






<p><b>Katholieke Hogeschool Sint-Lieven</b></p>  	<p><b>Hochschule Anhalt</b></p>  <p>Hochschule Anhalt (FH) Hochschule für angewandte Wissenschaften</p>
<p><b>Dublin Institute of Technology Kevin Street College</b></p> <p>DUBLIN INSTITUTE OF TECHNOLOGY INSTITIÚID TEICNEOLAÍOCHT ÁTHA CLIATH</p> 	<p><b>Universidade Catolica Portuguesa Escola Superior de Biotecnologia</b></p> 

# European MSc Degree in Food Science, Technology and Nutrition

## COURSE CURRICULUM (Document B)

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## INTRODUCTION

### 1. PROGRAMME BACKGROUND AND STRUCTURE

#### 1.1 Title of Programme

Degree of Masters in Science (Food Science, Technology and Nutrition) [jointly awarded]

#### 1.2 Award Sought

European Erasmus Mundus degree of Masters in Science (Food Science, Technology and Nutrition) [MSc SEFOTECH] [unclassified] from the Katholieke Hogeschool Sint-Lieven, Dublin Institute of Technology, Hochschule Anhalt and Universidade Catolica Portuguesa.

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#### Exit Award

Post Graduate Diploma (PGDip) in Food Science, Technology and Nutrition (unclassified) jointly awarded from the Katholieke Hogeschool Sint-Lieven, Dublin Institute of Technology, Hochschule Anhalt and Universidade Catolica Portuguesa.

Students who have successfully completed and passed the six compulsory taught modules and four optional taught modules and accumulation of 60 ECTS may be permitted to graduate with a postgraduate diploma.

#### Partners in the European MSc programme

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<p><b>Katholieke Hogeschool Sint-Lieven</b></p> 	<p><b>Hochschule Anhalt</b></p>  <p>Hochschule Anhalt (FH) Hochschule für angewandte Wissenschaften</p>
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National Institute of Public Health of Mexico (NIPH)

Michurinsk State Agarian University Russa

National Dairy Research Institute in Karnal, India

Northwest A&amp;F University, China

**1.3 PROGRAMME DESCRIPTION**

The partner institutions have developed an international joint MSc Degree in Food Science, Technology and Nutrition. This degree will be offered in the partner institutes, with the requirement to take certain modules which may include the project and the professional competence module in partner or associate partner institutions.

The programme will be organised in a modular format and will require candidates to undertake six compulsory taught core modules and four taught modules selected from the eight optional

modules listing on page 6. The six compulsory core modules will be offered by two partner institutions, DIT and KaHo Sint-Lieven and the selected optional modules will be offered by the partners with expertise in the particular field. Each of the taught core and optional modules is valued at 6 ECTS credits.

The professional competency module can be taken at one of the partner institutions, at an associate partner institution or in an industrial setting and/or centre of excellence. While on placement the students will be required to compile a reflective Portfolio of Evidence.

The project / thesis will require the students to work on a scientific project in one of the partner or associate partner institutions or in an industrial setting and/or centre of excellence and to submit a project/thesis.

The award of the European MSc Degree will be based on the successful completion of the ten taught core and optional modules (60 ECTS Credits), the Professional Competence Module (30 ECTS Credits) and the project/thesis (30 ECTS credits).

The compulsory core modules are:

- Module 1 : Food Safety
- Module 2 : Ecological Aspects of Food Production
- Module 3 : Nutritional Aspects of Food
- Module 4 : Total Quality Management
- Module 5 : Food Biotechnology
- Module 6 : Global Food Issues

Students select 4 modules from the following eight optional modules (7 – 14):

- Module 7 : Malt and Beer Production
- Module 8 : Production of Wine, Sparkling Wine and Spirits
- Module 9 : Meat and Meat Products
- Module 10 : Dairy Science and Technology
- Module 11 : Fats and Oils
- Module 12 : Cereals and Cereal Products
- Module 13 : Fruits and Vegetables
- Module 14: Nutrition and Public Health

Professional Competence and Project/Thesis

- Module 15: Professional Competence **Compulsory**
- Module 16: Project/Thesis **Compulsory**

## 1.4 TARGET AUDIENCE

This MSc Degree programme is planned for graduates intending to follow or develop their careers in food science, food technology, nutrition as related to food production, health and allied areas.

