



**Information Project on Higher Education Reform
Training Seminar on the Three-Cycle System**

**Napier University, 22-23 June 2006,
Edinburgh, Scotland, United Kingdom**

Work Group Training Material

1. Workshop Session: Bachelor

International Business and Management (B.A.)

Programme Overview

Degree:	Bachelor of Arts, B.A. (International Business and Management)
Programme type:	Full-time study programme
Standard duration:	6 semesters
Characteristics:	International contents of lectures, one study semester abroad, small and international study groups, modularised programme, credit point system
Languages of instruction:	Semesters 1 to 3 exclusively English, in higher semesters partly German and partly English. One language compulsory to be chosen from the following offer: German, French, Spanish, Dutch, Russian
Beginning of programme:	Autumn semester (September)
Application period and deadline:	January 1st to July 15th, non-EU citizens: April 30th. Applicants from non-EU countries take part in a special selection procedure. The applications for taking part in this procedure, i. e. the complete application papers, have to be sent in by April 30th. Without taking part in this selection procedure it is not possible to be admitted to studies.
Admission requirements:	1. Higher education entry qualification; 2. 6-week business placement which has to be completed before the start of studies or apprenticeship; 3. Proof of ability to study in English by means of an internationally recognised certificate (e.g. TOEFL, TOEIC). 4. For applicants whose mother tongue is not German (except applicants with domestic educational qualifications): proof of basic knowledge of German
Information about the business placement:	The 6-week business placement which has to be completed before the start of studies should be a full-time placement, i. e. covering approx. 38 hours per week. The placement should enable you to get a general insight into the processes within a company, focussing on 1 - 2 of the most important commercial fields: Procurement System, Production, Sales, Financial Economics, Accounting, Human Resources. The placement has to be completed before the start of studies in an industrial or commercial enterprise, in the service sector - bank, tax consultancy, travel agency, insurance company - or in the public administration. The placement can only be replaced by the proof of a completed apprenticeship that is officially recognised.
Study focus:	Business Management (inter alia Marketing, Purchasing, Logistics, Human Resources, Financial Management, Organisation), Management Tools, Management Concepts, Economics, European Integration, Economic Policy, Accounting, Controlling, Business Law, Business Mathematics, Information Management, Statistics, Foreign Languages, Communication and Key Qualifications, plus further electives and specialisation subjects
Specialisation opportunities:	Controlling, Financial Management, International Business and Economy, Logistics, Marketing, Human Resources Management, Taxes, Auditing and Accounting, Financial Services Law, Events Management
Studies abroad:	For German students and foreign students with German higher education entry qualification one study semester abroad at one of our partner institutions is compulsory.
Support services:	Intensive German language course before the start of studies counselling and coaching, tutorials, campus activities, modern individual communication technology

Costs:	No tuition fees at the moment, only semester dues including administrative charges of approx. EUR 165 per semester From the winter semester 2006/2007 on tuition fees of EUR 500 per semester for new students.
---------------	--

Programme Objectives and Target Groups

The programme is targeted at applicants who are interested in:

- a broad-based training in business management with pronounced international references
- studying in German and English language
- the training in one further foreign language
- a semester abroad integrated in the programme
- studying in a multicultural study group and environment

Thus this Bachelor programme is attractive for German applicants who would like to prepare themselves especially for a professional practice in an international context and who have possibly already been abroad for a longer time. At the same time, this programme is suitable for international applicants who are looking for a special study programme regarding contents, structure and/or languages.

The International Business and Management Programme qualifies the students for a professional activity in an internationally operating enterprise or in an international organisation. Everything is oriented towards this goal - the lecture contents, the multilingual nature of the teaching and the studies, the composition of the student group and of the teaching team.

We offer a broad-based, application-oriented basic training in business on a scientific basis.

Our objective is that students acquire competence in the following areas:

- Ability to analyse and solve problems in a subject-oriented and interdisciplinary framework
- International or global thinking
- Ability to communicate in two foreign languages
- Social competence by the imparting of key qualifications
- Intercultural competence

The lectures in the first three semesters are offered exclusively in English. During this period the foreign students' knowledge of German is developed to such an extent that they can follow lectures in German from the fourth semester onwards and can successfully sit for tests and examinations.

