Welcome to the School of Biosciences

The School of Biosciences is one of the University’s most successful schools and is internationally recognised as a leading centre for teaching and research.

We provide a flexible range of courses (undergraduate and postgraduate) which explore the fundamental and applied science underlying issues as diverse as:

• global food security
• the environment and its protection
• the growth, development, health and reproduction of plants and animals
• the production and preservation of agricultural and food commodities
• food quality, health, nutrition and safety

This brochure focuses on the following courses:
• Food Science
• Nutrition
• Nutrition and Food Science
• Nutrition and Dietetics

We have separate brochures for our other courses in the areas of:
• Agricultural science (with specialisms in crops, livestock science or environmental science)
• Animal science and pre-veterinary science (one year university certificate)
• Biotechnology, microbiology and plant science
• Environmental science and environmental biology

More detailed course information can be found on the University’s undergraduate online prospectus www.nottingham.ac.uk/ugstudy/courses/biosciences

All our courses (except BSc/MSci Environmental Science and BSc Environmental Biology) are primarily studied at the Sutton Bonington Campus (see page 31), with some modules taken at University Park Campus, and there is a free regular hopper bus service between campuses.
Why study biosciences courses at Nottingham?

There has never been a more exciting time to study for a degree in biosciences – biosciences is the generic term for many areas of science which have an almost daily impact on our lives, from the air we breathe to the food we eat and the environment in which we live.

Whether you see yourself as a pioneer of the future, influencing the quality of life on a global scale, or want the assurance of a top-class degree, as a graduate of the School of Biosciences you are guaranteed the best possible start to your career.

Our credentials
• Rated top in the UK for ‘research power’ in the most recent Research Assessment Exercise*
• Consistently ranked highly in The Times, The Guardian and The Complete University Guide’s university league tables for our courses and student satisfaction ratings
• Awarded a Queen’s Anniversary Prize for Higher and Further Education in 2012, for research on global food security. This is the most prestigious form of national recognition open to a UK academic institution.
• In the 2013 National Student Satisfaction survey, we scored a 93½% satisfaction rate among our students

World-class teaching and research
We are the UK’s strongest teaching and research centre for fundamental and applied biological, agricultural, environmental and food sciences.

You will be taught by leading international specialists, the majority of whom are active researchers in the most rapidly developing areas of biosciences; many of our academic staff are also expert advisors to government institutions, industry, and other national and international bodies. You will benefit from our extensive links with companies and institutions working in the field of biosciences.

We have a very favourable student to staff ratio of approximately 11 students to each member of staff.

Facilities
As well as the excellent teaching standards, you will also benefit from state-of-the-art facilities – you can read more about the impressive range of facilities at Sutton Bonington Campus on page 18.

Study abroad and industry placement opportunities
Unlike many other bioscience departments in the UK, at Nottingham you will have the opportunity to study abroad for a semester or a year, or to spend a year working in industry as a paid employee.

This is a fantastic opportunity for not only academic but also personal development, where you can gain valuable experience putting your learning into practice and also enhance your employability prospects. For more information see pages 21 to 24.

* The Research Assessment Exercise is an independent audit of research carried out in higher education institutions nationwide.
Degree courses

<table>
<thead>
<tr>
<th>Course title</th>
<th>UCAS code</th>
<th>Duration</th>
<th>A levels</th>
<th>IB</th>
<th>Places</th>
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<tr>
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<tr>
<td>BSc Food Science</td>
<td>D610</td>
<td>3 years†</td>
<td>ABB-BBB</td>
<td>32-30</td>
<td>20</td>
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<tr>
<td>BSc Nutrition</td>
<td>B400</td>
<td>3 years†</td>
<td>ABB-BBB</td>
<td>32-30</td>
<td>30-40</td>
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<tr>
<td>BSc Nutrition and Food Science</td>
<td>B4D6</td>
<td>3 years†</td>
<td>ABB-BBB</td>
<td>32-30</td>
<td>20</td>
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<td>MNutr Nutrition and Dietetics</td>
<td>B401</td>
<td>4 years</td>
<td>AAB-ABB</td>
<td>34-32</td>
<td>28-34</td>
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† Four years with industry placement.

**BSc Food Science**  
ABB-BBB to include two science-based subjects (chemistry preferred; other science subject can be biology, maths or physics). Also considered are applied science, economics, food technology, geography and psychology.

