachelor's programme, it certainly is valuable to formulate competences at other levels in the programme, for the purpose of evaluating the capabilities of students who did not complete the programme, or for flexible enrolment in the programme.

See Annex 12 for the competence profile of this programme.

K: The Netherlands, Rijksuniversiteit Groningen

From this institution, competence profiles from two different programmes have been received: The Bachelor and Master of International Economics and Business, and the Bachelor and Master of International Business Management. The

Name of the institution	Rijksuniversiteit Groningen
Country	The Netherlands
Name of the qualification	Bachelor and Master in International Economics & Business
Level of the programme	Bachelor and Master
TUNING subject area	Business Studies

degree profiles of both programmes will be discussed below.

The competences in both the Bachelor and the Master profile of the International Economics & Business programme are clustered in the following categories:

- *Knowledge* (5 competences for the Bachelor, and 6 competences for the Master programme)
- *Skills* (5 competences for the Bachelor, and 5 competences for the Master programme)
- *Attitude* (5 competences for the Bachelor, and 6 competences for the Master programme)

The competences are described from the perspective of what graduates are able to do or have learned.

Furthermore, a table is provided in which the relationship between learning outcomes and courses is indicated, by marking off with an 'X' the courses in which a certain competence is developed (see below). For the Bachelor programme, the table contains 13 of the 15 competences of the profile, while 2 of the Attitude competences are lacking. For the Master programme, the table contains 14 of the 17 competences, while 3 competences are lacking. In one case, the description of the competence does not seem to correspond to the entry in the table: Graduates will be able to apply the analysis techniques and skills acquired to the economics knowledge area is summarized in the table as applying knowledge of lit.

Learning outcome Courses	knowledge of the (int.) Economics knowledge area	relationships between the course	applying knowledge of lit.	critical assessment	language skills	routine research	collecting and analysing information	IT skills	comm. skills (SG1)	multidisciplinary teams (SG1)	Investigative attitude	further study	intercultural context (SG1)
Bachelor's degree in IE&B													
International Business Ia	X				X		X	X	X	X			X
International Business Ib	X		X		X	X	X	X	X	X	X		X
International Business IIa	X		X		X	X		X	X	X			X
International Business IIb	X		X		X	X		X	X	X	X		X
International Business III	X	X	X	X	X	X	X	X	X	X	X	X	X
International Economics I	X				X			X	X	X			X
International Economics II	X				X			X	X	X			X
International Economics III	X	X	X	X	X	X	X	X	X	X	X	X	X
English (Ia,b,c,d)					X				X	X			X
Spanish					X				X	X			X
Electives	X				X					X			X
Study abroad	X			X	X				X	X			X
Bachelor's thesis	X	X	X	X	X	X	X	X	X	X	X	X	X
Macroeconomics I	X				X								
Microeconomics I	X				X								
Industrial Economics	X	X			X								
Finance (I&II)	X				X		X						
International Marketing (I&II)	X				X								
Statistics (Ia,b & II)			X		X	X	X	X	X	X	X		X
Mathematics (Ia,b & IIa)					X	X							
Financial Accounting	X				X								
Public Finance	X				X								

In principle, providing such a table seems to be a good method to show the connection between competences developed and subjects followed (which is lacking in most of the degree profiles studied).

Clarity of competences

Competence description	Evaluation Comment
<i>Graduates will have a good command of English (written as well as oral) and a basic knowledge of a second foreign language, and will be able to apply this knowledge in the context of further study or in an international work environment within a commercial company or other organization</i>	This explains the function of the two foreign languages appearing in the list of subjects of the Diploma Supplement, which might otherwise be interpreted as being general language courses selected by the graduate as optional subjects
<i>Graduates will be able to apply the analysis techniques and skills acquired to the economics knowledge area</i>	This raises the question which analysis techniques and skills the graduates are able to apply to which part of the economics knowledge area
<i>Graduates will be able to collect quantitative and qualitative information and independently analyse and interpret it, including as part of a (multidisciplinary) team</i>	This raises the question what kind of quantitative and qualitative information graduates are able to collect, analyse and interpret. Furthermore, it is not clear why the additional information on working in a (multidisciplinary) team is given here, especially as this skill is already mentioned in a separate competence.
<i>Graduates are interested in (business) economics phenomena and questions, including in their social context</i>	This is not a competence

Usefulness for credential evaluation

This competence profile is not very useful for credential evaluators, since the descriptions are in general too vague and do not add much to the information which can be obtained from the Diploma Supplement, with the exception of the explanation of the function of the foreign languages in the programme.

Recommendations for improving the competence profile

The descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular knowledge has been acquired. A clear distinction between subject-specific and generic skills could be made.

Name of the institution	Rijksuniversiteit Groningen
Country	The Netherlands
Name of the qualification	Bachelor and Master in International Business Management
Level of the programme	Bachelor and Master
TUNING subject area	Business Studies

Design of the competence profile

The competence profile of this programme describes the following 5 competence areas:

- Disciplinary knowledge and understanding (4 competences)
- Methodological competence (4 competences)
- Working in an interdisciplinary way (3 competences)
- Academic attitude and skills (6 competences)
- Social communication skills (10 competences)

The information under these subject headings is of descriptive nature, no bullet-point lists of competences are given.

The outcome descriptions are very detailed and informative. The descriptions start with a number of competences printed in bold text, then provide the learning outcomes expected of graduates, and finally provide some more competences. It is not clear why the competences are split in this way.

The competences are described from the perspective of what graduates are able to do or have learned. There is no clear distinction between generic competences and subject-specific competences

Clarity of competences

Competence description	Evaluation Comment
<i>Graduates are expected to be able to independently conduct research in a methodological way</i>	This clearly establishes the academic, research-oriented character of the programme
<i>Graduates are able to effectively cooperate and communicate in international and multicultural work environments</i>	This gives detailed information in a concise way
<i>Graduates are effective participants in meetings and are able to take minutes</i>	This gives detailed information in a concise way
<i>Graduates have an understanding of the methods and techniques that are needed for diagnosing organizational issues</i>	This raises the question to what degree the graduates have an understanding of which methods and techniques needed for diagnosing what kind of organizational issues
<i>Graduates have knowledge of the most important methodologies for business research</i>	This raises the question what the most important methodologies are
<i>Graduates must also be up-to-date with recent developments in the international aspects of the field of Business Studies</i>	This is not a competence

Usefulness for credential evaluation

This competence profile is useful for credential evaluators, as it establishes the academic, research-oriented character of the programme.

Furthermore, it is easy to understand what the graduate of this business degree is able to do as a direct result of the programme. This is important from a credential evaluation perspective in ascertaining the level of the qualification, and the areas in which the individual will be able to work in the country of application.

Recommendations for improving the competence profile

As the competences are embedded in text it is difficult to identify them quickly, so a change in structure, to perhaps the use of bullet points, would be more helpful. For example:

Graduates of this programme are:

- *able to effectively cooperate and communicate in international and multicultural work environments*
- *able to participate in task and goal-oriented project groups as well as supervise them*
- *effective participants in meetings and are able to take minutes*

It would also add value from a credential evaluation perspective to identify the specific modules that led to the achievement of particular competences.

Some of the descriptions could be made more specific in two ways: by providing more qualifying information on the level of understanding acquired, and by providing more information on what particular knowledge has been acquired.

A clear distinction between subject-specific and generic skills could be made.

See Annex 13 for the degree profiles of the Bachelor and Master of International Economics and Business, and the Bachelor and Master of International Business Management.

4.2.4 History – 3 institutions

L: Iceland, Háskóli Íslands

Name of the institution	Háskóli Íslands
Country	Iceland
Name of the qualification	Bachelor Degree om History
Level of the programme	Bachelor
TUNING subject area	History

Design of the competence profile – structure and format

The competence profile describes the competences that should be developed at the end of four phases of the study programme. At the beginning of each phase description, the main goal, the study load and the entrance requirements are described. The following four phases are discerned:

First cycle:

- one year academic basic study in History (60 ECTS, part of a BA degree)
- two years academic basic study in History (120 ECTS, main subjects of a BA degree)
- three years academic basic study in History (180 ECTS, BA degree)

Second cycle:

- two year academic post-graduate study in History (120 ECTS, MA degree)

The competences of the first cycle (BA) are clustered in the following categories:

- Knowledge and understanding (5 competences)
- Practical and academic ability (9 competences)
- Competence in communication (4 competences)
- General academic competence (2 competences)

The competences of the second cycle (MA) are clustered in the following categories:

- Knowledge and understanding (3 competences)
- Competences (8 competences)

Competences are described from the perspective of what a student can do or has learned.

Clarity of competences

Competence description	Evaluation Comment
<i>The student is competent to write short scholarly articles where s/he discusses academic subjects and problems.</i>	Indicates the ability to do this task independently
<i>The student knows how to use scholarly references and to design bibliographies.</i>	Indicates the ability to do this task independently
<i>The student understands the diverse methods of historical research.</i>	This raises the question about which methods of historical research the student has learned, and whether he/she is also able to apply these
<i>The student can use statistics.</i>	This raises the question at which level the student has learned to use statistics.
<i>The student has acquired a critical perspective of history and understands that the past influences the present.</i>	This competence is rather vague and doesn't give any measurable information on what the student has actually learned.
<i>The student has acquired enough academic competence to continue his/her studies in history.</i>	This competence doesn't give any relevant information; what is considered enough?

Usefulness for credential evaluation

The structure of the competence profile is quite clear, and enables a credential evaluator to view the projected progression of the student throughout both programmes. However, the competence descriptions themselves are in general too vague and do not add much to the information which can be obtained from the Diploma Supplement. From this point of view this competence profile is not very useful for credential evaluators.

Recommendations for improving the competence profile

There is no connection between the competence profile and the list of subjects in the diploma supplement. Describing competences that have been developed in a specific subject would make it easier to relate the competences to the structure/content of the programme.

Some competences mention about certain content which the student understands, without mentioning which content this is. The usability of such competences for comparison would increase if this content would be described more specific (in subject-specific competences).

No division is made between generic and subject-specific competences. Although some generic competences are mentioned in the category of 'competence in communication' and 'practical and academic ability', they are hard to find if a credential evaluator wants to make a quick comparison of two degree profiles from different programmes. A similar description format in which generic and subject-specific competences would be discerned would therefore increase the usability. Besides, a classification of categories of subject-specific competences which would be used for all history programmes would also add to this goal.

The competences in this competence profile are defined in terms of knowledge a student has obtained, while less attention is paid to the experience that is gained and the abilities that have been developed. The competences could be improved by also indicating to what extent students have learned to apply knowledge.

What is interesting about this profile is that competences have been formulated for different end levels in the programme. Although only the competences that have been developed after the three year programme are relevant for credential evaluators to look at when students have completed the entire Bachelor-programme, it certainly is valuable to also formulate competences at other levels in the programme, for the purpose of evaluating the capabilities of students who didn't complete the programme, or for flexible enrolment in the programme.

See Annex 14 for the competence profile of this programme.

M: Italy, Università di Bologna

Name of the institution	Università di Bologna
Country	Italy
Name of the qualification	Master Degree in Ancient History
Level of the programme	Master
TUNING subject area	History

Design of the competence profile – structure and format

The competence profile describes the competences that should be developed at the end of the 2 year Master programme. The competences are described in two parts, with the following category headings:

- *Learning outcomes – graduates are expected to acquire the following specific skills (5 competences, dealing with subject-specific knowledge and skills acquired)*
- *Graduates are also expected to acquire (11 competences of more generic academic nature)*

After these lists of competences, also information is being provided concerning the admission requirements, the final examination and the career opportunities after completion of this programme.

Clarity of competences

Competence description	Evaluation Comment
<i>A detailed knowledge of the history of the Greek and Roman periods with particular emphasis on the transition periods and the areas and timing of interaction between cultures, such as the Hellenistic age and the post-Roman times</i>	Demonstrates that the graduate is an expert on this specific aspect of the subject area
<i>A complete mastery of reading methodologies, critical editions, analysis, heuristics, different types of documentary material, such as inscriptions, papyri, and ancient coins.</i>	Demonstrates that the graduate is fully able to read any inscriptions out of the ancient period
<i>The complete mastery of a wide range of techniques and methodologies, such as the ability to carry out bibliographical and archive searches, a critical reading and a textual analysis, a deeper knowledge of the variety of the historically most used methodologies, use of the statistical analysis and application of categories.</i>	This competence is rather vague about the types of techniques and methodologies that are meant. An elaboration is given, but this is presented as if these are examples, instead of a total coverage of the techniques and methodologies meant.

Usefulness for credential evaluation

The competence formulations in this profile are generally quite clear, and provide a good insight in the subject-specific aspects that have been covered during the programme. This information can be a valuable addition to the information normally presented in the Diploma Supplement, and provide further insight in the nature and level of the programme to a credential evaluator.

Recommendations for improving the competence profile

In the profile is stated that graduates are expected to acquire the competences listed. This implies that it is rather doubtful whether the graduate indeed did acquire these competences. The information stated in a competence profile should be reliable for a credential evaluator, the educational institution should be able to assure that certain competences have been developed by graduates, because this has been assessed and examined by the institution. The two categories of competences that are mentioned in the profile are not very discerning. For the clarity of the profile, and the possibility to make a quick scan of the information, it would be advisable to have categories of competences with a clear title which covers the content of the competences mentioned under this heading.

See Annex 15 for the competence profile of this programme.

N: The Netherlands, Rijksuniversiteit Groningen

Name of the institution	Rijksuniversiteit Groningen
Country	The Netherlands
Name of the qualification	Bachelor and Master Degree in History
Level of the programme	Bachelor and Master
TUNING subject area	History

Design of the competence profile – structure and format

The competence profile is attached as annex to section 4.2 (programme requirements) of the Diploma Supplement. From this institution, both a competence profile from the Bachelor programme and from the Master-programme have been provided.

Both profiles start with a brief description of the aim of the programme, followed by a list of competences, clustered in same type of categories.

The competences in both the Bachelor and the Master profile are clustered in the following categories:

- Subject-specific theoretical and practical knowledge (4 competences for the Bachelor, and 4 competences for the Master programme)
- Subject-specific skills and attitudes (9 competences for the Bachelor, and 5 competences for the Master programme)
- Academic and generic skills and attitudes
 - Academic (6 competences for the Bachelor, and 1 competence for the Master programme)
 - Generic (5 competences for the Bachelor, and 2 competences for the Master programme)

Competences are described from the perspective of what a graduate can do or has learned.

Clarity of competences

Competence description	Evaluation Comment
<i>Are able to analyse documents critically and to distinguish between main aspects and related aspects</i>	Indicates the ability to do this task independently
<i>Have specialist knowledge of a specific theme or period, including knowledge of classical and current subject-specific discussions and trends within this theme or period</i>	Indicates that the level of specialist has been attained for a specific theme or period of history
<i>Are able to independently collect, evaluate, interpret and analyse and put into perspective the specific methods, techniques and skills, complex primary and secondary sources related to the chosen major</i>	Indicates the ability to independently perform historical research
<i>Possesses a broad basic knowledge of historiography and the theory of history</i>	What is considered a broad basic knowledge? Should we assume this is the same for all European institutions?
<i>Are familiar with at least one non-written technique</i>	What does this mean?
<i>Have familiarized themselves with several thematic fields</i>	This is so general it doesn't give any information about the graduate's competence
<i>Have a thorough grounding in history</i>	This is so general it doesn't give any information about the graduate's competence

Usefulness for credential evaluation

This competence profile is not very useful for credential evaluators, since the descriptions do not add much to the information which can be obtained from the Diploma Supplement. However the fact that the competence profile is attached as part of the Diploma Supplement enables the credential evaluator to view all the necessary information within one document, which facilitates easy referencing.

Recommendations for improving the competence profile

The competence profile has a good structure and content with regard to categories and format. A good aspect is that a clear division has been made between subject-specific and generic competences. Nevertheless it would be recommended to expand on the generic competences, in order to assist employers, institutions and credential evaluators in ascertaining the level and abilities of the graduate.

Generally spoken, the list of competences is brief, and also the competences themselves are formulated quite brief and specific. This makes it easy for a credential evaluator to make a quick scan, and identify the specific skill areas.

However, no connection has been made with the list of subjects, and the formulation and clustering of competences is different from other history programmes in Europe, which makes them hard to compare.

Besides, the titles of competency categories could be reconsidered to make them simpler and more understandable, or it could be considered to attach a glossary which explains the meaning of the different categories.

See Annex 16 for the competence profile of this Bachelor and Master programme.

5. Conclusions and Recommendations

In this chapter, a summary of the main conclusions that could be drawn out of the analysis of the CoRe project will be given. Secondly, recommendations will be formulated to the two main stakeholders in this project, the TUNING project and the ENIC/NARIC networks, on what should be done to further develop the degree/competence profile to increase its usability for the purpose of credential evaluation in the future.

5.1 Relevance of the CoRe project

During the process of document collection it became apparent that many educational institutions taking part in the TUNING process had not yet developed a degree/competence profile. The profiles that were received appeared to be structured in very different ways, including very different types and levels of information concerning the learning outcomes and competences of graduates. As it became clear that the institutions were still in the early stages of implementation and development of the degree/competence profiles, it could be considered that it was too early to carry out this project. The project team however strongly rejects this opinion, as it has provided the CoRe project with the opportunity to influence the development process, and give recommendations concerning the required format, type and level of information provided in the degree/competence profile from a credential evaluation perspective. It is therefore believed that the outcomes of the CoRe-project will assist the TUNING project and the participating institutions to continue their work, through the provision of guidelines on further development.

