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All information is correct as of July 2019, however may be subject to change
You have already taken the first step in transforming and developing your career by joining us on this new and exciting journey. These programmes are not just about gaining subject matter expertise in Food Nutrition and Health. Our ambition for you is deeper than that. Our aim is that when you graduate with either a Graduate Certificate, Graduate Diploma or MSc, you will leave us with your horizons expanded and be equipped with the skills, knowledge and expertise necessary to foster your intellectual growth and professional ability so that you can define and adapt your career in a world that is changing rapidly.

In Newman’s words:

“If then a practical end must be assigned to a University course, I say it is that of training good members of society... It is the education which gives a man a clear, conscious view of their own opinions and judgements, a truth in developing them, an eloquence in expressing them, and a force in urging them. It teaches him to see things as they are, to go right to the point, to disentangle a skein of thought to detect what is sophistical and to discard what is irrelevant.”


Whilst each of you is pursuing your own career pathway, in order for you to be successful there is a range of fundamental skills that you will need to develop in parallel with the acquisition of subject specific knowledge. These include developing the critical cognitive skills of analysis, evaluation and synthesis, connecting with your innate creative ability, acting creatively and becoming familiar with the Design Thinking Process. Additionally, during the course of the programme you will develop your capacity for independent research, analysis and ethical experimental design.

Teamwork, collaboration and communication are essential skills for 21st century life and the world of work. You will have the opportunity to become connected with your fellow students from a range of disciplines and different cultures, and utilise the online nature of the course to strengthen your connectedness so that together you can design innovative and creative solutions to a range of real problems. The MSc will also allow you to develop a network of colleagues and mentors and you will be exposed to a range of experts from different disciplines. This will enhance your personal and professional development.

Some of you are joining us directly onto the MSc, others are taking the module to MSc route and are studying the core modules this trimester. However you spend your time with us at UCD, we hope that you will find it enjoyable, stimulating and professionally rewarding. We welcome your enthusiasm and the energy you bring to UCD and we always appreciate your feedback on any aspect of course delivery.

During the trimester each module is supported by an e-tutor. E-tutors are appointed to assist you with any module related issues. Your e-tutor will login to the learning environment frequently and will answer any questions you might have usually within 24hr. He/she will host online discussions during the course of your assignments and will bring any issues you might have to the attention of the module or programme co-ordinators.

**The Autumn trimester starts on:**
**Monday 9th September 2019**

For the time being, good luck in your studies and we look forward to being part of a vibrant student-teacher team. We have much to learn from one another and in the course of time much to contribute mutually to innovative developments in Food Science, Nutrition and Health.

I hope you find the following information useful but please remember that either myself or other members of the team are always willing to assist if you have any questions. There are further contact details in this guide.

Dr. Aideen Mc Kevitt,  
Programme Director  
Room 215 Science Centre South, UCD  
T: +353 1 716 2806  
E: aideen.mckevitt@ucd.ie

The primary reason I chose to study this Masters programme was to deepen my existing knowledge and I can genuinely say that completing my studies in the field of Food, Health and Nutrition Science has been one of the best decisions that I have ever made. This journey has allowed me to study with some of the leading academics in their field. Lectures and coursework were relevant, engaging and thought provoking thus enabling me to expand on areas such as subject knowledge and development of critical thinking skills with relevance to everyday life. One of the main advantages to this programme is the depth and variety of modules offered. The online platform enabled me to continue working whilst studying at a pace that suited my schedule. The completion of this programme has opened up a number of differing opportunities for me that perhaps would not have come otherwise.”

Breda O’Mahony (2015 graduate)
## 2 People

<table>
<thead>
<tr>
<th>Programme Director</th>
<th>Dr Aideen McKevitt</th>
<th><a href="mailto:aideen.mckevitt@ucd.ie">aideen.mckevitt@ucd.ie</a></th>
<th>+353 1 716 2806</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Administrator</td>
<td>Ms Catherine Byrne</td>
<td><a href="mailto:catherine.byrne@ucd.ie">catherine.byrne@ucd.ie</a></td>
<td>+353 1 716 7192</td>
</tr>
<tr>
<td>Programme Office Contact Details</td>
<td><a href="mailto:agandfoodprogrammes@ucd.ie">agandfoodprogrammes@ucd.ie</a></td>
<td>+353 1 716 7194</td>
<td><a href="http://www.ucd.ie/agfood/staff">www.ucd.ie/agfood/staff</a></td>
</tr>
<tr>
<td>Student Adviser</td>
<td><em>Student adviser details to be confirmed</em></td>
<td></td>
<td><a href="http://www.ucd.ie/advisers">www.ucd.ie/advisers</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module</th>
<th>Co-ordinator</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSC40500 Chemistry of Nutrients</td>
<td>Dr Jean Jacquier</td>
<td><a href="mailto:jean.jacquier@ucd.ie">jean.jacquier@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40510 Food Chemistry</td>
<td>Dr Niamh Harbourne</td>
<td><a href="mailto:niamh.harbourne@ucd.ie">niamh.harbourne@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40520 Food Microbiology &amp; Safety</td>
<td>Dr Amalia Scannell</td>
<td><a href="mailto:amalia.scannell@ucd.ie">amalia.scannell@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40530 Physiology &amp; Metabolism</td>
<td>Dr Nigel Brunton</td>
<td><a href="mailto:nigel.brunton@ucd.ie">nigel.brunton@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40540 Food Process Technology</td>
<td>Professor James Lyng</td>
<td><a href="mailto:james.lyng@ucd.ie">james.lyng@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40550 Meat and Meat Products</td>
<td>Professor Frank Monahan</td>
<td><a href="mailto:frank.monahan@ucd.ie">frank.monahan@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40570 Food Marketing</td>
<td>Dr Chenguang Li</td>
<td><a href="mailto:chenguang.li@ucd.ie">chenguang.li@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40580 Project Module</td>
<td>Dr Sharleen O’Reilly</td>
<td><a href="mailto:sharleen.oreilly@ucd.ie">sharleen.oreilly@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40590 Milk and Dairy Products</td>
<td>Prof Michael O’Sullivan</td>
<td><a href="mailto:michael.osullivan@ucd.ie">michael.osullivan@ucd.ie</a></td>
</tr>
<tr>
<td>FDSC40600 Principles of Sensory Science</td>
<td>Dr Emma Feeney</td>
<td><a href="mailto:emma.feeney@ucd.ie">emma.feeney@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40060 Intro to Nutrition</td>
<td>Professor Eileen Gibney</td>
<td><a href="mailto:eileen.gibney@ucd.ie">eileen.gibney@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40070 Nutrients in the Life Cycle</td>
<td>Dr Aifric O’Sullivan</td>
<td><a href="mailto:aifric.osullivan@ucd.ie">aifric.osullivan@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40080 Omic Strategies in Nutrition</td>
<td>Dr Amy Mullee</td>
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</tr>
<tr>
<td>HNUT40090 Pathways to Health</td>
<td>Dr Breige McNulty</td>
<td><a href="mailto:breige.mcnullty@ucd.ie">breige.mcnullty@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT 40100 Food Regulatory Affairs</td>
<td>Dr Aideen McKevitt</td>
<td><a href="mailto:aideen.mckevitt@ucd.ie">aideen.mckevitt@ucd.ie</a></td>
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<tr>
<td>HNUT40110 Food Quality and Safety</td>
<td>Dr Aideen McKevitt</td>
<td><a href="mailto:aideen.mckevitt@ucd.ie">aideen.mckevitt@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40130 Research Design and Statistics</td>
<td>Dr Aideen McKevitt</td>
<td><a href="mailto:aideen.mckevitt@ucd.ie">aideen.mckevitt@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40150 Nutritional Assessment</td>
<td>Professor Eileen Gibney</td>
<td><a href="mailto:eileen.gibney@ucd.ie">eileen.gibney@ucd.ie</a></td>
</tr>
<tr>
<td>HNUT40170 Professional Practice</td>
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<td><a href="mailto:sharleen.oreilly@ucd.ie">sharleen.oreilly@ucd.ie</a></td>
</tr>
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<td>HNUT40250 Clinical Nutrition</td>
<td>Dr Sharleen O’Reilly</td>
<td><a href="mailto:sharleen.oreilly@ucd.ie">sharleen.oreilly@ucd.ie</a></td>
</tr>
<tr>
<td>PHPS40710 Promoting Consumer Nutrition</td>
<td>Dr Celine Murrin</td>
<td><a href="mailto:celine.murrin@ucd.ie">celine.murrin@ucd.ie</a></td>
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<tr>
<td>PHPS 40720 Public Health Nutrition</td>
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</tr>
</tbody>
</table>
University College Dublin has been providing students with a high quality educational experience for over 150 years and is one of Europe’s leading research-intensive Universities. At UCD undergraduate education, MSc and PhD training, research, innovation and community engagement form a dynamic spectrum of activity.

University College Dublin, ranked within the top 1% of higher education institutions world-wide, has been providing students with a high quality educational experience for over 160 years and is one of Europe’s leading research-intensive universities. At UCD, undergraduate education, MSc and PhD training, research, innovation and community engagement form a dynamic spectrum of activity.

Today UCD is Ireland’s largest and most diverse university with 34,000 students, drawn from approximately 139 countries. UCD promotes university life as a journey of intellectual and personal discovery. UCD is Ireland’s leader in graduate education with over 9,000 graduate students. The University is home to approximately 8,000 international students and delivers degrees to almost 5,000 students on overseas campuses. In addition, the University places great emphasis on the internationalisation of the Irish student experience – preparing all UCD students for future employment and life that crosses borders, boundaries and cultures.

We now offer UCD education and qualifications through a selection of online courses. Flexible online delivery means you can learn on-demand and in your own time with all the reassurance of UCD expertise and support. UCD Online helps you to expand your existing knowledge, study for a professionally recognised qualification, or gain new expertise to change career. UCD Online offers prospective students a flexible alternative to receiving a third level qualification, delivered and supported by the same academics that teach in University College Dublin. There is no difference between qualifications achieved through UCD campus or UCD Online and students can look forward to the same quality teaching albeit, through online delivery enabled by modern technologies. UCD Online’s module to MSc pathway increases the flexibility of study options by allowing students to complete a course in a time frame that suits their own personal circumstances, without incurring additional course fees. The courses offered by UCD Online have been selected to satisfy both student and employer demands. The offerings are diverse and focused towards producing high quality graduates in a chosen field, who are equipped with the necessary skills to gain employment in a given sector. Each course descriptor gives an overview of where a student’s new skill may take them in terms of both employment and academia.

Since all UCD Online students are members of the UCD community they each obtain a UCD student card providing them access to UCD Services such as the library, sports centre and other campus/online facilities and services. Student discounts are available from numerous entertainment and retail outlets. UCD Online students are also given opportunities to visit campus including, upon successful completion of a degree course, when they will be invited to a graduation ceremony amongst their UCD Online and campus-based peers.

### STUDENT CODE

[www.ucd.ie/secca/studentconduct](http://www.ucd.ie/secca/studentconduct)

Becoming a UCD student means that you have joined a diverse and vibrant university community. As a member of this community it is important that you are respectful in your interactions with others and that you uphold the high standards of personal responsibility and academic integrity that is expected of all students. The University sets out its values in the UCD Strategy and outlines its commitments and expectations regarding standards of conduct in the Student Charter, Student Code and the UCD Dignity and Respect Policy. It is important that you familiarise yourself with these documents as they help to ensure a fair and positive learning and working environment for everyone at UCD.

