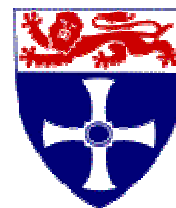


**UNIVERSITY OF
NEWCASTLE UPON TYNE**

**FACULTY OF
SCIENCE, AGRICULTURE & ENGINEERING**

DEGREE PROGRAMME SPECIFICATION

**UNIVERSITY OF
NEWCASTLE**



1. Awarding Institution	University of Newcastle upon Tyne
2. Teaching Institution	University of Newcastle upon Tyne
3. Final Award	B.Sc. (Hons)
4. Programme Title	Food & Human Nutrition
5. Programme Accredited by:	N/A
6. UCAS Code	B4D6
7. QAA Benchmarking Group(s)	Biosciences; Agriculture, forestry, agricultural sciences, food sciences and consumer sciences.
8. Date of production/revision	September 2004

9. Programme Aims:

The programme aims:

- To facilitate the general higher education and intellectual development, within the context of the science of food and human nutrition, of well motivated students from diverse geographical and academic backgrounds.
- To encourage students to develop an informed interest in the science of food, human nutrition and health and to engender an awareness of a) the impact of food production and processing on the environment and b) the central importance of food-related activities on society.
- To produce graduates who have a) a thorough understanding of the scientific basis of food and human nutrition and of relationships between food, nutrition and human health that is informed by research b) a range of core skills including the use of communication and information technology; the ability to assemble, evaluate and use information from a variety of sources; the ability to prioritise work and to meet deadlines; the ability to work alone and in teams; and, through the use of oral, literary and/or numerical skills, the ability to analyse issues and problems, propose potential resolutions and to derive critical accounts of alternatives.
- To lead to a qualification which meets the FHEQ at Honours level and which takes appropriate account of the subject benchmark statements in Biosciences.

10. Intended Learning Outcomes; Teaching and Learning Strategies and Methods; Assessment Strategies and Methods

The programme provides opportunities for students to develop, integrate, practice and demonstrate knowledge and understanding of the range of biomedical and social science disciplines on which a sound

understanding of the relationships between food, nutrition and health are based.

A Knowledge and understanding

A successful student will have gained and be able to demonstrate:

- A1 A good knowledge and understanding of fundamental biomedical subjects including biochemistry, physiology, microbiology and genetics.
- A2 A good knowledge of human nutrition, food science and of the links between nutrition and health.
- A3 A basic knowledge of molecular genetics and food biotechnology.
- A4 A basic understanding of national and international policies relevant to food, nutrition and health.
- A5 An appreciation of recent developments in science relating particularly to the interactions between genetic inheritance and environmental factors, including diet, which influence the risk of common non-communicable diseases.
- A6 An understanding of the scientific, societal and environmental contexts in which decisions about the application of scientific developments relevant to food and human nutrition are taken.
- A7 For those students who chose the relevant Optional Modules, an opportunity to develop knowledge and understanding of business-related subjects.
- A8 For those students who choose the relevant Optional Modules, an opportunity to develop and/or extend their knowledge and understanding of a modern foreign language.

Teaching Strategy

The primary means of imparting knowledge and understanding in all the above is through lectures supplemented, as appropriate, with practical classes, seminars and tutorials, many of which are supported through the University's virtual learning environment, Blackboard. A5 is enhanced by the undertaking of an individual research project in the final year requiring a substantial literature review and interpretation of the experimentally generated data. Visiting speakers including the Visiting Professor contribute to A4 – A6.

Learning strategy

Throughout the programme students are encouraged to supplement taught material by self-study of reading materials and appropriate information on the internet to which they are directed by staff. In the final year most of the directed reading is of research papers and guidance on their effective use is provided. Short tests are administered in some modules on completion of specific topics to enable students to monitor the progress of their learning. Feedback on essays and laboratory reports allows students to refine their presentation techniques in these areas and assess the level of their knowledge and understanding.

Assessment Strategy

Assessment of knowledge and understanding is by use of unseen written examinations (including essay questions, short answer and problem-solving as appropriate to the module and level of study) and by coursework (including essays, laboratory or case-study reports, in-course tests, research project work and dissertation, oral and poster presentations). The mix of examination and coursework varies

as appropriate to the module but most modules include some aspect of formative assessment during the module in addition to the summative assessment. Some students will also be assessed by oral examination in the presence of the External Examiner.