5.2 Main conclusions

The main conclusions that have been drawn during the CoRe project are the following:

1. Varying information provided in the degree/competence profile

There appeared to be a great variation in the type of information that was provided in the degree/competence profiles that were received. The core element to be evaluated in the CoRe project concerned the learning outcomes that a graduate achieved and the competences developed during the programme. Indeed, this information was available in most of the profiles evaluated in the project. However, quite a number of profiles also provided various other types of information, such as:

- the aim and function of the programme
- the formal rights of the programme
- the entry requirements/admission criteria
- the study load of the programme
- the assessment methods being used in the programme
- the way in which quality assurance is taken care of in the programme
- a list of subjects or subject groupings being taught in the programme
- a description of the profession/professional field in which the graduate is prepared to work
- the career opportunities after completion of the programme
- the roles a graduate is able to fulfil after completion of the programme
- the activities a professional should be able to perform
- the personal characteristics and physical requirements that are required for the profession for which the programme prepares

Some of these types of information (like the aim and function, formal rights, entry requirements, study load, list of subjects) were a duplication of information already provided in the Diploma Supplement. Other types of information were not relevant for the purpose of credential evaluation, although it might be considered valuable for other target groups. On the basis of this observation, it could be concluded that there is no similar perception among the institutions concerning the aim of the degree/competence profile and the information that should be provided here. Therefore, it should be considered necessary to develop clear guidelines concerning the different target groups (e.g. credential evaluators, admitting institutions, employers, educational institutions, students, etc.) for which the information in the degree/competence profile is intended and the type of information that these target groups are looking for.

2. Varying format in which competences are presented

Most institutions that submitted competence profiles presented the competences in a format of bullet-point lists, divided into certain categories of competences. Other competence profiles however, provided the information in paragraphs of text, and others presented it in tables. The project team considers the bullet-point lists as the most appropriate way of

presentation, as this enables a credential evaluator to obtain a quick overview of the competences developed. The presentation in table-form may also have advantages, in particular when this provides a connection between the competences and the subjects during which these competences are being developed. The full text presentation however, should be avoided, as this form makes it difficult to make a quick scan of the information.

3. Categories of competences vary greatly

As mentioned above, the majority of competence profiles that were received contained bullet-point lists of competences that were split into a number of categories. The CoRe project team considered this a good form of presentation, but the fact that all institutions categorised the competences differently made it very difficult to compare the profiles; it was difficult to understand and identify the link between competences described in one profile and compare that to another profile, because such a different categorisation and classification was used. There was a great variation both in the names of categories that were used, as well as in the number (varying from 2 to 5) of categories. To illustrate the variation, see Figure 2 below for an overview of the various categorisations being used.

The Core project team has the opinion that at least a distinction between the categories generic competences and subject-specific competences should be made in any degree/competence profile – a distinction that is also being promoted by TUNING. This distinction was found in a couple, but certainly not all profiles received.

4. Number of competences varies greatly

The total number of competences that were described in the competence profiles varied greatly, from a minimum of 11 competences, to a maximum of 113 competences. Obviously, 113 competences are too many to study to get a quick overview of the main competences that graduates have developed during a programme. An impact of this great variation in numbers, is that also a great variety was found in the number of learning outcomes and aspects of the subject area included, as obviously more aspects can be covered when using more competences.

	<ol style="list-style-type: none"> 1. Care provider 2. Director 3. Designer 4. Coach 5. Professional practitioner
<ol style="list-style-type: none"> 1. Competencies and standards 2. Principles and concepts: application 3. Subject knowledge, understanding and associated skills 	<ol style="list-style-type: none"> 1. Intellectual competences 2. Professional competences 3. Practice competences
<ol style="list-style-type: none"> 1. Course objectives and competences 2. The profession 3. Personal qualities and skills for nurses 	<ol style="list-style-type: none"> 1. Unnamed skills 2. Skills and other attributes
<ol style="list-style-type: none"> 1. Disciplinary knowledge and understanding 2. Methodological competence 3. Working in an interdisciplinary way 4. Academic attitude and skills 5. Social communication skills 	<ol style="list-style-type: none"> 1. Subject knowledge outcomes 2. Generic competences
<ol style="list-style-type: none"> 1. Subject-specific theoretical and practical knowledge 2. Subject-specific skills and attitude 3. Academic and generic skills and attitudes 	<ol style="list-style-type: none"> 1. Objectives 2. Final attainment levels 3. General skills
<ol style="list-style-type: none"> 1. Subject-specific theoretical and practical knowledge 2. Subject-specific skills and attitude 3. Academic and generic skills and attitudes 	<ol style="list-style-type: none"> 1. Knowledge 2. Skills 3. Attitudes
<ol style="list-style-type: none"> 1. Knowledge and understanding 2. Skills, qualities and attributes 	<ol style="list-style-type: none"> 1. The graduates acquire 2. The graduates know
<ol style="list-style-type: none"> 1. Chemistry-related cognitive abilities and skills 2. Skills related to the conduct of laboratory work 3. Generic skills 	<ol style="list-style-type: none"> 1. Care provider 2. Director 3. Designer 4. Coach

Figure 2: Overview of varying names and numbers of competency categories

5. Varying perspective from which competences are described

The perspective from which the competences were described varied as well. The following variations were found:

What a graduate is able to do / knows at the end of the programme

What a graduate should be able to do / know at the end of the programme

What a professional should be able to do / know

This variation in the perspective from which competences are being described implies a difference in the meanings that can be attributed to the information. In principle, credential evaluators need to receive accurate information concerning the learning outcomes that a graduate has achieved during a programme, so that they can draw conclusions regarding the knowledge that has been acquired and the competences that have been developed. Therefore, information about competences that should be achieved by a graduate, or competences a professional should have are not relevant. The credential evaluator needs to obtain accurate information concerning the competences a graduate has actually developed during the programme, which should be easy to provide as these competences should be assessed.

In some cases however, institutions seemed to make unrealistic claims concerning the competences that were developed by a graduate. It is emphasised here that the claims made in a degree/competence profile referring to the competences being developed by a graduate should be substantiated by assessments during the programme.

6. Competence information is not sufficiently specific

In most of the competence profiles studied, the description of competences did not provide enough specific information on the subject area knowledge acquired and the skills and attitudes that have been developed. Many competences raised questions concerning the specific competence area that was meant, or were just too general, too vague or stating the obvious. Many examples of such competences that gave no specific information are provided in chapter 4. However, also some examples were found of competences that did contain relevant information that provided further insight on the level and content of the programme which could not be retrieved from the information provided in the Diploma Supplement and/or transcript. Therefore, even though at this stage not many competences could be found that might affect credential evaluation conclusions, the CoRe project team still believes that a competence profile has the potential to provide further insight in the content and level of a programme, provided that the competences are formulated in a more specific way. It is however clear that this will be a difficult iterative process of formulation, evaluation and revision, during which the competency formulations will need to be improved.

7. Varying competence language being used

One important problem that hinders the comparability of the degree/competence profiles is the use of different words and phrases, so that competences look different, while in many cases actually similar learning outcomes or competences are meant. When institutions use different language, it is very difficult for credential evaluators to match the competences in profiles that actually are describing similar learning outcomes, and to draw conclusions concerning the question whether the same competences are meant here, or whether there are differences in the learning outcomes and competences that have been attained. To increase the comparability of the degree/competence profiles, it will be necessary to develop standards and guidelines regarding the language and terminology being used. With specific regard for the generic competences it is recommended to develop standard competence formulations (preferably also describing the different levels at which a particular generic competence can be developed), which can be used by institutions as a resource for the development of their degree/competence profiles. This enables institutions to copy formulations of generic competences, appropriate to the level being developed in the individual programmes. For the subject-specific competences, guidelines can be developed concerning the way a competence should be formulated, and the type of information and the level of detail a competence should contain. To increase the similar use of certain words and phrases, a glossary could be developed so that institutions may understand and use words in a similar meaning.

8. No link between competences acquired and subjects followed

An important shortcoming that was identified was that the majority of the competence profiles that were evaluated demonstrated no link between the competences acquired and the subjects followed. The list of subjects that have been followed is currently an important source of information for credential evaluators to discover in which aspects of the subject area a graduate has obtained knowledge and understanding. The degree/competence profile could function as an elaboration on the list of subjects and give more insight to the scope and level of the subjects, by providing more detailed information concerning the (generic and subject-specific) competences a graduate has developed during these subjects. Only a few examples were found in which this connection between subjects and competences was made. To increase the usability for credential evaluation, it would be recommended to develop a practical format to present the competences developed in relation to the subjects followed in the degree/competence profile.

5.3 Usefulness for credential evaluation

As there is currently a lot of variation in the way competence information is being presented and formulated and the competence information is not sufficiently specific, the usefulness of the degree/competence profiles for credential evaluation at this stage was not always evident. However, the ENIC/NARIC networks recognise that learning outcomes and competences have a great potential to provide better insight in the level and content of educational programmes, which might help to apply the Lisbon Recognition Convention, and conclude whether substantial differences do or do not exist between programmes. The ENIC/NARIC networks therefore showed great interest in the outcomes of the CoRe-project, and expressed their full support to contribute to the further development of the competence profile, because they consider this as an important way to bring the international recognition practice in Europe further forward.

In the beginning of the CoRe-project, the representatives from the ENIC/NARIC networks in the CoRe project were somewhat doubtful about the possibility of providing further insight in the content and level of a study programme by means of competences, because to their experience competences often don't give sufficiently specific information in order to be valuable for credential evaluation. Even though the project results seemed to support this initial opinion to some extent, many of these ENIC/NARIC representatives gained faith in the potential of competence descriptions due to the few good examples that demonstrated how competences could provide valuable additional information.

The identification of the shortcomings of the degree/competence profiles in the CoRe project demonstrate there are still problems that need to be solved in the further development process of the degree/competence profile. However, the CoRe project team believes that if a greater extent of standardization could be achieved and solutions could be found for the problems mentioned, the competence profile does have the potential to provide further insight in the content and level of a programme. The information that is currently available to credential evaluators concerning the specific content and level of a programme is limited, as a list of subjects doesn't provide detailed information about the specific learning outcomes and competences that have been developed. The competence profile could provide a format to allow an elaboration of the list of subjects, and in this way contribute significantly to the improvement of the comparability of study programmes in Europe.

5.4 Recommendations to TUNING

1. Development of a format and guidelines for the competence profile

As has been acknowledged, there are currently different ways in which each aspect of the degree/competence profiles is being developed. To improve the level of standardisation, and therefore the comparability of profiles, it is recommended that TUNING develops a standard format for the competence profile to be used by institutions, providing clear guidelines concerning the type and level of information that should be included.

Concerning the format, the following recommendations are given:

- Competences should be presented in a clearly structured way, preferably in bullet-point lists or in tables.
- Competences should be presented in categories, at least identifying generic and subject-specific competences. The content-specific competences could then be further categorised to indicate sub-areas. Within each subject area, preferably the same titles of (sub)categories should be used. Competences that have been developed during elective courses should be mentioned in a separate category.
- The competence profile should demonstrate the relation between the competences being developed and the subjects being taught in the programme.

The guidelines should at least provide information on the following issues:

- Provision of a clear definition of the aim and target groups of the competence profile, and the type of information that should be provided. The agreements on the aim of the competence profile and the target audiences will contribute to the further determination of the content and format of the document.
- Competences should be described from the perspective of what a graduate is able to do and has learned on completion of the programme. The claims being made in the competence profile should be substantiated, as the students have been assessed for the competences being described.
- The provision of a framework of standardised generic competences, describing the different levels at which each competence could be developed. These standard competences could be used by institutions as a resource for the development of their degree/competence profiles. This enables institutions to copy formulations of generic

- competences, appropriate to the level being developed in the individual programmes.
- For the subject-specific competences, guidelines should be developed concerning the way a competence should be formulated, the type of information and the level of detail a competence should contain.
 - A glossary of terminology, which provides clear definitions of words and phrases being used in competence profiles (similar to the glossary already developed within the TUNING project). Examples of words that should be included in this glossary are words like competence, generic, subject-specific, attitude, etc. Examples of good practice, and of terminology or competence language that should be avoided could also be provided.
 - Guidelines concerning the minimum and the maximum number of competences being described in the profile.

In order to develop the format and guidelines for the competence profile, it is recommended that a further project will be initiated. Within this project, the requirements of the different audiences of the competence profile, the purpose of the document and its position within the documents issued by the institution, should be analysed. This recommended project would benefit from the formation of a working group representing the different stakeholders, including TUNING project members, educational institutions taking part in TUNING, Bologna experts, credential evaluators, employers and other admitting institutions. The format and its guidelines should be made available to all institutions wishing to follow the TUNING approach, preferably via a website.

2. Integration of the competence profile into the Diploma Supplement

To facilitate the transparency of educational programmes, it is recommended that all information relevant for international recognition is as much as possible presented in one document. The Diploma Supplement has been developed to meet this goal. It is therefore recommended that the information concerning learning outcomes and competences is integrated into the Diploma Supplement. A few educational institutions whose profiles were evaluated as part of the CoRe project had already done this, by describing the learning outcomes and competences under section 4.2 of the Diploma Supplement, or by attaching the competence profile as an annex to section 4.2.

It is clear that section 4.2 is the most appropriate section for the description of learning outcomes in the Diploma Supplement. According to the explanatory notes of the Diploma Supplement, the information that should be provided in section 4.2 is information on the requirements for successfully passing the qualification (...), or details of the learning outcomes, skills, competencies and stated aims and objectives associated with the qualification. It has been acknowledged during the CoRe project that the interpretation of the subject heading of section 4.2, being Programme Requirements is rather misleading, as this may be interpreted as the admission requirements for the programme. In line with the recommendation to integrate the information concerning the learning outcomes and competences in section 4.2 of the Diploma Supplement, it may be useful to consider changing the subject heading into a name which better reflects the content.

5.5 Recommendations to the ENIC/NARIC networks

1. Active support of the further development of the competence profile

It is recommended that the ENIC/NARIC networks actively support the further development of the TUNING competence profile into a new and useful tool to be used for credential evaluation. It is clear that still a lot of work, thought and development has to be completed before the competence profile can be used as an effective information source for credential evaluation. However, as the learning paradigm according to which educational programmes are being designed in Europe is changing towards an outcomes-based approach, it will become increasingly important that credential evaluators find a methodology to evaluate the level of qualifications based on the outcomes that have been achieved. There is evidence to suggest that the competence profile will provide credential evaluators with more detailed information, to facilitate the identification of substantial differences, which in turn assists in the application of the Lisbon Recognition criteria. For this reason, the ENIC/NARIC networks have a great interest in this subject; the recognition practice in Europe is expected to largely benefit. Therefore the ENIC/NARIC networks should provide their active support by initiating future projects that focus on the further development of the competence profile, and by providing their cooperation, input and critical feedback on the results of these projects.

Secondly, it is important for the ENIC/NARIC networks to recognise the potential importance of the competence profile in the credential evaluation process, and to incorporate learning outcomes and competences as criteria in the methodology of international recognition. As can be concluded from the outcomes of the CoRe project, the competence profile is

currently not sufficient to be used as an information source during the credential evaluation process. However, with continued development and the above recommendations, it is expected to become a very useful resource in the future. In order to anticipate on the time that learning outcomes and competences can be used as an additional credential evaluation criteria, the ENIC/NARIC networks may prepare their members by organising and providing training sessions on how to use learning outcomes and competences in the recognition process.

2. Call for proper use of the Diploma Supplement

As was mentioned above it is recommended that the competence profile be integrated into the Diploma Supplement. As the ENIC/NARIC networks were closely involved in the establishment and development of the Diploma Supplement, they can also fulfil a role to endorse the integration of the competence profile into the Diploma Supplement.

Secondly, the Diploma Supplements that were received for the CoRe project appeared to vary considerably, both in terms of the format being used and the type of information being provided. This shows that, even though a standard format for the Diploma Supplement has been determined by UNESCO/CEPES, this format is not yet being used properly by many institutions. It is therefore recommended that the ENIC/NARIC networks call for measures to increase the proper use of the Diploma Supplement format by the institutions, so that the aim of transparency will be better achieved.

Annexes

Annex 1: Evaluation form – information necessary for credential evaluation

Evaluation Form

for the evaluation of programmes in the CoRe-project

Name of the institution	
Country	
Name of the qualification	
Level of the programme	Bachelor / Master
Tuning subject area	Business / Chemistry / History / Nursing

Information has been collected about the above-named qualification from at least two of the three kinds of information sources*:

- Transcript
- Diploma Supplement
- Degree profile

For each of the evaluation criteria mentioned below, please fill out which information has been found in which information source. Based on this information, please mention the (substantial) differences with the national system and draw an evaluation conclusion.

1. Entry Requirements

Diploma Supplement	
Transcript	
Degree profile	

* Please, tick which documents were received from this particular institution and educational programme.

2. Formal Duration and Study Load

Diploma Supplement	
Transcript	
Degree profile	

3. Structure and Contents

Diploma Supplement	
Transcript	
Degree profile	

4. Formal Rights

Diploma Supplement	
Transcript	
Degree profile	

5. Function of the Programme

Diploma Supplement	
Transcript	
Degree profile	

6. (Substantial) Differences with Dutch/UK system

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7. Evaluation Conclusion

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Annex 2: Analysis form – information in the degree profile

Analysis Form

for the evaluation of the degree profile

The main goal of the CoRe-project is to evaluate the value of a competence profile for the purpose of international recognition of foreign qualifications. In order to evaluate the competence profile of this particular qualification, please answer the questions below.

1. **Does the competence profile contain relevant additional information?
(which could not be found in the Diploma Supplement and/or transcript)**

2. **Are the formulations of competences clear, brief and specific?**

3. **What information is missing in the degree profile?**

4. Does the information in the competence profile give you a better understanding of the level and content of the programme?

5. Does the information in the competence profile affect your evaluation conclusion?

6. Please give your comments and/or recommendations for the improvement of the competence profile for recognition purposes.

Annex 3: Competence profile Case A – Nursing, Denmark

The Danish Schools of Nursing

Qualification Description Bachelor Programme Nursing

Competence profile

A professional bachelor of nursing acquires general and specific nursing professional competences in a development-based study environment with research-affiliation and with selected compulsory clinical placements according to EU Directives 77/453/EEC and 89/585/EEC. The education is organised together with the stakeholders in the regional and municipal health care services. Completion of the nursing education entitles graduates to use the title bachelor in nursing and to obtain authorisation/registration as a nurse.