### UCD STRATEGY


### STUDENT CHARTER


### STUDENT CODE


### UCD DIGNITY AND RESPECT POLICY


### 3.1 COURSE OVERVIEW

The importance of the link between food and human health is becoming increasingly evident and graduates of the MSc in Food, Nutrition and Health course will be educated to a high level in the science of food as it pertains to human nutrition and health. The programme is delivered by staff members in the UCD School of Agriculture and Food Science, UCD Institute of Food and Health and The UCD Innovation Academy. UCD is ranked in the top 10 European and top 25 International Universities in Food Science and Technology, based on research output.

The UCD Institute of Food and Health was established in 2008 and has an international reputation. The Institute brings together academic and research staff from across UCD in health-related aspects of food research, including food science, human and public health nutrition, food production, biosystems engineering, food law, consumer behaviour and food safety. The Institute aligns its research with national, international and industry agendas.
3.2 AWARDS AND QUALIFICATIONS

Master of Science, Graduate Diploma or Graduate Certificate (NFQ Level 9)

Degree Classification is outlined on the National Framework of Qualifications

The National Framework of Qualifications was established to create a coherent structure for the development and recognition of all awards within the Irish education system. It is founded on the principles of learning outcomes which identify the level of knowledge, skills and competence a learner should attain to achieve an award placed on the framework. It is a ten-level system (1–10) giving an academic or vocational value to qualifications obtained in Ireland. Each level is based on nationally agreed standards of what a learner is expected to know and be able to do after receiving an award.

www.qqi.ie

3.3 MODULES

Modules offered can be taken to build towards a Graduate Certificate, Graduate Diploma, or MSc in Food Nutrition and Health. Students may choose to study full time and complete their course in the minimum time allowed.

- 1 academic year (two trimesters) Graduate Certificate
- 1.5 academic years (three trimesters) Graduate Diploma
- 2 academic years (four trimesters) for MSc
- maximum 4 years for all.

Alternatively, students may choose to follow the module to MSc route; this allows the student to complete as few modules at a time as they choose, without any obligation to complete the full course. Through the module to MSc approach students may later, decide to work towards a qualification where relevant/qualifying modules will contribute to the final award. A student may sample a course by taking a single module before deciding whether to continue on to earn a qualification. By allowing students this flexibility, UCD Online opens up opportunities for those who have minimal free time in which to study, or are unsure if they want to commit to an entire course. In addition, the MSc in Food Nutrition and Health course offers exit qualifications at Graduate Certificate (30 ECTS), Graduate Diploma (60 ECTS) and MSc (90 ECTS).

When choosing which modules to register for during the registration period please study the Course Structure table (under section 5.0 below) which shows you the core and optional modules offered, the associated co and pre-requisites and the trimester in which modules are offered.

IMPORTANT: Do not select any more than 25 credits per trimester. Select only those modules you will take in any given trimester. For new entrants, the maximum number of modules you should take in your first trimester is 4 modules. Please also refer to your programme offer letter for details on maximum registration in Year 1 Autumn trimester

3.4 USEFUL RESOURCES


The Nutrition Society – you can join using your UCD student member; tick the box for the Irish Section. Dr Aideen McKevitt’s name can be used as the Academic in support of the application.

www.nutritionsociety.org

3.5 LEARNING ENVIRONMENT, BRIGHTSPACE, IT REQUIREMENTS

Modules are delivered through the UCD Brightspace system. Information on how to use the UCD Brightspace system are provided in the UCD IT Services Start of Term Guide.

www.ucd.ie/itservices/itservices/startoftermguide

Useful information can also be found on the IT Services website at: www.ucd.ie/itservices
3.6 REGISTRATION

GENERAL REGISTRATION:
- UCD Registry will send an e-mail to students in late July/August with information about registration.
- Online registration for 2019/20 opens for taught postgraduate students from 20th August 2019.
- You will be allocated an individual registration start-time by email. This is the date/time that you can login to the online registration system to confirm your registration to your programme and register to modules.

REGISTERING TO MODULES:
- In August you should only register to modules offered in the Autumn trimester.
- Registration for Spring trimester modules will be available in January. Information will be sent to you by email before the beginning of the trimester.
- When choosing your modules please keep in mind any Pre- or Co-requisites (please see the Programme Structure on page 9).
- If you need assistance in deciding which modules to choose please speak to the Module Coordinator or the Programme Director.
- If you need help to complete your registration please contact the Programme Office.
- The maximum number of credits you should register to in a trimester is 25 ECTS.

Further information on registration is available at: www.ucd.ie/students

You can download a copy of academic term dates at: www.ucd.ie/students/keydates.htm

Please ensure you check your UCD Connect email on a regular basis for updates relating to information on registration and relevant deadlines.

WITHDRAWING FROM MODULES:
If you choose to withdraw from a module, you can do so without academic penalty before the end of Week 12 in a given trimester, or before the last day of teaching in a trimester, whichever comes sooner. If you register to the module again, this will be treated as a first attempt. A module fee will be incurred where a student withdraws from a module after Week 8 of a trimester.

If you need assistance about dropping modules from your registration, please contact the Programme Office.

WITHDRAWING FROM THE PROGRAMME:
Should you choose to withdraw from the Programme you must ensure you complete the appropriate Withdrawal Form. It is very important that you officially withdraw so that your registration record is updated accordingly. Failure to do so will impact on your record including fees payable. The withdrawal form is available online through your SIS web.

Further details can be found at: www.ucd.ie/students/withdrawal.html

3.7 EXAMINATION AND ASSESSMENT

The MSc Food, Nutrition and Health is delivered and assessed online. Students do not need to attend campus for classes or assessment. Modules will be assessed on a continuous basis over the course of the trimester. All assessments will be online through UCD Brightspace, however if you are unable to complete an assessment in the indicated timeframe you must inform your Module Coordinator in advance. Important information on Assessment can be found on the UCD Assessment webpage: www.ucd.ie/registry/assessment

UCD General Academic Regulations can be accessed online at: www.ucd.ie/students/documents/AcRegs_2019.2020_v1.pdf

MODULE GRADE SCALE:
The module grade scale shows the letters grades that are available as final module grades. Where there are multiple assessment components, these grades represent the final aggregate result of all of the components.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>GRADE-POINT</th>
<th>DESCRIPTION</th>
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<tr>
<td>A+</td>
<td>4.2</td>
<td>Excellent</td>
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<tr>
<td>A</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.6</td>
<td>Very Good</td>
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<tr>
<td>B</td>
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<tr>
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<tr>
<td>FM-</td>
<td>0</td>
<td>Fail</td>
</tr>
<tr>
<td>NM</td>
<td>0</td>
<td>No grade – work submitted did not merit a grade</td>
</tr>
<tr>
<td>ABS</td>
<td>0</td>
<td>No work was submitted by the student or the student was absent from assessment</td>
</tr>
</tbody>
</table>

(Academic Regulation 4.28)
REPEATING/RESITTING FAILED EXAMS:

In-module Resit
Where a student receives a provisional failing grade for a module, the student may avail of an in-module resit prior to confirmation of the module grade by the Programme Exam Board where an in-module resit is provided for in the module descriptor. Where a student receives a failing grade for an in-module resit attempt the original provisional failing grade for the module is retained.

Resit Assessment
A resit assessment offers students a second and separate opportunity to demonstrate that they have achieved the major learning outcomes associated with a module. Re-attendance is not required. The resit assessment is a simple pass-fail instrument, and need only be the minimum assessment required to determine whether or not the student has satisfactorily achieved the major learning outcomes of the module. The resit assessment does not have to be identical to the assessment associated with the original offering of the module, and may be significantly different, nor do the different components of the assessment need to be reproduced and repeated in full.

• There will only be one resit assessment for each offering of a module.
• A resit assessment will not be available where an in-module resit is offered or where it is possible to repeat the module in one of the two subsequent trimesters.
• The resit may be a single terminal examination and/or submission of coursework or other assessment tasks at specified times during the trimester.

Repeat the Module
A repeat is the student’s opportunity for a second attempt at the module through re-attendance when it is next offered.

For module grades and grade points relating to In-module Resits, Resit Assessments and Module Repeats, please refer to Section 6 of the Academic Regulations


PLAGIARISM:

UCD Plagiarism policy is available at:

www.ucd.ie/governance/resources/policypage-plagiarismpolicy

Information on Academic Integrity (Referencing, Citation & Avoiding Plagiarism) is available on the UCD Library website:

https://libguides.ucd.ie/academicintegrity/overview

The following is an extract from the document:

“The creation of knowledge and wider understanding in all academic disciplines depends on building from existing sources of knowledge. The University upholds the principle of academic integrity, whereby appropriate acknowledgement is given to the contributions of others in any work, through appropriate internal citations and references. Students should be aware that good referencing is integral to the study of any subject and part of good academic practice.

The University understands plagiarism to be the inclusion of another person’s writings or ideas or works, in any formally presented work (including essays, theses, projects, laboratory reports, examinations, oral, poster or slide presentations) which form part of the assessment requirements for a module or programme of study, without due acknowledgement either wholly or in part of the original source of the material through appropriate citation. Plagiarism is a form of academic dishonesty, where ideas are presented falsely, either implicitly or explicitly, as being the original thought of the author’s. The presentation of work, which contains the ideas, or work of others without appropriate attribution and citation, other than information that can be generally accepted to be common knowledge (Common knowledge refers to information, which is generally known and does not require to be formally cited in a written piece of work. Each subject area will have its own common knowledge) is an act of plagiarism. It can include the following:

1.1. Presenting work authored by a third party, including other students, friends, family, or work purchased through internet services;
1.2. Presenting work copied extensively with only minor textual changes from the internet, books, journals or any other source;
1.3. Improper paraphrasing, where a passage or idea is summarised without due acknowledgement of the original source;
1.4. Failing to include citation of all original sources;
1.5. Representing collaborative work as one’s own;

Plagiarism is a serious academic offence. While plagiarism may be easy to commit unintentionally, it is defined by the act not the intention. All students are responsible for being familiar with the University’s policy statement on plagiarism and are encouraged, if in doubt, to seek guidance from an academic member of staff. The University advocates a developmental approach to plagiarism and encourages students to adopt good academic practice by maintaining academic integrity in the presentation of all academic work”.

3.8 EXTENUATING CIRCUMSTANCES

If your study or assessments are impacted due to unanticipated difficulties it may be necessary to submit an application for Ex temporaneous Circumstances. For further details please see the Policy on Extemating Circumstances

Application is online through your SIS Web account. To complete an application you will need to submit supporting documentation to the Programme Office, either by post or email.

Application for Extemuating Circumstances for in-semester assessments must be made within 10 working days of the date of the assessment deadline and for final assessments, within 5 working days. Please contact staff in the Programme Office should you have queries in relation to the policy or application process.

www.ucd.ie/students/studentdesk/extenuating.html

I have always had an interest in the science of food and nutrition and working within the food industry was always a long term goal for me. The MSc in Food, Nutrition and Health was the perfect course to allow me to develop the skills required to work in many functions within the food industry. The course offers a broad range of topics to study with modules available from public health to food processing and even food marketing. Although the course is online, there is a significant amount of support and interaction with both lecturers, tutors and fellow classmates at all times. Through completion of the course, I have applied for and received multiple job offers from multinational food companies. Overall, I highly recommend the MSc Food, Nutrition & Health to anyone looking to pursue a career in the food industry.