B Subject –specific/professional skills

A successful student will be able to:

- B1 Develop hypotheses and design, execute and analyse data for a range of study types including laboratory-based, clinical and nutritional epidemiological studies.
- B2 Use statistical procedures to facilitate the design of studies and the analysis of collected data.
- B3 Demonstrate skills in a range of quantitative and qualitative techniques used in the area of food and human nutrition.
- B4 Critically evaluate data from a variety of sources
- B5 Present data in written format according to accepted scientific conventions.

Teaching Strategy

Practical classes associated with many modules during the first two years progressively develop B1 which is greatly enhanced by the individual research project in the final year. B2 and B3 are developed through specific modules (Quantitative Techniques, Statistical Methods) involving lectures followed by smaller group calculation classes or computing classes and completion of appropriate example calculations and analyses. These fundamental skills in B1, B2 and B3 are honed by practice in laboratory classes at Stage 2. The research project also makes a major contribution to B3, B4 and B5. From the first year, students are required, after appropriate guidance, to search the literature for information and submit all written work in an appropriate scientific format so that by the final year B4 and B5 are thoroughly integrated into all submitted work.

Learning Strategy

Students are encouraged to develop appropriate quantitative and practical skills (B1-B4) by monitored attendance at formal classes during the first two years and subsequently through practice and discussion with their supervisor as part of their final year research project. From the first year all written work must be submitted in an appropriate scientific format and feedback on such work enhances learning of the skill outlined in B5.

Assessment Strategy

B2 and B3 are assessed through unseen examinations and, together with B5, through coursework (laboratory and field class reports, completion of quantitative and statistical calculation sheets, essays) during the first two years. Together with B1 and B4 these skills form a major part of the assessment of the final year research project.

C Cognitive skills

A successful student will be able to:

- C1 Critically analyse information and arguments derived from a range of sources.
- C2 Interpret scientific information, both quantitative and qualitative.
- C3 Derive and recognise hypotheses based on existing knowledge; to advance logical arguments, based on new or existing scientific evidence, to support or refute hypotheses; identify gaps in knowledge and propose means for filling them.
- C4 Produce rational analyses of complex problems, in particular, those involving the application of scientific advances in the areas of food and human nutrition.

Teaching Strategy

Cognitive skills are developed progressively throughout the programme in modules containing practical classes, case studies, small group discussion tutorials and essays. This is a particular feature of the final year where students undertake critical reviews of recently published papers. In the final year the individual research project and its associated dissertation require students to display all skills C1-C3 and they are supported by their supervisor when gaining full confidence in their ability to do this.

Learning Strategy

In all years students are encouraged to consider information and experimental data in a critical manner and to justify interpretation by logical development of ideas and reference to known facts. Planning, executing and reporting on their final year research project enhances the learning of these skills in a less controlled environment than in previous years.

Assessment Strategy

Cognitive skills are assessed through various forms of coursework (including laboratory reports, case studies and essays), culminating in assessment of the final year research project dissertation. In the final year, student appraisal of recently published papers is assessed according to predetermined criteria. The General Examination Paper is a formal, unseen paper which also assesses these skills.

D Key (transferable) skills

A successful student will be able to:

- D1 Communicate clearly and effectively through written documents and oral presentations in ways that are appropriate to the target audience.
- D2 Make effective use of library and other sources of information.
- D3 Make effective use of communication and information technology.
- D4 Plan, organise and prioritise work effectively to meet deadlines.
- D5 Work independently and as part of a team.
- D6 Demonstrate problem-solving skills and initiative.
- D7 Research employment opportunities, to prepare and submit effective applications for employment and to gain skills in effective presentations at interview.
- D8 Undertake self-appraisal skills in the area of workplace skills
- D9 Demonstrate personal achievement by preparation of a portfolio of evidence.
- D10 Produce a development plan to help overcome identified skills weaknesses.
- D11 For students who choose the relevant Optional Modules, demonstrate skills in the use of a modern foreign language.

Teaching Strategy

Some key skills, D1-D3, are formally taught in specific, compulsory skills modules (eg. Introduction to Information Technology, Food Production and Utilization, Food and Human Nutrition) while the others are integrated into subject-specific compulsory modules as appropriate to meet the aims of those modules e.g. team-working in Experimental Human Nutrition and in Plants as Food and D4 in the final year project. All students benefit from tutorials and one-to-one sessions with the Placement Tutor to develop D7 whilst D8 – D10 are developed in the workplace during the Placement Year under guidance from the University's City and Guilds' Tutor.