**BSc Nutrition**  
ABB-BBB to include two science-based subjects (biology or chemistry preferred; other science subject can be applied science, food technology, geography, home economics, IT, maths, physical education, physics or psychology).

**BSc Nutrition and Food Science**  
ABB-BBB to include two science-based subjects (chemistry preferred; other science subject can be biology, maths or physics). Also considered are applied science, economics, food technology, geography and psychology.

Citizenship studies, critical thinking, general studies and leisure studies not accepted for our BSc courses. We may also consider ABC depending on predicted grades in specific subjects.

**MNutr in Nutrition and Dietetics**  
AAB-ABB to include two science-based subjects (chemistry essential; biology preferred as second science subject but other science subject can be food technology, geography, home economics, IT, maths, physical education, physics or psychology). Applicants also require GCSE maths grade C or above. Citizenship studies, critical thinking, general studies and leisure studies not accepted. Funding restrictions for this course require that all applicants must have been resident in an EU country for three years prior to applying for admission.
The food and drink industry is Europe’s largest manufacturing industry – employing half a million people in the UK alone. A wide range of career options is available for our food science graduates – see page 25.

### Typical modules for D610

<table>
<thead>
<tr>
<th>Year one</th>
<th>Year two</th>
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<td>• Research Project</td>
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<tr>
<td>• Biochemistry – The Building Blocks of Life</td>
<td>• Manufacture of Food</td>
<td>• The Microflora of Foods</td>
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<tr>
<td>• Genes and Cells 1</td>
<td>• Macromolecules</td>
<td>• Personal and Professional Development for Food Scientists</td>
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<tr>
<td>• Contemporary Agricultural Systems</td>
<td>• Food Product Case Studies</td>
<td>• Food Factory Operations</td>
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<tr>
<td>• Microbial Physiology</td>
<td>• Practical Methods in Microbiology</td>
<td>• Trends in Food Research</td>
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<tr>
<td>• Foundation Science</td>
<td>• Food Safety</td>
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<tr>
<td>• Introduction to Nutrition</td>
<td>• Sensory Evaluation</td>
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<tr>
<td>• Academic Development and Employability</td>
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<tr>
<td>• Food Materials and Ingredients</td>
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<td>• Applied Bioethics 1: Animals, Biotechnology and Society</td>
</tr>
<tr>
<td>• Principles of Immunology</td>
<td>• Virology</td>
<td>• Physical Chemistry of Molecules</td>
</tr>
<tr>
<td>• Virology</td>
<td>• Introduction to Business Operations</td>
<td>• Applied Bioethics 2: Sustainable Food Production, Biotechnology and the Environment</td>
</tr>
<tr>
<td>• Introduction to Marketing A</td>
<td>• Introduction To Finance</td>
<td>• Rapid Methods in Microbial analysis</td>
</tr>
<tr>
<td>• Introduction to Marketing B</td>
<td>• Principles of Human Nutrition</td>
<td>• Microbial Fermentation</td>
</tr>
<tr>
<td>• Communicating Biosciences</td>
<td>• Communicating Biosciences</td>
<td>• Exploring Perspectives in Entrepreneurship</td>
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<tr>
<td>• Agricultural and Food Marketing</td>
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<td>• Technology Entrepreneurship in Business</td>
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</table>

### BSc Food Science

Food science sits at the interface of a number of core scientific disciplines. Our degree course opens up a wide range of rewarding and challenging career opportunities; it equips graduates with the knowledge and skills to tackle the challenge of producing and manufacturing food for a growing global population.

As well as formal lectures there are talks from industrialists, laboratory classes, a product development team challenge, small scale food manufacture in our purpose-built food processing facility, problem-based learning through real-life case studies and tours of food manufacturing sites.

#### Year one

In the first year you will learn about the science that explains the chemical and physical properties of food materials. Concepts explained in lectures come alive in practical classes and in the food processing facility, where you will make a range of food products and dishes and explore the reasons for the dramatic changes that occur during processing and cooking.

#### Year two

Building on year one, you will manufacture food products and develop your critical thinking skills, supported by small group tutorials and lectures. You will gain a detailed understanding of process engineering and of the role of certain hydrocolloids and macromolecules in tuning the physical properties of certain food products. In small teams, you will work together to solve a food product-related problem as presented in a short scenario. A module in sensory evaluation provides you with the skills and protocols to test commodity crops are grown and how they are transported around the world.

#### Industry placement

Many students choose to take one year out in a paid industry placement between years two and three (see page 24).