Nurses are educated to work in a complex health service area and to conduct nursing to children, adolescents, adults and elderly with acute, chronic, somatic or psychiatric diseases. Nursing practice contains health promoting, health maintaining, preventive, treating, rehabilitating and relieving nursing to the individual human being and groups of people. The nurse is educated to plan, conduct, evaluate and develop nursing based on active involvement and participation of the parties affected. Nursing practice must be based on ethic attitudes and responsibility and the consideration of the patient and the needs of society are decisive in practicing professional nursing and care. Professional nursing practice takes its starting point in the patient's experiences of his or her own life situation as well as the nurse's professional evaluation hereof.

The field of nursing includes the dimensions *to conduct, manage, communicate and develop nursing* in relation to the need for nursing in individuals and in groups, including associated tasks within coordination, education and development.

To conduct nursing includes concrete nursing professional competence to act in health promotion, health maintenance, prevention as well as in treatment, rehabilitation and relief in individuals or groups of patients. In the practicing of nursing the nurse must be able to collect and apply the most recent knowledge to identify nursing needs, set targets, complete, evaluate, adjust and document nursing. The nurse must master different methods to conduct nursing actions and be able to argue professionally for these actions.

To manage nursing, within the existing framework, means to be able to attend to the professional management of the organisation and completion of nursing plans for the individual patient as well as administrative and coordinating functions in the nursing and treatment programme for one or more patients, including any management hereof. The nurse must, in known and unpredictable work connections with many interacting factors, be able to display management responsibility to solve complex problems and promote team performance.

To communicate nursing includes identification of learning needs and educational tasks directed at patients, relatives, colleagues and collaborators, pupils and students within the health educations and must be organised and executed on the basis of the prerequisites of the target group.

Development of and in nursing includes attention to and the ability to critically and systematically evaluate needs for nursing professional innovation and possess

methodological and organisational competences to be part of quality, development and research projects focusing on sequences of nursing and treatment.

Competence targets for a bachelor in nursing

Intellectual competences

A newly graduated nurse:

- has in-depth knowledge of central areas of nursing, health science, science, humanities and social science
- can find, sort, acquire and evaluate knowledge relevant for the nursing professional area, including search for new research-based knowledge
- can identify general and specific nursing professional problems and analyse and interpret these applying relevant theory
- masters selected methods of analysis from different perspectives in the processing of general and specific nursing professional problems
- can argue theoretically and scientifically for suggestions for intervention in relation to central nursing professional problems
- has insight into theory of science and research methodology aspects and is able to apply this insight in a critical evaluation of empirical research, theory and science
- can communicate and argue orally and in writing for observations, knowledge, analyses, evaluations and interventions using a clear professional terminology
- is conscious of own learning process and masters reading and study techniques as a prerequisite for continuous professional updating and development
- masters basic academic working methods, which are prerequisites for acquiring post-graduate competences at master and candidate level.
- can communicate in one of the main languages

Professional competences

A newly graduated nurse:

- can analyse specific nursing professional problems and discuss possible connections, reasons and consequences attached to these problems
- is familiar with central nursing professional intervention options and can describe possibilities and limitations in the use of these in connection to different patient groups and contexts
- is familiar with central methods, procedures and tools applied in assessments, actions and evaluations of professional practice,

- can adopt the patient perspective in the analysis of professional aspects and identify possible dilemmas and repressive aspects in the practicing of the profession or in the framework hereof,
- masters specialised data collection methods used in the nursing profession and is able to analyse empirical data on the basis of different theoretical perspectives,
- knows the principles for describing and updating nursing and treatment programmes
- is familiar with general documentation strategies, classification systems and standards,
- is familiar with clinical guidelines, research and development work and its use in the field of nursing,
- knows the organisation of the health services, including distribution of responsibility between different sectors, departments and players and is able to analyse nursing practice in the light of organisational and administrative framework and conditions of society,
- is familiar with methods, processes and barriers in quality and development work and in implementation of results of research and development work in nursing practice,
- can identify and analyse ethical dilemmas and problems in the health sector and in nursing,
- knows the legal framework of nursing practice and is familiar with consequences of the law on nursing practice,
- has information and basic technology competences/IT competences.

Practice competences

A newly graduated nurse:

- can independently identify nursing needs, set targets, conduct, evaluate and adjust nursing to selected patient groups,
- can collaborate with patients, relatives and other professionals in the planning, practicing and evaluation of nursing,
- masters nursing actions in relation to central clinical patient situations such as the patient in pain, the patient with changed perception, the patient with nutrition and fluid problems or the suffering or dying patient,
- masters central instrumental nursing actions, methods and standards,
- can adapt nursing to patients' different perceptions of life as well as cultural, social and family conditions,

- searches for insight into and adapts nursing in relation to psychological and existential aspects related to identity, crises and anxiety,
- supports the patient in coping with their life situation and manages health education tasks,
- communicates with patients respecting different values, pre-understandings, cultures as well as intellectual and emotional prerequisites,
- identifies possible dilemmas and repressive aspects in nursing and treatment relations as well as structural conditions in the health service areas and acts on the basis of applying ethical guidelines,
- contributes at diagnostic examinations, treatments and observations attached to this,
- contributes to secure continuity in nursing and treatment, including collaboration with other staff groups and across sectors and institutions,
- masters general documentation practice and administrative procedures and deals with management and coordination tasks which can contribute to creating continuity in nursing and treatment sequences,
- can conduct quality and development work in nursing as well as follow, apply and participate in research activities in the health care sector,
- complies with existing laws and ethical guidelines related to the field of practice.

Formalities

Admission requirements:	Upper secondary school leaving certificate, Higher preparatory examination or Higher commercial examination or Higher technical examination. Four 4 single courses at university entrance examination level: Danish at A-level, English at B-level, Mathematics, Physical science, Chemistry or Biology at B-level, social studies or psychology at C-level and nine months practical working experience. Educated Social and Health assistant with Danish and natural science at C-level as well as English at D-level.
Duration:	3½ years, 210 ECTS.
Further education:	Master in clinical nursing, Master of Science (nursing) and other relevant master and candidate studies.

The degree is acknowledged by the Department of Education and the Danish National Board of Health.

Degree awarding educations are offered at the centres for higher education and local schools of nursing.

June 2006

Annex 4: Competence profile Case B – Nursing, Malta

DIPLOMA IN HEALTH SCIENCE (NURSING STUDIES)

Course Objectives and Competencies

The course aims to prepare accountable, competent, caring nurses, capable of taking a major role in the inter-disciplinary health care service. The course conforms to the European Community Directives on Nursing Education.

Nursing diplomates are eligible for State Registration and employment as First Level Nurses, provided they satisfy other conditions as the Health Service may require. On successful completion of the course, diplomates may apply to join a Diploma to Degree Nursing programme on part time basis (2 years) leading to a Bachelor of Science (Honours) in Nursing Studies.

The Profession

Nurses are knowledgeable and skilled to care for people who have a long or short term illness or who, for other reasons (such as diabetes or a cancer) need special care. They are involved in the assessment and planning of care for their clients. They work in a variety of settings both in the hospital and the community. There are different areas of nursing: adult/child/elderly/medical and surgical, maternal, mental health, high dependency, critical care and specialities.

The holistic care provided by a hospital nurse usually begins when patients arrive on the ward. The nurse responsible for them assesses their nursing requirements and draws up a care plan outlining their needs and treatment schedule. Day-to-day treatment may involve administering prescribed drugs either orally or by injection, removing stitches, cleaning wounds and changing dressings, taking and recording blood pressure and temperature. Nurses observe the effectiveness of treatment and modify the care plan accordingly. The nurse educates the patient in preparation for discharge home.

Working in the community involves similar work activities but in a different context and includes a greater input of health promotion and health education. Community based nurses may work in a health centre or clinic or may visit people in their own homes. They work in partnership with their clients, concentrating on health promotion and helping them to regain or retain their independence, thus allowing them to continue living at home.

Personal Qualities and Skills for Nurses

For nursing one need to have an aptitude for a person based discipline, ethical commitment and good communication skills – partly so that one can work effectively in a team, and partly so one can reassure patients and involve them in care planning. Technological advances mean that an understanding of, and interest in science is useful. Carrying out treatment requires nursing competence and good observational skills. Nurses must be knowledgeable, resourceful, mature and tolerant enough to cope with a wide variety of situations, and patients who may be demanding or awkward. It is important that one is

flexible, can use one's initiative, and have a good understanding of the context. Much of the day may be spent walking, standing and lifting – one must be fit and strong enough to cope with this.

BACHELOR OF SCIENCE (Honours) IN NURSING STUDIES

Course Objectives and Competencies

This course aims to prepare professional, accountable nurses who are critical thinkers, reflective, self-directed, life long learners capable of taking a leadership role in the interdisciplinary Health Care Services. Students are also academically prepared to meet the health care needs of different sectors of the population. The course conforms to the European Community Directives on nursing Education 2005/36/EC/Section C/Article 31-33.

Nursing graduates are eligible for state registration and employment as First Level Nurses, provided they satisfy other conditions that the Health Service may require. The course offers the opportunity for both professional and academic advancement following the attainment of a degree in Nursing. The graduate should be equipped to undertake further work/practice, based learning and where appropriately, for further study in a relevant professional area, or master/Phd level programmes to become a leader/manager/clinical specialist/educator or researcher.

The Profession

Nurses should have evidence-based knowledge when they care for people who have a long or short term illness or who, for other reasons (such as diabetes or cancer) need special care. They are involved in the assessment and planning of care for their clients. They work in a variety of settings both in the hospital and the community. There are different areas of nursing: adult/child/elderly, maternal, medical, surgical mental health, high dependency, critical care and specialities.

The holistic care provided by a hospital nurse usually begins when patients arrive on the ward. The nurse responsible for them assesses their nursing requirements and draws up a care plan outlining their needs and treatment schedule. Day-to-day treatment may involve administering prescribed drugs either orally or by injection, removing stitches, cleaning wounds and changing dressings, taking and recording blood pressure and temperature. Nurses observe the effectiveness of treatment and modify the care plan accordingly. The nurse educates the patient throughout the stay in hospital and in preparation for discharge home.

Working in the community involves similar work activities but in a different context and includes a greater input of health promotion and health education. Community based nurses may work in a health centre or clinic or may visit people in their own homes. They work in partnership with their clients, concentrating on health promotion and helping them to regain or retain their independence.

Personal Qualities and Skills for Nurses

For nursing one need to have an aptitude for a person based discipline, ethical commitment and good communication skills – partly so that one can work effectively in a team, and partly so that one can reassure patients and involve them in care planning. Technological advances mean that an understanding of, and interest in science is useful. Carrying out treatment requires nursing competence and good observational skills. Nurses must be knowledgeable resourceful, mature and tolerant enough to cope with a wide variety of situations, and patients who may be demanding or awkward. It is important that one is flexible, can use initiative, and have a good understanding of the context. Much of the day may be spent walking, standing and lifting – one must be fit and strong enough to cope with this.

Annex 5: Competence profile Case C – Nursing, United Kingdom

Educational aims of the programme

The aims of the undergraduate Bachelor in Nursing (Hons) programme are to:

- Prepare you for entry to the relevant part of the professional register, through a variety of modes, in order that you are able to accept responsibilities and accountability in accordance with the Nursing and Midwifery Council (NMC) Code of Professional Conduct.
- Advance your development as a caring and competent practitioner who is able to adopt an enquiring, analytical and creative professional application to your work and new roles.
- Provide you with a framework of theories, concepts, principles and skills that are derived from a variety of disciplines that inform nursing and supports nursing practice.
- Foster your development as a ‘reflective, enquiring practitioner’ who actively pursues and take responsibility for your own learning, further demonstrating the value of that learning throughout your professional life.
- Develop you as a practitioner who is skilled, knowledgeable, flexible and adaptable and able to work as part of an interprofessional team within a dynamic health and social care system.
- Develop you as a practitioner who is able to utilise appropriate communication and interpersonal skills.

NMC Nursing Competencies

This undergraduate pre-registration nursing programme has been designed to prepare you to provide the nursing care required by patients/clients, safely and competently, so that you may assume the responsibilities and accountabilities necessary for entry onto the Professional Register and to ensure public protection.

The NMC uses the term competence to “describe the skills and ability to practise safely and effectively without the need for direct supervision” (NMC 2002)

QAA Academic and Practitioner Benchmarking. Indicators of Quality and Standards

Benchmark statements from the document (QA2001) were utilised in the preparation of this curriculum and are subsumed within the programme and the module outcomes. All programme development is in accordance with Subject Benchmark Statements and the National Qualification Framework, published by the Quality Assurance Agency for Higher Education.

Programme approval and validation is strictly in accordance with University regulations and is subject to external scrutiny and participation, and is a conjoint validation between the NMC and the University.

Intended learning outcomes – *the Common Foundation Programme provides opportunities for you to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following NMC domain areas (NMC 2002):*

Professional and ethical practice

1. Discuss in an informed manner the implications of professional regulation for nursing

practice

2. Demonstrate an awareness of the NMC *Code of Professional Conduct*
3. Demonstrate an awareness of, and apply ethical principles to, nursing practice
4. Demonstrate an awareness of legislation relevant to nursing practice
5. Demonstrate the importance of promoting equity in patient and client care by contributing to nursing care in a fair and anti-discriminatory way

Care delivery

6. Discuss methods of, barriers to and the boundaries of effective communication and interpersonal relationships
7. Demonstrate sensitivity when interacting with and providing information to patients and clients
8. Contribute to enhancing the health and social well being of patients and clients by understanding how, under the supervision of a registered practitioner, to contribute to the assessment of health needs, identify opportunities for health promotion and identify networks of health and social care services
9. Contribute to the development and documentation of nursing assessments by participating in comprehensive and systematic nursing assessment of the physical, psychological, social and spiritual needs of patients and clients
10. Contribute to the planning of nursing care, involving patients and clients and, where possible, their carers, demonstrating an understanding of helping patients and clients to make informed decisions
11. Contribute to the implementation of a programme of nursing care, designed and supervised by registered practitioners
12. Demonstrate evidence of a developing knowledge base, which underpins safe nursing practice
13. Demonstrate a range of essential nursing skills, under the supervision of a registered nurse, to meet individuals' needs, which include:
 - maintaining dignity, privacy and confidentiality;
 - communication and observational skills, including listening and taking physiological measurements;
 - safety and health, including moving and handling and infection control;
 - essential first aid and emergency procedures;
 - administration of medicines;
 - emotional, physical and personal care, including meeting the need for comfort, nutrition and personal
 - hygiene
14. Contribute to the evaluation of the appropriateness of nursing care delivered
15. Recognise situations in which agreed plans of nursing care no longer appear appropriate and refer these to an appropriate accountable practitioner.

Care Management

16. Contribute to the identification of actual and potential risk to patients, clients and their carers, to yourself and to others and participate in measures to promote and ensure health and safety
17. Demonstrate an understanding of the role of others by participating in inter-professional working practice

18. Demonstrate literacy, numeracy and computer skills needed to record, enter, store, retrieve and organise data essential for care delivery

Personal and professional development

19. Demonstrate responsibility for one's own learning through the development of a portfolio of practice and recognise when further learning is required.
20. Acknowledge the importance of seeking supervision to develop safe nursing practice.

Intended learning outcomes – the Branch Programmes provide opportunities for you to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

Competencies and Standards to be achieved at the end of Bachelor of Nursing (Hons) with Professional Registration programme *Working as a professional in health care: expectations*

21. Manage oneself, one's practice and that of others in accordance with the *Code of Professional Conduct*, and critically evaluate one's own abilities and limitations.
22. Select and apply knowledge and skills to complex and unexpected situations.
23. Implement strategies to promote and evaluate partnership working.
24. Anticipate potential stressful situations and participate in minimising risk.
25. Recognise the complexity of the professional ethical and legal framework and its impact on nursing care decision-making.
26. Demonstrate sound clinical judgement across a range of situations and critically evaluate the effectiveness of clinical judgement across a range of professional care contexts.
27. Participate in a range of quality assurance and risk management strategies to create and maintain a safe environment.
28. Provide appropriate levels of guidance, role modelling and support to others in the delivery of health care.
29. Critically analyse roles within the multi-professional team and propose ways to strengthen patient-centred care.

Principles and concepts: application

30. Demonstrate critical understanding of research-based knowledge and the application to practice
31. Contribute to the development of protocols to guide the provision of quality care and minimise risk.
32. Capitalise on the potential for health improvement for patients, clients and groups through the development of health education/promotion strategies.
33. Articulate and justify decision-making and problem-solving processes associated with nursing practice.
34. Use relevant theoretical and research evidence to inform a comprehensive, systematic assessment of the physical, psychological, social and spiritual needs of patients, clients and communities.
35. Monitor and update priorities within a changing environment and communicate appropriately.
36. Critically evaluate research findings and suggest changes to planned care.

37. Demonstrate an ability to critically challenge the nursing care delivered taking into account the dynamic social, cultural, spiritual, legal, political and economic factors.
38. Critically evaluate outcomes of nursing and other interventions, adjusting care accordingly.
39. Contribute with skill and confidence to effective multi-professional/multi-agency working.

Subject knowledge, understanding and associated skills

40. Use knowledge and understanding of the subjects underpinning nursing to provide creative solutions to health care situations.
41. Critically examine the impact of political and social contexts on the provision of health care.
42. Understand the differences in beliefs and cultural practices of individuals and groups and recognise and challenge discriminatory practice.
43. Confidently present information orally, in writing and, where appropriate through the use of technology, to provide coherent and logical arguments in the support of decision-making.
44. Critically evaluate research findings, suggest changes to practice and contribute to health care research to inform practice development.
45. Engage in, and disengage from therapeutic relationships through the creative use of theories and skills, demonstrating ethical discernment and clinical judgement.
46. Use practical skills and knowledge with confidence and creativity to enhance the quality of care.
47. Critically analyse and interpret data and appraise the value for care delivery and management.