Learning Strategy

While skills D1-D3 are formally taught, and the students obtain feedback to enhance their learning, as parts of those modules, the same skills are applied in many subject-specific modules with students

required to find information and give oral or written presentation throughout all years of study. In these cases the student is learning not only subject-specific information but also D1-D3. Deadlines for submission of coursework are strictly enforced encouraging students to develop D4 and this is supported by guidance provided during Induction Week at each Stage of the programme. Students learn D5 and D6 as part of the work associated with their final year research project and as parts of others modules with specific and substantial assignments (Food and Human Nutrition, Human Nutrition and Health). In addition most practical classes require students to work in groups of two or more to carry out the experimental work and obtain data which provides an introduction to the more complex team-working skills that are developed subsequently. D8-D10 are developed as part of the Placement with their workplace supervisor aiding in the learning process through regular appraisals.

Assessment Strategy

Key skills form all or part of the assessment in Introduction to Information Technology, Food Production and Utilization and Food and Human Nutrition where all (or most) assessment is based on submitted coursework. In addition D1-D6 are indirectly assessed through their contribution to coursework (essays, oral and poster presentations, completion of final year research project and dissertation) in other modules. D7 is assessed by their ability to obtain a suitable Placement and D8 – D10 are assessed for the City and Guilds Licentiateship award.

11 Programme Features, Structure and Curriculum

A Programme Features

The programme is a four-year full-time programme including an integral Placement Year between the second and final years.

Each non-placement year (Stage) consists of a taught component of 120 credits/year comprising compulsory and optional modules with values of 10, 20 or 30 credits. 10 credits are associated with 100 hours of study time (including time-tabled classes and private study time).

In terms of credits, the mix of compulsory:optional modules is 90:30 in Stage 1 and 100:20 in each of Stages 2 and 3. [In Stage 3 there is an integrative General Examination which is not associated with any additional study time beyond that linked to the 120 credits of taught modules but counts for 20 credits in the assessment of Stage 3 which therefore has a taught component of 120 credits but an assessment component of 140 credits]. In Stages 1 and 2 a number of modules are designated as “core” which has implications for progression (see below).

In all three Stages, the optional modules can be freely selected from a specified list but students are encouraged to make coherent choices of modules e.g. a portfolio of science- or business-related modules which build across all three university years.

Progression from Stages 1 and 2 to the subsequent Stage is dependent on having an overall average mark of greater than 40. A mark of at least 40 must be achieved in all “core” modules but limited compensation for marks of at least 35 is permitted for non-“core” modules. Two resits are permitted for each module if necessary.

Particular features of the programmes are:

- High content of laboratory-based practical work.
- At least one module unique to the programme at Stages 1 and 3.
- The opportunity to develop language skills at any one (or all) Stages.
- Availability of complementary business-related modules to help prepare graduates for careers in industry.
- Opportunity to carry out an individual research project in a dynamic research environment.
- Opportunity to gain workplace skills through the Placement Year.
- Dedicated tutorial programme in preparation for Placement Year.
- Opportunity to gain a recognised qualification, awarded by City and Guilds, for the Placement Year.

B Programme Structure

In **Stage 1** students are given a foundation knowledge and understanding (contributing to learning outcome A1) in subjects on which a sound understanding of the science of food, nutrition and health are built in Stages 2 and 3 (learning outcomes A2-A5). Development of some of the higher level understanding (A6) and of associated cognitive skills (C4) are begun via the module ‘Food Production and Utilization. An introduction to statistics and to information technology contribute towards development of learning outcomes B1 and B2 and D2 and D3. Subject-specific skills, the ability to interpret scientific information and to communicate clearly (learning outcomes B1–B5, C2 and D1-D3) are each developed in several compulsory modules as students develop the ability to carry out laboratory experiments, including recording, manipulating and interpreting data, and simple literature searches and to present information in an appropriate written format.

At **Stage 2** the compulsory modules provide the core knowledge and understanding of food science and human nutrition whilst extending experimental skills (learning outcomes B1, B2, C2, D4 and D5) and competency in quantitative techniques (learning outcomes B2 and B3). At this Stage students are exposed to knowledge at the forefront of some aspects of nutrition through the experiment forming the core of the Experimental Human Nutrition module (learning outcomes A5, B1 and C3). Various modules continue to develop subject-specific skills (learning outcomes B1-B5) and students develop an ability to search for and to use information from many sources and to critically evaluate data and information in terms of its quality and contribution to knowledge (learning outcomes B4 and C1-C3). Key transferable skills development (learning outcomes D1-D6) is not associated with specialised skills modules at this Stage but forms an integral part of both compulsory and optional modules. Learning outcome D7 is developed through the dedicated tutorial programme of preparation for the Placement Year.