Curriculum

International Business and Management (B.A.)						
Stage 1						
1	Business in Context	Principles of Economics	Principles of Information Management	Communication and Key Qualifications	Business Language 1 (Eng.) Level C*	Business Language 2 Level A*
	5 (3)	5 (4)	5 (4)	5 (4)	5 (4)	5 (4)
2	Marketing and Logistics	Financial Management	Accounting	European Integration	Business Mathematics	Business Language 2 Level B1*
	5 (4)	5 (4)	5 (4)	5 (4)	5 (4)	5 (4)
Stage 2						
3	Management Concepts	Controlling	Statistics	Taxes	Cultural Management	Business Language 2 Level B2*
	5 (3)	5 (4)	5 (4)	5 (4)	5 (3)	5 (4)
4	Management Tools	2 Block Seminars***	Human Resources and Labour Law	Economic Policy	Elective - Abroad	
	5 (3)	5 (4)	5 (4)	5 (3)	10	
5	Business Management Project/ Communication		Business Law	Specialisation A1**	Specialisation A2**	Specialisation A3**
	10 (4 + 3)		5 (4)	5 (4)	5 (3)	5 (4)
6	Academic Project				Bachelor Dissertation	
	20				10	

The lectures of the first three semesters are held exclusively in the English language.

Explanations to chart and study programme

Lower column: number of credits; (in brackets) = contact hours per week (CH)

(*) Foreign languages:

- German, English, French, Spanish, Dutch, Russian in the levels A, B1, B2, and C
- As Business Language 1 the course English Level C can be taken or a module of a third language of which the level depends on the initial language proficiency.

(**) Specialisations:

- One of the following specialisations has to be chosen: Marketing, Human Resource Management, Controlling, Financial Management, Logistics, Taxes, Auditing and Accounting, International Business and Economy, Event Management, Law of Financial Services.

Study Semester Abroad:

- 4th semester = study semester abroad, only compulsory for students whose mother tongue is German and for foreign students who have acquired their university entrance qualification in Germany.
- Students have to study equivalent modules of stage II of the study programme – according to the examination regulations – which cover 30 Credits.

(***) Block Seminars:

- The students have to participate in two different block seminars (study trip, management game, case study, project) during their studies, one of them has to be in English.

Preparatory Courses:

- Preparatory courses in foreign languages as well as in accounting and mathematics are offered in the first semester and are liable to costs. They are completed with a final examination. Taking part in the regular lectures of the respective modules is only possible after having successfully passed the placement tests or the final examination of the preparatory courses.

Study Semester Abroad

A study semester abroad at one of the partner or cooperation universities is compulsory for the German students of the study programme B.A. in International Business and Management. The study stays abroad will be organised and coordinated by the staff members of the [International Office](#) of the Faculty of Business Management and Social Sciences in collaboration with the lecturers who are responsible for the partner universities of the respective language area.

Every semester the faculty arranges several events within the so-called "International Days" providing detailed information on the study semester abroad and the partner and cooperation universities.

A study semester abroad at one of the partner universities is only compulsory for students whose mother tongue is German and for foreign students who have acquired their university entrance qualification in Germany.

The Faculty of Business Management and Social Sciences offers a global network of about 70 partner universities worldwide.

- **Western Europe** - [France](#), [Great Britain and Ireland](#), [Italy](#), [Netherlands and Belgium](#), [Spain](#), Portugal, [Scandinavia](#)
- **Eastern Europe** - [Estonia](#), [Latvia](#), [Lithuania](#), [Poland and Russia](#)
- **Africa** - [South Africa](#)
- **America** - [Chile](#), [Canada](#), [Cuba](#), Mexico
- **Asia** - [China](#)
- **Oceania** - [Australia and New Zealand](#)

Career Prospects

The everyday life and work of human beings will become more and more globalised. Thinking beyond borders has become a matter of course, especially in areas where it is a question of marketing products or services. It is therefore a great opportunity to acquire cross-cultural competence during one's study programme and to make contacts at international level.

International Business and Management is an international, practice-oriented study programme enabling its students to develop their personalities and work in a team. The graduates have the key knowledge of their discipline and are trained in major business subjects selected by them, besides this they have acquired the so-called key qualifications, are multilingual, have experience abroad and multicultural competence. With these qualifications they meet the companies' requirements for internationally-trained junior business managers to a large extent.

The graduates of this programme are well prepared to take on executive jobs in an international context in national and international industrial, trade or services businesses as well as in nationally and internationally operating organisations.

Furthermore very qualified graduates of the Bachelor Programme have the opportunity to continue their studies in a Master Programme at a German or foreign university. At "HEI A" they can continue their studies in the Master Programme International Business and Management.

Owing to the practice-related studies graduates have excellent work prospects. The wide spectrum of career possibilities in different sectors and functions is particularly attractive. In concrete terms the job the student lands after the programme could be in the consumer goods sector or in the investment goods sector, in the trade, in a management consultancy or in an events agency, in a bank or many other services businesses and in nationally or internationally operating organisations.