Practice placements represent 50% of your programme and you will experience a diverse range of clinical settings.

Your programme consists of a common foundation year (CFP) followed by a two-year branch programme.

Assessment

The assessment strategy for the pre-registration nursing programme has specific assessments leading to achievement of the named award. A diverse range of assessment methods is used to assess your progress and encourage you to integrate your practice experiences into academic work, foster the spirit of inquisitiveness which is developed through the EBL process, and reflect on the complexity of nursing practice.

You are required to undertake specified practice and academic assessments, which are marked by academic and practice personnel against set criteria. These are assessed summatively and a record of achievement maintained within your Portfolio of Learning. In addition, you are required to undertake a range of formative coursework, and peer and self-assessment strategies will be used.

Continuous academic assessment includes essays, project work, seen and unseen examinations (which include the Objective Structured Clinical Examination (OSCE)) and group presentations. Written feedback on assessed work is provided to enable you to monitor your performance and identify strengths and weaknesses.

Practice assessment contributes towards your development and achievement in relation to the NMC competencies and the QAA benchmarks (2001). Assessment of practice is a continuous process, which spans the whole programme and is designed to ensure the achievement of learning outcomes and competencies in the practice settings through completion of a Portfolio of Learning. The aim is to ensure your fitness for purpose, for practice and award.

The learning outcomes from each module are assessed by an individual assignment.

Diagram 1: Main Subject Groupings

<p>NURSING PRACTICE</p> <ul style="list-style-type: none"> • Therapeutic Interventions • Practice Skills • Client Care • Legal Issues 	<p>PROFESSIONAL STUDIES</p> <ul style="list-style-type: none"> • Management of Care • Philosophy of Care • Evidence based practice • Interprofessional learning 	<p>LIFE SCIENCES</p> <ul style="list-style-type: none"> • Bioscience • Pharmacology • Genetics • Nutrition 	<p>SOCIAL SCIENCES</p> <ul style="list-style-type: none"> • Psychology • Sociology • Social policy • Public Health
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Annex 6: Competence profile Case D – Nursing, The Netherlands

Role: care provider

Domain: care

Domain specification: care for the sick, disabled and dying

Key competence

To lighten the suffering resulting from illness, disability or death, the *HBO*[†] nurse provides human-centred nursing care in a professionally responsible manner.

In

providing nursing care

an HBO nurse

- puts himself or herself in the position of the person requiring his or her care
- collaborates with the care requester and his or her family
- makes an assessment or diagnosis on the basis of scientific knowledge
- makes use of scientific knowledge, clinical expertise and patient preferences in performing interventions; if necessary, deviating from current procedures while substantiating and accounting for these deviations.
- formulates, elaborates and evaluates a care plan in accordance with professional standards.
- issues reports about the care that conform with valid professional and legal standards
- offers physical, psycho-social and (medical-)technical aid
- integrates moral, mental and technical activities
- makes substantiated evaluations of the sometimes conflicting interests of the individual care requester or group of care requesters
- employs information technology

so that

the quality of life of the care requester improves, as a result of which the healing process is accelerated, the hospital stay comfortably passed, the care requester's life world enhanced or, if in a terminal phase, the person able to die very peacefully.

Role: care provider

Domain: care

Domain specification: individual and collective prevention

Key competence

To reduce risks to health and complications in research or treatment, the *HBO* nurse administers primary, secondary and tertiary prevention

[†] *HBO* is the abbreviation for the Dutch term Hoger Beroepsonderwijs, which is translated as 'Higher Professional Education'. An '*HBO* nurse' is the Dutch (near-)equivalent of a 'practical nurse' (PN).

In

providing primary, secondary and tertiary prevention

the HBO nurse

- creates a climate in which prevention can flourish
- offers, in a professional manner, prognoses about the risks run by a care requester
- makes pertinent choices from various methods of influence
- undertakes early and proactive interventions, based as far as possible on scientific insights
- evaluates the measures taken and interventions made
- employs methods of intervention that stimulate the care requester to perform the desired behaviour
- influences the environment so that it becomes safer
- implements collective preventative measures

so that

the care requester runs fewer risks of health disorders, has a safer living environment and does not experience increased suffering due to illness.

Role: care provider

Domain: care

Domain specification: health education

Key competences

To promote a healthy lifestyle for patients and their families, the *HBO* nurse employs a programmatic approach in providing information, counselling and advice to individuals and groups.

In

providing health information, education and patient counselling

the HBO nurse

- provides examples of behaviour by referring to workers in health care
- makes a situation analysis on the basis of which a decision is taken about the need for health education
- puts himself or herself in the position of the individual(s) for whom the health education is intended
- provides individuals or groups with programmatic information, supported by other measures
- chooses the proper means of counselling and influencing
- provides information in a responsible manner
- wherever necessary, removes barriers that make it difficult for the care requester to do something with the relevant information
- provides the care requester with factual information about issues concerning research and treatment

- gives instruction in such a manner that the care requester understands it and can follow the instruction
- collaborates on the implementation of health-education programmes.
- gives information to individuals and groups in a methodically accountable manner and, in addition, works with various health-education models
- collaborates with professionals and patient information officers, as well as patient, client and consumer organizations

so that

the individual and his or her family are better able to maintain a healthy lifestyle and, in addition, a healthy lifestyle is promoted among the population in general.

Role: director

Domain: care

Domain specification: care for the sick, disabled and dying

Key competence

To enable care to be provided in a continuous and integrated process geared to the well-being of the care requester, the *HBO* nurse coordinates care.

In

coordinating care

the HBO nurse

- takes the care requester's rights and duties into account
- assesses the need for coordination
- takes measures so that it is not necessary for the care requester to tell his or her story every time
- takes measures so that the care requester is not shuffled from pillar to post
- ensures that the right activities are undertaken at the right time by the proper person
- in a proactive manner, gives instructions to care requesters, family members and care providers about the people and resources that must be used in order to effect the care
- prevents overlap in activities
- contacts the appropriate institutions and persons at the right moment
- communicates with other professionals and the care requester in order to avoid any confusion about expectations

so that

the various care activities, functioning as a coherent whole, achieve the intended goal in an efficient and effective manner and the care provision does not inconvenience the care requester more than is unavoidable.

Role: director

Domain: care

Domain specification: individual and collective prevention, as well as health education

Key competence

To ensure that the goals of the preventative programme are accomplished, the *HBO* nurse coordinates the pre-arranged activities,

In

coordinating preventative and counselling activities

the HBO nurse

- supervises the implementation of established programmes
- collaborates with other disciplines
- organizes activities
- organizes courses
- talks to people about the fulfilment of pre-arranged activities
- participates in multi-disciplinary consultations
- coordinates information and other preventative activities so that they are in step with each other
- collaborates in scientific research
- evaluates activities
- provides feedback

so that

the goals established in a programme are realized as efficiently as possible.

Role: designer**Domain: organization of care****Domain specification: care programming****Key competence**

To guarantee that nursing expertise is applied in an integrated approach to care, treatment and counselling, the *HBO* nurse contributes to the development and establishment of new care programmes.

In

participating in care programming projects

the HBO nurse

- works on the basis of a target-group approach
- uses expertise about the target group
- takes the target group's rights and duties into account
- works in a multi-disciplinary manner
- summarizes his or her own professional expertise and is able to express it in a concrete manner
- knows the limits to his or her own expertise and can deal with them
- is open to expertise from other disciplines
- gives and receives feedback

- evaluates the effectiveness and efficiency of the care arrangements
- speaks and writes concisely
- works according to policy

so that

the care being provided is more successful, treatments are administered more effectively and efficiently, and professionals can operate in a more open and flexible manner.

Role: designer

Domain: organization of care

Domain specification: nursing policy

Key competence

To enable the departmental care provision to occur in the department as efficiently, effectively and properly as possible, the *HBO* nurse provides a contribution to the development of the nursing policy.

In

collaborating on the development of the nursing policy in a department

the *HBO* nurse

- takes the values of the care user into account
- critically evaluates his or her own field
- comes up with solutions for individual and group issues
- formulates solution guidelines for daily problems
- is able to apply nursing models
- translates specialist knowledge into daily activities
- makes daily annoyances and challenges explicit
- propagates professional values
- takes the values of care requesters into account when the department is undergoing development
- wants and dares to continuously change his or her own working style and department
- is open to developments within the organization

so that

the function of the entire department involving nurses in various services operates as harmoniously as possible insofar as care for the individual patient and the professional responsibility of the nurse is concerned.

Role: designer

Domain: organization of care

Domain specification: Quality care

Key competence

To monitor and safeguard the quality of care, the *HBO* nurse participates in the design of quality care at the department level.

In
developing quality care

the *HBO* nurse

- takes initiatives for improving quality at the departmental level
- provides a contribution to the development and establishment of quality criteria
- provides a contribution to the development and establishment of measurement instruments
- initiates and contributes to care-provision issues
- collaborates with quality officials
- participates in quality groups involving client, patient and consumer organizations
- makes proposals to improve quality by improving the reporting and registration systems
- makes proposals for consultations about the improvement of communication
- makes proposals for and participate in the development and establishment of measurement instruments
- collaborates on the implementation of elaborated models for quality improvement
- participates in the development and establishment of procedures and guidelines

so that

care is made transparent because measurements of quality become available and daily care provision and interventions can be tested against them.

Role: coach

Domain: organization of care

Domain specification: care programming and nursing policy

Key competence

To achieve the goals of the nursing policy and care programmes, the *HBO* nurse can assist and support other nurses and carers in performing established tasks and functions.

In
providing guidance in the performance of care programmes and nursing policy

the *HBO* nurse

- increases insight into the target group for the care programme
- increases the insight and the acceptance of the nursing policy
- provides information about new working procedures and methods
- acts as a model
- formulates better descriptions of problems detected in the performance of tasks and functions, along with the possible causes of them
- increases insight into his or her own feelings and behaviour
- provides instruction about methods and techniques

so that

nurses and carers can perform their tasks and functions with pleasure and efficiency and, as a result, the objectives of the nursing policy and care programme are achieved.

Role: coach

Domain: organization of care

Domain specification: work counselling

Key competence

To support the professional identity of interns as well as fellow nurses and carers, the *HBO* nurse is at the side of his or her colleagues, assisting them in word and deed.

In

providing work counselling in the role of a coach

the *HBO* nurse

- breaks in new colleagues
- stimulates and motivates others to express their observations and feelings
- gives and receives feedback about behaviour and feelings
- acts as a role model
- reflects on his or her own individual and group behaviour
- gives advice
- provides insight into and support for departmental practices
- investigates indications of uncertainty

so that

colleagues or future colleagues can grow professionally, function as a team member and learn on the job.

Role: professional practitioner

Domain: profession

Domain specification: professional innovation

Key competence

To develop the nursing profession into one suited to the social developments of the twenty-first century, the *HBO* nurse plays an active role in professional renewal and the promotion of professional awareness.

In

providing professional innovation

the *HBO* nurse

- identifies with the values of the profession
- propagates professional values in daily practice
- understands the state in which nursing currently exists as a developing profession

- gives legislation and regulation a concrete presence in professional practice and development
- participates in professional associations and affiliated work and study groups
- sets up and participates in nursing advisory boards
- participates in the development of new classification systems, standards and models, and applies these in practice.
- participates in nursing science research
- participate in ethical committees

so that

the nursing profession can develop up to a professional level well suited to the social norms and values of the twenty-first century.

Role: professional practitioner

Domain: profession

Domain specification: development of expertise

Key competence

To raise the quality of the nursing profession to a level that satisfies social criteria, the *HBO* nurse actively works on the development of professional expertise.

In

developing expertise

the *HBO* nurse

- developments and propagates life-long learning
- detects and uses learning opportunities
- provides instruction, advice and counselling about methods, techniques, classification systems, models and nursing theories
- attends and provides clinical seminars
- attends and makes contributions to symposia and congresses
- keeps up to date with the professional literature and discusses it in practice
- follows and provides refresher courses

so that

the community at large can continue to have faith in the expertise of nurses and that nurses are respected members of a profession.

Annex 7: Competence profile Case E – Chemistry, Austria

The bachelor curriculum in “Technical Chemistry” will give the graduates a comprehensive and practice oriented education in the basics of chemistry and chemical technology as well as their numerous applications. The graduates will have well founded basic knowledge in technical and natural sciences with special emphasis on chemistry and more detailed knowledge in the area of their bachelor thesis. The curriculum creates a basis for any master programme in chemistry, chemical technology or any other natural/technical science master curriculum, or allows graduates to enter the market early with their bachelor qualification.

The graduates acquire

- basic knowledge and experience in the core areas of chemistry: inorganic, organic, analytical, physical and biological chemistry
- practical skills during laboratory courses
- consciousness for the transfer of chemical processes from the laboratory to the industrial plant
- generic skills which are applicable in many other contexts.

The graduates know

- basics in chemical terminology
- subject specific methods
- basic properties of materials, how to transform them, methods to synthesize and characterize them, as well as important figures from thermodynamics and kinetics to describe reactions.

Based on their knowledge they are able to evaluate and compare different chemical processes with regard to their industrial application (e.g. from an economical, environmental, or legal point of view). The comprehensive practical education enables the students to deal with chemicals and apparatuses in a safe and responsible manner and they can assess the risks in connection with these. They are familiar with standard operations on laboratory as well as on industrial scale. The graduates perform experiments, observe these and document the results systematically and completely. They are able to interpret the obtained data and evaluate these on a broader context. Eventually students know modern strategies and methods to acquire, use and convey information.

Outcomes described in Self-evaluation Report for the Application for the Chemistry Eurobachelor Label

Outcomes: Subject Knowledge

Aspect of chemistry	Treated in module/course unit
a) Major aspects of chemical terminology, nomenclature, conventions and units	3.1
b) The major types of chemical reaction and the main characteristics associated with them	3.1
c) The principles and procedures used in chemical analysis and the characterisation of chemical compounds	4.1; 4.3
d) The principal techniques of structural investigations, including spectroscopy	4.2; 4.3; 4.4; 4.5; 6.3; 8.1
e) The characteristics of the different states of matter and the theories used to describe them.	3.1; 7.1; 7.3
f) The principles of thermodynamics and their applications to chemistry	7.2; 7.3

g) The principles of quantum mechanics and their application to the description of the structure and properties of atoms and molecules	7.2; 7.3
h) The kinetics of chemical change, including catalysis; the mechanistic interpretation of chemical reactions	7.2; 7.3
i) The characteristic properties of elements and their compounds, including group relationships and trends within the Periodic Table	5.1; 6.3
j) The structural features of chemical elements and their compounds, including stereochemistry	5.2; 6.3
k) The properties of aliphatic, aromatic, heterocyclic and organometallic compounds	6.1; 6.3
l) The nature and behaviour of functional groups in organic molecules	6.2; 6.3
m) Major synthetic pathways in organic chemistry, involving functional group interconversions and carbon-carbon and carbon-heteroatom bond formation	6.2; 6.3
n) The relation between bulk properties and the properties of individual atoms and molecules, including macromolecules (both natural and man-made), polymers and other related materials	8.1; 12.2; 12.3; 12.4; 12.7
o) The structure and reactivity of important classes of biomolecules and the chemistry of important biological processes.	4.5; 10.1; 12.1; 12.6

TABLE 3

Outcomes: Generic Competences

Please give brief details of how (for example in which course units/modules) these generic competences are dealt with in the degree programme.

1.1 The capacity to apply knowledge in practice, in particular problem-solving competences, relating to both qualitative and quantitative information.

Problem-solving competences and the practical application of knowledge acquired in preceding lecture courses are practiced in all laboratory courses, seminars and practical exercises, and in particular in the frame of the bachelor thesis

1.2 Numeracy and calculation skills, including such aspects as error analysis, order-of magnitude estimations, and correct use of units.

Numeracy and general calculation skills are acquired and trained in the Mathematics for Chemists (I + II) lecture courses, calculation exercises and the proseminar (which is a very popular elective course among the chemistry students). Chemistry-specific skills, including aspects of error analysis, order-of magnitude estimations, and the correct use of units are taught in the Fundamentals of Chemistry lecture course, proseminar and lab course [3.1]. These skills are further trained and refined in the Analytical Chemistry I lecture course [4.1] and in the laboratory courses Analytical Chemistry [4.3] and Instrumental and Bioanalytical Chemistry [4.5], furthermore in the Physical Chemistry I + II Lecture course, calculation exercise and proseminar [7.1 and 7.2] and the corresponding lab course [7.3].

1.3 Information-management competences, in relation to primary and secondary information sources, including information retrieval through on-line computer searches.

Information management competencies, in particular computer literature search and information retrieval are acquired in the proseminar of the Fundamentals of Chemistry module [3.1]; they are continuously practiced and improved during the bachelor programme as a result of the strong incorporation of e-learning elements into the curriculum, and they are moreover particularly imparted in the seminar accompanying the bachelor thesis.

1.4 Ability to analyse material and synthesise concepts.

These generic competencies are particularly trained in the bachelor thesis and the seminar accompanying the practical work for the bachelor thesis.

1.5 The capacity to adapt to new situations and to make decisions.

These abilities are an important asset for the successful performance of the bachelor thesis and will be practiced in the frame of the practical work for the thesis.

1.6 Information-technology skills such as word-processing and spreadsheet use, datalogging and storage, subject-related use of the Internet.

Starting with the proseminar and the laboratory course in Fundamentals of Chemistry [3.1] these skills will be imparted to the bachelor students in all practical laboratory courses and seminars, and of course in the frame of the bachelor thesis (with its accompanying seminar). Among those laboratory courses which may be mentioned explicitly are the Physical/Physico-Chemical Laboratory Course [7.3] and the Laboratory Course in Instrumental and Bioanalytical Chemistry [4.5]. Also, the computer-based teaching support by the learning environment iChemLab shall be mentioned. Students also have the option to chose elective courses particularly devoted to the above skills.