#### Year three

In the final year you will carry out a unique research project supervised by one of our academics. Examples of recent research projects include:

- Waste tomato seed as a source of tocopherol (vitamin E)-rich natural emulsions
- Comparison between Turkish Delight and hard gummy sweets
- Particle stabilised emulsions
- Flavour perception of standard and organic orange juice

In addition to your project, you will study the operation of food factories and develop a new product in the food processing facility as part of a small group, then present your product (ready to eat or drink) to your peers and to representatives from industry; a prize is awarded to the best team.

The history of food science provides a backdrop to an exploration of the current trends in food research; such an appreciation helps you to imagine the future, and can act as a springboard to innovation. At the start of your final year, when you are thinking about career options, we formally promote your personal and professional development.

#### By the end of the course

The food and drink industry is Europe’s largest manufacturing industry – employing half a million people in the UK alone. A wide range of career options is available for our food science graduates – see page 25.
BSc Nutrition
What we eat, and how much we eat, has a profound effect on our health. While much of the world is still concerned with consuming sufficient energy and essential nutrients to survive, many “industrialised” countries are suffering ill health due to over-consumption of inappropriate foods. Chronic diseases such as heart disease, cancer, obesity and ageing are all influenced by the diet we consume. Nutrition is a subject of controversy within society and well-trained nutritionists are needed to inform, explain and develop the subject.

Students learn to approach the profusion of nutritional information and advice from a sound scientific basis. The course also offers the unique opportunity to study nutrition alongside animal and plant production, food science and food safety, as well as biochemistry and physiology. This enables students to develop a useful insight into the related fields of agriculture and the food industry to complement their knowledge of nutrition.

This course is accredited by the Association for Nutrition. Graduates can join the Association of Nutritionists’ Register as an Associate and use the ANutr qualification.

Year one
In the first year you will be introduced to the basic principles of nutrition and metabolism. Modules in nutrition and food science present an introduction to the relationship between diet and health.

Year two
You will explore diet in relation to diabetes, obesity and coronary heart disease. Optional modules will allow you to develop your knowledge of nutrition alongside specialisation in biochemistry, physiology or food science.

Year three
Your research project will provide the main core of activity for the third year. Advanced modules will also be taken in human nutrition, with an emphasis on nutrition across the lifespan, public health nutrition and nutrient-gene interactions. Examples of recent research projects include:

- Differences in knowledge and behaviour in the obese and nonobese
- Effect of processing on nutrients in tomato juice
- Dietary intake of saturated fatty acids and tissue fatty acid composition

Study abroad
Students on this course can apply to study for part of their degree at the University’s Malaysia Campus (see page 21).

By the end of the course
A degree in nutrition can lead to many career choices. Our graduates have gone on to practise nutrition within the food industry, specialist nutritional supplement companies, public health nutrition, education and journalism. The science base of this degree is a good springboard for higher degrees in public health.

Many of our graduates are interested in careers in the Health Service. Graduates in nutrition may work as dietetic assistants and are qualified to work with patients if supervised by a dietitian.

In order to become a qualified dietitian, a BSc Nutrition graduate should consider further study via a postgraduate diploma in dietetics (this option is not currently available at Nottingham). Or you can consider our four-year undergraduate masters degree in nutrition and dietetics (see page 13).

Typical modules for B400

<table>
<thead>
<tr>
<th>Year one</th>
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<tbody>
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<td>- Nutrition, Metabolism and Disease</td>
<td>- Molecular Nutrition</td>
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<tr>
<td>- Genes and Cells 1</td>
<td>- Biochemistry of Mammalian Development</td>
<td>- Nutrition and the Health of Populations</td>
</tr>
<tr>
<td>- Introductory Physiology</td>
<td>- Principles of Immunology</td>
<td>Optional modules include:</td>
</tr>
<tr>
<td>- Foundation Science</td>
<td>- Research in Nutrition and Biochemistry</td>
<td>- Biotechnology in Animal Physiology</td>
</tr>
<tr>
<td>- Introduction to Nutrition</td>
<td>- Principles of Human Nutrition</td>
<td>- Applied Bioethics 1: Animals, Biotechnology and Society</td>
</tr>
<tr>
<td>- Academic Development and Employability</td>
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<td>- Coordinated Physiological Functions</td>
</tr>
</tbody>
</table>

Optional modules include:

- Food Materials and Ingredients
- Introduction to Health Behaviours
- Practical Animal Physiology
- Reproductive Physiology
- Food Commodities
- Manufacture of Food
- Macromolecules
- Virology
- Communicating Biosciences
- Agricultural and Food Marketing
- Endocrinology
- Neuropsychology and Pharmacology
- Mammalian Biochemistry – Techniques and Functional Regulation
- Food Safety
- Food Product Case Studies
BSc Nutrition and Food Science

Chronic diseases such as heart disease, cancer, obesity, diabetes and ageing are all influenced by the diet we consume. Functional foods are foods that make a specific health claim and these products can only be released for sale in the UK if there is sound scientific evidence to support the claim.