The **Placement Year** is an integral part of the degree programme occurring between Stages 2 and 3. The year allows students to experience first-hand food science and/or nutrition in an industrial, commercial or public sector environment. The Placement Year enhances the understanding of concepts and processes covered theoretically in Stages 1 and 2 and puts much of the students' previous knowledge into context. In addition to many subject specific skills which are developed (learning outcomes B1-B5) students enhance their cognitive skills (learning outcomes C1-C4) and develop additional transferable skills (D7-D10).

Stage 3 is the culmination of the degree programme with a major component being the individual research project and dissertation (undertaken in a very active research laboratory and supervised by a member of staff with current research activity in a related area) which requires students have an in depth knowledge of a particular subject area (learning outcomes A1 or A2) and to be aware, particularly, of current developments at the forefront of research in that area (learning outcome A5). The module 'Food and Human Nutrition' provides an opportunity for students to develop their higher level analytical/cognitive skills (learning outcome C4) and understanding (learning outcome A6) through in-depth study of the application of scientific advances in the area of food and human nutrition. Completion of the project and dissertation demands high quality subject-specific, cognitive and transferable skills (learning outcomes B1-5, C1-3 and D1-6). Lecture modules continue to develop good knowledge and understanding of core and optional subject areas (learning outcomes A1-A5). All modules taught at Stage 3 make substantial use of original research papers to support lecture material ensuring that students are aware of current developments and are able to deal critically with such information (learning objectives A5, A6, B4, C1-4). The General Paper is an additional formal examination at Stage 3 and has a valency of 20 credits. The examination asks broad questions with sufficient time to allow students to demonstrate their abilities to answer questions in depth, in particular demonstrating the ability to integrate knowledge and cognitive skills across subject areas (B4, B5, C1-4, D1).

Communication of information plays an important part at this Stage further developing the students' abilities to produce written reports and essays, oral presentations using appropriate visual aids and poster presentations (learning outcomes B4, B5, C1, C2, D1- D3). Transferable skill development is integrated into most Stage 3 modules with time management (learning outcome D4) being particularly important at this Stage.

C Programme Curriculum

Current Degree Programme Regulations [2004-2005]

1. Stage 1

(a) All candidates shall take the following compulsory modules:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Type</i>	<i>Sem</i>
AGR 105	10	Introduction to Genetics	Core	1
BIO 107	10	Cell Biology		1
BNS 107	10	Introduction to Information Technology	Core	1
AGR 111	20	Food Production and Utilization		1+2
AGR 112	20	Introductory Biochemistry for Biologists	Core	1+2
BIO 108	10	Introduction to Microbiology	Core	2
MAS 182	10	Statistical Methods	Core	2

(b) All candidates shall select, subject to the approval of the Degree Programme Director and as determined by the prerequisites for each module, further optional and non-core modules with a total value of 30 credits. These modules shall normally be selected from the following list:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Sem</i>
AEF 115	20	Introduction to Marketing	1+2
AEF 116	20	Introduction to Economics	1+2
AGR 107	10	British Agriculture	1
FRE 165	20	French: Level A	1
GER 165	20	German: Level A	1
POR165	20	Portuguese: Level A	1
SPA 165	20	Spanish: Level A	1
PSY 108	10	Development of Social Psychology	1
AEF 114	10	Introduction to Management II	2

With the approval of the Degree Programme Director, alternative Stage 1 modules may be added to the above list.

2. Stage 2

(a) All Stage 2 modules are Honours modules.

(b) All candidates shall take the following compulsory modules:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Type</i>	<i>Sem</i>
BNS 207	10	Nutrition Principles	Core	1
BNS 209	10	Introduction to Human Nutrition	Core	1
BNS 233	10	Quantitative Techniques		1
BIO 201	10	Molecular Genetics and Mammalian		1

		Biochemistry		
BNS 208	10	Experimental Human Nutrition	Core	2
BNS 218	10	Food Science	Core	2
BNS 219	10	Experimental Food Science	Core	2
BNS 220	10	Food Microbiology	Core	2
PSC 101	20	Physiology	Core	2

(c) All candidates shall select, subject to the approval of the Degree Programme Director and as determined by the prerequisites for each module, further optional modules with a total value of 20 credits, from the following:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Sem</i>
AES 260	10	Microbial Diversity and its Applications	1
CHY 204	10	Medicinal Plants	1
FRE 165	20	French: Level A*	1
GER 165	20	German: Level A	1
POR165	20	Portuguese: Level A	1
SPA 165	20	Spanish: Level A	1
SPS 244	20	Consumer Culture	1
SPS 232	20	Socio-Economic Change and Social Policy	2
AEF 205	10	Retail Marketing	1
AEF 216	10	Consumer Behaviour	1

* Students with an A-level in the relevant language should enrol for Level B

(d) Upon completion of Stage 2 and before entering Stage 3, all candidates shall spend the equivalent of one academic year in a placement approved by the Degree Programme Director. The placement shall involve work in food and/or human nutrition and may be within the UK or abroad. Preparation of a report on the work shall be an integral part of the placement year.