## **2. AIM OF THE PROGRAMME**

The aim of the European MSc Degree in Food Science, Technology and Nutrition is to foster and develop knowledge and awareness of scientific trends and health issues in food science, technology and nutrition in a global context. In addition the course seeks to enhance the professional competence of the student in areas such as safety, management and ethics.

## **3. PROGRAMME OBJECTIVES**

The objectives of the course are to:

- provide the learning environment necessary for the development of the students.
- promote an understanding of Food Science, Technology and Nutrition.
- focus on student centered learning.
- provide modules in core areas and a range of modules in selected optional areas, where partners have centres of excellence and in which students wish to develop specific expertise. The modules will develop selected topics to the forefront of existing knowledge.
- promote a critical evaluation of scientific and technological developments and how these impact on the modules selected.
- provide lectures, practicals, tutorials, seminars, workshops and site visits where the student will be guided through a process of personal scientific discovery and development.
- promote a European dimension by facilitating the student to undertake two modules or the project in different European partner institutions.
- foster a global dimension by the exchange of scholars and students with the associated partner institutions.

## **4. OVERALL LEARNING OUTCOMES**

It is expected that students will develop:

- an ability to critically evaluate recent developments in Food Science, Technology and Nutrition.
- a critical appreciation of evolving issues and future global directions.
- an enquiring approach to selected Modules and the capacity to undertake Research and Development.
- an ability to effectively communicate and defend their work in written, oral and poster format.
- critical knowledge of current developments in Food Safety, Ecological Aspects, Nutrition, Total Quality Management, Food Biotechnology and Global Food Issues.
- An awareness and knowledge of best practice and legislation in food production, processing and distribution.
- the capacity to evaluate and select optimal methodology.
- demonstrate professional competencies in a chosen field.



## **5. NATURE, DURATION AND GENERAL STRUCTURE OF THE PROGRAMME**

The programme will be offered in a full time and part-time format. The full time format will extend over 2 academic years. The part-time format will extend over at least 2 academic years.

### **5.1 FULL TIME FORMAT**

The programme is offered in Modules based on lectures, tutorials, workshops, seminars, site visits and student directed learning. Each of the taught modules (core and optional) is offered over a three week timeframe with assessments scheduled on the completion of each Module in Year 1. The details of Module delivery are described in Section 11.

Subjects are developed to MSc level reinforcing the ability to search, critically evaluate and interpret the literature, to integrate basic and applied science and to encourage the expression of independent opinion and critique in course assignments.

Seminars are organised where advanced and professional topics are debated based on academic and practical experience. In order to prepare students to undertake the project/thesis, tuition in Biostatistics, Information Technology, Research Methodology and preparation for project is provided. Students will be made aware of best practice and the legislative framework in relation to all aspects of food production, processing, marketing and distribution.

The placement and project will be organised during year 2. Students will be involved in selecting their placement and project based on their choice of optional modules and their career aspirations. The proposed date for final submission of the project /thesis is 31<sup>st</sup> May of year 2.

### **5.2 PART-TIME FORMAT**

For the part-time format the programme is offered in Modules, as described for the fulltime format, but over two academic years. The six compulsory modules are each offered in a six week timeframe, Module 5 is offered in a five week timeframe with assessments scheduled on the completion of each Module. The part-time format will be offered subject to (a) the necessary resources being available to offer the part time format of the programme and (b) demand as there is a requirement for a minimum enrollment if modules are to be offered.

Classes are scheduled for two evenings (total 6hrs/week) in weeks 1, 2, 3 and 5 of each Module.

The four selected optional modules, from the optional modules list, may be taken in a three week time frame (on a full time basis) in European partner institutions with specialised expertise.

Modules 10 and 14 are delivered on a part-time format in a six week time frame in DIT.

The placement and project will be organised during year 1. Students will be involved in selecting their placement and project based on their choice of optional modules and their career aspirations.