Alexander Sinnott (2017 graduate)
4 FREQUENTLY ASKED QUESTIONS

HOW MUCH TIME CAN I EXPECT TO SPEND STUDYING A MODULE?
For each 5 ECTS credit module earned students are expected to undertake about 125 hours of work, to include on-line activity and performing their own study. Students will be required to complete quizzes periodically so that we can monitor progress. Formative assessments will be used to help you develop and critically assess your own understanding of the material presented. All modules will have a high continuous assessment component. Further information on modules is available in Section 3 of the Academic Regulations www.ucd.ie/students/documents/AcRegs_2019.2020_v1.pdf

CAN I TAKE MODULES AT ANY TIME?
Modules are delivered once per year, either in the Autumn Trimester or the Spring Trimester as detailed on the module descriptor and the programme structure on page 16 of this handbook.
The Autumn Trimester commences in September and the Spring Trimester in January. Term dates can be found at: www.ucd.ie/students/keydates.htm
No modules are delivered over the Summer Trimester.

CAN I EXIT EARLY FROM THE MASTERS?
• The Masters programme is 90 ECTS credits.
  • On successful completion of 30 credits you can opt to exit with a Graduate Certificate, and on completion of 60 credits you can opt to exit with a Graduate Diploma. All programmes are Level 9 under the National Framework of qualifications: www.qqi.ie
  • If you decide to exit from the Programme it is possible to return at a later stage and work toward a higher award, however there are time limits and restrictions as detailed in the Policy on Recognition of Prior Learning: www.ucd.ie/governance/resources/policypage-rplpolicy

HOW LONG DO I HAVE TO COMPLETE THE PROGRAMME?

<table>
<thead>
<tr>
<th>Programme</th>
<th>ECTS Credits</th>
<th>NFQ Level</th>
<th>Minimum Registration</th>
<th>Maximum Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>90</td>
<td>9</td>
<td>2 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Graduate Diploma</td>
<td>60</td>
<td>9</td>
<td>1.5 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Graduate Certificate</td>
<td>30</td>
<td>9</td>
<td>1 year</td>
<td>4 years</td>
</tr>
</tbody>
</table>

Students have 4 years in which to complete their programme from the date of first exam success. This allows you flexibility in structuring your registration and the option to take time out during your programme should you need it.

WHAT ARE MY FEES?
Fees are payable on a per credit basis so you can structure your fee payment schedule per semester based on the number of modules to which you are registered. The 2019/20 per credit fee is €95.40; therefore registration to a 5 credit module is €477.00. Fees are subject to annual increases.
Further details on fees and how to pay can be found at: www.ucd.ie/students/fees/index.html

IS THERE A MAXIMUM NUMBER OF CREDITS I CAN REGISTER TO IN A GIVEN TRIMESTER?
The maximum number of credits you can register to in a trimester is 25 ECTS.

IS THERE A MINIMUM NUMBER OF CREDITS I CAN REGISTER TO IN A GIVEN TRIMESTER?
No, if you so wish you may decide to not register to any modules in a given trimester. In this instance, you must apply for a Leave of Absence to keep your record in order. This will impact on the duration of your programme registration. You may also apply for a Leave of Absence if you are registered to modules but wish to take time out from the Programme. For further details please speak to the Programme Office. Policy on Leave of Absence is available at: www.ucd.ie/students/leaveofabsence

WILL I ATTEND GRADUATION AND RECEIVE A UCD DEGREE PARCHMENT?
All UCD students on the MSc Food Nutrition and Health are invited to attend a conferring ceremony on campus upon successful completion of their degree. All students will be awarded a UCD parchment stating their qualification. The method of study (eg. online, on campus) is not stated on your parchment.

“What this course is highly relevant to those seeking to enhance their career, and to those want to learn the impact of nutrition on human health. I found the course to be high-quality and challenging. The structure, content, materials and lecturer support are well-organised and well-delivered. The course is structured to enable the student to build on knowledge gained in previous modules, so learning is incremental. There is plenty of flexibility in terms of “optional” modules. The assignments are varied and engaging. Online studying saves time commuting to campus, and is a very flexible way of learning. And despite the lack of a “classroom”, the course is interactive and participatory. The time flew by!”

Anita Kelly (2017 graduate)
### 5 COURSE STRUCTURE

**MSC FOOD NUTRITION AND HEALTH / GRADUATE DIPLOMA / GRADUATE CERTIFICATE**

**CORE MODULES** (MSc 30 credits, Grad Dip 15 credits, Grad Cert 15 credits)
- Core modules are indicated with a C and are mandatory for that particular programme.
- Students should, if possible take HNUT40060, FDSC40500 and FDSC40530 in the Autumn Trimester of Year 1 as these modules are pre-requisites for several Spring Trimester modules.
- FDSC40580 Project should be taken in the final trimester and HNUT40130 Research Design and Statistics in the trimester preceding the Project Module.
- A pre-requisite (PR) is a module which must be passed in advance of the module in question.
- A co-requisite (CR) is a module which is taken in advance of or concurrently with another module.

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Credits</th>
<th>Grad Cert</th>
<th>Grad Dip</th>
<th>MSc</th>
<th>Trimester</th>
<th>Pre/Co Requisites*</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNUT40060 Introduction to Nutrition</td>
<td>5</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>Autumn</td>
<td>n/a</td>
</tr>
<tr>
<td>FDSC40500 Chemistry of Nutrients</td>
<td>5</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>Autumn</td>
<td>n/a</td>
</tr>
<tr>
<td>FDSC40530 Physiology of Metabolism</td>
<td>5</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>Autumn and Spring</td>
<td>n/a</td>
</tr>
<tr>
<td>HNUT40130 Research Design and Statistics</td>
<td>5</td>
<td>n/a</td>
<td>n/a</td>
<td>C</td>
<td>Autumn</td>
<td>HNUT40060 Introduction to Nutrition (PR) FDSC40500 Chemistry of Nutrients (PR) FDSC40530 Physiology of Metabolism (PR)</td>
</tr>
<tr>
<td>FDSC40580 Project</td>
<td>10</td>
<td>n/a</td>
<td>n/a</td>
<td>C</td>
<td>Spring</td>
<td>HNUT40130 Research Design and Statistics (PR)</td>
</tr>
</tbody>
</table>

**OPTIONAL MODULES**
- Students registered to the Graduate Certificate and Graduate Diploma take their options from either Group 1 or Group 2
- Students registered to the MSc Food Nutrition and Health can take 60 credits from Group 1 Food Nutrition and Health pathway or all credits from Group 2 Food Nutrition and Health (Nutrition) pathway.
- A pre-requisite (PR) is a module which must be passed in advance of the module in question.
- A co-requisite (CR) is a module which is taken in advance of or concurrently with another module.
**GROUP 1: MSC FOOD NUTRITION AND HEALTH**

Students take 60 credits from the following options:

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Pre/Co Requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSC40510 Food Chemistry</td>
<td>5</td>
<td>Spring</td>
<td>FDSC40500 Chemistry of Nutrients (PR)</td>
</tr>
<tr>
<td>FDSC40520 Food Microbiology &amp; Safety</td>
<td>5</td>
<td>Autumn</td>
<td>None</td>
</tr>
<tr>
<td>FDSC40540 Food Process Technology</td>
<td>5</td>
<td>Spring</td>
<td>FDSC40500 Chemistry of Nutrients(PR) FDSC40510 Food Chemistry(CR) FDSC40520 Food Microbiology and Safety (PR)</td>
</tr>
<tr>
<td>FDSC40550 Meat and Meat Products</td>
<td>5</td>
<td>Spring</td>
<td>FDSC40500 Chemistry of Nutrients (PR)</td>
</tr>
<tr>
<td>FDSC40570 Food Marketing</td>
<td>5</td>
<td>Spring</td>
<td>None</td>
</tr>
<tr>
<td>(Note: module places are capped at 25 and will be allocated on a first come first served basis)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDSC40590 Milk and Dairy Products</td>
<td>5</td>
<td>Autumn</td>
<td>FDSC40510 Food Chemistry (PR) FDSC40540 Food Process Technology (PR)</td>
</tr>
<tr>
<td>FDSC40600 Principles of Sensory Science</td>
<td>5</td>
<td>Spring</td>
<td>None</td>
</tr>
<tr>
<td>HNUT40070 Nutrients in the Life Cycle</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR) FDSC40500 Chemistry of Nutrients (PR) FDSC40530 Physiology and Metabolism (CR)</td>
</tr>
<tr>
<td>HNUT40080 Omic Strategies in Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40090 Pathways to Health</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40100 Food Regulatory Affairs</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40060 Intro to Nutrition (PR) FDSC40500 Chemistry of Nutrients (PR) FDSC40530 Physiology and Metabolism (PR) FDSC40520 Food Microbiology and Safety (CR)</td>
</tr>
<tr>
<td>HNUT40110 Food Quality and Safety</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR) FDSC40500 Chemistry of Nutrients (PR) FDSC40530 Physiology and Metabolism (PR) FDSC40520 Food Microbiology and Safety (PR)</td>
</tr>
<tr>
<td>HNUT40150 Nutritional Assessment</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40170 Professional Practice</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle(PR) HNUT40090 Pathways to Health (PR) HNUT40130 Research Design and Statistics (PR)</td>
</tr>
<tr>
<td>HNUT40250 Clinical Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle(PR) HNUT40090 Pathways to Health (PR)</td>
</tr>
<tr>
<td>PHPS40710 Promoting Consumer Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR) HNUT40070 Nutrients in the Life Cycle(PR) FDSC40530 Physiology and Metabolism(PR) HNUT40090 Pathways to Health (PR) PHPS40720 Public Health Nutrition (PR)</td>
</tr>
<tr>
<td>PHPS 40720 Public Health Nutrition</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR) HNUT40090 Pathways to Health (CR)</td>
</tr>
</tbody>
</table>
GROUP 2: MSC FOOD NUTRITION AND HEALTH (NUTRITION)

Students take all of the following option modules totalling 60 credits:

This pathway should be taken by any student who specifically wishes to pursue a career in Nutrition

<table>
<thead>
<tr>
<th>Module Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Pre/Co Requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSC40510 Food Chemistry</td>
<td>5</td>
<td>Spring</td>
<td>FDSC40500 Chemistry of Nutrients (PR)</td>
</tr>
<tr>
<td>FDSC40520 Food Microbiology &amp; Safety</td>
<td>5</td>
<td>Autumn</td>
<td>None</td>
</tr>
<tr>
<td>HNUT40070 Nutrients in the Life Cycle</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDSC40500 Chemistry of Nutrients (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDSC40530 Physiology and Metabolism (CR)</td>
</tr>
<tr>
<td>HNUT40080 Omic Strategies in Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40090 Pathways to Health</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40100 Food Regulatory Affairs</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40060 Intro to Nutrition (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDSC40500 Chemistry of Nutrients (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FDSC40530 Physiology and Metabolism (PR)</td>
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<td></td>
<td></td>
<td></td>
<td>FDSC40520 Food Microbiology and Safety (PR)</td>
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<tr>
<td>HNUT40110 Food Quality and Safety</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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<td>FDSC40530 Physiology and Metabolism (PR)</td>
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</tr>
<tr>
<td>HNUT40150 Nutritional Assessment</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td>HNUT40170 Professional Practice</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HNUT40090 Pathways to Health (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HNUT40130 Research Design and Statistics (PR)</td>
</tr>
<tr>
<td>HNUT40250 Clinical Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HNUT40090 Pathways to Health (PR)</td>
</tr>
<tr>
<td>PHPS40720 Public Health Nutrition</td>
<td>5</td>
<td>Autumn</td>
<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>HNUT40090 Pathways to Health (PR)</td>
</tr>
<tr>
<td>PHPS40710 Promoting Consumer Nutrition</td>
<td>5</td>
<td>Spring</td>
<td>HNUT40060 Intro to Nutrition (PR)</td>
</tr>
<tr>
<td></td>
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<td>HNUT40070 Nutrients in the Life Cycle (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>FDSC40530 Physiology and Metabolism (PR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PHPS40720 Public Health Nutrition (PR)</td>
</tr>
</tbody>
</table>

Further information on modules and credits can be found in Section 3 of the UCD Academic Regulations:

Information on the MSc Food Nutrition and Health is also available at:
www.ucd.ie/online/courses/course-finder/foodandhealth
FDSC40500 CHEMISTRY OF NUTRIENTS

Credits: 5 Credits
Start Date: Autumn Trimester
Duration: 12 weeks
Pre/Co Requisites: None
Module Coordinator: Dr Jean Jacquier

PURPOSE & OVERARCHING CONTENT
This module is for students taking the Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health.