3. Stage 3

(a) All candidates shall take the following compulsory modules:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Sem</i>
BNS 315	10	Human Nutrition	1
BNS 316	10	Nutrition and Disease	1
BNS 309	10	Biotechnology in the Food Industry	1
AEF 375	10	European Food Policy	2
BNS 314	10	Human Nutrition and Health	2
BNS 317	10	Plants as Food	2
BNS 325	10	Food and Human Nutrition	2
BNS 397	30	Project and Dissertation	1+2

(b) All candidates shall select, subject to the approval of the Degree Programme Director and as determined by the prerequisites for each module, further optional modules with a total value of 20 credits. These modules shall normally be selected from the following list:

<i>Code</i>	<i>Credits</i>	<i>Descriptive title</i>	<i>Sem</i>
FRE 165	20	French: Level A*	1

GER 165	20	German: Level A	1
POR165	20	Portuguese: Level A	1
SPA 165	20	Spanish: Level A	1
AEF 311	10	Food Marketing	2
AGR 341	10	Animal Product Quality and Marketing	2
AGR 342	10	Crop Product Quality and Marketing	2
BNS 310	10	Social Impact of Biology	2

* Students with an A-level in the relevant language should enrol for Level B

4. Assessment Methods

(a) The following assessment methods will be used: written examination papers; in-course assessments of practical classes; in-course assessments of tutorial classes; assessment of essays; dissertation assessment; oral examinations.

Details of the assessment methods for each module are specified in the Degree Programme Handbook.

(b) A general paper will be set at the end of the second semester of Stage 3. It will be equivalent, for the purpose of assessment, to a Stage 3 module with a value of 20 credits. The credit value is stated in the examination conventions for this degree programme and in the Degree Programme Handbook.

5. Honours Performance

Candidates will be assessed for Honours performance on the basis of the assessment of all the modules taken at Stage 2 plus all the modules taken at Stage 3. Stage 2 contributes 25 per cent and Stage 3 contributes 75 per cent towards Honours performance.

6. Transfer to the Ordinary Degree Programme for students registered before 2004

Students who do not satisfy the requirements to progress within the Honours degree programme but who do satisfy the requirements for progression within the Ordinary degree in Food and Human Nutrition may transfer to this Ordinary degree programme at the end of Stage 1 or Stage 2, or, on tutorial advice, during Stage 2. Such transfer will be subject to the approval of Faculty Progress and Concessions Committee.

7. Transfer from the Ordinary Degree Programmes for students registered before 2004

Transfer may be permitted from the Ordinary degree programmes of the Faculty of Science, Agriculture and Engineering into an Honours degree programme within the Faculty at the discretion of Faculty Progress and Concessions Committee and subject to the relevant regulations for the Ordinary degree programmes in the Faculty of Science, Agriculture and Engineering.

Development of specific Intended Learning Outcomes occurs through the following modules (compulsory modules in bold text, optional modules in normal, italic text)