Opportunities exist within the food industry for students who are scientifically trained in both food science and nutrition. They are uniquely placed to understand raw ingredients, their nutritional content, and the effect of processing and storage on food quality (colour, flavour, texture) and nutritional value. They will also appreciate the physiological link between consumption, nutrient uptake and health benefit or risk.

Year one

You will be given an extensive introduction to nutrition, and to the biochemistry that explains the connection between nutrition and health. You will also learn about the chemical and physical properties of food materials. Concepts explained in lectures come alive in practical classes and in the food processing facility, where you will make a range of food products and dishes and explore the reasons for the dramatic changes that occur during processing and cooking.

Year two

You will study the relationship between nutrients, human metabolism and the development of certain dietary-related disease states such as coronary heart disease and obesity. Building on year one, you will manufacture food products and develop your critical thinking skills, supported by small group tutorials and lectures. You will gain a detailed understanding of process engineering and of the role of certain hydrocolloids and macromolecules in tuning the physical properties of certain food products. In small teams, you will work together to solve a food product-related problem as presented in a short scenario. A module in sensory evaluation provides you with the skills and protocols to test consumer acceptance of new products. You will also find out about the global food supply chain, ie where commodity crops are grown and how they are transported around the world.

Industry placement

Many students choose to take one year out in a paid industry placement between years two and three (see page 24).

Year three

You will span a range of nutrition-related topics from social policy for the improvement of population health, to the more molecular topic of nutrient gene interactions. You will carry out a unique research project supervised by one of our academics. Examples of recent research projects include:

- Omega-3 oils from sustainable non-fish sources
- Impact of UV-C treatment on nutritional composition of fruit and vegetables
- Does the antibody specificity to food proteins from maternal milk reflect the serum levels?
- Do dietary polyphenols reduce blood pressure?

In addition to your project, you will study the operation of food factories, and develop a new product in the food processing facility as part of a small group, then present your product (ready to eat or drink) to your peers and to representatives from industry; a prize is awarded to the best team.

By the end of the course

The food and drink industry is Europe’s largest manufacturing industry – employing half a million people in the UK alone. A wide range of career options is available for our nutrition and food science graduates – see page 25.

Typical modules for B4D6

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<thead>
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<td>- Personal and Professional Development for Food Scientists</td>
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<td>- Introductory Physiology</td>
<td>- Macromolecules</td>
<td>- Optional modules include:</td>
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<td>- Foundation Science</td>
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<tr>
<td>- Introduction to Nutrition</td>
<td>- Food Product Case Studies</td>
<td>- Molecular Nutrition</td>
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<td>- Food Materials and Ingredients</td>
<td>- Food Safety</td>
<td>- Physical Chemistry of Molecules</td>
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<tr>
<td>- Academic Development and Employability</td>
<td>- Sensory Evaluation</td>
<td>- Applied Bioethics 2: Sustainable Food Production, Biotechnology and the Environment</td>
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<td>- There are no optional modules in year one.</td>
<td>Optional modules include:</td>
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<td>- Endocrinology and Metabolism</td>
<td>- Agricultural and Food Marketing</td>
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<td>- Introduction to Marketing A</td>
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MNutr Nutrition and Dietetics

This course is explicitly intended to train students for a career in dietetics. The course is accredited by the British Dietetic Association and approved by the Health and Care Professions Council (HCPC). Students who successfully complete the course are eligible to apply to the HCPC for registration as a dietitian in the UK. We aim to produce high calibre dietitians with all of the academic, practical, therapeutic and personal skills required of their profession.

The course is taught primarily by the School of Biosciences with significant input from the Faculty of Medicine and Health Sciences. This means that, uniquely, students study to be dietitians alongside their future colleagues: doctors, nurses, pharmacists and others. The major local hospital and community dietetic departments are also involved in the course, giving students regular contact with practising dietitians and a vital insight into their future career.