After a brief review of key concepts in chemistry, with a view to highlight the importance of water in all biochemical processes, this module is intended to equip students with an introduction to the key biologically important organic substances which are responsible for structure and function in living cells, namely, carbohydrates, lipids and proteins. The main aim of the module is to focus on the occurrence, chemical structures, physical and chemical properties of important members of each group in order to illustrate why cell structure and metabolism in plants and animals is dependent on these substances.

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:

- Lectures during the semester: 20 hours
- Discussion threads/asynchronous chats 24 hours
- Autonomous learning: 75 hours
- Exams: 6Hrs

HOW WILL STUDENT BE ASSESSED?
- 4 short MCQ examination (20%)
- 5 virtual laboratory MCQ examinations (10%)
- End of semester MCQ examination (70%)

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software:
www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html

LEARNING OUTCOMES
Describe the chemical and physical properties of key members of the three main classes of food macronutrients. Illustrate how the distinctive properties of each class of biomolecule contribute unique features to structure and function in plant and animal systems.

Demonstrate a practical ability to show that simple methods of chemical analysis can be used to distinguish between the different classes of macronutrient and to characterize individual members within a class.

APPROACHES TO TEACHING AND LEARNING
Extensive written notes on the various lecture topics will be available through Brightspace for the students as well as video tutorials explaining key concepts in detail.

A discussion board will be open on Brightspace with topics aligned to lectures so as to allow students to interact more freely. These discussions and questions will be answered weekly with video tutorials.

The Computer Aided Labs will consist of a series of short videos showing key experiments used to characterise and differentiate these food biomolecules, with simple multiple choice questions to track progression. Although these CALs will be graded, the low stake grades (2% each) are to ensure student learning.

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination</td>
<td>End of Semester Examination</td>
<td>1 hour End of Trimester Exam</td>
<td>Yes</td>
<td>70</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Multiple Choice Questionnaire</td>
<td>Short online MCQs</td>
<td>Throughout the Trimester</td>
<td></td>
<td>20</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Practical Examination</td>
<td>Virtual Laboratory MCQ Examinations</td>
<td>Throughout the Trimester</td>
<td></td>
<td>10</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Carry Forward of Passed Components
No

Feedback Strategies
- Feedback individually to students, post-assessment
- Group/class feedback, post-assessment

Remediation Type
Remediation Timing
In-Module Resit
Prior to relevant PEB

Learning Recommendations
Some Basic knowledge of Chemistry
PURPOSE & OVERARCHING CONTENT
This module is for students taking the Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health.
This module focuses on food proteins, carbohydrates and lipids with emphasis on relationships between their structure and functional properties in their modified and unmodified states. The module emphasises how processing, storage, cooking, enzymatic treatment and use of additives alters the molecular interactions and functionality of these food components. The role of water in foods and its influence on food stability is examined.

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:

- Lectures during the semester: 26 hours
- Discussion threads/synchronous chats/MCQs/Assignments: 24 hours
- Autonomous learning: 75 hours

LEARNING OUTCOMES
On successful completion of this module student will be able to

• Compare and contrast the structure and functions of specific food protein systems and explain the intrinsic and extrinsic factors influencing the functions of these proteins.
• Differentiate lipids on the basis of their fatty acid profile and discuss their physical properties and chemical deterioration
• Describe the functions and food applications of selected monosaccharides, disaccharides and polysaccharides.
• Explain the state of water in foods and examine its influence on food stability.

APPROACHES TO TEACHING AND LEARNING
The module will be delivered through Brightspace and will consist of:

• Online lectures
• Online assessed multiple choice quizzes
• Virtual classroom environments
• Synchronous chat
• Asynchronous discussion threads

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered?
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | End of semester assignment Coursework (End of Trimester) | 70 | Graded | No | No
Continuous Assessment | Multiple choice questions Throughout the Trimester | 30 | Alternative linear 40% | No | No
Total | | 100 |

Feedback Strategies
- Group/class feedback, post-assessment
- Self-assessment activities

Remediation Type | Remediation Timing
--- | ---
Resit | Within Two Trimesters
FDSC40520 FOOD MICROBIOLOGY & SAFETY

<table>
<thead>
<tr>
<th>Credits:</th>
<th>5 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date:</td>
<td>Autumn Trimester</td>
</tr>
<tr>
<td>Duration:</td>
<td>12 weeks</td>
</tr>
<tr>
<td>Pre/Co Requisites:</td>
<td>None</td>
</tr>
<tr>
<td>Module Coordinator:</td>
<td>Dr Amalia Scannell</td>
</tr>
</tbody>
</table>

PURPOSE & OVERARCHING CONTENT
This module is for students taking the Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health.

The course will address four key questions intrinsic to applied aspects of food microbiology:

- What microbes are important in food spoilage and foodborne disease?
- How are these microbes identified, differentiated, and enumerated?
- What are the important factors determining microbial growth in food?
- How can these factors be manipulated to ensure food quality and safety.

The module will be delivered through the UCD Brightspace system and will consist of:

- Online lecture material and recommended reading lists
- Audio demonstrations by the lecturers
- Asynchronous discussion threads

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 110 hours workload during the semester consisting of:

- Lectures (audio) during the semester:
- Discussion threads
- Autonomous learning
- Project research and writing

HOW WILL I BE ASSESSED?
Assessment will include continuous assessment: a group and an individual research project.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software:

www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html

LEARNING OUTCOMES
On completion of this course the student should be able to:

- Propose methods to enumerate and differentiate different classes of Bacteria.
- Identify and describe the main pathogens and spoilage microorganisms associated with specific food types.
- Describe the basic principles of food spoilage and preservation
- Devise preservation / fermentation protocols using intrinsic and extrinsic food related factors.
- Discuss the application of microorganisms in food production.
- Critically review peer reviewed literature and integrate key concepts appropriately in his work.
- Work in a team in an on-line environment.

INDICATIVE MODULE CONTENT
The course will address four key questions intrinsic to applied aspects of food microbiology:

- What microbes are important in food spoilage and foodborne disease?
- How are these microbes identified, differentiated, and enumerated?
- What are the important factors determining microbial growth in food?
- How can these factors be manipulated to ensure food quality and safety.

APPROACHES TO TEACHING AND LEARNING
This module will be delivered online. Lecture material and supporting text as well as required reading will be provided to the students. An online discussion board, monitored by a tutor will be used to capture and address student queries on module content and assessment criteria. A set of ‘just-in-time’ of online classes/ discussions will be mediated by tutors and/or Module Coordinator to support student learning. Assessment will focus on developing resource curation, concept map development, critical thinking, and communicating through Scientific Writing.
<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Continuous Assessment to ensure students are engaging with course material</td>
<td>Throughout the Trimester</td>
<td>No</td>
<td>100</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Total</td>
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<tr>
<td>Carry Forward of Passed Components</td>
<td></td>
<td></td>
<td>Yes</td>
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</tr>
<tr>
<td>Feedback Strategies</td>
<td>Sequence of Feedback</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• Feedback individually to students, post-assessment</td>
<td>The assessment of this module will take place in two stages. Stage 1 is a group project which will require online groups to work collaboratively to prepare a project mindmap, review other mindmaps (for peer-to-peer learning) and write a short paper. Guidelines for preparation of the mindmap and assessment, and an assessment rubric will be given prior to commencement of the assessment. By following the guidelines and consulting the rubric students should be able to self assess their performance. Post-assessment feedback will be qualitative (poor-excellent) with suggestions of areas in the rubric that require attention for the next assignment. Students will be required to submit a self and peer assessment form to ascribe contribution of the team to the assessment outputs. Assignment 2 is an individual mindmap &amp; essay. As before guidelines and assessment Rubric will be provided in advance and feedback will be qualitative with comments indicating areas for improvement. Students may make an appointment to discuss assessment grades at a time convenient to both Module Co-ordinator and the student.</td>
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<tr>
<td>• Group/class feedback, post-assessment</td>
<td></td>
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<tr>
<td>• Peer review activities</td>
<td></td>
<td></td>
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<tr>
<td>• Self-assessment activities</td>
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<tr>
<td>Remediation Type</td>
<td>Remediation Timing</td>
<td></td>
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<tr>
<td>Resit</td>
<td>Within Two Trimesters</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Learning Recommendations</td>
<td>While there are no learning Pre-requisites in this module, because it is a MSc. module it will be expected that graduate students can write effectively. It might be useful to read through some basic microbiology text as the course does, by its nature contain a considerable level of technical information, which may prove challenging for a beginner, particularly in where English is not a first language.</td>
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</tbody>
</table>
PURPOSE & OVERARCHING CONTENT
This module is for students taking the Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health.

The main aim of this module is to introduce students to how humans can extract energy from macronutrients (i.e. carbohydrates, fats, proteins). This will progress from the digestion, absorption and transport of macronutrients to converting them to a usable form of energy suitable to the functions of the body.

Selected metabolic pathways will be covered, as will regulation mechanisms and interactions of the metabolic pathways.

The module will be delivered through the UCD Brightspace system and will consist of:
• Audio and demonstrations by the lecturers
• Online assessed multiple choice quizzes
• Discussion threads
• Computer aided laboratories

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:
• Lectures (audio) during the semester: 24 hours
• Discussion threads/synchronous chats/MCQs 24 hours
• Autonomous learning: 75 hours
• Exams: (40%): 2 hours

Assessment will take the form of written assignments, MCQ exams and analysis of experimental data sets.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: [link to software requirements]

LEARNING OUTCOMES
On successful completion of this module student will be able to:
• Explain how humans can extract, transform and utilise energy from their environment.
• Predict how humans react to various states of nutrition, which it may be subjected to over a period.
• Assess the role, mode of action and interaction of various hormones involved in nutrient metabolism.