2. Workshop Session: Master

Example 1

Joint European Master of Science

« Advanced Spectroscopy in Chemistry »

BOLOGNA PROCESS
MOBILITY ECTS

<i>M2</i> 2 nd year	Semes. 4	<i>Research project</i> Master Thesis						3 ↑	30
	Semes. 3	ASC12 <i>Solid State NMR</i> 5 ECTS	ASC13 <i>Modelling.</i> 5 ECTS	ASC14 <i>Choice unit</i> 5 ECTS	ASC15 <i>Choice unit</i> 5 ECTS	ASC16 <i>Project Case study</i> 10 ECTS		2 ↑	30
<i>M1</i> 1 st year	Semes. 2	ASC06 <i>Imaging.</i> 5 ECTS	ASC07 <i>Anal. of solids</i> 5 ECTS	ASC08 <i>Methodo. Physical chem.</i> 5 ECTS	ASC09 <i>Methodo. in Inorg. Chem.</i> 5 ECTS	ASC10 <i>Methodo. in Org. Chem</i> 5 ECTS	ASC11 <i>Choice Unit</i> 5 ECTS	1 ↑	30
	Semes. 1	ASC01 <i>Mass Spectr.</i> 5 ECTS	ASC02 <i>Magnetic resonance</i> 7.5 ECTS	ASC03 <i>Optical Spectr.</i> 7.5 ECTS	ASC04 <i>Powder X ray diffract.</i> 5 ECTS	ASC05 <i>Language Unit</i> 5 ECTS	 	Home University for EU-Stud. or 1st Uni. for non-EU-Stud.	30

See: http://www.cominout.com/asc/pub/anglais_ok_bd.pdf or www.master-asc.com

SUMMARY

The « Advanced Spectroscopy in Chemistry » Masters course is a two year (120 ECTS) Master of Science with thesis degree, offered by a consortium of universities spread over most of Europe: HEI 1, HEI 2, HEI 3, HEI 4, HEI 5, HEI 6, HEI 7.

The ASC M.Sc. diploma is delivered after completion of 90 ECTS (3 semesters) of courses and 30 ECTS of a Master thesis. Courses are taught in English at the seven partner universities . The network student population will be in the 70-90 brackett, with a professor/student ratio of 0.5

The ASC programme will recruit students with a Eurobachelor in Chemistry, or holders of equivalent first degrees. ([www .master-asc.com](http://www.master-asc.com)).

The two year (4 semesters, 30 ECTS each) curriculum is designed to provide a sound background in advanced spectroscopy, both in experimental and theoretical knowledge, applied in the field of Chemistry, from a common platform of core courses (1st semester), and a mobility scheme (one semester minimum), combined in order to allow high specialization and access to unique techniques .

The selected students will study in a minimum of 2 countries :

- * a 1st semester : at a first institution dedicated to provide all candidates with a common platform of core courses in advanced spectroscopic methods, including magnetic resonance, mass spectrometry, optical spectroscopy and diffraction techniques.

- * a 2nd semester or a 3rd semester mobility for specialization courses where expansion is provided with applications in molecular synthesis, biology, nanotechnology, modelling, “green chemistry”, medicine, materials and new energy sources.

- * a 4th semester mobility in one of the consortium institutions, is also possible upon student choice of a research topic towards the Master thesis, which will be strongly encouraged to be based on a collaborative project between two of the partner institutions, thus building a European dimension ;

- * A Summer school will be organised each year in the ASC Master programme, at the beginning of the 3rd semester, (i.e. the first week of september) bringing ASC students (EU and EM) in one location as a group . Participation will be mandatory for EM students.

The ASC Master aims to prepare students to become experts and develop international skills towards doctoral programs and/or professional activities in chemical analysis, characterization of the structures of materials, and measurements of fast phenomena.

This expertise is crucial in European Society as far as modern chemistry is concerned, with prospective needs in instrument manufactures, spectroscopic laboratories and analytical enterprises or administrative organizations. .

The joint/ multiple Master of Science with thesis diploma in « Advanced Spectroscopy in Chemistry » is awarded by the seven universities of the consortium .

Content

The study-programme is full-time and runs 2 academic years. The language of instruction is English. Courses are taught by professors from all partner universities. The Programme has a workload of 120 ECTS credits, the taught part of the programme consisting of 90 credits, one credit being roughly equivalent to 25 hours student workload, and the dissertation being worth 30 credits.

Students involved in the proposed Erasmus Mundus Master will choose a specialized advanced spectroscopy pathway that fits his/her interests under the guidance of an adviser.

* **The first semester (30 ECTS)** of core courses taught at each partner institution, is designed to provide all candidates with a **common platform** in advanced spectroscopic methods, including mass spectrometry (5 ECTS), magnetic resonance (7.5 ECTS), optical spectroscopy (7.5 ECTS), diffraction techniques (5 ECTS) and a mandatory language unit (5 ECTS) proposed as a preparation tool for mobility.