A1	A good knowledge and understanding of fundamental biomedical subjects including biochemistry, physiology, microbiology and genetics.	AGR105, BIO107, BIO108, AGR112, PSC101, PSY108, AES260, CHY204
A2	A good knowledge of human nutrition, food science and of the links between nutrition and health.	AGR111, BNS207, BNS208, BNS209, BNS218, BNS219, BNS220, BNS314, BNS315, BNS316, BNS317, BNS325, BNS397, AGR107, AGR341, AGR342
A3	A basic knowledge of molecular genetics and food biotechnology.	BNS220, BIO201, BNS309, BNS317
A4	A basic understanding of national and international policies relevant to food, nutrition and health.	AGR111, AEF375, BNS325, AEF205, AEF216
A5	An appreciation of recent developments in science relating particularly to the interactions between genetic inheritance and environmental factors, including diet, which influence the risk of common non-communicable diseases.	AGR111, BNS208, BNS309, BNS314, BNS315, BNS316, BNS325, BNS397, Placement Year
A6	An understanding of the scientific, societal and environmental contexts in which decisions about the application of scientific developments relevant to food and human nutrition are taken.	AGR111, BIO201, BNS309, AGR341, AGR342, BNS310
A7	For those students who chose the relevant Optional Modules, an opportunity to develop knowledge and understanding of business-related subjects.	<i>AEF114, AEF115, AEF115, AEF205, AEF216, AGR341, AGR342, SPS244, SPS232, SPS336, AEF311</i>
A8	For those students who choose the relevant Optional Modules, an opportunity to develop and/or extend their knowledge and understanding of a modern foreign language.	<i>FRE165, GER165, POR165, SPA165 [and appropriate advanced modules]</i>
B1	Develop hypotheses and design, execute and analyse data for a range of study types including laboratory-based, clinical and nutritional epidemiological studies.	AGR111, MAS182, BNS208, BNS209, BNS219, BNS220, BNS309, BNS397
B2	Use statistical procedures to facilitate the design of studies and the analysis of collected data.	MAS182, BNS207, BNS208, BNS233, BNS397, AEF116, AES260, CHY204
B3	Demonstrate skills in a range of quantitative and qualitative techniques used in the area of food and human nutrition.	AGR112, BNS208, BNS209, BNS219, BNS220, BNS233, BNS397, AEF375
B4	Critically evaluate data from a variety of sources.	BNS108, BIO201, BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397 Placement Year, AEF311, BNS310
B5	Present data in written format according to accepted scientific conventions.	AGR111, AGR112, BNS107, BIO201, BNS208, BNS209, BNS219, BNS220, BNS314,

	BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, Placement Year, AES260, CHY204, BNS310
C1 Critically analyse information and arguments derived from a range of sources.	AGR111, BIO201, BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, Placement Year, SPS244, SPS232
C2 Interpret scientific information, both quantitative and qualitative.	AGR111, AGR112, BIO107, BIO108, MAS182, BNS207, BNS208, BNS209, BNS218, BNS219, BNS220, BNS233, BIO201, AEF375, BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, Placement Year, AEF114, AEF115, AEF116, AGR107, PSY108, AEF205, AEF216, AES260, CHY204, SPS232, SPS244, AEF311, AGR341, AGR342, BNS310
C3 Derive and recognise hypotheses based on existing knowledge; to advance logical arguments, based on new or existing scientific evidence, to support or refute hypotheses; identify gaps in knowledge and propose means for filling them.	BNS208, BNS209, BNS219, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, Placement Year, BNS310
C4 Produce rational analyses of complex problems, in particular, those involving the application of scientific advances in the areas of food and human nutrition.	BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, BNS310
D1 Communicate clearly and effectively through written documents and oral presentations in ways that are appropriate to the target audience.	AGR105, AGR111, AGR112, MAS182, BIO107, BIO108, BIO201, BNS208, BNS209, BNS218, BNS219, BNS220, PSC101, AEF375, BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS351, BNS397, Placement Year, AEF205, AEF216, SPS232, SPS244, AEF311, BNS310
D2 Make effective use of library and other sources of information.	AGR105, AGR111, AGR112, BIO107, BIO108, PSC101, BNS207, BNS208, BNS209, BNS218, BNS219, BNS220, BIO201, AEF375, BNS309, BNS314, BNS315, BNS316, BNS317, BNS325, BNS397, AEF114, AEF115, AEF116, AGR107, AES260, CHY204, AEF205, AEF216, SPS232, SPS244, AEF311, AGR341, AGR342, BNS310
D3 Make effective use of communication and information technology.	AGR111, BNS107, MAS182, BNS233, BNS314, BNS316,

	BNS317, BNS325, BNS397, Placement Year, BNS310
D4 Plan, organise and prioritise work effectively to meet deadlines.	AGR111, AGR112, BIO108, BIO107, BNS107, BNS208, BNS209, BNS219, BNS314, BNS316, BNS317, BNS325, BNS397, Placement Year
D5 Work independently and as part of a team.	AGR111, BNS208, BNS209, BNS218, BNS219, BNS220, BNS314, BNS316, BNS317, BNS325, BNS397, Placement Year, SPS232, SPS244, BNS310
D6 Demonstrate problem-solving skills and initiative.	BNS233, BNS397, Placement Year
D7 Research employment opportunities, to prepare and submit effective applications for employment and to gain skills in effective presentations at interview.	Placement Year
D8 Undertake self-appraisal skills in the area of workplace skills.	Placement Year
D9 Demonstrate personal achievement by preparation of a portfolio of evidence.	Placement Year
D10 Produce a development plan to help overcome identified skills weaknesses.	Placement Year
D11 For students who choose the relevant Optional Modules, demonstrate skills in the use of a modern foreign language.	<i>FRE165, GER165, POR165, SPA165 [and appropriate advanced modules]</i>

12 Criteria for Admission:

Students are admitted on an individual basis but typical entrance requirements are as listed below with particular conditions tailored to each individual.