INDICATIVE MODULE CONTENT
• Introduction General concepts and key terminology
• Enzymes – Nomenclature, action, key factors on enzyme activity, inhibition
• Digestion - Ruminant and Monogastric digestion
• Metabolism of carbohydrates Glycolysis
• Metabolism of carbohydrates – Gluconeogenesis
• Glycogen – Formation breakdown and regulation of its metabolism
• Regulation of Glucose Metabolism
• Structure and function of mitochondria
• The citric acid cycle
• Oxidative phosphorylation – Electron transport chain
• ATP synthesis and energetic considerations
• Photosynthesis – Light reactions – Photosystems in plants
• Photosynthesis – Calvin cycle
• Metabolism of fatty acids – Lipid oxidation
• Metabolism of fatty acids – Ketone bodies and their metabolic role
• Metabolism of fatty acids – Biosynthesis of a new fatty acid
• Lipid transport and role of lipoproteins
• Protein degradation and turnover – Amino acids nomenclature and synthesis
• Amino acid catabolism
• Amino acid biosynthesis
• Urea cycle
• Role of hormones in regulation of body functions
• Metabolic enzymes: Insulin and glucagon
• Integration of metabolic pathways – Role of organs – Food intake and starvation

APPROACHES TO TEACHING AND LEARNING
The module content is delivered via a series of online lectures with accompanying notes at the end of each lecture a series of multiple choice questions are addressed based on the content of the lecture. Two in term MCQ’s (not negatively marked) are held which contribute 20% each to the final marks and a tutorial going through questions similar to those on the MCQ is held after each MCQ. At the end of the term students submit an assignment in the form of a description of the digestion and metabolism of a chosen foodstuff. The student must describe the digestion, absorption, delivery to cell and energy derived from each macronutrient the foodstuff contains. Students can use external references as evidence for particular statements and are encouraged the synthesize, interpret and extend information in the lecture notes.

READING LIST
• Biochemistry – Berg, Tymoczko, Stryer; Textbook of biochemistry with clinical correlations – Devlin;
• Biochemistry – Zubay; Biochemistry – A case orientated approach -Montgomery
• Fundamentals of Biochemistry: Life at molecular level, 3rd Ed - Voet
• Harper’s illustrated biochemistry by Murray, Robert K*
<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Assessments will take the form of written assignments and MCQ exams.</td>
<td>Unspecified</td>
<td></td>
<td>100</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Total**

|                |                                                                 |          |            |                  |                 |            |                                   |
|----------------|----------------------------------------------------------------|-----------|            |                  |                 |            |                                   |
|                |                                                                 | 100       |            |                  |                 |            |                                   |

**Carry Forward of Passed Components**

Yes

**Feedback Strategies**

- Feedback individually to students, post-assessment
- Online automated feedback

**Sequence of Feedback**

For the in term MCQ’s students receive their mark within 7 days and a tutorial is available in which questions on the MCQ are addressed. A series of online MCQ’s quizzes are also available in which the student is told whether or not they have given the correct answer. At the end of each lecture the module co-coordinator goes through a number of MCQ questions based on the lecture topic. For the case study students will receive an evaluation summary sheet within 2 weeks of the submission date which details marks for different categories as outlined below

**Case study Marking Sheet**

<table>
<thead>
<tr>
<th>Assignment marking sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name and Student Number:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratory work Allocation ex. 100 Final mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total mark 100</td>
</tr>
<tr>
<td>First draft mark Allocation ex. 100 Final mark</td>
</tr>
<tr>
<td>Total mark 100</td>
</tr>
<tr>
<td>Sections of thesis [final version] Allocated mark (ex. 100) Actual marks:</td>
</tr>
<tr>
<td>Clarity and conciseness of writing 10</td>
</tr>
<tr>
<td>Use of appropriate illustration 10</td>
</tr>
<tr>
<td>Structure and comprehensiveness study (Did author describe process from ingestion to cell delivery) 25</td>
</tr>
<tr>
<td>Information specific to food stuff given 25</td>
</tr>
<tr>
<td>Conclusions (given as conclusion in every section of food components) 10</td>
</tr>
<tr>
<td>Bibliography 10</td>
</tr>
<tr>
<td>Presentation, layout, proof-reading 10</td>
</tr>
<tr>
<td>Total 100</td>
</tr>
</tbody>
</table>

**GENERAL COMMENTS:**

SIGNATURE: _________________________________ Date:

1 Deduct marks if substantially beyond 1500 words.

**Remediation Type**

<table>
<thead>
<tr>
<th>Remediation Type</th>
<th>Remediation Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat</td>
<td>Within Two Trimesters</td>
</tr>
</tbody>
</table>
FDSC40540 FOOD PROCESS TECHNOLOGY

Credits: 5 Credits
Start Date: Spring Trimester
Duration: 12 weeks
Pre/Co Requisites: FDSC40500 Chemistry of Nutrients (PR)
FDSC40510 Food Chemistry (CR)
FDSC40520 Food Microbiology & Safety (PR)
Module Coordinator: Professor James Lyng

PURPOSE & OVERARCHING CONTENT
This module will give students foundation knowledge of key physical operations used in the preservation of foods. The course will underpin other commodity-based modules in the online programme which largely focus on chemical aspects of food products and their processing.

The course will be delivered online and examines the theory behind and equipment used in conventional (e.g. heat processing, freezing, dehydration) and alternative (e.g. electro heating and other emerging methods) physical food preservation methods.

The module will be delivered through the UCD Brightspace system and will consist of:

- Audio/Video lectures and demonstrations by the lecturers
- Online assessed short answer/multiple choice quizzes
- Virtual classroom environments
- Asynchronous discussion threads
- Synchronous chat

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:

- Lectures (audio/video) during the semester: 24 hours
- Online Tutorials/MCQs 24 hours
- Autonomous learning: 75 hours
- Exams: (60%): 2 hours

HOW WILL I BE ASSESSED?

- 4 x online MCQ/short answer examinations (5% each) - Total 20%
- 6 x online calculation problem sets (3.33% each) - Total 20%
- 1 x online end of semester examination (60%) - See Note below

Invigilation on the final examination: As an alternative to travelling to an invigilation centre to complete this examination, an arrangement has been made between UCD and an independent online invigilation service called Remote Proctor NOW. The charge for this service, payable by students directly to Remote Proctor NOW, is approx $15. Students who don’t have a webcam and microphone should borrow one for the duration of this examination. Further details will be provided during the module.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software:
www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html

LEARNING OUTCOMES
On successful completion of this module student will be able to

- describe the principles behind heat processing, freezing and dehydration operations
- describe the principle of operation of a range of equipment for each unit operation
- apply knowledge to select the most suitable equipment for specific products or situations
- compare and contrast various items of equipment suitable for processing specific products
- calculate the correct answer and units following relatively complex mathematical calculations representative of those which they might be required to perform in an industrial environment

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered? |
--- | --- | --- | --- | --- | --- | --- | --- |
Assignment | Six Calculation Problem Sets. Note this component is graded on the alternative linear conversion grade scale (40%). | Unspecified | No | 20 | Alternative linear 40% | No | Yes |
Examination | End of Semester Exam | 2 hour End of Trimester Exam | No | 60 | Graded | No | Yes |
Multiple Choice Questionnaire | Four MCQ Examinations | Unspecified | No | 20 | Graded | No | Yes |
Total | | | | 100 | |

Carry Forward of Passed Components
Yes

Feedback Strategies
- Online automated feedback

Regarding Continuous assessment (5% each on Weeks 3, 6, 9 and 12), students get online automated feedback immediately on submitting the assessment.

Regarding the practical examination (20%) this consists of a number of problem sets which the students submit online at intervals throughout the semester and again get online automated feedback as all of these assessments are numeric.

Remediation Type | Remediation Timing |
--- | --- |
Resit | Within Two Trimesters |
FDSC40550 MEAT AND MEAT PRODUCTS

Credits: 5 Credits
Start Date: Spring Trimester
Duration: 12 weeks
Pre/Co Requisites: FDSC40500 Chemistry of Nutrients (PR)
Module Coordinator: Professor Frank Monahan

PURPOSE & OVERARCHING CONTENT
This module is intended to equip students with knowledge of meat chemistry and the technology associated with the handling and processing of meat. The module will cover the structure and composition of muscle and adipose tissue, the principal constituents of meat.

The biochemical changes that accompany the post-slaughter conversion of muscle to meat will be explored. The chemistry of meat colour, texture and flavour will be studied and the impact of pre-slaughter (diet, production system) and post-slaughter (ageing, environment) factors on these sensory attributes of meat will be evaluated. The chemistry and technology underlying the manufacture of processed meats will be studied.

The module will be delivered through the UCD Brightspace system including:
- Audio and demonstrations by the lecturers
- Online assessed multiple choice quizzes
- Virtual classroom environments
- Asynchronous discussion threads
- Synchronous chat

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester including:

<table>
<thead>
<tr>
<th>Assesment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>3 Hour End of Semester Assignment</td>
<td>Unspecified</td>
<td>75</td>
<td>Graded</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Multiple Choice Questionnaire</td>
<td>Two MCQ Examinations Throughout the Trimester</td>
<td>25</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
<td></td>
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</tr>
</tbody>
</table>

Total 100

Carry Forward of Passed Components
Yes

Feedback Strategies
- Feedback individually to students, post-assessment

Remediation Type
Resit
Remediation Timing
Within Two Trimesters

HOW WILL I BE ASSESSED?
- Two MCQ examinations (25%)
- End of semester examination (75%)

LEARNING OUTCOMES:
On successful completion of this module student will be able to:
- Describe the structure and composition of muscle and adipose tissue;
- Explain the biochemical changes that accompany the conversion of muscle to meat;
- Identify which meat components contribute to the sensory (colour, flavour, texture) quality of meat and explain the factors (pre- and post-slaughter) which contribute to the variation in each sensory attribute;
- Integrate their knowledge of muscle and adipose tissue structure and composition into meat product manufacture and formulation;
- Explain the processing steps involved the role of non-meat ingredients in the production of different processed meats products.

APPROACHES TO TEACHING AND LEARNING
On line lectures, demonstrations of product manufacture; MCQs.
**FDSC40570 FOOD MARKETING**

**Credits:** 5 Credits
**Start Date:** Spring Trimester
**Duration:** 12 weeks
**Number of Places:** Please note that places are capped at 25 and allocated on a first come, first served basis
**Pre/Co Requisites:** None
**Module Coordinator:** Dr Chenguang Li

**PURPOSE & OVERARCHING CONTENT**
Marketing is the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit. Marketing identifies unfulfilled needs and desires. It defines, measures and quantifies the size of the identified market and the profit potential. It pinpoints which segments the company is capable of serving best and it designs and promotes the appropriate products and services.

Today’s marketing is all about creating customer value and building profitable long-term and mutually beneficial relationships in socially responsible ways between an organization and the public it serves. The essence of successful marketing is to combine a detailed understanding of market needs and dynamics with appropriate product/services offerings and effective communication strategy.

This course will focus on the major decisions that marketing executives and top management face in their efforts to harmonize the objectives and resources of the organization with the needs and opportunities in the market place, with a particular emphasis on the food industry and the challenges faced by the food marketing executive.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: [www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html](http://www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html)

**LEARNING OUTCOMES**
On successful completion of the module students are expected to have a better understanding of the nature and role of marketing, the marketing process, the marketplace and customer needs, the marketing-mix decisions, etc, and being able to apply the marketing concepts to evaluate the effectiveness of marketing strategies utilized by food companies in the market places.

**INDICATIVE MODULE CONTENT**
- Marketing concept and process
- Marketing strategies
- Consumers and market place
- Market segmentation, targeting and positioning
- Product and branding
- Pricing mix decisions
- Promotional mix decisions
- Place (Distribution)
- Cultural influence in marketing

**APPROACHES TO TEACHING AND LEARNING**
- Lecture notes
- Case studies
- Videos
- Discussion board
- Course project

**READING LIST**

Other reading materials will be posted during the semester.