* **The second semester (30 ECTS)** provides a further orientation in spectroscopy. Different choices are available at the various partner institutions, **See TABLE A next page as an example**, according to their area of expertise, and students will transfer freely among the partner institutions, thus allowed, for example, to study a particular form of spectroscopy during the second semester at an other institution. Mobility is organized well in advance, as early as mid november of semester 1, and is facilitated by the agreement of the partners to start the second and fourth semesters, on a **common date**, nominally February 15th.

The work carried out in the second semester, in addition to courses in spectroscopy, involves up to ca. 50% of material designed to prepare students for **specialisation courses and research projects** to be carried out at a later date (**3rd and 4th semesters, 30 ECTS per semester**) in which spectroscopy will be the backbone, but which may involve applications in related areas of chemistry or other fields. A choice of mandatory or option unit courses (a combination of **5, 7.5 or 10 ECTS** for a total of **30 ECTS** per semester) is proposed in a catalogue which emphasize the strength available at each partner institution, based on state of the art technologies and staff competence. A data base of course descriptions, according to ECTS requirements, are proposed through dedicated files of the programme web site (www.master-asc.org). See **Annex 4**: a diagramme is available for each partner institution, with detailed course unit contents (unitcode/ECTS/prerequisites/course description/aims/ intended learning outcomes/teaching, learning activities/assesment/bibliography). Examples of recent Masters Thesis recently completed at institutions forming the consortium (**see annex 5**).

Each year, a summer school will be organised in the first week of September (see Annex 6). The mobility requirement is flexible and may vary from one semester (the minimum required) to two (for EU students) or three (for E.M. students): for example, an Erasmus Mundus student willing to acquire a background in inorganic material structure towards a Masters topic proposed in HEI 1, using combined NMR and X ray diffraction, will register at HEI 2 or HEI 3 the 1st and 2nd semesters, and at HEI 4 the 3rd and 4th; a second option will be to register for the 1st semester in HEI 3, switch to HEI 2 for the 2nd semester, and then to HEI 1 for the 3rd and 4th semesters. An E.M. student interested in applications in bioorganic chemistry will have several options: register either at HEI 5, HEI 2 or HEI 6 for the first year and to HEI 4 for the second year. Any other combination involving two or three consortium institutions could be chosen depending on a given Master thesis subject.

Subject specific competencies

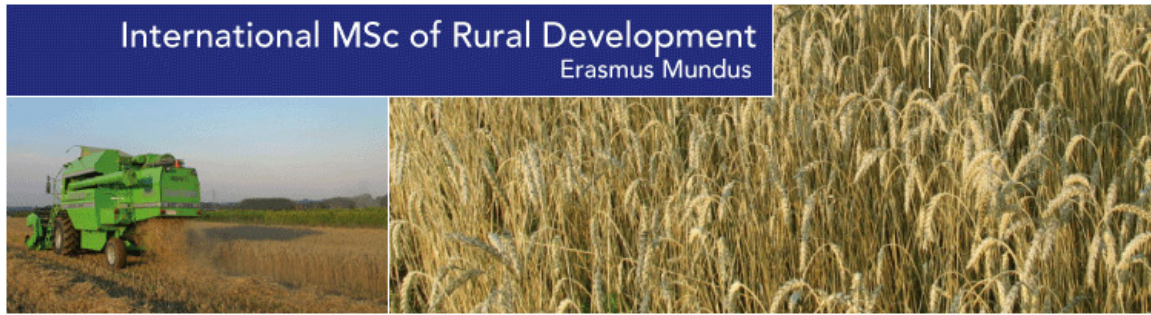
The Master gives a scientifically well-founded training in the field of advanced spectroscopy in chemistry; it provides a profound insight in the actual scientific knowledge in this field and is supported by scientific research recognized at the international level. The Programme leads to advanced understanding of all analytical aspects with regards to the structure of chemistry. After completing this degree students should be able :

- 1) To demonstrate the competence and confidence of the students in various spectroscopic methods.
- 2) To make extensive and novel use of all theoretical and experimental approaches to spectroscopy introduced during the Bachelor degree programme.
- 3) To highlight modern advances in instrumentation and techniques in spectroscopy and their specific applications.
- 4) To identify appropriate experimental procedures and spectroscopic methods to solve specific practical problems; and how/when to get access to these technique.

Systemic and instrumental competences: At the end of the training, the graduate should not only be able to conduct scientific research at a university in the field of the Programme. He/she should also be able to apply, in a professional and an independent way, his/her scientific knowledge in practice when preparing, taking or following up decisions based on spectroscopic analytical results. It is the intention of the Programme to prepare students for a professional career as spectroscopists for private companies or research functions. The master develops the problem solving approach that is necessary to recognise and to deal with problems in a methodologically correct way, to look for solutions and to choose, to formulate, to implement and to evaluate the proposed solution.