The programme is designed for students who wish to understand the science of food and human nutrition and are interested in the practical applications of this science. Success requires interest, motivation, and well-organised methodical thinking, together with a sound basic understanding of scientific principles. While the minimum qualifications are outlined below, additional qualities such as effective organisational and time-management skills or relevant practical experience as evident in the UCAS application will be considered.

Candidates should have at least GCSE Grade C in Mathematics and in Chemistry or Dual Award Science if not offered to a higher level. In addition, various combinations of higher level qualification are appropriate:

A level, Advanced Vocational Certificate of Education, AS level:

BBB/BBC from 18 units with a minimum of 12 units (preferably in science subjects) from 6- or 12-unit, and preferably including A level Biology. AS level Biology will be considered if offered in combination with other science A levels. Chemistry preferred at AS level if not offered at A level.

Scottish qualifications:

AABB/BBBB at Higher grade, preferably including Biology, Mathematics and another science subject. Combinations of Highers and Advanced Highers accepted.

Other qualifications:

BTEC National Diploma (or other NQF Level 3 qualification) in a science related subject at overall DMM grade, to include biological and chemical science as essential units at Distinction/Merit grade.

BTEC Higher National Diploma (or other NQF Level 4 qualification). Applicants offering Higher National Diploma will be considered on an individual basis. Entry at Stage 2 possible, subject to prerequisites

Access courses: For applicants offering Access to HE courses, a module at level 3 biological sciences is essential, chemistry and mathematics or quantitative methods are desirable (three modules a Credit grade for HEFC).

International qualifications:

These are accepted subject to a minimum science requirement with each candidate considered on merit (see International Baccalaureate below).

International Baccalaureate: 30-32 points in the IB with Biology at Higher Level

Irish Leaving Certificate: ABBBB at Higher Level, preferably including Biology, Mathematics and another science subject.

Partners Programme:

These are accepted subject to the minimum requirements specified below and successful completion of the University's Summer School Programme.

Partners A/AS Levels and AVCE Qualifications: CCC/CCD from 18 units including a minimum of 12 units (preferably in science subjects) from 6- or 12-unit qualifications, and preferably including A level Biology. AS Biology will be considered if offered in combination with other science A Levels. Chemistry preferred at AS Level of not offered at A Level. GCSE Mathematics (or Dual Award Science) required if not offered at A Level.

Partners BTEC National Diploma: BTEC National Diploma (or other NQF Level 3 qualification) in a science related subject at overall MMM grade, to include biological and chemical science as essential units at Merit grade.

Admissions policy

All applicants whose qualifications appear suitable on the basis of the UCAS form are encouraged to attend an open day if possible. Offers of places are made on the basis of the UCAS form.

Arrangements for non-standard entrants

All other non-standard applications are considered on an individual basis. Applicants are encouraged to attend an open day and/or attend for interview with the Admissions Tutor. Where applicants cannot attend, telephone interviews may be used to supplement the UCAS form.

13 Support for Students and their Learning:*Induction*

The first week of the first term/semester is an Induction Week with no formal teaching. During this period all students will be given detailed programme information relating to their Stage and the

timetable of lectures/practicals/labs/ tutorials/etc. In particular all new students will be given general information about the School and their course, as described in the Degree Programme Handbook. The International Office offers an additional induction programme for overseas students (see <http://www.ncl.ac.uk/international/arrival>). The Induction Week Programme also includes sessions on how to develop study skills, placements, careers and information on central facilities depending on whether the students are new or returning.

Study skills support

Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification.

Academic support

The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programme may be raised at the Staff/Student Committee, and/or at the Board of Studies.

Pastoral support

All students are assigned a personal tutor whose responsibility is to monitor the academic performance and overall well-being of their tutees. Details of the personal tutor system can be found at <http://www.ncl.ac.uk/undergraduate/support/tutor.phtml>. In addition the University offers a range of support services, including the Student Advice Centre, the Student Counselling Service, the Mature Student Support Service, and a Childcare Support Officer, see <http://www.ncl.ac.uk/undergraduate/support/welfare.phtml>.

Support for Special Needs

Support for students with special needs is provided as required and the University's Disability Support Service can be consulted where appropriate. For further details see <http://www.ncl.ac.uk/undergraduate/support/disability.phtml>.