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<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Projects and marketing reports</td>
<td>Unspecified</td>
<td></td>
<td>100</td>
<td>Graded</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Total** 100

**Carry Forward of Passed Components**

No

**Feedback Strategies**

- Feedback individually to students, on an activity or draft prior to summative assessment
- Feedback individually to students, post-assessment
- Online automated feedback

**Sequence of Feedback**

1. Grading strategies and criteria will be communicated to the students before the assessments.
2. Feedback individually to students on an activity to draft prior to summative assessment available based on needs.
3. Feedback to students either verbally or in written post-assessment.

**Remediation Type**

In-Module Resit

**Remediation Timing**

Prior to relevant PEB
FDSC40580 PROJECT MODULE

Credits: 10 Credits
Start Date: Spring Trimester
Duration: 12 weeks
Pre/Co Requisites: HNUT40130 Research Design and Statistics (PR)
Module Coordinator: Dr Sharleen O’Reilly

PURPOSE & OVERARCHING CONTENT
This is a core module within the MSc in Food, Nutrition and Health and it represents the integration of previous modules studied during the course. The module will build on FDSC40530 Research Design and Statistics with students applying their knowledge to the research process and designing a viable, original research project.

LEARNING OUTCOMES
On successful completion of this module student will be able to:

• Critically evaluate literature in a relevant area of nutrition sciences leading to the development of a research question, aims and testable hypothesis.
• Plan and design a viable, ethical and original research project using either quantitative or qualitative research methods.

INDICATIVE MODULE CONTENT
The module will cover critical analysis, applied research design and statistics, scientific writing, project management and ethical decision making in developing original and viable research.

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered?
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | Literature Review | Week 7 | Yes | 40 | Graded | No | No
Project | Research Project Proposal | Week 12 | Yes | 60 | Graded | No | No

Total | 100

Carry Forward of Passed Components
Yes

Feedback Strategies

• Feedback individually to students, on an activity or draft prior to summative assessment
• Feedback individually to students, post-assessment
• Group/class feedback, post-assessment
• Peer review activities
• Self-assessment activities

Sequence of Feedback
For AT1 Literature Review, students will receive individual e-tutor feedback on early drafts. They will then have the opportunity to access peer feedback in small teams. They will then self-assess the quality of their final work against a detailed rubric. Post-assessment students will receive individual and group feedback. The same feedback process will occur for AT2 Project Proposal.

Remediation Type | Remediation Timing
--- | ---
Resit | Within Two Trimesters
FDSC40590 MILK AND DAIRY PRODUCTS

Credits: 5 Credits
Start Date: Autumn Trimester
Duration: 12 weeks
Pre/Co Requisites: FDSC40510 Food Chemistry (PR)
                  FDSC40540 Food Process Technology (PR)
Module Coordinator: Professor Michael O’Sullivan

PURPOSE & OVERARCHING CONTENT
This course is designed to provide students with the knowledge skills required to function in the dairy sector. The course is divided into two sections the first deals, in detail, with the chemistry of milk constituents, in particular their interactions during storage and processing. The second section focuses on the flexibility of milk as a raw material for processing, covering the production of selected products of the Irish and international dairy industry with special emphasis on the impact of raw material and processing on final product quality.

The module will be delivered through the UCD Blackboard system and will consist of: a blend of on-line lectures during the semester and autonomous learning.

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester.

HOW WILL STUDENT BE ASSESSED?
Assessment will be by a combination of periodic short on-line MCQs, a written assignment and a terminal examination.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html

LEARNING OUTCOMES
On successful completion of this module student will be able to:

- Describe in detail the chemistry of the milk system.
- Analyse the interactions of the various milk constituents during processing and storage.
- Describe the production of the major dairy products.
- Evaluate the impact of important factors, such as variation in raw material composition or variation in processing parameters, on final dairy product quality.

INDICATIVE MODULE CONTENT
The subject material is divided into different Learning Packages (LP) as follows:

Learning Package Lecture titles
- LP1 Introduction Course outline and overview of dairy sector; Milk secretion, composition and colloidal nature; Milk salts; Variation in milk composition.
- LP2 Milk Proteins The milk protein system; Casein: molecular properties; Casein micelles; Major whey proteins; Minor whey proteins and denaturation of milk protein.
- LP3 Milk Lipids Milk fat composition; fatty acid distribution, melting properties, synthesis and secretion; The milk fat emulsion; Separation, homogenization and stability.
- LP4 Lactose Structure, mutarotation and solubility; Crystalisation of lactose in dairy products; Purification and uses of Lactose.
- LP5 Minor milk constituents Vitamins and minerals in milk; Enzymes in milk.
- LP6 Dairy Products General principles of cheese making; Cheese curd production; Cheese ripening; Cheese varieties. Principles of yoghurt production; Post fermentation handling of yoghurt, cultured buttermilk production and other fermented milks. Butter manufacture; Physical properties of butter and the manufacture of mixed fat spreads.

APPROACHES TO TEACHING AND LEARNING
Assessment comprises: two MCQ exams which test knowledge of the material covered in lectures; an essay project which allows the students to demonstrate independent learning and scientific writing skills; a terminal 2h, on-line, written exam designed to test both knowledge of the topics and the ability to synthesise.

<table>
<thead>
<tr>
<th>Assesment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay</td>
<td>Essay on a dairy topic 4,000 words, online submission through anti-plagiarism software.</td>
<td>Week 10</td>
<td>No</td>
<td>25</td>
<td>Standard Conversion Scale</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Examination</td>
<td>Online essay question exam</td>
<td>2 hour End of Trimester Exam</td>
<td>No</td>
<td>55</td>
<td>StandardConversion Scale</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Multiple Choice Questionnaire</td>
<td>Short Online MCQs,</td>
<td>Unspecified</td>
<td>No</td>
<td>20</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Total 100

Carry Forward of Passed Components
No

Feedback Strategies
- Online automated feedback
  MCQ feedback is given during the test.

Remediation Type
Remediation Timing
Resit
Within Two Trimesters
FDSC40600 PRINCIPLES OF SENSORY SCIENCE

Credits: 5 Credits
Start Date: Spring Trimester
Duration: 12 weeks
Pre/Co Requisites: None
Module Coordinator: Dr Emma Feeney

PURPOSE & OVERARCHING CONTENT:
This module is a postgraduate course designed to give students essential tools to understand and use the key principles of sensory science in food-related research. The module will focus on techniques used in industrial sensory evaluation. In particular, sensory principles will include aspects of panellist evaluation; requirements of test area equipment and facilities; analytical and subjective tests including difference testing, methods for consumer testing and statistical approaches. The National Standards Authority of Ireland (NSAI) Database provides direct access to up to ISO standards for sensory testing. This can be accessed through the Library at http://eu.i2.saiglobal.com/management/

The two key mandatory text books are

The module will be delivered through the UCD Brightspace system and will consist of:
• Electronic lectures and notes
  Online discussions
  Written assignments

HOW WILL THE STUDENT BE ASSESSED?
The continuous assessment strategy seeks to develop scientific writing and report writing skills in addition to discipline knowledge, critical thinking and problem-solving skills. Assessments will be scheduled at times which vary over the semester and will be

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Continuous Assessment to ensure students are engaging with course material</td>
<td>Throughout the Trimester</td>
<td>Yes</td>
<td>100</td>
<td>Graded</td>
<td>No</td>
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</tbody>
</table>

Total 100

Feedback Strategies
• Feedback individually to students, on an activity or draft prior to summative assessment
• Feedback individually to students, post-assessment
• Peer review activities

The students will get individual feedback on each activity (or draft) through written/annotated feedback through the VLE and by email using rubrics. They will also have opportunities to peer review a range of different works of other students.

Remediation Type
In-Module Resit
Remediation Timing Prior to relevant PEB

LEARNING OUTCOMES
On successful completion of this module student will be able to
• Discuss how the human sense organs function
• Distinguish between different sensory testing procedures.
• Resource and critically review relevant peer reviewed journal articles
• Plan a taste panel complying with International Organisation for Standardisation (ISO standards).
• Analyse a typical difference test dataset and prepare a sensory report explaining the consequences of the result in the context of a given sensory scenario.
• Evaluate a given product scenario, and select appropriate sensory testing and statistical analysis, making choices based on reasoned argument using information derived throughout the module
• Synthesise a structured report documenting test procedures, results analysis and conclusions, and disseminate key findings to a defined audience in a media chosen by the student.

APPROACHES TO TEACHING AND LEARNING
Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:
• Lectures and course material: 48 hours
• Discussion threads/Asynchronous chats 2-4 hours
• Autonomus learning: 68 hours
INTRODUCTION TO NUTRITION

PURPOSE & OVERARCHING CONTENT:
This module is for students taking the Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health. This module is intended to provide an understanding of the role of food and nutrition in health. The topics covered will include: nutrient requirements and food-based dietary guidelines, the concepts of energy and nutrient balance; over- and under-nutrition and food choice. Students will be introduced to some of the evidence relating nutrients, diet and other lifestyle-related factors to health and chronic disease prevention.

LEARNING OUTCOMES
On successful completion of this module you will:
• Understand nutrient requirements in health and the scientific principles of food-based dietary guidelines.
• Have comprehensive knowledge of core concepts of both energy and nutrient balance.
• Be able to critically evaluate the evidence for some of the key factors which influence food and nutrient intake and the associated health consequences.

INDICATIVE MODULE CONTENT
The module will be delivered through the UCD Brightspace system and will consist of:
• Audio/video/PPT lectures
• Written learning materials
• Live online classrooms

EXPECTED COMMITMENT
Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:
- Lectures (audio) during the semester:
- Discussion threads/synchronous chats/ MCQs
- Autonomous learning:
- Exams

HOW WILL I BE ASSESSED?
The course will be assessed in number of ways including; online assessed multiple choice tests and Continuous Written Assessments. The module grades will be split as follows:
• End of Semester Exam – 60%
• Worksheets / Case Studies / Written Assignments – 40%

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html

APPROACHES TO TEACHING AND LEARNING
This module will develop your critical thinking and scientific writing skills along with your knowledge of food and health. It will be a mix of online lectures, and online tutorials - along side support through tutors.

READING LIST
Introduction to Nutrition - Nutrition Society Textbook Series, Wiley
HNUT40070 NUTRIENTS IN THE LIFE CYCLE

Credits: 5 Credits  
Start Date: Spring Trimester  
Duration: 7 weeks  
Pre/Co Requisites: FDSC40500 Chemistry of Nutrients (PR)  
FDSC40530 Physiology & Metabolism (CR)  
HNUT40060 Intro to Nutrition (PR)  
Module Coordinator: Dr Aifric O’Sullivan

PURPOSE & OVERARCHING CONTENT:
This module provides an overview of nutrition during each life stage, commencing in utero, and continuing throughout the life cycle. It will discuss the biology of development, growth, maturation and aging and its impact on nutrition requirements, how to assess diet and nutrition status and how nutritional requirements can be achieved in the context of each major life stage. This module will encourage the student to critically analyse the beneficial and adverse outcomes of various nutrient intakes and dietary patterns on the nutritional status and well-being of humans during the life cycle.

It is only available for students taking the ONLINE Graduate Certificate, Graduate Diploma or MSc in Food, Nutrition and Health.

LEARNING OUTCOMES
On successful completion of this module the student will be able to

• Understand critical nutritional factors that contribute to healthy growth, development and functional capacity throughout life.
• Describe the nutritional requirements of women before and during pregnancy and lactation, infants, children, adolescents, adults and older adults.
• Assess and evaluate nutritional status at different life stages.
• Critique and justify nutritional solutions targeted at different life stages to promote, improve or maintain health.