### **5.3 INDIVIDUAL MODULES**

Candidates that are suitably qualified for entry may study individual modules and accumulate ECTS Credits over a timeframe that can be planned with the Programme Director and approved by the Joint Management Board.

Individual modules may be taken as part of an industrial Continuous Professional Programme (CPD) as approved.

## **6. RELATIONSHIP WITH PROFESSIONAL AND ACADEMIC BODIES**

Graduates may apply for membership to the (i) Institute of Food Science and Technology, of the UK (IFST – UK) and/or the (ii) Institute of Food Science and Technology of Ireland (IFSTI).

## **7. GOVERNANCE STRUCTURES**

### **Joint Management Board**

This committee has the core responsibility for the management of the programme and will oversee the running of the programme. The Joint Management Board is the forum at which all questions of programme-specific policy will be discussed and recommendations will be formulated. The responsibilities of the Joint Management Board include (a) the management of programme finances (b) the development of links with the associate partners (c) administration of the scholarship scheme (d) programme promotion and (e) the development and sustainability of the programme. The Joint Management Board will assist in the implementation and compliance with Quality Assurance procedures of the partner institutes and will assist in the periodic review of the programme. The Joint Management Board will also function as the joint examination board for the programme. The Joint Management Board will report to the appropriate authorities in each partner institute.

The membership of the Joint Management Board will include the Programme Coordinators from the four partner institutes, at least one other senior staff member from each partner Institute, the programme administrator Dr Monika Polanska and Hilde Lauwereys from the International Office, KaHo Sint-Lieven. Additional members including members from the associated partners may be co-opted as required.

The Joint Management Board will meet on at least two occasions per academic year. The Joint Management Board will nominate a member to act as chairperson at the start of each meeting.

Responsibility for academic and quality matters pertaining to the programme is equally shared by the four partner institutes *via* the Joint Management Board and the four Programme Coordinators. When academic issues are being considered by the Joint Management Board each partner Programme Coordinator will consult with relevant

bodies in their respective institution for compliance of all proposals with rules and regulation of the institution.

### **Local Institute Management Boards**

The administration of the programme within each partner institute will be the responsibility of a local Management Board chaired by the institute Programme Coordinator. Each local Management Board is responsible for the daily management of the programme, teaching and academic administration in respective institutions, responding to student issues and cases, maintaining a communication flow at the coordinators' level between the four partner institutes, bringing submissions to the Joint Management Board regarding curricular and quality assurance changes, organising a marketing campaign for the programme and recruitment of new applicants in line with the set admission criteria commonly agreed between the four partner Institutions. The local management boards will comprise senior academic staff from the School or Department offering the programme and staff teaching on the programme.

### **The Role of Programme Coordinators**

The duties and responsibilities of the Programme Coordinators within each partner institute include the following:

- liaise with Programme Coordinators in partner institutes
- liaise with and co-ordinate the modules with the module organisers
- convey relevant information to the students regarding programme requirements including assessment schedules
- convene meetings of the local Management Board
- organise, supervise and assess placements and projects
- convene local examination board and communicate examination results to the Programme Office
- oversee the future development of the programme in conjunction with the local Management Board

### **The role of the Programme Office:**

KaHo Sint-lieven is the lead partner or coordinating institution on this collaborative joint European Erasmus Mundus MSc and a Programme Office is located at KaHo Sint-Lieven in Gent. This office will play a major role in the administration of the programme. For the inter-institutional arrangements outlined here, KaHo Sint-Lieven is thus the administrative lead for the programme.

The Programme Office is the administrative centre of the programme and carries out a daily management of the programme; it functions as an official inter-institutional channel for communication between the partner and associated partner institutions and a hub for information flow for all staff and students involved in the programme.

The Programme Office is responsible for the programme website, processes all applications and organises the joint admission board, organises the Joint Examination Board, prepares the diploma supplement, coordinates the production of the programme booklet and other promotional material.

### **International Office**

In all four consortium partners the international office will offer the same support to Erasmus Mundus students as to other international students. As KaHo Sint-Lieven is the lead partner in this collaborative MSc programme the international office at KaHo Sint-Lieven plays a key supportive role.