1.7 Skills in planning and time management.

These "soft skills" will be acquired in the frame of the bachelor thesis. Students also have the possibility to learn more on the above topics in the frame of specialized elective courses.

1.8 Interpersonal skills, relating to the ability to interact with other people and to engage in team-working.

The above-mentioned "soft skills" can be acquired in the frame of elective courses.

1.9 Communication competences, covering both written and oral communication, in one of the major European languages (English, German, Italian, French, Spanish) as well as in the language of the home country.

In addition to the German language, the bachelor programme students may be expected to have good communication skills in at least one other of the major European languages (English, French, Italian, or Spanish) as the admission to a bachelor study programme in Austria generally requires the graduation from a high school in which normally at least one of the above-mentioned languages is taught. As most of the scientific literature is published in English, bachelor students will become familiar with scientific English in the course of their studies. The bachelor thesis can be submitted in either German or English. Further communication competences will particularly be trained in the seminar accompanying the bachelor thesis, and can be acquired in the frame of elective courses as well.

1.10 Study competences needed for continuing professional development. These will include in particular the ability to work autonomously.

Study competences, including the preparation for life-long learning will particularly be trained in the frame of the bachelor thesis which is a project work performed to a large degree independently by the student under the close supervision of the supervisor.

1.11 Ethical commitment

Ethical commitment will implicitly be communicated to the students in many lectures and laboratory courses (e.g. environmental protection, workplace safety, gender issues, etc.) and is foreseen to be an important subject for the elective courses.

2. Outcomes: Chemistry-based Practical Skills

Please state how many credits out of the total number of credits for the programme are allocated to practical courses. Please give brief details of the type of instruction given in the practical courses (e.g. group instruction, hands-on laboratory work).

From the 180 ECTS points assigned to the bachelor programme of which 162 are compulsory, - 78 ECTS points are lecture courses - 71 ECTS points are practical laboratory courses (including the bachelor thesis), - 4 ECTS points are calculation exercises - 9 ECTS points are seminars and proseminars, - 9 ECTS points are elective courses to be chosen from "soft skill" subjects, and - 9 ECTS points are elective courses to be chosen without thematic restriction from the course programmes of all officially recognized Austrian or European universities and may thus be courses of any type. The practical laboratory courses as well as the Bachelor Thesis are held in the form of hands-on laboratory courses. It is an essential element and aim of each laboratory course that the student is performing independently (although with continuous support of the teaching staff) all relevant experiments, measurements, or calculations, as well as the interpretation of the results. Even in case where the laboratory course has up to ca. 60 participants (this is about the expected number of students per year, but in many cases the number of participants per course will be smaller and courses will be held in several runs due to the necessity of using specialized instrumentation) the students will be supervised in small groups of typically 10 students or less per group. This will both ensure safe operation for the students in the laboratory, as well as that they are well looked after during their practical work. Exercises to be performed during the laboratory courses have a clearly defined didactical aim. Their theoretical background has either been presented in a preceding lecture course, or is discussed in an accompanying proseminar. Written instructions exist for all practical exercises, and e-learning material is available on the e-learning platform of the Chemistry Faculty of the Vienna University of Technology in which practical course examples are linked to the contents of the lecture courses and of text books of the particular field. In this way, students can prepare themselves independently for the practical work in the laboratory course which they will then perform under the supervision of the teaching staff.

Annex 8: Competence profile Case F – Chemistry, Belgium

GHENT BACHELOR CHEMISTRY: PROFILE OF THE DEGREE.

During their study as a bachelor in chemistry, the students acquire abilities and skills, which can be divided in three broad categories:

The first category concerns chemistry-related cognitive abilities and skills. This means that during the bachelor programme, the students acquire knowledge and understanding of essential aspects concerning chemical terminology, nomenclature, conventions and units, description and properties of different states of matter, concepts and principles of chemical thermodynamics, quantum mechanics, chemical kinetics, description and mechanistic interpretation of the most important chemical reactions, properties (inclusive structural aspects) of the elements and the compounds, main synthetic reaction pathways in organic chemistry, the relation between the bulk properties of matter and the properties of the individual particles, basic knowledge of macromolecular chemistry, chemical processes of biological molecules. After the study, they are able to apply this knowledge within broader contexts related to chemical sciences. They can apply the knowledge to solve qualitative and quantitatively problems of a chemical nature, and can adopt and apply methodology to the solution of chemistry-related problems. They can apply their knowledge in a broader context related to chemical sciences.

The second category of skills is related to the conduct of laboratory work. They can conduct a whole range of laboratory procedures and use of instrumentation in synthetic and analytical work. They are able to perform experimental work accurate and to evaluate the experimental results critically and objectively. They have the ability to present the results and interpretations in a scientific way (written as well as oral communication)

Thirdly, they have acquired generic skills, which are developed in the context of chemistry and are of a general nature and applicable in many other contexts.

They have acquired numeracy and calculation skills and correct use of units, information technology skills such as word processing and spreadsheet use, data logging and storage, subject-related use of the Internet. They have the ability to reflect on the ethical and environmental responsibilities, linked to the application of their knowledge and judgements and are able to engage in team-working. In the mean time they have the ability to work

autonomously. They have learned the learning skills that allow them to continue to study in a manner that may be largely self-directed or autonomous, and to take responsibility for their own professional development. They have attained a standard of knowledge and competence which will give them access to Master programmes.

Annex 9: Competence profile Case G – Chemistry, United Kingdom

The competence profile is part of the Programme Specifications for The Chemistry Cluster of Programmes of the Nottingham Trent University.

7

Programme outcomes

Programme outcomes describe what you should know and be able to do by the end of your programme if you take advantage of the opportunities for learning that we provide.

Knowledge and understanding. By the end of the programme you should be able to:

- demonstrate knowledge and understanding of the essential terminology, facts, concepts, principles and theories of chemistry and related topics, critically evaluating concepts and applying them in qualitative and quantitative problem solving;
- plan and implement good, safe measurement science and practice with systematic, reliable recording and documentation of data and its evaluation and interpretation;
- recognise and analyse novel problems and plan strategies for their solution;
- apply knowledge of computational and data processing skills to data acquired from a variety of sources and present scientific material and arguments clearly and correctly in writing or orally to a range of audiences
- acquire, interpret and analyse chemical information from a variety of sources to inform judgements on scientific, social and ethical issues;
- demonstrate understanding (BSc –awareness) of major issues currently at the frontiers of chemical research and developments;

Skills, qualities and attributes. By the end of the programme you should be able to:

- use equipment and materials competently and safely in accord with good laboratory practice to observe, measure and record ;
- analyse, interpret and evaluate critically data and information retrieved from a variety of sources;
- communicate effectively in writing, graphically and orally;
- apply numeracy and IT skills;
- plan and implement efficient and effective modes of working using time management and organisational skills;
- work independently and as part of a team developing the ability to work autonomously;
- solve problems from qualitative and quantitative information;
- develop the study skills needed for continuing professional development and informed career management choices.

Annex 10: Competence profile Case H – Chemistry, The Netherlands

*The competence profile is described in the section **Objective** of the Diploma Supplement.*

Objective

The objectives of the Chemistry bachelor's programme

The objectives of the Chemistry bachelor's programme are:

- to provide students with thorough theoretical and practical basic knowledge and skills relating to the discipline
- to provide students with the necessary mathematical and computational skills
- to enable students to analyse problems in the discipline independently
- to introduce students to scientific research in the discipline
- to enable students to develop the skills needed to give presentations, to communicate both in writing and verbally, to deal with scientific sources of information, and to
- work independently as well as with others
- to prepare students for an advanced degree programme
- to provide students with insight into the place and role of the discipline within science and society, and into the international character of the discipline.

The final attainment levels of the Chemistry bachelor's programme

The graduate:

- has a thorough theoretical and practical basic knowledge of chemistry, and the related subjects of physics, mathematics, computer science, and biology, necessary to successfully participate in a Master's programme related to chemistry
- is familiar with conducting scientific research in the field of chemistry, and have passed a test of competence accordingly
- has sufficient insight into the various specialisations in chemistry that follow the Bachelor's programme to be able to make a responsible choice regarding advanced degree programmes
- is aware of the opportunities for employment open to those graduating from the programme with a Bachelor's degree
- is familiar with the safety and environmental aspects of chemistry
- is aware of the role of chemistry in society, and of the international character of chemistry
- has an independent, scientifically critical method of working and attitude
- is able to provide written and verbal reports on scientific results and the corresponding applications
- is able to collect and process information
- has the ICT skills that correspond to the chosen specialisation
- is able to work with others and have experience in working on projects
- has acquired a solid foundation for teacher's training.

General skills

The graduate should:

- have an independent, scientifically critical method of working and attitude;
- be able to provide written and verbal reports on scientific results and the corresponding applications;
- be able to collect and process information;
- have the ICT skills that correspond to the chosen specialisation;
- be able to work with others and have experience in working on projects;
- have a solid foundation for teacher training.

Outcomes described in Self-evaluation Report for the Application for the Chemistry Eurobachelor Label

Outcomes: Subject knowledge

Aspect of chemistry	Treated in module/course unit ^a
a) Major aspects of chemical terminology, nomenclature, conventions and units	1.1; 1.9; 2.1; 2.3
b) The major types of chemical reaction and the main characteristics associated with them	1.1; 1.8; 1.9; 2.1; 2.9
c) The principles and procedures used in chemical analysis and the characterisation of chemical compounds	1.5; 1.6; 1.12; 2.5; 2.7
d) The principal techniques of structural investigations, including spectroscopy	1.5; 1.6; 1.12; 2.5
e) The characteristics of the different states of matter and the theories used to describe them.	1.11; 2.3; 3.2; 3.6
f) The principles of thermodynamics and their applications to chemistry	1.8; 2.3; 3.6
g) The principles of quantum mechanics and their application to the description of the structure and properties of atoms and molecules	1.1; 1.10; 2.10
h) The kinetics of chemical change, including catalysis; the mechanistic interpretation of chemical reactions	1.8; 1.9; 2.1; 2.9; 3.5;
i) The characteristic properties of elements and their compounds, including group relationships and trends within the Periodic Table	1.1; 2.1
j) The structural features of chemical elements and their compounds, including stereochemistry	1.1; 2.1
k) The properties of aliphatic, aromatic, heterocyclic and organometallic compounds	1.9; 2.1; 3.5; 3.7
l) The nature and behaviour of functional groups in organic molecules	1.5; 1.6; 1.9; 1.12; 2.9
m) Major synthetic pathways in organic chemistry, involving functional group interconversion and carbon-carbon and carbon-heteroatom bond formation	1.6; 1.9; 1.12; 2.9
n) The relation between bulk properties and the properties of individual atoms and molecules, including macromolecules (both natural and man-made), polymers and other related materials	1.11; 2.7, 3.2
o) The structure and reactivity of important classes of biomolecules and the chemistry of important biological processes.	2.2; 2.9; 3.1

^a The topics listed in the table represent key-issues in a number of course units. The numbers given refer to the relevant courses given in Table 1 (see also Appendix I).

Outcomes: Generic Competences

1.1 The capacity to apply knowledge in practice, in particular problem-solving competences, relating to both qualitative and quantitative information.

The capacity to apply knowledge in problem-solving is an integral part of nearly all course units. The students also submit homework that is evaluated by the lecturer and discussed during the subsequent problem-solving sessions. The homework as well as the problems addressed during the sessions can be of a qualitative or quantitative nature depending on the nature of the topic of a given course.

1.2. Numeric and calculation skills, including such aspects as error analysis, order-of-magnitude estimations, and correct use of units.

These skills are developed during the first year laboratory course (1.4) and evaluated in the form of a short examination. Estimation of the order-of-magnitude is part of courses such as “Symmetry and patterns in nature” (1.2), Mathematics 1 (1.3), Energy and dynamics (1.8), Quantum chemistry (1.10), Structure of matter (1.11) and the courses in thermodynamics (2.3 and 3.6). All these courses involve training in the correct use of units.

1.3. Information-management competences, in relation to primary and secondary information sources, including information retrieval through on-line computer searches.

Competences in literature searches (in part with on-line computer services) on a given topic is trained during the courses in which a presentation is given (for example course unit 1.2) and during the practical courses (1.6, 1.12, 2.6, 2.12). More advanced literature searches are an integral part of the unit “Literature discussion” (3.11) and the Bachelor project (3.12).

1.4. Ability to analyze material and synthesize concepts.

The ability to analyze material is part of all practical course units (1.6, 1.12, 2.6, 2.13) and also the courses in Analytical chemistry (2.7) and Inorganic chemistry (2.1).

1.5. The capacity to adapt to new situations and to make decisions.

These competences are developed throughout the Bachelor program and form an integral part of the course units concerned with “Academic competences” (1.7 and 3.13).

1.6. Information-technology skills such as word-processing and spreadsheet use, data-logging and storage, subject-related use of the Internet.

Such skills are developed during high school in the Netherlands and applied in the practical courses (1.6; 1.12; 2.6; 2.13) units; data-analysis is part of the practical course 1.4; the use of information-technology is encouraged during most course units and is an essential part of the “Literature discussion” course (3.11).

1.7. Skills in planning and time management.

Planning and time-management is trained during the “Academic competences” (1.7 and 3.13) and the skills are evaluated during the tutoring program in the first year. The skills in planning are also developed during the course in Literature discussions (3.11) and the bachelor project (3.12).

1.8. Interpersonal skills, relating to the ability to interact with other people and to engage in team-working.

Team working is an essential part of the practical course units (1.6; 1.12; 2.6; 2.12); in addition, the “Literature discussion” course involves teamwork (3.11).

1.9. Communication competences, covering both written and oral communication, in one of the major European languages (English, German, Italian, French, Spanish) as well as in the language of the home country.

The official language of all Bachelor programme is Dutch and the students are obliged to write their reports in Dutch including the report on the results of the Bachelor project. The text books are mostly in English. Dutch students, however, experience no difficulty in reading English books (or research articles) and are capable of expressing themselves in English (both in written and oral form).

1.10. Study competences needed for continuing professional development. These will include in particular the ability to work autonomously.

The individual study competence is developed during the entire Bachelor and is also part of the “Academic competence” course units (1.7 and 3.13). During the Bachelor project the student work autonomously under the guidance of a PhD student or a lecturer.

1.11. Ethical commitment

No comment.

2. Outcomes: Chemistry-based Practical Skills

The total number of credits allocated to pure practical course units is 24 EC. Experimental laboratory work is part of the course “Inorganic chemistry” (2 EC) and the semi-optional course “Catalysis” (2 EC). The bachelor project involves for most students experimental work, for example in synthesis, catalysis, photonics or analytical chemistry.

The practical course units 1.6 and 1.12 (see Appendix I) involve experimental hands-on laboratory work according to given instructions. During these courses the students work in groups of 2 under the guidance of teaching assistants (about 1 assistant per 6 students).

The practical course units, 2.6 and 2.13, can involve hands-on laboratory work or more theoretical work depending on the precise program that is followed by a group of students.

Annex 11: Competence profile Case I – Business, Germany

Lernergebnisse und Niveaustufen 3-jähriger Bachelorstudiengang

Wissen und Können Modul.....

Wissen und Verstehen			Niveaustufe 1 Deskriptor	Niveaustufe 2 Deskriptor	Niveaustufe 3 Deskriptor
Die Fähigkeit zu belegen und / oder arbeiten mit/auf					
	Wissens- verbreite- rung	Grundsätzlich	einer breiten Grundlage des Lerngebiets / der Disziplin im allgemeinen	eines breiten Wissens über den Umfang, die Wesensmerkmale und die wesentlichen Gebiete des Lerngebiets / der Disziplin	eines breiten und integrierten Wissens und Verstehens des Umfangs, der Hauptgebiete und der Grenzen eines Lerngebiets / einer Disziplin
			Wissen, das in den wesentlichen Theorien, Konzepten und Prinzipien eingebettet ist	Verstehen einer begrenzten Anzahl von Kerntheorien, Prinzipien und Konzepten	ein kritisches Verständnis einer Auswahl der wichtigsten Theorien, Prinzipien, Konzepten und Terminologie
			ein Bewusstsein über die sich entwickelnde und dynamische Art des Wissens und Verstehens	begrenzt Wissen und Verstehen von einigen aktuellen Themen und Spezialbereichen	
				ein grundsätzliches Wissen und Verstehen der Forschung und vergleichbarer wissenschaftlicher Prozesse	
		Beispiel	<i>Unternehmen im Markt</i> -die wesentlichen primären und sekundären unternehmerischer Aktivitäten zu verstehen	<i>Europäische Integration</i> -die unterschiedlichen Mechanismus erkennen und erklären, die in einer Gesellschaft entscheiden, was, wie	<i>Strategische Marketingplanung</i> -unternehmensweite strategische Planung erklären und die wesentlichen Schritte zur