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>End Semester Assignment/Examination</td>
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<td></td>
<td>70</td>
<td>Standard Conversion Scale</td>
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<tr>
<td>Assignment</td>
<td>Mid Semester Assignment/Examination</td>
<td>Unspecified</td>
<td></td>
<td>30</td>
<td>Alternative linear 40%</td>
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<td>No</td>
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<td>100</td>
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</table>

Carry Forward of Passed Components
No

Feedback Strategies
• Feedback individually to students, on an activity or draft prior to summative assessment
• Feedback individually to students, post-assessment
• Online automated feedback

Sequence of Feedback
Online automated feedback will be given following all MCQ/Short question mid-semester exams.

Group/class feedback will be built into the online discussion sessions. Students will be encouraged to discuss their assignments with the group and feedback will be provided by the module coordinator and/or module tutor.

Individual feedback will be provided to students post assessment on request.

Remediation Type
Resit

Remediation Timing
Within Two Trimesters

APPROACHES TO TEACHING AND LEARNING
This module is an ONLINE module that is taught in 7 weeks, but has the same weighting as other modules. Therefore the workload will be double that of a typical module. The course content is broken into 6 topics based on life stages including; growth and nutrition assessment, pregnancy, the first year of life, childhood and adolescence, adulthood, and old age. Each topic is divided into 6 short lectures, ranging from 5 to 30 slides per lecture with audio voice over. In addition to the lectures there are “research highlights” which are journal papers related to the lecture topic. The research highlights are designed to increase your knowledge on a specific topic.
LEARNING OUTCOMES:
On successful completion of this module student will be able to
• Understand the design and implementation of human nutrition studies;
• Understand the principles of nutrigenomics;
• Understand the principles of nutrigenetics;
• Explain the uses of nutrigenomics and be capable of reading current literature.

INDICATIVE MODULE CONTENT
The design and implementation of human nutrition studies, nutrigenomics and it’s applications in nutrition research.

APPROACHES TO TEACHING AND LEARNING
The module will be delivered through the UCD Brightspace system and will consist of:
• Audio lectures and demonstrations by the lecturers
• Online assessed multiple choice quizzes
• Virtual classroom environments
• Written assignment

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered?
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | Essay/written assignment | Coursework (End of Trimester) | | 85 | Standard Conversion Scale | Yes | Yes
Multiple Choice Questionnaire | MCQ examination | Unspecified | | 15 | Standard Conversion Scale | No | No

Total | | | | 100 |

Feedback Strategies

• Group/class feedback, post-assessment
• Online automated feedback

Grades from MCQ are automatically generated on Brightspace following completion of the MCQ.

Remediation Type
Resit

Remediation Timing
Within Two Trimesters

Complex Requirements for this Module
Please note, students must pass HNUT40070 Nutrients in the Life Cycle in order to take HNUT40080 Omic Strategies in Nutrition in the second half of semester 2.
### Purpose & Overarching Content
This module will focus on key nutrients (e.g., fat, carbohydrates, protein, target vitamins/minerals) and their role in health. For each nutrient, consideration will be given to i) forms and quantities consumed in the diet, ii) physiological role in health and disease, iii) current health and lifestyle advice in relation to the role of this nutrient in health and disease and iv) the implications of newly emerging scientific evidence.

The module will be delivered through the UCD Brightspace System. It will consist of:
- Audio and demonstrations by the lecturers
- Discussion threads
- Virtual classroom environments
- Written assignments

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:
- Lectures and activities during the semester: 18-24 hours
- Autonomous learning: 65-75 hours
- Assignment work: 40 hours

### Learning Outcomes
On successful completion student will be able to
- Describe the quantity and quality of key nutrients consumed in the diet
- Critically evaluate how these nutrients influence health and disease
- Critique current health and lifestyle advice in relation to the role of these nutrients in health and disease.
- Critically evaluate the evolving science base surrounding these nutrients.

### Approaches to Teaching and Learning
Module delivered via lectures and tutorials

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Critique</td>
<td>Varies over the Trimester</td>
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<td>20</td>
<td>Graded</td>
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<td>No</td>
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<tr>
<td>Continuous Assessment</td>
<td>MCQ Exam</td>
<td>Varies over the Trimester</td>
<td></td>
<td>30</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Continuous Assessment</td>
<td>Presentation</td>
<td>Varies over the Trimester</td>
<td></td>
<td>50</td>
<td>Graded</td>
<td>No</td>
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<td></td>
<td></td>
<td>100</td>
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</table>

### Carry Forward of Passed Components
No

### Feedback Strategies
- Sequence of Feedback
- Group/class feedback, post-assessment

### Remediation Type
- Remediation Timing

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: [www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html](http://www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html)
PURPOSE & OVERARCHING CONTENT:
Food Regulatory Affairs is an interdisciplinary subject that integrates science, law and policy as they apply to the regulation of the food chain from farm to fork. In this module, you will study the role of European Union (EU) institutions in the development of food regulation, the evolution of the EU approach to food regulation from the early days of "recipe law" and mutual recognition, to the present focus on consumer protection. The role of international organisations with a food regulatory remit will be studied including Codex, WHO, WTO FAO. The development of a risk-based approach to food safety underpinned by science, and current regulatory issues e.g. food fraud and adulteration, food additives and contaminants, legislation on food information for consumers, nutrition and health claims, and food hygiene will be explored.

The module will be delivered online through UCD Brightspace and will consist of:
- Online lectures, videos and audio presentations
- Asynchronous and synchronous discussion
- Autonomous learning
- Written Assignments

CASE STUDIES
Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:
- Online Lecture sets 24h
- Asynchronous and synchronous discussion 6h
- Autonomous learning 65h
- Written assignments 30h

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered?
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | Data analysis evaluation and synthesis/ Critical analysis of literature | Varies over the Trimester | 100 | Standard Conversion Scale | No | No |

Total | 100 |

LEARNING OUTCOMES:
On successful completion of this module student will be able to
- Critically review evolution of EU food regulatory policy
- Interlink and co-ordinate knowledge regarding roles and activities of key stakeholders – producers, processors, regulators, consumers
- Apply knowledge about food legislation to answer a range of regulatory affairs questions from the perspective of the range of food sector stakeholders
- Analyze the vertical and horizontal regulatory elements that make up farm to fork regulation
- Interpret published scientific data in the area of food regulatory affairs
- Critically analyse literature and scientific data as it relates to FRA
- Communicate with various stakeholder sectors
- Explore and evaluate alternative positions and devise strategies for appropriate implementation

APPROACHES TO TEACHING AND LEARNING
Lectures; active/task-based learning; enquiry and problem based learning; critical analysis and evaluation

**Assessment Type** | **Description** | **Timing** | **Open Book?** | **% of Final Grade** | **Component Scale** | **Must-Pass?** | **In-module Component Repeat Offered?**
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | Data analysis evaluation and synthesis/ Critical analysis of literature | Varies over the Trimester | | 100 | Standard Conversion Scale | No | No

**Total** | 100 |
**PURPOSE & OVERARCHING CONTENT:**
Food quality is the quality characteristics of food that is acceptable to consumers and is an essential food manufacturing requirement. Food quality covers the safety of the food processing environment; manufacturing and processing standards e.g dietary, nutritional or medical. This module will include origin and ethical food production, food safety and safe food processing, food quality management GMP and GHP, risk analysis, and the role of HACCP in the risk analysis process. Other aspects of food quality including genetically modified foods, organic food and food quality assurance schemes will also be covered. The quality and sustainability debate at the global level will be addressed.

The module will be delivered through the UCD Brightspace system and will consist of:
- Online lectures, videos and audio presentations
- Asynchronous and synchronous discussion
- Autonomous learning
- Written Assignments

**Assessment & Feedback Strategies**

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>Two assignments - case study, critical review</td>
<td>Varies over the Trimester</td>
<td>100</td>
<td>Standard Conversion Scale</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**Total**

100

**LEARNING OUTCOMES:**
On successful completion of this module student will be able to
- Discuss the core components of food quality
- Analyse data sets relevant to food quality issues
- Source and evaluate key literature as it relates to food quality
- Critically evaluate conflicting views related to food quality issues
- Communicate food quality issues to lay and expert audience
- Critically analyse case studies as they relate of food quality issues

**APPROACHES TO TEACHING AND LEARNING**
Lectures, active learning, problem-based learning, critical review of scientific literature, reflective learning,
**PURPOSE & OVERARCHING CONTENT**

This module is for students taking the Graduate Diploma or MSc in Food, Nutrition and Health.

Well planned research forms the basis for increasing knowledge in food, nutrition and health and an understanding of research design and statistics is essential to complete a research project. Fundamentals include the ability critically assess previously published work, an understanding of the application and limitations of statistical techniques, and the competence to prepare, an innovative preliminary research proposal. The aim of this module is:

- To develop understanding of project design, data management and statistical analysis.
- To present a scientific argument based on the statistical analysis of numerical data.
- To develop the ability to undertake independent scientific analysis, based on critical analysis of published research.

The module will be delivered through the UCD Brightspace system and will consist of:

- Lectures and audio presentations
- Online assessed statistical problems
- Use of statistical software packages
- Asynchronous discussion threads
- Synchronous webchats

Students are not required to attend lectures at the UCD campus as part of the course. Students are expected to spend a total 125 hours workload during the semester consisting of:

- Lectures during the semester: 24 hours
- Discussion threads/synchronous chats/ Assignments 26
- Autonomous learning 75h

**HOW WILL STUDENT BE ASSESSED?**

Statistical assignments and a research proposal outline document.

**ELIGIBILITY**

This module is core for those who intend to take module FDSC40580 Research Project.

To complete the course, students must have access to a relatively modern computer which matches the minimum specifications required to run the UCD software: [www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html](http://www.ucd.ie/itservices/itsupport/softwareapplicationsavailableinucd/supportedoperatingsystems/name,22773,en.html)

**LEARNING OUTCOMES**

On successful completion of this module student will be able to:

- Identify and utilise advanced academic knowledge within food science and nutrition to develop a valid proposal for a food science /nutrition research project.
- Understand the basic principles underlying statistical tests and statistical significance.
- Identify and apply appropriate statistical techniques to data sets.
- Design a valid innovative research proposal or business proposition.
- Utilise statistical software to perform analysis.
- Perform on-line literature searches to extract relevant scientific information from the resulting publications

**APPROACHES TO TEACHING AND LEARNING**

Lectures, interpretation and analysis of data sets, research project design, critical analysis, evaluation and synthesis of literature from a range of sources,

<table>
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<tr>
<th>Assesment Type</th>
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<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>Statistical assignments and a research proposal outline document</td>
<td>Unspecified</td>
<td>100</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Total: 100

**Feedback Strategies**

- Feedback individually to students, post-assessment

**Remediation Type**

- Resit
  - Remediation Timing: Within Two Trimesters
### Purpose & Overarching Content

This module is intended to provide an understanding of the concepts and techniques of nutritional assessment and how they are applied in population health and research. It will cover topics such as dietary intake assessment methodology, body composition techniques and the role of biochemistry in nutritional assessment. Students will be given both the theoretical background and practical application of such techniques with relation to human nutrition research and assessment.

### Learning Outcomes

On completion of this module you will:
- Understand techniques used in nutritional assessment, including dietary intake, body composition and biochemical analysis.
- Have knowledge of their use in nutrition research and public health policies.