Learning resources

The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing facilities, see <http://www.ncl.ac.uk/undergraduate/support/acfacilities.phtml>. The University's Virtual Learning Environment (VLE), Blackboard is used by individual module leaders to provide additional web-based support for teaching and learning. The VLE is used to maintain contact and community with students while on the Placement Year.

Students are introduced to, and have access to the Human Nutrition Research Centre – an internationally recognised research centre undertaking research from the molecular and cellular level to large-scale human intervention trials. The Centre provides additional access to laboratory, clinical and community-based research. Final year students are encouraged to attend research presentations organised by the Centre as appropriate.

All new students whose first language is not English are required to take an English Language test in the Language Centre. Where appropriate, in-session language training can be provided. The Language Centre houses a range of resources for learning other languages which may be particularly appropriate for those interested in an Erasmus exchanges. See <http://www.ncl.ac.uk/undergraduate/support/langcen.phtml>.

14 Methods for Evaluating and Improving the Quality and standards of Teaching and Learning:

Module reviews

All modules are subject to review by questionnaires which are considered by the Board of Studies. Changes to, or the introduction of new, modules are considered at the School Teaching and Learning Committee and at the Board of Studies. Student opinion is sought at the Staff/Student Committee and/or the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

Programme reviews

The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee.

External examiner reports

External Examiner reports are considered by the Board of Studies under Reserved Business, in the absence of the student representatives. The Board responds to these reports through Faculty Teaching and Learning Committee.

Accreditation reports

This programme is not accredited by any professional body.

Student evaluations

All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Staff/Student Committee, and the Board of Studies.

Feedback mechanisms

Feedback to students is effected via the Staff/Student Committee and the Board of Studies.

Faculty and University Review Mechanisms

The Programme is subject to the University's Internal Subject Review programme, see http://www.ncl.ac.uk/aqss/qsh/internal_subject_review/policy_09.01.03.pdf

15 Regulation of Assessment:

Pass Marks

The pass mark, as defined in the University's Undergraduate Examination Conventions (<http://www.ncl.ac.uk/regulations/university.regs/ugexamconv.pdf>), is 40.

Course Requirements

Progression is subject to the University's Undergraduate Progress Regulations (<http://www.ncl.ac.uk/regulations/university.regs/ugcont.pdf>) and Undergraduate Examination Conventions (<http://www.ncl.ac.uk/regulations/university.regs/ugexamconv.pdf>). In summary, students must pass 120 credits at each Stage. Limited compensation down to 35 is possible at each Stage and there are resit opportunities, with certain restrictions.

Weighting of Stages

Modules taken at Stages 2 and 3 are Honours modules and the two stages contribute to the award of the final degree in the ratio 25:75.

Common Marking Scheme

The University employs a common marking scheme, which is specified in the Undergraduate Examination Conventions (<http://www.ncl.ac.uk/regulations/university.regs/ugexamconv.pdf>), namely

	Honours	Non-honours
<40	Fail	Failing
40-49	Third Class	Basic
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

Role of the External Examiner

An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, after recommendation from the Board of Studies. The External Examiner is expected to:

- See and approve examination papers
- Moderate examination and coursework marking
- Oral Stage 3 students as necessary
- Attend the June Board of Examiners
- Report to the University on the standards of the programme

16 Indicators of Quality and Standards:

Professional Accreditation Reports

Not applicable

Internal Review Reports

This programme is due for Internal Subject Review in Semester 1 of the 2007-2008 academic year.

Previous QAA Reports

This programme received a QAA Subject Review under the Organismal Biosciences (Unit 7) assessment in October 1998 (Q16/99) and was judged to be excellent with a score of 22/24.

Other Indicators of Quality and Standards

>90% of graduates employed, in further study or not available for employment or training within 6 months of graduation (mean of last 5 years)

Contributions and support from individuals, commercial companies and research institutions including Placements and guest speakers

Good reports in the University's biennial Taught Programme Review and Internal Subject Review

Compliant with the QAA Code of Practice – Placement Learning (CL21/01)

This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

17 Other Sources of Information:

The University Prospectus (see <http://www.ncl.ac.uk/undergraduate/>)

The School Prospectus (see <http://www.ncl.ac.uk/undergraduate/course/B4D6>)

The University and Degree Programme Regulations (see <http://www.ncl.ac.uk/calendar/pdf/uniregs.pdf> and <http://www.ncl.ac.uk/calendar/sae/>)

The Degree Programme Handbook

QAA Subject Review Report (http://www.qaa.ac.uk/revreps/subj_level/q16_99.pdf)