By functioning in an international group of students from different parts of Europe and the world, the master will acquire inter-cultural communication and language skills. Moreover, they will have the opportunity to learn the basics of French, Italian, Spanish, etc., during language courses. Students will learn how to work in an international context and appreciate diversity and multiculturalism. In different courses during the two year programme the students are expected to write papers and lead discussions, which will enable them to express their thoughts in a structured and cogent way.

Example 2



Learning Objectives

The International MSc of Rural Development provides students with:

- Awareness of the multifunctional role of rural areas and agriculture and an integrated vision on development of rural areas
- Knowledge of different approaches to rural development and ability to apply these in diverse situations in developing, developed and transition countries
- Ability to apply adequate instruments, methods and innovative tools to analyse, evaluate and solve problems related to rural development and countryside management
- Ability to develop innovative tools and instruments for the multifunctional development of rural areas
- A general formation in both technical and social sciences disciplines and advanced competence in at least two rural development related disciplines
- Ability to dialogue with different actors of the socio-professional world as a consequence of their pluri-disciplinary training
- Critical reflection skills and the necessary communication skills for integrated team work for dealing with rural development challenges

Course Programme and Mobility

The two-year IMRD programme is organised over four semesters. The total training programme has to amount up to 120 ECTS and fulfil certain requirements concerning mobility. This ensures a Master programme with a strong common standard and a maximum flexibility to accommodate for students with different interests, language knowledge and background.

a. Basic training (40 ECTS)

In the first semester, the basic training is started in one of the four institutes awarding the degree, subject to the student's choice and available places. In the first semester, basic training courses are selected for a minimum of 30 ECTS. The basic training can be supplemented in the subsequent semester(s) in the same or in another participating institute. The basic training must fulfil the requirement of a multi-disciplinary course programme amounting to a minimum of 40 ECTS.

b. Case study (5 ECTS)

The IMRD student is to follow minimum one practical case study period of two weeks (5 ECTS) that is alternately organised by the participating institutes. The obligatory case study for year 1 takes place at the end of the second semester (September). Teaching staff and international scholars offer intensive courses and guide the multi-disciplinary practical sessions.

c. Specialised training (2 x 15 ECTS)

In the second and third semester, two specialisation modules are to be followed, each of minimum 15 ECTS, consisting of a set of advanced courses within a specific competence domain. At least one specialisation module should be followed in another institute within the network and minimum one of the specialisation modules must be taken at one of the four institutes awarding the Master degree. These requirements ensure mobility and a multi-disciplinary training.

d. Elective courses (15 ECTS)

Elective courses, for a minimum of 15 ECTS, can be used to further deepen or broaden the knowledge of the student. Part of the elective credits (maximum 10 ECTS) can be used to further develop the necessary language skills.

e. Dissertation (30 ECTS)

The fourth semester will be mainly devoted to a dissertation based on own scientific research and/or practical training of at least 4 months. The dissertation is valid for 30 ECTS. This dissertation module can be written in each of the participating institutes according to the rules stipulated by the Managing Board of the IMRD programme. As a guarantee for the common quality standards and integrated approach, the dissertation has to be defended for and evaluated by a pluri-disciplinary international examination committee.

Course Schedule

<u>Duration</u>	2 years
<u>Credits</u>	120 ECTS
<u>Obligatory Mobility</u>	<i>The Master course must be realised by an equivalent formation in at least two institutions of two different countries with at least 30 ECTS in another institute</i>
<u>Structure of the Master</u>	
Basic Training - 40 ECTS	<i>- Basic training can be followed at one of the institutes awarding the IMRD degree. Based on pluri-disciplinarity: minimum 5 ECTS in each of the 5 disciplines must be chosen</i>
<ol style="list-style-type: none"> 1. Applied Quantitative and Qualitative Research Methods 2. Functioning of Technological, Agronomic and Ecological Systems 3. Social Sciences Applied to Rural Development 4. Rural Development and Planning 5. European Institutions, Policies and Organisation 	
Case Study - 5 ECTS	<i>Practical, multi-disciplinary case study period of two weeks alternately organised by the participating institutes</i>
Specialised Training 2 X 15 ECTS	<i>- Two specialisation modules of at least 15 ECTS in 2 different disciplines listed here must be chosen and at least one module is to be followed in another country - Specialisation modules can be followed at the institutes awarding the degree or at the satellite institutes.</i>
<ol style="list-style-type: none"> 1. Agricultural Economics, HEI 1 2. Food Economics for Developing Countries, HEI 1 3. Methodology Second Level: Specialised Methodology for Rural Development, HEI 2 4. Farming Systems and Rural Development, HEI 2 	