### Indicative Module Content

This module is split into 3 sections:

- **Food Intake**
- **Body Composition**
- **Energy Expenditure**

The lecture topics covered include:

**Dietary Intake Assessment**

- Why measure someone’s diet?
- How to measure someone’s diet
- What do we do with dietary information
- Dietary data - data full of mistakes

**Energy Expenditure**

- Energy Expenditure Introduction
- How to measure energy expenditure 1
- How to measure energy expenditure 2

**Body Composition**

- Body composition - introduction
- Body composition - methods 1
- Body composition - methods 2

**Summary**

- Bringing it all together, holistic assessment of nutritional status - the sum is greater than the parts

### Approaches to Teaching and Learning

This module aims to provide theory of techniques in various aspects of nutritional assessment, and place their use in context. We aim to teach both theory, practice and interpretation. Using real live data collection and analysis we try to bring the methods to life, and support you in demonstrating how to collect, analyze and interpret data collected.

This module, as with all in the MSc, is also delivered completely online. All material will be available in Blackboard and further discussed in the online tutorials.

### Assessment

**Assessment Type**

<table>
<thead>
<tr>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
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<tbody>
<tr>
<td>Continuous Assessment</td>
<td>Week 10</td>
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<td></td>
<td>No</td>
<td>No</td>
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<tr>
<td>Practical report - statistical analysis of dietary intake data</td>
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<tr>
<td>Multiple Choice Questionnaire</td>
<td>Week 12</td>
<td>50</td>
<td>Alternative linear 40%</td>
<td>No</td>
<td>No</td>
<td></td>
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<tr>
<td>EOS online exam</td>
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</tbody>
</table>

**Total**

100

**Carry Forward of Passed Components**

Yes

**Feedback Strategies**

- Feedback individually to students, post-assessment
- Online automated feedback

In the assignment feedback will be given to the students following completion. This will be in written form and will give a general overview, and areas for improvement and commendation.

The MCQ will be completed online, and will be automatically marked.

**Remediation Type**

Resit

**Remediation Timing**

Within Two Trimesters
PURPOSE & OVERARCHING CONTENT:
This module provides an integrated study of the role of the nutrition professional and develops student understanding of the profession’s scope of practice. It will explore ethical issues and question the associated values for the profession. It will explore the Association for Nutrition Code of Ethic and Statement of Professional Conduct, the legal context of nutrition practice, responsibilities and accountability in relation to current legislation, research governance frameworks, intellectual property issues, national guidelines, local policies and protocols and governance in relation to nutrition. This knowledge will be integrated to enable students to recognise the moral and ethical issues associated with professional nutrition practice and frame it within the journey of professional and career development.

LEARNING OUTCOMES
On completion of this module you will be able to:
• Evaluate situations for moral and ethical issues associated with professional nutrition practice,
• Use those evaluations to justify a course of action and ensure adequate safeguards are maintained; and
• Develop a portfolio of evidence to support continued professional development and career planning.

INDICATIVE MODULE CONTENT
This module will cover: the principles of professional practice, professional practice standards, documenting professional practice, responsibilities of professional practice, ethics in practice, core competencies in nutrition, career planning and professional development.

APPROACHES TO TEACHING AND LEARNING
The module use active learning during weekly lecture/tutorials. Peer and group work will be used for learning activities and assignments. Critical and reflective writing is central to all written assignments. Case-based learning is used in an assignment as is student presentations.

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered? | Carry Forward of Passed Components | Feedback Strategies |
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<tbody>
<tr>
<td>Assignment</td>
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<td>Graded</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>AT1 Ethical Case Studies are sequenced so that students will complete one case study and self-assess their work when submitting it for summative assessment. Post-assessment individual and group level feedback will be delivered, which students can then apply to their second case study. This case study will also receive the same feedback as the first one post-assessment. AT2 will require students to submit reflections and self-assessment work throughout the semester. The final portfolio is assessed and the students will receive individual and group-level feedback post-assessment. AT3 will require students to self-assess their final presentation and peers to provide feedback on this presentation. Post-assessment feedback will be group and individual.</td>
<td></td>
</tr>
<tr>
<td>Portfolio</td>
<td>Prof development portfolio</td>
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Total | 100

Remediation Type | Remediation Timing |
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<tbody>
<tr>
<td>Resit</td>
<td>Within Two Trimesters</td>
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</tbody>
</table>
**HNUT40250 CLINICAL NUTRITION**

Credits: 5 credits  
Start Date: Spring Trimester  
Duration: 12 weeks  
Pre/Co Requisites: HNUT40070 Nutrients in the Life Cycle (PR)  
HNUT40090 Pathways to Health (PR)  
Module Coordinator: Dr Sharleen O’Reilly

**PURPOSE & OVERARCHING CONTENT:**
This module provides an integrated study of the role of diet in the cause and treatment of disease. It will explore the interaction of disease and diet in various areas of metabolism and specific disease states. It will examine the use of diet in treatment of certain diseases and examine methods of nutritional assessment. This knowledge is integrated with an understanding of the medical aspects of common disease states.

**LEARNING OUTCOMES:**
On completion of this module you will be able to discuss critically:
- the changes in nutritional requirements in various disease states
- the evidence linking foods, nutrients and dietary patterns to the aetiology of major diet-related diseases
- the role of diet in management and prevention of various disease
- various methods of nutritional assessment in the context of different disease states
- understand and compile therapeutic diets for various disease states.

**INDICATIVE MODULE CONTENT**
This module will cover: the principles of clinical nutrition, nutritional assessment, nutritional support, nutritional management of disease, dietary management of overnutrition, dietary management of diabetes, dietary management of undernutrition in older people, allergies, paediatrics, coeliac disease and irritable bowel syndrome, and cardiovascular disease.

**APPROACHES TO TEACHING AND LEARNING**
Weekly online lectures will be supported with regular tutorials with active learning incorporated. Group and peer work is incorporated into an assessment task plus the critical writing assignment involves group sharing and integration of knowledge. Reflective learning is built into assessments as students will be asked to self assess using a defined rubric, this will then be used to tailor feedback post-assessment. The case study assignment is case-based learning that will require complete integration of clinical nutrition knowledge which is then applied to a case.

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Description</th>
<th>Timing</th>
<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment</td>
<td>Individual case study report</td>
<td>Week 12</td>
<td></td>
<td>50</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Group Project</td>
<td>Fact sheet</td>
<td>Week 8</td>
<td></td>
<td>30</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Multiple Choice Questionnaire</td>
<td>4 sets of 10 ques</td>
<td>Throughout the Trimester</td>
<td></td>
<td>20</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Total** 100

**Carry Forward of Passed Components**  
Yes

**Feedback Strategies**  
- Feedback individually to students, post-assessment  
- Group/class feedback, post-assessment  
- Online automated feedback  
- Peer review activities  
- Self-assessment activities

AT1 MCQs will provide students with online automated feedback on their understanding of learning materials as the semester progresses. AT2 Fact Sheet will provide peer review activities within the process of preparing the fact sheet and associated presentation. Post-assessment students will receive group-level feedback. AT3 will have self-assessment as part of the final assessment submission. Post-assessment the student will receive individual and group-level feedback.

**Remediation Type**  
Resit  
**Remediation Timing**  
Within Two Trimesters
PHPS40710 PROMOTING CONSUMER NUTRITION

Credits: 5 Credits
Start Date: Spring Trimester
Duration: 12 weeks
Pre/Co Requisites: HNUT40070 Nutrients in the Life Cycle (PR)
HNUT40090 Pathways to Health (PR)
PHPS40720 Public Health Nutrition (PR)
Module Coordinator: Dr Celine Murrin

PURPOSE & OVERARCHING CONTENT:
This module will give you a basic understanding of the theory and practice that is essential to the effective communication of health messages. The module will initially consider the concept of health and health behaviour to provide a framework for effective communication strategies. Key components of planning, designing, and evaluating nutrition communication strategies will be explored. Contextual approaches will be examined in addition to designing and employing media channels and resources that are appropriate for the target population.

LEARNING OUTCOMES:
On successful completion of this module student will be able to:
• Understand the role of communication for improving health.
• Identify appropriate target audiences for communication.
• Identify research evidence necessary for developing a communication strategy.
• Apply theories of health behaviour to understand and develop communication strategies.
• Apply communication theory to develop communication strategies.
• Justify the application of appropriate resources and media channels.

APPROACHES TO TEACHING AND LEARNING
• Short lectures
• Group discussion
• Independent reading
• Written work

Assessment Type | Description | Timing | Open Book? | % of Final Grade | Component Scale | Must-Pass? | In-module Component Repeat Offered?
--- | --- | --- | --- | --- | --- | --- | ---
Assignment | Individual assignment | Coursework (End of Trimester) | Yes | 60 | Graded | No | No
Group Project | Group written assignment | Week 8 | No | 40 | Graded | No | No

Total | 100

Carry Forward of Passed Components
Yes

Feedback Strategies
• Group/class feedback, post-assessment
• Online automated feedback
Sequence of Feedback
Feedback given on group assignments following presentations/submission. Individual grades and group feedback will be provided following final assignment. All grading and feedback will be provided through the VLE.

Remediation Type | Remediation Timing
--- | ---
Resit | Within Two Trimesters
PHPS40720 PUBLIC HEALTH NUTRITION

Credits: 5 credits
Start Date: Autumn Trimester
Duration: 12 weeks
Pre/Co Requisites: HNUT40070 Nutrients in the Life Cycle (PR)
HNUT40090 Pathways to Health (CR)
Module Coordinator: Dr Celine Murrin

PURPOSE & OVERARCHING CONTENT:
Public Health Nutrition builds on a foundation of nutritional science and applies the principles of epidemiology to measuring and describing health, food and nutritional problems. This module will give you a basic understanding of the core concepts of epidemiology and provide you with the skills to analyse current nutrition research and to evaluate nutrition programmes for improving public health. Approaches to promote health and prevent adverse health outcomes will be considered in view of nutrient recommendations and food based dietary guidelines for optimal health and nutrition. The development of interventions and role of policies will be explored to understand how they can impact nutritional status and population health and wellbeing.

LEARNING OUTCOMES:
On successful completion student will be able to:
• Understand the basic concepts and principles which underpin nutritional epidemiology and determinants of ill health.
• Demonstrate the ability to critically evaluate current findings from population studies on the role of diet and chronic disease.
• Understand and evaluate the evidence for effective public health interventions for key population groups.
• Understand the process of developing interventions and policies.
• Critically reflect on the impact of policies at a national and global level.

APPROACHES TO TEACHING AND LEARNING
• Short lectures
• Group discussion
• Independent reading
• Written work

<table>
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<tr>
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<th>Open Book?</th>
<th>% of Final Grade</th>
<th>Component Scale</th>
<th>Must-Pass?</th>
<th>In-module Component Repeat Offered?</th>
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<tbody>
<tr>
<td>Assignment</td>
<td>Written assignment</td>
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<td>No</td>
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<tr>
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<td>Concept map</td>
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<td>40</td>
<td>Graded</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Total 100

Carry Forward of Passed Components
Yes

Feedback Strategies
• Group/class feedback, post-assessment
• Online automated feedback

Sequence of Feedback
Online automated feedback given for the MCQ. Individual grades and group feedback will be provided for the following two assignments. All grading and feedback will be provided through the VLE.

Remediation Type
Resit

Remediation Timing
Within Two Trimesters