			<p>-das Unternehmen im Gesamtzusammenhang mit dem Umfeld zu beschreiben</p> <p>-den Umfang und die Komplexität externer Einflüsse zu erkennen</p> <p><i>Rechnungswesen:</i></p> <p>-die Rolle des RW als Teil des Informationsmanagements in einer Organisation beschreiben und erklären...</p>	<p>und für wen produziert wird</p> <p><i>Managementinstrumente</i></p> <p>-die Elemente des strategischen Management verstehen</p> <p>-Instrumente zur Analyse der strategischen Position erkennen und handhaben</p> <p>-Wahlmöglichkeiten der strategischen Aktionen mit Hilfe von Instrumenten erarbeiten</p>	<p>Erstellung darlegen</p> <p>-die Ableitung von Mission Statements und Zielen durchführen</p>
		Fachspezifisch			
	Wissens-vertiefung	Grundsätzlich	<p>ein Verstehen des Unterschieds und seiner Bedeutung zwischen Erklärungen, die auf Beweise fußen und / oder Forschung und andere Formen der Erklärung</p>	<p>ein vertieftes Wissen in einigen Bereichen</p>	<p>ein vertieftes Wissen in einigen Bereichen und / oder Wissen einer oder mehrerer Vertiefungen, die von aktuellen Entwicklungen getragen werden</p>
		Fachspezifisch			
		Terminologie	<p><i>Wissen aneignen:</i></p> <p>definieren, beschreiben, identifizieren, bezeichnen, auflisten, umschreiben, wiedergeben, sich erinnern, auswählen, konstatieren, präsentieren, extrahieren, organisieren, erzählen, beschreiben, erkennen, messen, unterstreichen, wiederholen, beziehen, zusammenbringen...</p> <p><i>Wissen verstehen:</i></p> <p>interpretieren, schätzen, rechtfertigen, umwandeln, erklären, verteidigen, unterscheiden, generalisieren, Beispiele geben, voraussagen, zusammenfassen, diskutieren, präsentieren, auswählen, formulieren, kategorisieren, vergleichen...</p>		
		Beispiel	<p><i>Unternehmen im Markt</i></p> <p>-die Hauptursachen der Komplexität und der Dynamik im betrieblichen Umfeld zu unterscheiden</p> <p><i>Rechnungswesen:</i></p> <p>-sich kritisch mit den verschiedenen</p>	<p><i>Europäische Integration</i></p> <p>-Stärken und Schwächen des Marktmechanismus zu erkennen und zu interpretieren</p> <p>-den Erfolg des Binnenmarktes EU zu erklären und zu diskutieren</p>	<p><i>Strategische Marketingplanung</i></p> <p>-erklären, wie Unternehmen ihr Portfolio beurteilen und zusammenstellen</p>

			Rechnungslegungssystemen auseinandersetzen und sie bewerten	<i>Managementinstrumente</i> -sich der Probleme bewusst werden, die mit dem Wachstum von Unternehmen zusammenhängen -die Problembereiche erkennen und bewerten, die mit Fusionen und Beteiligungen zusammenhängen	
Können	Wissenserschließung	Grundsätzlich	<i>Instrumentell - ICT und numerische Fähigkeiten / Fertigkeiten</i> Der Studierende hat die Fähigkeit, eine breite Palette von Standard- und einigen Fortgeschrittenfähigkeiten und –fertigkeiten zu benutzen, die mit dem Lerngebiet verbunden werden, z.B. um		
			eine Vielzahl von Daten und Informationen zu bearbeiten und zu erhalten	eine Anzahl von Standardanwendungen auf Prozesse anwenden und Ergebnisse erzielen	eine Anzahl von IT-Anwendungen zu nutzen, um die Arbeit zu unterstützen und zu verbessern
			eine Palette numerischer und graphischer Fähigkeiten/ Fertigkeiten in Kombination zu nutzen		
			numerische und graphische Daten zu nutzen, um Fortschritt und erreichte Ziele zu messen	numerische und graphische Daten zu nutzen und zu evaluieren, um Fortschritt zu messen und um Ziele zu erreichen	Numerische und graphische Daten zu interpretieren, zu nutzen und zu evaluieren, um Ziele zu erreichen
		Fachspezifisch			
		<i>Terminologie</i>	nutzen, präsentieren, formulieren, darstellen, Beispiele darlegen, Beispiele erarbeiten, erstellen, berechnen, statistisch aufbereiten, Daten sammeln, bewerten, ordnen, graphisch darstellen, kompilieren, zusammenfügen, zusammenfassen, diagnostizieren, kategorisieren, Vorschläge machen, Hypothesen erarbeiten, verifizieren, falsifizieren, ...		
		<i>Beispiel</i>	<i>Unternehmen im Markt</i> -Instrumente zur Prognose der Umweltentwicklung zu verstehen und in einfachen Beispielen anzuwenden <i>Rechnungswesen</i> -Jahresabschlüsse und G+V-Rechnung	<i>Europäische Integration</i> -Opportunitätskosten ermitteln <i>Managementinstrumente</i> -eine PESTEL- und SWOT-Analyse durchführen	<i>Strategische Marketingplanung</i> -einen Marketingplan in Umrissen erstellen

			erstellen		
			Interpersonell / kommunikativ - Generische kognitive Fähigkeiten/Fertigkeiten		
			Der Studierende hat die Fähigkeit,		
			Argumente, Informationen und Ideen zu präsentieren und zu beurteilen, die zum Standard des Lerngebiets gehören	kritische Analysen, Evaluation und / oder Synthese von Ideen, Konzepten, Informationen und Themengebieten, die im allgemeinen Verständnis dem Lerngebiet / der Disziplin zuzuordnen sind	kritische Analysen, Evaluation und / oder Synthese von Ideen, Konzepten, Informationen und Themengebieten durchzuführen
			mehrere Ansätze zu verfolgen, um definierte und / oder Standardprobleme und -themen in einem bekannten Kontext „anzugehen	eine Anzahl von Ansätzen nutzen, um nachweisbare Lösungen / Antworten auf definierte und / oder standardmäßige Probleme / Themenbereiche zu formulieren	standardmäßige berufsbezogene Probleme und Themengebiete zu identifizieren und zu analysieren
			komplexe Ideen in gut strukturierter und kohärenter Form zu kommunizieren	nachweisbare Lösungen / Antworten auf definierte und / oder standardmäßige Probleme / Themenbereiche kritisch zu beurteilen	eine Vielzahl an Quellen heranzuziehen, um Urteile zu fällen (Meinungen zu artikulieren)
			eine Palette von Kommunikationsarten effektiv sowohl in bekanntem als auch in unbekanntem Kontext zu nutzen	komplexe Informationen an unterschiedliche Zuhörer und für verschiedene Zwecke zu kommunizieren	formale und informelle Präsentationen zu Standard / aktuellen Themen in Bezug auf das Lerngebiet / die Disziplin einer Zuhörerschaft darzulegen
		Fachspezifisch			
		Terminologie	<i>Analyse</i> Erkennen, zerlegen, evaluieren, unterscheiden, differenzieren, illustrieren wie..., herausstellen, beziehen, auswählen, trennen, unterteilen, vergleichen, gegenüberstellen, rechtfertigen, beschließen, schließen, kritisieren, fragen, diagnostizieren, kategorisieren, aufhellen, erklären, belegen... <i>Synthese</i> Vorschlagen, präsentieren, strukturieren, integrieren, formulieren, lehren, entwickeln, zusammenbringen, kompilieren, entwerfen, bilden, erklären, generieren, modifizieren, organisieren, planen, neu/wieder arrangieren,		

			wieder aufbauen, beziehen, neu/wieder organisieren, schreiben, zusammenfassen, informieren, berücksichtigen, berichten, wechseln, verändern, argumentieren, bestellen/beauftragen, auswählen, managen, generalisieren, ableiten, schließen, aufbauen, synthetisieren, zusammenlegen, vorschlagen, vergrößern, kreieren...
			<i>Evaluation</i> Beurteilen, bewerten, schließen, vergleichen, gegenüber stellen, beschreiben wie..., kritisieren, abgrenzen, rechtfertigen, verteidigen, evaluieren, in eine Rangfolge setzen, in Beziehung setzen, gruppieren, einordnen, in Frage stellen, bestimmen, festlegen, beurteilen, mit einem Wert versehen...
		Beispiel	<i>Unternehmen m Markt</i> -die betrieblichen Prozesse in einem Kontext zu präsentieren <i>Rechnungswesen</i> -Bilanzen präsentieren und erklären <i>Europäische Integration</i> -erkennen, beurteilen und verteidigen, warum einige Mitgliedstaaten der EU nicht der Währungsunion beigetreten sind <i>Managementinstrumente</i> -Verhaltensweisen zu entwickeln, die für einen strategischen Manager entscheidend sind <i>Strategische Marketingplanung</i> -Mission Statements im Unternehmen zu kommunizieren und in das Bewusstsein der Mitarbeiter zu setzen
			Systemisch - Anwendung des Wissens und Verstehens
			Der Studierende hat die Fähigkeit,
			einige der grundlegenden und alltäglichen beruflichen Fertigkeiten, Techniken, Praktiken anzuwenden und / oder Materialien zu benutzen, die mit diesem Lerngebiet verbunden werden
			eine Anzahl Standardfähigkeiten und -fertigkeiten, Praktiken und / oder Materialien zu nutzen, die zum Lerngebiet / zur Disziplin einen Bezug haben, von denen einige fortgeschritten oder komplex sind
			eine Auswahl der wesentlichen Fähigkeiten und Fertigkeiten, Praktiken und / oder Materialien zu nutzen, die zum Lerngebiet / zur Disziplin einen Bezug haben
			diese sowohl in Standard- als auch in nicht Standardzusammenhängen anzuwenden
			Routineaufgaben erledigen, die sich auf Standardanfragen, Entwicklung oder Untersuchung von berufsbezogenen Problemen und Themengebieten beziehen
			einige ausgewählte Fähigkeiten und Fertigkeiten, Praktiken und / oder Materialien nutzen, die spezialisiert oder fortgeschritten sind
			Routinepraktiken innerhalb anerkannter Standards zu adaptieren
			Routinemethoden der Anfragen und / oder Forschung zu üben

					berufsbezogen zu üben, wobei Unwägbarkeiten einzubeziehen sind
		Fachspezifisch			
		Terminologie	Anwenden, lösen, konstruieren, demonstrieren, belegen, berechnen, entdecken, manipulieren, verändern, modifizieren, operieren, durchführen, voraus sagen, vorbereiten, in Beziehung setzen, wechseln, ermitteln, zeigen, gebrauchte, benutzen, Beispiele geben, an Beispielen erklären, aufzeigen, auswählen, erklären wie..., herausfinden, wählen, beurteilen, illustrieren, verdeutlichen, vorbereiten, produzieren, praktizieren, verifizieren...		
		Beispiel	<i>Unternehmen m Markt</i> - <i>Rechnungswesen</i> -in einer vereinfachten Fallstudie Kosten, Leistungen und Bestände erkennen, erfassen und zusammenstellen	<i>Europäische Integration</i> -den Fortschritt in den früheren Ostblockstaaten erfassen, um die jetzt vollzogene Integration in die EU hinsichtlich ihres Erfolges zu beurteilen <i>Managementinstrumente</i> -Instrumente zu erkennen und zu ergreifen, um erfolgreich einen Wandel umzusetzen	<i>Strategische Marketingplanung</i> -belegen, wie sich marktorientierte Unternehmen verändern

Vorstellung der Arbeitsgruppe Betriebswirtschaft/Management des TUNING Projekts. Ein Bachelor-Absolvent eines betriebswirtschaftlichen Studiengangs sollte folgende Lernergebnisse erreicht haben:

- Use and evaluate tools for analysing a company in its environment
- Interface with other functions
- Work in a subject specific field of a company, and be a specialist to some extent
- Have self-awareness
- Be able to argue for the principles to be used in finding a solution to a problem mainly at an operational or tactical levels
- Defend the proposed solution
- Prepare for decision making at mainly operational and tactical levels

**Lernergebnisse und Niveaustufen
2-jähriger Masterstudiengang**

**Wissen und Können
Modul.....**

Wissen und Verstehen			Niveaustufe 4 Deskriptor	Niveaustufe 5 Deskriptor	
Die Fähigkeit zu belegen und / oder arbeiten mit/auf					
	Wissens- verbreite- rung	Grundsätzlich	den meisten der wesentlichen Bereiche eines Fachgebietes, mit seinen Besonderheiten, Grenzen, Terminologie und übereinstimmenden Lehrmeinungen	den meisten, wenn nicht sogar allen Wissensbereichen des Fachgebiets, mit seinen Besonderheiten, Grenzen, Terminologie und übereinstimmenden Lehrmeinungen	
		Beispiel	<i>Human Resource Management</i> Der Studierende kann die Bedeutung und die Rolle von HRM im Unternehmen einschätzen und die Notwendigkeit und Art der Personalplanung verstehen	<i>Management Science</i> Der Studierende kann die grundsätzlichen wissenschaftlichen Ansätze erfassen	
		Fachspezifisch			
	Wissens- vertiefung	Grundsätzlich	ein kritisches Verständnis zu den wesentlichen Theorien, Prinzipien und Konzepten zu belegen	ein kritisches Verständnis zu den wesentlichen Theorien, Prinzipien und Konzepten zu belegen	
				ein kritisches Verständnis zu einer Bandbreite von speziellen Theorien, Prinzipien and Konzepten zu belegen	
			ein detailliertes Wissen und Verständnis in einem oder mehrerer	ein breites, detailliertes und kritisches Verständnis in einem oder mehrerer	

			Spezialbereiche zu haben, und zwar zum Teil auf dem neuesten Stand des Wissens bzw. das Wissen davon zu beziehen	Spezialbereiche zu haben, und zwar zu einem großen Teil auf dem neuesten Stand des Wissens bzw. das Wissen davon zu beziehen	
				ein kritisches Bewusstsein über aktuelle Themenbereiche in dem Fachgebiet bzw. in einer oder mehrerer Vertiefungen zu belegen	
			mit der Art und Weise, in der das Wissensgebiet entwickelt wird, einschließlich einer Reihe von eingeführten Techniken von Untersuchungen oder Forschungsmethoden		
		Fachspezifisch			
		Terminologie	<p><i>Wissen aneignen:</i> definieren, beschreiben, identifizieren, bezeichnen, auflisten, umschreiben, wiedergeben, sich erinnern, auswählen, konstatieren, präsentieren, extrahieren, organisieren, erzählen, beschreiben, erkennen, messen, unterstreichen, wiederholen, beziehen, zusammenbringen...</p> <p><i>Wissen verstehen:</i> interpretieren, schätzen, rechtfertigen, umwandeln, erklären, verteidigen, unterscheiden, generalisieren, Beispiele geben, voraussagen, zusammenfassen, diskutieren, präsentieren, auswählen, formulieren, kategorisieren, vergleichen...</p>		
		Beispiel	<p><i>Human Resource Management</i> Der Studierende kann die Bedeutung guter AG/An-beziehungen einschätzen -Der Studierende kann den Beitrag von HRM zum strategischen Management definieren</p>	<p><i>Management Science</i> Der Studierende kann identifizieren, welche wissenschaftliche Managementmethode für ein bestimmtes Problem relevant ist</p>	

Können	Wissenserschließung	Grundsätzlich	<i>Instrumentell - ICT und numerische Fähigkeiten / Fertigkeiten</i>		
			eine breite Basis routinierter und einiger fortgeschrittener und spezialisierter Fertigkeiten anzuwenden, um anerkannte Praktiken in einem Fachgebiet / Disziplin zu unterstützen. Zum Beispiel:	eine Anzahl fortgeschrittener und spezialisierter Fertigkeiten anzuwenden, die für ein Fachgebiet / Disziplin angemessen sind. Zum Beispiel:	
			-eine Bandbreite von Software einzusetzen, die die Arbeit auf diesem Niveau fördert und verbessert, und Verfeinerungen und Verbesserungen der Software hinsichtlich der Steigerung der Effektivität zu erreichen	-eine Bandbreite von Software einzusetzen, die die Arbeit auf diesem Niveau fördert und verbessert, und Weiterentwicklungen oder neue benötigte Software zu beschreiben und zu fordern, um die Effektivität zu steigern	
			-eine Bandbreite von numerischen und graphischen Daten zu interpretieren, einzusetzen und zu evaluieren, um Ziele zu setzen und zu erreichen	-eine kritische Beurteilung einer Bandbreite von numerischen und graphischen Daten durchzuführen	
		Fachspezifisch			
		<i>Terminologie</i>	nutzen, präsentieren, formulieren, darstellen, Beispiele darlegen, Beispiele erarbeiten, berechnen, statistisch aufbereiten, Daten sammeln, bewerten, ordnen, graphisch darstellen, kompilieren, zusammenfügen, zusammenfassen, diagnostizieren, kategorisieren, Vorschläge machen, Hypothesen erarbeiten, verifizieren, falsifizieren, ...		
		<i>Beispiel</i>	<i>Human Resource Management</i> Der Studierende kann unterschiedliche Personalbeurteilungssysteme anwenden	<i>Management Science</i> Der Studierende kann Modelle auswählen, um in Probleme sachgerecht zu formulieren	
			<i>Interpersonell / kommunikativ - Generische kognitive Fähigkeiten/Fertigkeiten</i> Der Studierende hat die Fähigkeit,		
			eine breite Basis routinierter und	-eine breite Basis zu belegen, die	

			einiger fortgeschrittener und spezialisierter Fertigkeiten zu benutzen, um in einem Fachgebiet / Disziplin anerkannte Praktiken zu unterstützen. Zum Beispiel:	zugleich ein fortgeschrittenes und spezialisiertes Niveau dokumentieren, und zwar auf das jeweilige Fachgebiet bezogen. Zum Beispiel	
			-eine Breite von Software zu nutzen, um die Arbeit auf diesem Niveau zu unterstützen und verbessern und um Verfeinerungen/ Verbesserungen vorzunehmen, um die Effektivität zu erhöhen,		
			-formale Präsentationen über spezialisierte Themen für ein informiertes Publikum zu geben		
			-mit Peers, erfahrenen Kollegen und Spezialisten zu kommunizieren	-mit Peers, erfahrenen Kollegen und Spezialisten zu kommunizieren	
		Fachspezifisch			
		Terminologie	<i>Analyse</i> Erkennen, zerlegen, evaluieren, unterscheiden, differenzieren, illustrieren wie..., herausstellen, beziehen, auswählen, trennen, unterteilen, vergleichen, gegenüberstellen, rechtfertigen, beschließen, schließen, kritisieren, fragen, diagnostizieren, kategorisieren, aufhellen, erklären, belegen... <i>Synthese</i> Vorschlagen, präsentieren, strukturieren, integrieren, formulieren, lehren, entwickeln, zusammenbringen, kompilieren, entwerfen, bilden, erklären, generieren, modifizieren, organisieren, planen, neu/wieder arrangieren, wieder aufbauen, beziehen, neu/wieder organisieren, schreiben, zusammenfassen, informieren, berücksichtigen, berichten, wechseln, verändern, argumentieren, bestellen/beauftragen, auswählen, managen, generalisieren, ableiten, schließen, aufbauen, synthetisieren, zusammenlegen, vorschlagen, vergrößern, kreieren... <i>Evaluation</i> Beurteilen, bewerten, schließen, vergleichen, gegenüber stellen, beschreiben wie..., kritisieren, abgrenzen,		