5. Territorial/Regional Rural Development, HEI 3
6. Processes and technologies for Sustainable Rural Development, HEI 3
7. Rural Governance of Natural Resources, HEI 4
8. Institutional Analysis of Rural Change, HEI 4
9. Public Administration and Regional Development, HEI 5
10. Food, Communication and Sustainable Rural Development, HEI 6
11. Rural Sociology - Option Developing Countries / Option Developed Countries, HEI 7

**Elective
Courses - 15
ECTS**

To further specialise in one of the disciplines, to broaden knowledge or to improve language skills, 15 ECTS can be selected from the programmes of one of the seven institutes on approval of the IMRD Managing Board with a maximum of 10 ECTS of language courses

**Master Thesis -
30 ECTS**

Dissertation based on own scientific research and/or practical training of at least 4 months

Annex

Developing Joint Masters Programmes for Europe EUA Joint Masters Project, March 2002 - January 2004

Extract:

Golden Rules for New Joint Masters Programmes

The EUA Cluj Conference in September 2003, where the preliminary results of the Joint Master project were tentatively presented for the first time, highlighted the fact that interest in joint degrees is extremely high and growing among European universities. This may be partly the result of much "high level" talk about the importance of developing joint degrees, and in part the effect of anticipating the launch of the European Commission's Erasmus Mundus programme.¹ Many universities in Central and Eastern Europe also expressed their desire to become active partners in new joint programmes, and to use such opportunities to modernise their curricula and improve cooperation with western European institutions.

It can be expected that many universities will be looking to develop new joint Master degree programmes. It is hoped that this report will be of some assistance to those starting this process. Encouragement mixed with some cautious advice is offered in the following golden rules:

1. Know why you are setting up the programme:

New programmes should think very carefully of their motivation. Is there a gap at national or European level which needs to be filled? Is a joint programme the most appropriate mechanism? What is the anticipated academic value-added?

2. Choose your partners carefully:

There can be many different ways of finding institutional partners, and the choice may have extremely important effects, extending beyond the initial reasons for establishing a programme. Strong communication and trust is essential to develop common learning objectives and standards. Communication is also important in ensuring that all study periods at partner institutions are fully recognised. Consider issues such as how many institutional partners would make sense for the programme, and how similar or diverse the institutions should be.

3. Develop well-defined programme goals and student-learning outcomes with your network partners:

For a network to be balanced, it is important that all partners are involved in developing and defining the programme goals. As well as being part of a common learning process, it is much easier to identify with a programme in which all intellectual contributions are valued - rather than simply taking part in the implementation of a ready-made concept/product. This implies the establishment of an effective joint curriculum, tailor-made for its purpose. It is important to ensure, through curriculum arrangements, that all students have the opportunity to study in at least two different countries.

4. Make sure that all the institutions (and not just academic colleagues) fully support the goals and objectives of the programme:

Institutional support of all partners is essential from the outset if a programme is to have a long-term future. At an absolute minimum this should require a letter of support from the Rector outlining the tangible contributions which will be made by the institution, such as commitment to staff and students in the programme and financial support. Such a letter of commitment should be renewed periodically.

¹ For more information on Erasmus Mundus, please refer to:
http://europa.eu.int/comm/education/programmes/mundus/index_en.html

5. Ensure that sufficient academic and administrative staff resources are involved in the programme:

The burden of work should not fall entirely upon the shoulders of a minority of dedicated staff. Involvement of a wider group of staff within an institution will help to maintain institutional commitment. Since teaching staff mobility is also fundamental to these programmes, consider the effects of staff absences upon normal curricula. Consider the consequences if a key player within the institution were to change post. Would the institutional commitment remain? If not, the staff base for sustainable development is certainly not sufficiently broad.

6. Ensure that a sustainable funding strategy for the programme is in place:

Such a strategy should think about resource-management issues not at the level of individual institutions but across the network as a whole. Are resources within the network sufficient? Are they equitably distributed? Is it possible to do more to support partners facing particular difficulties?

7. Take care that information about the programme is easily accessible to students:

Comparable information should be provided to students from all participating institutions. In addition to course information and admission criteria and procedures, requirements in terms of mobility should be specified, including how issues such as accommodation should be addressed, and clear information should be provided about the qualification/degree that will be awarded. Consideration should be given to accessibility for economically disadvantaged and physically disabled students.