## 8. ADMISSION CRITERIA

### 8.1 Entrance Requirements:

Candidates applying for admission have to comply with the following minimum entry requirements:

- (1) An academic BSc degree with excellent grades in relevant subjects such as Chemistry, Biological Sciences, Food Science and Technology, Nutrition or Engineering or cognate subject area.  
Or
- (2) An equivalent qualification.
- (3) Non-standard applicants will be considered on an individual basis.

### 8.2 Admission Forms and Procedures:

Admission forms can be obtained from:

KaHo Sint-Lieven  
Postgraduate course service  
Gebroeders Desmetstraat 1  
B-9000 Gent

Telephone: +32 9 265 8645  
Fax: +32 9 2658646  
email: [dvo@kahosl.be](mailto:dvo@kahosl.be)  
and [euro@kahosl.be](mailto:euro@kahosl.be)

<http://www.sefotechnut.org>

## Non-EU Applicants

All students apply on line to the website maintained by the Programme office at KaHo Sint-Lieven. All applicants are awarded points according to the selection criteria outlined in the "joint programme selection criteria" document. An admissions board selects the candidates by analysing each complete application separately and awards points according to the selection criteria. Official approval from the EACEA is required before offers are made.

## 9. STUDENT FEES AND STATUS

The enrolment fee for EU students is €4000 per academic year total €8,000 (10 modules in Year 1, the professional competence module and the project/thesis work in Year 2). The price per individual module is €600 taken privately or as Continuous Professional Development (CPD). The enrolment fee for non-EU participants is €8000 for each academic year total €16,000. The price per individual module taken privately or as CPD in Year 1 is €1500.

The fee is payable to KAHO Sint-Lieven, Belgium. Participating Institutions are paid on a fee per module per student taking the module at that Institute.

Fees are subject to review on an annual basis.

## **10. European credit transfer system (ECTS)**

### **What is the ECTS?**

The ECTS was developed by the Commission of the European Communities to provide common procedures to facilitate academic recognition of studies abroad. It is a decentralised system, based on the principle of mutual trust and confidence between the participating higher education institutions.

ECTS provides an instrument to create transparency, to build bridges between institutions and to widen the choices available to students. The system makes it easier for institutions to recognise the learning achievements of students by using commonly understood measurements, credits and grades, and it also provides a means to interpret national systems of higher education. It provides a way of measuring and comparing learning achievements and transferring them from one institution to another. ECTS is based on three core elements, information on study programmes and student achievement, mutual agreement between partner institutions and the student, and the use of ECTS credits to indicate student workload.

### **ECTS credits**

ECTS is a credit system based on the student workload. ECTS credits reflect the quantity of work required in relation to the total quantity of work necessary to complete a full year of academic study at the institution (e.g. lectures, practical work, seminars, tutorials, field-work, private study, in the library or at home, and examinations or other assessments). In ECTS, 60 credits represent the workload of a normal full-time academic year of study (i.e. 1500-1800 hours of student workload), 30 credits a semester and 20 credits a term (or trimester). This means that 1 ECTS credit stands for a student's workload of 25 up to 30 hours.

It is important that no special courses will be set up for ECTS purposes, but that all courses are mainstream courses of the participating institutions, which are followed by local students in accordance with relevant regulations. It is up to the participating institutions to apportion credits for the different courses in accordance with the student workload involved. Practical placements which form an integral part of the course of study also receive academic credit.

Full credit is awarded only when the student has completed the course and passed the required examination.

**11. STUDENT PARTICIPATION IN SOCIETIES, SEMINARS AND PUBLIC LECTURES AND INDUSTRIAL EXHIBITIONS.**

Students are encouraged to attend school seminars and appropriate public lectures organised by professional bodies and industry, research presentations by staff and postgraduate students. While on placement the students are encouraged to attend scientific meetings or seminars relating to their field of interest. These activities provide them with an appreciation of the value of such organisations in life-long learning and encouragement to contribute to their area of scientific or professional interest in the future.