			rechtfertigen, verteidigen, evaluieren, in eine Rangfolge setzen, in Beziehung setzen, gruppieren, einordnen, in Frage stellen, bestimmen, festlegen, beurteilen, mit einem Wert versehen...	
		<i>Beispiel</i>	<i>Human Resource Management</i> Der Studierende kann Elemente des Betriebsklimas erkennen und kommunizieren, die dazu beitragen, Personal zu halten	<i>Management Science</i> -
			Systemisch - Anwendung des Wissens und Verstehens Der Studierende hat die Fähigkeit,	
			eine Reihe der wesentlichen Fertigkeiten, Praktiken und/oder Materialien zu benutzen, die mit dem Fachgebiet / der Disziplin im Zusammenhang stehen	eine signifikante Reihe der wesentlichen Fertigkeiten, Praktiken und / oder Materialien zu benutzen, die mit dem Fachgebiet / der Disziplin im Zusammenhang stehen
			einige Fertigkeiten, Praktiken und Materialien zu benutzen, die spezialisiert, fortgeschritten oder an der Spitze eines Fachgebiets / einer Disziplin zu stehen	Einige Fertigkeiten, Praktiken und Materialien zu benutzen, die spezialisiert, fortgeschritten oder an der Spitze eines Fachgebiets / einer Disziplin stehen bzw. das Wissen davon abgeleitet ist
			ein begrenztes Forschungs-, Entwicklungs- oder Untersuchungsprojekt durchzuführen und relevante Ergebnisse zu erkennen und umzusetzen	eine Anzahl von Standard- und Spezialforschungsinstrumenten oder gleicher Untersuchungstechniken anzuwenden
			Auf mehreren Ebenen zu üben, die in einem beruflichen Zusammenhang stehen, die eine gewisse Unwägbarkeiten und / oder Spezialität beinhalten.	ein wesentliches Forschungs-, Untersuchungs- oder Entwicklungsprojekt zu planen und durchzuführen
			kritisch berufliche Ebenen, Probleme und Themenbereiche zu identifizieren, definieren, entwerfen und zu	in einem breiten und oft mit Unwägbarkeiten versehenem beruflichen Umfeld zu operieren

			analysieren		
			Einsichten, Interpretationen und Lösungen zu Problemen und Aufgabenstellungen auf beruflicher Ebene zu geben	kritische Analyse, Evaluation und Synthese auf Themenbereiche anzuwenden, die an der Spitze der eines Fachgebiets / einer Disziplin stehen bzw. die Informationen von dort erhalten	
			Kritisch Wissen, Fähigkeiten und Fertigkeiten zu überarbeiten und zu konsolidieren und auf ein Fachgebiet / Disziplin zu beziehen.	neue abstrakte Problem und Themenbereiche zu identifizieren, zu entwerfen und zu definieren	
			eine gewisse Originalität und Kreativität in der Zusammenarbeit mit beruflichen Themenbereichen unter Beweis zu stellen	Originalität und Kreativität bei der Anwendung von Wissen, Verstehen und / oder praktischer Anwendungen zu belegen	
			Urteile bei begrenzter Datenlage / begrenzten Informationen zu fällen bzw. in Fällen, in denen eine Vielzahl von Quellen heranzuziehen sind.	Originäre und kreative Antworten auf Probleme und Themenbereiche zu entwickeln	
				Wissen, Praktiken und Denkweisen kritisch zu überarbeiten, zu konsolidieren und zu erweitern	
				mit komplexen Themenbereichen umzugehen und fundierte Beurteilungen in Situationen abzugeben, in denen keine kompletten oder konsistente Daten / Informationen vorliegen	
		Fachspezifisch			
		<i>Terminologie</i>	Anwenden, lösen, konstruieren, demonstrieren, belegen, berechnen, entdecken, manipulieren, verändern, modifizieren, operieren, durchführen, voraus sagen, vorbereiten, in Beziehung setzen, wechseln, ermitteln, zeigen, gebrauche, benutzen, Beispiele geben, an Beispielen erklären, aufzeigen, auswählen, erklären wie..., herausfinden, wählen, beurteilen, illustrieren, verdeutlichen, vorbereiten, produzieren, praktizieren, verifizieren...		

		Beispiel	<i>Human Resource Management</i> Der Studierende kann Maßnahmen zur Personalentwicklung vorbereiten und durchführen	<i>Management Science</i> Der Studierende kann alternative Strategien mit einem Model vergleichen Der Studierende kann Managemententscheidungen durch Modellanalysen verdeutlichen	
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Vorstellung der Arbeitsgruppe Betriebswirtschaft / Management des Tuning-Projekts über die Lernergebnisse, die ein Master-Absolvent eines betriebswirtschaftlichen Studiengangs erreicht haben sollte:

- Skills enabling them to participate in strategic decision making
- Ability to do guided research
- Ability to work independently
- Skills to perform holistic judgement and abilities to make critical assessments on strategic solutions
- Skills to manage change
- International mobility and cultural understanding
- Ethical commitment

Annex 12: Competence profile Case J – Business, United Kingdom

9 Specific learning outcomes.

Level 1

On successful completion of Level 1 students should be able to:

- Demonstrate a knowledge of underlying concepts and principles of business organisations, their management and the environment in which they operate
- Identify the framework and context of economic analysis
- Explain the role of information and its management in a business environment
- Recognise the importance of people and the factors which influence behaviour in work organisations
- Collect, organise and interpret data using appropriate quantitative techniques
- Interpret and appraise published financial statements of a public limited company
- Demonstrate an understanding of the principles, concepts and application of customer oriented marketing.

Skills and other attributes:

- Present, evaluate and interpret data to develop lines of argument and make sound judgements in accordance with basic business theories and concepts
- Formulate solutions to clearly defined problems and situations
- Communicate the results of their study/work accurately and reliably using structured and coherent arguments
- Access and use a range of learning resources in order to acquire the skills to begin the process of moving from dependent to independent learning
- Begin to take responsibility for their own learning and development
- Commence studies at level 2

Level 2

On successful completion of Level 2 students should be able to:

- Challenge received opinion from a position of knowledge and begin to develop own criteria and judgement
- Recognise the influences on management decision making and apply a range of techniques to support the management decision making process in organisations
- Analyse the nature and implications of changes in the global environment on organisations
- Analyse the interrelationship between the business disciplines, the support systems, structures and procedures associated with the management of an organisation
- Examine the diverse nature of the resources within organisations and how these resources are managed to produce and market products and services in a manner consistent with the attainment of organisational objectives.
- Understand the principles and practice of business accounting and finance and its relevance to the decision making process and successful management of organisations.

Skills and other attributes

- Reflect on and apply concepts, principles and techniques from a range of business disciplines in analysing realistic, semi-open 'business' problems and situations, and selecting appropriate methods for their resolution in a considered manner
- Effectively communicate information, arguments and analysis in a variety of forms
- Participate effectively in interdependent learning activities and function effectively as a more independent learner
- Analyse learning needs and develop appropriate strategies
- Commence studies at level 3
- Evaluate and reflect upon their progress towards their chosen career

Level 3

On successful completion of Level 3 students should be able to:

- Synthesise and apply accepted management theories and techniques within and across the business disciplines to a range of contemporary, relatively complex and open-ended 'business' problems and situations in a critical manner, independently and in groups
- Develop appropriate policies and strategies within a changing environment, to meet stakeholder interests and expectations
- Evaluate ethical and international issues facing organisations when formulating and implementing strategies
- Critically evaluate the strategic and operational problems facing international and multinational enterprises and propose solutions
- Contribute to research into business and management issues using appropriate data, sources and methodologies
- Address a range of contemporary and pervasive issues in relation to the management of change and innovation

Skills and other attributes

- Develop positive attitudes towards the identification of causes of change within organisations, the possible consequences of these and the implications for the management of the change process.
- Organise and manage projects from inception to completion
- Make an effective contribution to the management and administration of organisations
- Address multi-faceted, open-ended, realistic problems and case situations in a complex and unpredictable context with an open mind, taking positive initiatives to achieve a solution - or identify a range of solutions
- Effectively communicate information, ideas, arguments, problems and solutions to appropriate audiences
- Determine their own learning needs and develop appropriate strategies to achieve their academic and personal aspirations
- Evaluate and reflect upon their progress towards their chosen career, identifying areas of development
- Undertake appropriate further training or study of a professional or equivalent nature

Annex 13: Competence profile Case K – Business, The Netherlands

1. Aims of the International Economics & Business (IE&B) degree programmes

BSc in IE&B

This Bachelor's degree programme aims to provide a fully internationally oriented curriculum in English. Compared to similar degree programmes in the Netherlands, the BSc in IE&B offers a unique combination of courses in international economics and international business.

MSc in IE&B

The MSc in IE&B aims to train students for positions in which they can independently participate and function in projects in such organizations, or for further academic training as PhD students. (*Rapport tbtv de additionele beoordeling bachelor- en masteropleidingen FEW*, p. 31)

The MSc in IE&B builds upon the Bachelor's degree programme but has a strong focus on the major integrative subject of Multinational Enterprises and the World Economy. More specifically, the MSc in IE&B focuses on the following issues:

1. the changes in the nature of international competition and their impact on the decision-making of multinational enterprises to export or to initiate international strategic alliances
2. the implications for the strategy and organization of multinationals (including subcontracting, licensing, joint ventures, mergers, etc.), in particular the choice between competition or cooperation which depends on the business environment in different cross-contextual settings
3. the implications of the globalization of economic activity for international cooperation at a governmental level (inter and intra-governmental organizations) in the areas of international economic and trade policy, intellectual property rights, international finance and international economic law
4. the potential similarities and conflicts between the strategies of transnational firms and international cooperation between governments.

Underlying these topics is the literature on international trade, economic geography, innovation theory, international strategic management theory, (generalized) transaction cost theory and institutional economics.

Learning outcomes of the BSc in IE&B

Knowledge:

Graduates

1. will have mastered the latest knowledge (newest insights, methods, techniques and theories) at the level of a standard manual of the most important disciplines of the economic knowledge area of the degree programme in question as well as basic knowledge of the related disciplines.
2. will have an understanding of the relationships between the courses within the economics knowledge area.

3. will be able to apply the analysis techniques and skills acquired to the economics knowledge area.
4. will be able to critically assess the application of theories and research methods within the economics knowledge area.
5. will have a good command of English (written as well as oral) and a basic knowledge of a second foreign language, and will be able to apply this knowledge in the context of further study or in an international work environment within a commercial company or other organization.

Skills:

Graduates

1. will be able to conduct supervised routine research within the knowledge area.
2. will be able to collect quantitative and qualitative information and independently analyse and interpret it, including as part of a (multidisciplinary) team.
3. will have the relevant skills in the field of information technology.
4. will have the communicative skills to clearly and logically express the argumentations and concepts of the main disciplines both orally and in written form.
5. will have the necessary analytical and social skills to function in international and multidisciplinary teams, to merge their specific knowledge with that of others and to use this knowledge in order to solve problems.

Attitude:

Graduates

1. will have an investigative attitude towards the content and development of the knowledge area.
2. are interested in (business) economics phenomena and questions, including in their social context.
3. are able to reflect on their own learning process (thinking and working), want to acquire new knowledge and form their own opinions.
4. have the right attitude towards continuing their studies.
5. are able to cooperate in an intercultural context, taking into account differences in traditions and habits with regard to the functioning within the organization as well as the relationship between the organization and its environment.

Relationship between learning outcomes and courses in the BSc in IE&B

Learning outcome Courses	knowledge of the (int.) Economics knowledge area	relationships between the courses	applying knowledge of lit.	critical assessment	language skills	ROUTINE RESEARCH	COLLECTING AND ANALYSING INFORMATION	IT skills	comm. skills (SGT)	MULTIDISCIPLINARY TEAMS (SGT)	INVESTIGATIVE ATTITUDE	FURTHER STUDY	INTERCULTURAL CONTEXT (SGT)
Bachelor's degree in IE&B													
International Business Ia	X				X		X	X	X	X			X
International Business Ib	X		X		X	X	X	X	X	X	X		X
International Business Iia	X		X		X	X		X	X	X			X
International Business Iib	X		X		X	X		X	X	X	X		X
International Business III	X	X	X	X	X	X	X	X	X	X	X	X	X
International Economics I	X				X			X	X	X			X
International Economics II	X				X			X	X	X			X
International Economics III	X	X	X	X	X	X	X	X	X	X	X	X	X
English (Ia,b,c,d)					X				X	X			X
Spanish					X				X	X			X
Electives	X				X					X			X
Study abroad	X			X	X				X	X			X
Bachelor's thesis	X	X	X	X	X	X	X	X	X	X	X	X	X
Macroeconomics I	X				X								
Microeconomics I	X				X								
Industrial Economics	X	X			X								
Finance (I&II)	X				X		X						
International Marketing (I&II)	X				X								
Statistics (Ia,b & II)			X		X	X	X	X	X	X	X		X
Mathematics (Ia,b & IIa)					X	X							
Financial Accounting	X				X								
Public Finance	X				X								

3. Learning outcomes of the MSc in IE&B

Knowledge:

Graduates

1. have an advanced level of knowledge of the theories, methods and techniques of their chosen discipline/specialization, as well as the ability to interpret the interrelationship of these economics knowledge areas.
2. are able to formulate a critical assessment of the relationships between theoretical concepts, research methodologies and empirical findings in international scientific publications.
3. are able independently to employ specific research and analysis methods within the economics discipline/specialization.
4. are able to contribute independently to the body of knowledge of at least one economics discipline/specialization.
5. have a level of knowledge of the field of International Economics that dovetails with the entry level of courses followed by first-year PhD students in the NAKE and a similar level of knowledge in the fields of International Business and Advanced IE&B.
6. have a good, active knowledge of the English language (written as well as oral) and are able to apply this knowledge in the context of an international multidisciplinary work environment within a commercial company or other organization.

Skills:

Graduates

1. are able to apply the knowledge gained to complex questions, can independently formulate a problem definition and conduct research in a multidisciplinary context.
2. are able to apply the most important theoretical insights in the field to the analysis of concrete (business) economics questions and thus take the first steps towards innovative research.
3. can draw links between the results concerning the knowledge area found in international scientific and subject-specific publications and relevant social developments.
4. are able to critically reflect on argumentations and standpoints, can integrate broader social modes of thought into the field and communicate this in both written and oral forms.
5. have advanced analytical and social skills to function in international and multidisciplinary teams, to combine their specific knowledge with that of others and to use this knowledge in order to solve problems.

Attitude:

Graduates

1. have an investigative and critical attitude towards the content and development of the knowledge area and are able to take a standpoint.
2. have understanding and a vision of the applicability and limitations of the science of economics and of science in general for social questions and developments.
3. have the right attitude towards continuous learning.
4. have an open and critical attitude towards new ideas and developments within the knowledge area.

5. demonstrate a professional attitude whereby the relevant skills (such as working methodically, accurately, independently, taking the initiative, negotiating) can adequately be applied.
6. are able to work in an intercultural context and to act professionally, taking into account differences in traditions and habits with regard to the functioning within the organization as well as the relationship between the organization and its environment.

Relationship between learning outcomes and courses in the MSc in IE&B

Learning outcome / Courses	ADVANCED KNOWLEDGE	CRITICAL ASSESSMENT	INDEPENDENT RESEARCH	language skills	APPLYING KNOWLEDGE	multidisciplinary	FIRST STEPS TOWARDS INNOVATIVE RESEARCH	REFLECTION ON SOCIAL CONTEXT	ADVANCED SKILLS	INVESTIGATIVE ATTITUDE	ANALYTICAL SKILLS	INTERCULTURAL CONTEXT	CRITICAL attitude to knowledge development	PROFESSIONAL ATTITUDE
MSc in IE&B														
Advanced International Economics	X	X	X	X	X		X	X	X	X	X	X	X	X
Advanced International Business	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Advanced International Economics and Business	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Research Methodology		X		X	X				X		X	X	X	X
MSc Thesis	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Bachelor degree programme in International Business Management Aims and learning outcomes

1. *Disciplinary knowledge and understanding*

Graduates possess knowledge of the theories, models and methodologies of Organization Studies and the most important basic disciplines and functional fields relevant to International Business and International Management.

This generic learning outcome involves knowledge and understanding of organizations, management, strategy, external environment, markets, customers, organizational change, finance, people, processes and information systems, and in particular their international aspects. Graduates of the BSc in BDK-IB&M are able to use their understanding of the basic principles in their work as business professionals. Important basic disciplines include the social sciences (sociology, psychology), economics, law, statistics and languages. Graduates of the BSc in BDK-IB&M are able to use their understanding of these basic disciplines to adequately recognize, analyse and solve problems in the field of managing complex international organizations. Graduates must also be up-to-date with recent developments in the international aspects of the field of Business Studies.

2. *Methodological competence*

Graduates have knowledge of the most important methodologies for business research and are able to apply these in an international context. They are able to set up and conduct research tailored to the situation, applying the various steps in the design cycle and providing organizational advice on the basis of this.

This generic learning outcome includes skills such as identifying and analysing a problem, defining the problem, formulating research questions, collecting and analysing data, searching for and applying relevant theories and formulating solutions, conclusions and recommendations. To this end, graduates of the BSc in BDK-IB&M must have an understanding of the methods and techniques that are needed for diagnosing organizational issues and of methods for designing and implementing solutions for issues in the field of management and organization. Graduates are also able critically to assess their own research as well as that of others.