8. Organise and plan sufficient meetings in advance:

Developing a joint programme takes time. Sufficient meetings should be foreseen for network partners to develop ideas together and to assess collaboratively the coherence of the study programme. Make sure that there is agreement on learning outcomes, use of ECTS (including a common value of a credit), and use of the Diploma Supplement. Where there are doubts about how to use these instruments, make sure that learning processes are in place and information is available.

9. Develop language policy and encourage local language learning:

The programme will need to make decisions about the language(s) of instruction, as well as about how to best exploit opportunities for students to learn languages during their programme. Questions about language should not be an afterthought of curriculum planning, but a central consideration. Linguistic preparation of mobility periods is an effective way of involving colleagues and departments within institutions, and a variety of language-learning techniques and approaches are possible.

10. Decide who is responsible for what:

A clear division of tasks and responsibilities will help networks to function effectively. Not all institutions need to have the same level of involvement in programmes, and diversity of contributions can allow the network partners to focus upon particular strengths. A clear division of labour will help to ensure that there is minimum duplication of tasks as cost and time efficiency will be important to achieve. Often this may be achieved by the establishment of a centralised agency to administer the programme, operating under the generalised control of the network partners.

3. Workshop Session: Doctorate

Requirements

3 Months Registration
Reviewed by two referees, at least one external to group

Usually a short document of 4-12 pages detailing the background, questions being asked and the methodology to be used to ask them.

Reviewers will assess the suitability of the project as a PhD/MD project; the academic content; the methodology and the understanding of the project, shown by the student.

The Department/Division will assess the suitability of the supervisor; the laboratory facilities and availability of the necessary funding.

6 Months Six monthly report – submitted to Postgraduate Tutor
Progress made by the student – competence of the student
Student happy with levels of supervision and facilities

This is important for future problems i.e. the student/supervisor cannot say two years down the line that there have always been significant problems, if these were never raised in the six monthly reports.

12 Month Six monthly report – submitted to Postgraduate Tutor
(Academic report – assessed)

15 Months MPhil upgrade to PhD status
Reviewed by two referees, at least one external to group

Significant document of 30-50 pages including background, aims, data and work required to complete a thesis; also a presentation of some sort with questions by the reviewers – a seminar or a viva.

Reviewers are assessing academic merit of the work and the student and the feasibility of completing the work in the time left.

18 Months Six monthly report – submitted to Postgraduate Tutor

24 Months Six monthly report – submitted to Postgraduate Tutor

30 Months Six monthly report – submitted to Postgraduate Tutor

36 Months Six monthly report – submitted to Postgraduate Tutor

44 Months Examination forms submitted
(Thesis must be submitted within 12 months of submission of examination forms)

48 Months Deadline for thesis submission

Transferable Skills List

Training workshops in transferable skills:

Group A workshops (attendance at a minimum of 4 is a requirement for transfer from MPhil to PhD):

- Communication and presentation skills
- Writing skills
- Science, research and integrity
- Science and the media
- Time management and personal effectiveness
- Commercialisation of research
- An introduction to statistical thinking (level 1); Non-parametric statistical tests and topics in regression analysis (level 2)

Group B workshops (optional):

- Career planning (4 x 2hr independent modules)
- Planning and writing your thesis
- Use of animals in biomedical research
- Ethics committees and research on human subjects
- Preparing your proposal for NHS Research Ethics Committee review
- Intellectual property
- Information skills (library; series of short workshops)
- Being Assertive, Feeling Confident
- Research Design for Life Sciences and Medicine

Planned additional workshops which will start this year are:

Networking

Stress Management

Meyers Briggs Analysis

Together with these, we are initiating residential courses to build on this framework and to develop teamwork.

PhD STUDENTS & SUPERVISORS: What to expect

Supervisors expect you to:

- 1) *Take responsibility* for your thesis – in the end it is your work and your supervisors are here to help you accomplish your research objectives, but **not** to do the thinking for you!
- 2) *Work hard* – PhDs cannot be accomplished with only a 9-5 effort. “HEI B” is a top ranked University and we expect that students will strive to accomplish good work.
- 3) *Display initiative* – ultimately, the person who drives the process and strives to understand the research area is you. We expect you to be curious about your work and to think about how other ideas/work have an impact on the research you are doing. In light of this, it is a requirement for you to attend **all** lab meetings, work in progress etc plus other seminars. **TO BE A SCIENTIST – YOU SHOULD BE CURIOUS ABOUT SCIENCE!**
- 4) *Write papers* (this is dependent on field of study) before you have submitted your thesis. The process of writing enables you to develop skills which are useful when writing up your thesis, and the fact that you have had papers refereed/accepted by International journals satisfies the external examiner that you have what it takes!
- 5) *Be self-critical* of your own work and results, in terms of statistical significance, and use these skills in being sceptical of results in the literature.
- 6) *Help colleagues* (especially less experienced ones) in the laboratory to learn through discussions and demonstrations.
- 7) *Keep up with the literature* in your field through searches on the computer every few months and by reading current papers;
- 8) *Write progress reports* every 6 months detailing your results – to this end, you should be conscientious about keeping a laboratory notebook and regularly entering all your data into tables and Excel spreadsheets.
- 9) *Be aware of safety* in the laboratory at all times and follow safety procedures when starting to use new chemicals, e.g. filling in COSSH forms.
- 10) *Develop your skills and learn new ones* by attending the transferable skills courses and lectures provided by the Graduate School of Life Sciences & Medicine (GSLSM), your own and other College departments/divisions/faculties and by any other external providers.