3. *Working in an interdisciplinary way*

Graduates have the knowledge and skills to be able to decide which combination of theories and methods should be used to describe, analyse and solve organizational issues

Business Studies graduates not only need to have knowledge of the separate disciplines, but must also be able to combine and integrate their understanding of different relevant knowledge areas, dependent on the specific situation. Graduates of the BSc in BDK-IB&M must therefore be able to analyse a concrete business issue and to decide which knowledge will be relevant when describing, diagnosing and solving organizational issues, thereby paying particular attention to possible interactions and interrelationships between problems. The graduate also has the skills needed to apply organizational, economic, legal, technical and sociological aspects to cross-border organizational issues in an integrated way.

4. *Academic attitude and skills*

Graduates demonstrate a critical, investigative and reflective attitude. They are able to critically assess their own work and that of others and justify the theories, methods and models used. Graduates also display logical and analytical thinking and are able to distinguish between main and secondary issues. They demonstrate a curious and investigative attitude and are open to new insights. Graduates are also able to clearly structure their arguments.

Within the BSc in BDK-IB&M, much emphasis is placed on acquiring academic skills. In terms of the programme's learning outcomes this dovetails with the general expectations for academics. The main academic learning outcomes of the programme include a critical and reflective attitude, the analytical skill to recognize cause-effect relationships and the ability to justify one's research and its results in an

academic manner. Graduates of the BSc in BDK-IB&M are expected to be able to independently conduct research in a methodological way.

5. Social communication skills

Graduates are able to effectively cooperate and communicate in international and multicultural work environments. They are able to participate in task and goal-oriented project groups as well as supervise them. They are effective participants in meetings and are able to take minutes. BSc graduates are also able to plan, describe and assign tasks and to monitor the implementation and progress of tasks. In addition to their mother tongue, graduates are also proficient in English. They are sensitive to and have an understanding of cultural differences and are able to hold a clear oral presentation. Their competences also include arguing, discussing and clearly answering questions. Finally, graduates are able to provide a clear written report of a business study.

Ample attention is paid within the programme to acquiring a combination of purely academic, professional and social communication skills, enabling students to develop into independently thinking, communicating participants in organizational processes. The development of social communication skills must be seen in close relationship with the above-mentioned learning outcomes in the field of academic skills. Graduates of the BSc in BDK-IB&M are able to communicate effectively and to work in groups in order to solve complex organizational issues. In addition, they must have a confident, open attitude, which also includes being able to put their learning process into practice in new and unknown situations, as well as being able to adopt a professional attitude with regard to work situations.

Master degree programme in International Business Management Aims and learning outcomes

The MSc in IB&M aims to produce graduates who are able to use their broad knowledge of international business and international management to fulfil demanding positions in a multidisciplinary international business context.

The learning outcomes of the programme meet the demands made by other degree programmes and professional practice at home and abroad.

a. Knowledge:

Graduates will have mastered the knowledge area of International Business and Management at an advanced level:

1. Graduates will have the most up-to-date knowledge of the major disciplines of the International Business & Management knowledge area (newest insights, methods, techniques and theories, as well as their mutual interrelationships).
2. Graduates will be able to formulate a critical assessment of the relationships between theoretical concepts, research methodologies and empirical findings in scientific publications.
3. Graduates will have advanced knowledge of aspects of management and organization in an international context.

b. Skills:

Graduates will have developed a set of high-quality skills which will enable them independently to conduct research in the field of IB&M or to use their management and organizational knowledge at a professional level:

1. Graduates will be able to make links between research results published in scientific or subject-specific publications and relevant social developments.
2. Graduates will be able to recognize a problem in new, often international settings, to formulate a problem definition and on the basis of their own research to draw up conclusions, designs, recommendations and/or suggested implementations.
3. Graduates will have the skills to use relevant data and source materials, make methodological assessments and apply research methodologies.
4. Graduates will be able to work in a multidisciplinary, international team.
5. Graduates will have the relevant skills in the field of information technology.
6. Graduates will have effective oral and written skills as well as management and entrepreneurial skills.

7. Graduates will have the skills to approach problems in an interdisciplinary way, i.e. from several relevant disciplines or subdisciplines.

c. Attitude:

1. Graduates will have a professional attitude so that the relevant skills can be applied, for example by working methodically and accurately, behaving ethically, working independently, and displaying initiative and negotiation skills.
2. Graduates will be able as well as motivated to continue to learn.
3. Graduates will have an open yet critical attitude towards new ideas and development.
4. Graduates will be able to approach people in a positive manner and to respect cultural differences.

Annex 14: Competence profile Case L – History, Iceland

Official Benchmark for History Instruction at the University of Iceland

First cycle

I

History: as a auxiliary subject

Definition

One year academic basic study in history at the Department of History and Archaeology at Faculty of Humanities, the University of Iceland. The programme is 60 ECTS credits, and forms a part of a BA Degree. The entrance requirement is matriculation examination (*stúdentspróf*). After completing the programme, the student should demonstrate the following knowledge, understanding and capacity:

Knowledge and understanding

1. The student has knowledge of the basic facts, theories and concepts in history.
2. The student knows what an academic explanation is.
3. The student has acquired a critical perspective and understands that the past influences the present.
4. The student has an overview of the most important factors in the development of human society, and more detailed knowledge of one or two time periods, both in general history and the history of Iceland.
5. The student has general understanding of the different perspectives on the past and the different methods of researching the past.
6. The student has a general knowledge of the major research methods in history and has been introduced to various types of sources. S/he knows the basic points of source criticism.

Practical and academic ability

1. The student can utilize, orally and in written text, the basic historical methods s/he has learned.
2. The student can collect information on simple historical problems and separate main points from minor points.
3. The student understands the main concepts and methods used in historical research.
4. The student understands the importance of historical knowledge for contemporary society.

Competence in communication

1. The student is independent and shows initiative in his/her study.
2. The student can explain a historical subject and give argument for his/her conclusion.
3. The student can utilize general Information technology.

General academic competence

1. The student has acquired enough academic competence to continue his/her studies.

II

History: 120 ECTS Cr. Main Subject for a BA Degree

Definition

Two year academic basic study in history at the Department of History and Archaeology at Faculty of Humanities, the University of Iceland. The programme is 120 ECTS credits, and forms the main subject of a BA Degree. The entrance requirement is matriculation examination (*stúdentspróf*). After completing the programme, the student should demonstrate the following knowledge, understanding and capacity:

Knowledge and understanding

1. The student has acquired a critical perspective of history and understands that the past influences the present.
2. The student has a clear overview of the main development of human societies and has a detailed knowledge of at least one time period, especially in the history of Iceland.
3. The student understands the different perspectives on the past and the different theories that can be used in historical research.
4. The student understands the diverse methods of historical research.
5. The student knows well the history of history writing, modern historiography, and the methods that are used in historical research, both qualitative and quantitative.
6. The student has a basic understanding of source criticism.

Practical and academic ability

1. The student has learned to work independently and mastered historical discourse, both in written and oral form.
2. The student can work independently and systematically on a defined historical topic.
3. The student knows how to follow instruction and to respond to criticism.
4. The student knows how to set goals, to design a work-plan and to follow it.
5. The student knows how to use scholarly references and to design bibliographies.
6. The student knows how to use primary sources and to utilise them in his/her own research.
7. The student can manage his own research on a defined and interesting topic in a BA thesis, preferably using primary sources in critical manner.
8. The student can use statistics.
9. The student knows how to distinguish between research of good and bad quality.
10. The student can give arguments for the importance of knowing the past to understand contemporary society.

Competence in communication

1. The student is independent and shows initiative in his/her study.
2. The student can work in groups and direct the work of others.
3. The student can explain clearly a complex historical topic in a public forum and give arguments for his conclusions.
4. The student can use major computer software to search for information and sources.

General academic competence

1. The student has acquired enough academic competence to continue his/her studies in history.
2. The student has acquired independence, open-mindedness, and originality which can be used in post-graduate studies or in work.

III

History: 180 ECTS credits towards BA degree

Definition

Three year academic basic study in history at the Department of History and Archaeology at Faculty of Humanities, the University of Iceland. The programme is 180 ECTS credits, and fulfils the requirements for a BA Degree. The entrance requirement is matriculation examination (*stúdentispróf*). After completing the programme, the student should demonstrate the following knowledge, understanding and capacity:

Knowledge and understanding

1. The student has acquired a critical perspective of history and understands that the past influences the present.
2. The student understands the diverse methods of historical research.
3. The student has a clear overview of the main development of human societies and has a detailed knowledge of at least one time period, especially in the history of Iceland.
4. The student understands the different perspectives on the past and the different theories that can be used in historical research.
5. The student knows well the history of history writing, modern historiography, and the methods that are used in historical research, both qualitative and quantitative.

Practical and academic ability

1. The student is competent to write short scholarly articles where s/he discusses academic subjects and problems.
2. The student has learned to work independently and mastered historical discourse, both in written and oral form.
3. The student can work independently and systematically on a defined historical topic.
4. The student knows how to define fairly complex subjects, set goals, and design a work-plan and completing it.
5. The student knows how to use scholarly references and to design bibliographies.
6. The student can manage his own research on a defined and interesting topic in a BA thesis, preferably using primary sources in critical manner.
7. The student can use statistics.
8. The student knows how to distinguish between research of good and bad quality.
9. The student can give arguments for the importance of knowing the past to understand contemporary society.

Competence in communication

1. The student is independent and shows initiative in his/her study.
2. The student can work in groups and direct the work of others.

3. The student can explain clearly a complex historical topic in a public forum and give arguments for his conclusions.
4. The student can use major computer software to search for information and sources.

General academic competence

1. The student has acquired enough academic competence to continue his/her studies in history.
2. The student has acquired independence, open-mindedness, and originality which can be used in post-graduate studies or in work.

History: Second Cycle

Definition

Two year academic post-graduate study in history at the Department of History and Archaeology at Faculty of Humanities, the University of Iceland. The programme is 120 ECTS credits, and fulfils the requirements for an MA Degree. The entrance requirement is a BA degree. After completing the programme, the student should master all the competences which s/he acquired in the first cycle, and in addition he should demonstrate the following knowledge, understanding and capacity:

Knowledge and understanding

1. The student has detailed knowledge and clear understanding at least of one historical time period.
2. The student has clear overview of the different perspectives, methods, and ideas which govern research in the period or periods s/he specializes in.
3. The student can put his/her topic in a broad scientific context, evaluated independently academic debates in the academic field, and compared his/her conclusions to the conclusions of other scholars.

Competences

1. The student can utilize his/her knowledge and understanding to deal with research topics which have not been studied before.
2. The student can participate in scientific debates.
3. The student can explain his/her academic conclusions both for specialists and the general public.
4. The student knows of the most important ways of communicating historical research in modern society.
5. The student demonstrates in his/her master dissertation that s/he can complete, independently, an extensive research of good quality on a subject of importance for the development of the academic field.
6. The student is capable of writing scholarly articles in peer reviewed journals.
7. The student has developed independence in his/her research and is prepared to write monographs, alone or with others, dealing with historical subjects.
8. The student can utilize computer software that is of help for his/her research.

Annex 15: Competence profile Case M – History, Italy

The competence profile is described in section 4.2 of the Diploma Supplement.

Learning outcomes

Graduates from the second level Degree Course in Ancient History are expected to acquire the following specific skills:

- a full understanding of and a critical approach towards the ancient Greek and Roman civilisations, in relation to other contemporary cultures, their politics, social organization, mentality and cultural products; a deep perception of the ancient roots of the European and Mediterranean civilisations, and the importance of the ancient world for the subsequent historical periods;
- a detailed knowledge of the history of the Greek and Roman periods with particular emphasis on the transition periods and the areas and timing of interaction between cultures, such as the Hellenistic age and the post-Roman times;
- a complete mastery of reading methodologies, critical editions, analysis, heuristics, different types of documentary material, such as inscriptions, papyri, and ancient coins. Advanced skills in the use of analytical techniques for the study of original ancient sources, such as the above mentioned documents, as well as literary, philosophical, and historical texts, artistic objects, and archaeological findings, both on a singular basis and in relation to their transmission context.
- the complete mastery of a wide range of techniques and methodologies, such as the ability to carry out bibliographical and archive searches, a critical reading and a textual analysis, a deeper knowledge of the variety of the historically most used methodologies, use of the statistical analysis and application of categories;
- the ability to identify the relationship between text and context in the analysed sources, the appreciation of the ancient and long-term historical, cultural, archaeological and social implications and connexions between the collected sources; for a heightened awareness of the individuality of objects /texts and of the context within which they were produced.

Graduates are also expected to acquire:

- skills in transcribing, cataloguing, editing, documents commenting, creating collection and corpora, analysing and comparing of different document typologies, interacting directly with the original sources;
- skills in collecting, storing, organizing, and elaborating the information obtained and of demonstrating their awareness of the importance of these data.
- the ability to communicate orally in Italian and at least in a language normally used in the scientific literature, using the terminology and the techniques of communications generally accepted in the historiographic profession and in the ancient history studies;
- the ability to write and communicate in the Italian language according to the discipline standards, understanding and reading of historiographic texts in more foreign languages;
- advanced skills in understanding ancient texts in the original language in which they have been written;
- the ability to define research topics which can significantly contribute to historical knowledge and debate;

- skills in showing and explaining the research results according to the discipline standards;
- the use of different methodologies for the communication and dissemination of results and conclusions;
- the ability to organize complex historical information in a coherent manner;
- the use of resources, techniques and the specific languages of the new information and communication technology to elaborate, catalogue and make usable sources and metadata which are useful for the discipline;
- the ability to communicate in public and of using the most appropriate teaching techniques for the different forms of critical analysis and popularisation.

Annex 16: Competence profile Case N – History, The Netherlands

The competence profile is an annex to section 4.2 of the Diploma Supplement.



Rijksuniversiteit Groningen

Annex to section 4.2 of the Diploma Supplement for the Bachelor's degree in History

Profile of the degree programme

The BA degree programme in History aims to train its students in three methodological lines of approach: chronological (covering six historical periods from antiquity to the present-day), geographical (studying the history of several geographical areas), thematic (exploring political, cultural, non-western, and social-economic history). Graduates have a broad understanding of the factors governing society. They are problem-oriented and think critically and constructively in a question-solving way. They are able to process large amounts of information either independently or with others and to communicate their research results accurately.

Learning outcomes of the degree programme

Holders of a Bachelor's degree in **History**:

1. Subject-specific theoretical and practical knowledge

- a. possess a broad and well-balanced basic knowledge of history and are able to reproduce this knowledge in a coherent manner
- b. possess a broad basic knowledge of historiography and the theory of history
- c. have familiarized themselves with several thematic fields
- d. have familiarized themselves with the infrastructure of history

2. Subject-specific skills and attitudes

- a. have familiarized themselves with the methods of internal and external historical criticism and the major historical techniques
- b. have familiarized themselves with source research
- c. have experience with literature searches
- d. are able to place processes and structures in their historical context
- e. are able to place new data and interpretations into context
- f. are able to think in a problem-oriented way, and formulate and test plausible historical hypotheses
- g. are also able to relate to other cultures and their histories
- h. have familiarized themselves with methods in the search for evidence and truth in the study of history
- i. demonstrate their knowledge, understanding and skills in a final paper

3. Academic and generic skills and attitudes

Academic

- a. are able to find information in an efficient manner
- b. are able to analyse documents critically and to distinguish between main aspects and related aspects
- c. are able to handle large amounts of information
- d. are able to assess the temporary and complex nature of academic knowledge and research on its merits
- e. are able to analyse the own point of view
- f. are aware of the interdisciplinary and global dimension of academia.

Generic

- g. have a high standard of language, style and debating skills
- h. are able to express themselves clearly, correctly and in a controlled manner both in written work and in oral presentations
- i. are familiar with at least one non-written technique
- j. are able to participate actively in collective projects
- k. are able to actively and knowledgeably participate in discussions, with respect for the opinions and feelings of others.

In addition to the knowledge and skills indicated above, the holder of a BA degree also has a basic understanding of and insight into one or several disciplines other than the selected major in order to ensure a broad academic training.



Annex to section 4.2 of the Diploma Supplement for the Master's degree in History

Profile of the degree programme

The aim of the MA degree programme in History at the University of Groningen is located in the acquisition of knowledge, insight and skills necessary to perform solid scientific historical research and to occupy fitting professional and social positions. A thorough training in the critical study of historical sources and in reporting techniques for research results is provided. The programme contains four fields of specialization: history of political culture, cultural history, social-economic history, and general history (this last option being a free combination of subjects in order to enable in-depth study of given periods or regions).

Fields of specialisation of the degree programme

- History
- Cultural History
- Economic and Social History
- History of Political Culture

Learning outcomes of the degree programme

Subject-specific theoretical and practical knowledge

Graduates with an MA in History:

- a. have a thorough grounding in history
- b. have specialist knowledge of a specific theme or period, including knowledge of classical and current subject-specific discussions and trends within this theme or period
- c. have specialist knowledge of the theories, methodologies, techniques, traditions and ethics of the science of history
- d. are familiar with the historical infrastructure.

Subject-specific skills and attitudes

Graduates with an MA in History:

- a. are able to independently collect, evaluate, interpret and analyse and put into perspective the specific methods, techniques and skills, complex primary and secondary sources related to the chosen major
- b. are able independently to design and conduct original historical research, including writing a short MA thesis
- c. are able to critically view modern society and culture, with an understanding of long-term developments and historical evolution
- d. operate from a position of respect for the past and are thoroughly aware of a special responsibility for the creation of an awareness of history and for the protection of the historical heritage
- e. are thoroughly aware of the ethics of the subject of history and its fundamentals, i.e. intellectual integrity

Academic and generic skills and attitudes

Graduates with an MA in History

Academic

- a. are aware that academic ethics are based on universalism, public debate, disinterestedness and systematic scepticism

Generic

- b. are able to set up and lead independent projects
- c. have the ability to keep themselves up to date in the field.