In return, as a student you can expect your supervisor, to:

- 1) **Be supportive** of you both intellectually and personally.
- 2) **Be available** to talk about research problems at relatively short notice although, at certain times of the year, you may need to give a few days notice.
- 3) **Help** and guide you extensively in your first year; help you in your second year; and be a sounding board in your third year. The help is tapered as you develop confidence in your own abilities and research skills, to enable you to learn to work more on your own and to make more of your own decisions.
- 4) Help **develop** your skills in technical writing, oral presentations, problem definition, statistical data analysis and critical literature reviews.
- 5) Help **enable** you to attend at least one **conference** to present a paper.
- 6) Provide adequate **funds** for your research.
- 7) Read your thesis thoroughly and make **constructive comments** on both style and intellectual content.

Together, students and supervisors are expected to:

- 1) Plan the project to a timetable which ensures that research can be completed, and the thesis written and submitted within 3 years of starting.
- 2) Stick strictly to the College time-frame which allows a maximum of 4 years between registration and submission of the PhD thesis.

Annex

Bologna Seminar on "Doctoral Programmes for the European Knowledge Society"

(Salzburg, 3-5 February 2005)

Extract:

[...] From the discussions in Salzburg a consensus emerged on **a set of ten basic principles** as follows:

- i. **The core component of doctoral training is the advancement of knowledge through original research.** At the same time it is recognised that doctoral training must increasingly meet the needs of an employment market that is wider than academia.
- ii. **Embedding in institutional strategies and policies:** universities as institutions need to assume responsibility for ensuring that the doctoral programmes and research training they offer are designed to meet new challenges and include appropriate professional career development opportunities.
- iii. **The importance of diversity:** the rich diversity of doctoral programmes in Europe - including joint doctorates - is a strength which has to be underpinned by quality and sound practice.
- iv. **Doctoral candidates as early stage researchers:** should be recognized as professionals – with commensurate rights - who make a key contribution to the creation of new knowledge.
- v. **The crucial role of supervision and assessment:** in respect of individual doctoral candidates, arrangements for supervision and assessment should be based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution (and where appropriate including other partners).
- vi. **Achieving critical mass:** Doctoral programmes should seek to achieve critical mass and should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts and in particular across larger and smaller European countries. These range from graduate schools in major universities to international, national and regional collaboration between universities.
- vii. **Duration:** doctoral programmes should operate within an appropriate time duration (three to four years full-time as a rule).
- viii. **The promotion of innovative structures:** to meet the challenge of interdisciplinary training and the development of transferable skills
- ix. **Increasing mobility:** Doctoral programmes should seek to offer geographical as well as interdisciplinary and intersectoral mobility and international collaboration within an integrated framework of cooperation between universities and other partners.
- x. **Ensuring appropriate funding:** the development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding.

4. Workshop Session: Qualifications Frameworks

THE FRAMEWORK OF QUALIFICATIONS FOR THE EUROPEAN HIGHER EDUCATION AREA

The Bergen Conference of European Ministers Responsible for Higher Education 19-20 May 2005 adopted the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. Ministers committed themselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007.

	Outcomes	ECTS Credits
First cycle qualification	<p>Qualifications that signify completion of the first cycle are awarded to students who:</p> <ul style="list-style-type: none"> • have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study; • can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study; • have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical issues; • can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy. 	Typically include 180-240 ECTS credits

<p>Second cycle qualification</p>	<p>Qualifications that signify completion of the second cycle are awarded to students who:</p> <ul style="list-style-type: none"> • have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context; • can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; • have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments; • can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; • have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous. 	<p>Typically include 90-120 ECTS credits, with a minimum of 60 credits at the level of the 2nd cycle</p>
<p>Third cycle qualification</p>	<p>Qualifications that signify completion of the third cycle are awarded to students who:</p> <ul style="list-style-type: none"> • have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field; • have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication; • are capable of critical analysis, evaluation and synthesis of new and complex ideas; • can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise; • can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society. 	<p>Not specified</p>