You will receive a thorough grounding in the scientific disciplines that underpin nutrition, such as biochemistry and physiology. The course also covers education methods, communication skills, psychology and sociology, alongside the clinical practice of dietetics. Many of the teaching staff are experienced registered dietitians. Clinical skills are further developed through three clinical placements that take place within hospital and community dietetic departments throughout the East Midlands and South Yorkshire.

Year one
You will develop an understanding of the roles and skills required of a registered dietitian and study relevant science subjects including nutrition and biochemistry. You will take a short clinical placement experience, normally four weeks, in the summer vacation.

Year two
You will continue to develop your background knowledge of basic and applied sciences, as well as practical and clinical skills.

Year three
This year explores various aspects including public health and research skills. A 12-week summer vacation placement develops core clinical skills.

Year four
You will undertake your research project. Our close links with the University's School of Medicine and local dietetic departments mean that research projects directly related to nutrition and human health are available. Previous projects include:

- Compliance to dietary advice in diabetes mellitus Type 2
- Processed food intake in pre-school children
- The relationship between breastfeeding and allergy: a systematic review of the literature

A further 12-week clinical placement will consolidate your skills prior to applying for registration as a dietitian.

By the end of the course
You will be highly skilled in the principles and practices of dietetics, and have developed your practical research skills. Most dietitians work within the National Health Service either in hospitals or within the community. A dietitian can choose to specialise in a range of areas such as paediatrics, obesity, renal or liver disease, diabetes and health promotion. Outside the Health Service, opportunities are available in private practice, sports nutrition, media and journalism, education, food and drink industries, overseas development and consumer organisations. Registration in dietetics in the UK is recognised in many countries overseas.

Typical modules for B401

**Year one**

**Core modules**
- Introduction to Dietetics
- Introduction to Nutrition
- The Biosciences and Global Food Security
- Biochemistry – The Building Blocks of Life
- Genes and Cells 1
- Introduction to Health Behaviours
- Introductory Physiology
- Academic Development and Employability

**Summer vacation**
- Four weeks placement experience*

**Year two**

**Core modules include:**
- Nutrition and the Health of Populations
- Clinical Pharmacology
- Changing Behaviour, Promoting Health
- Principles and Practice of Dietetics
- Research Skills in Dietetics

**Summer vacation:**
- 12-week clinical placement*

**Year three**

**Core modules include:**
- Biochemistry of Mammalian Development
- Principles of Immunology
- Endocrinology and Metabolism
- Nutrition, Metabolism and Disease
- Food Composition for Dietetics
- Medicine and Pathology
- Principles of Human Nutrition
- Communication Skills and Educational Methods

**Summer vacation:**
- 12-week clinical placement*

**Year four**

**Core modules include:**
- Dietetics Research Project
- Nutrition in the Community 2
- Advanced Dietetics and Professional Issues
- Advanced Dietetic Practice (includes 12-week clinical placement*)

Optional modules:
- Communicating Biosciences
- Social Psychology

* Clinical placements are unlikely to be available part-time.

The relationships between breastfeeding and allergy, the processing of food for children, and compliance to dietary advice in diabetes mellitus Type 2 are just some of the research projects that are available in this course. The course is designed to prepare students for a wide range of careers in dietetics.
How will I study?

We want you to have the best possible learning experience, whatever your chosen course of study. At the School of Biosciences you’ll experience an integrated range of teaching and learning styles, from traditional lectures, practicals, small-group discussions and tutorials to contemporary multimedia and internet systems.

Modules
Modules are self-contained units of study that usually run for one semester; but some are year-long. All our undergraduate programmes are modular with assessment at the end of each semester. Although some modules are core, you can choose from a range of optional modules. Depending on your timetable you may also be able to take modules from other schools across the University.

In the first year, most students take the same core modules, providing you with the basic foundations to underpin your degree. As you progress there is more flexibility and the opportunity to tailor your degree to suit your interests. This ensures that you leave The University of Nottingham with a solid scientific background, commercial awareness and transferable skills – vital attributes that are highly valued by graduate recruiters.

You will have the opportunity to change courses within the first year, subject to approval.

Your research project
One of the strengths of all our degrees is the final year research project module. This allows you to work on your chosen area, supervised by research scientists, and provides the opportunity for you to demonstrate your abilities to future employers. It involves independent study, a literature survey and data handling, analysis and interpretation. The project also develops significant transferable skills, including critical thinking.

The school maintains close contacts both with industry and research institutions. Some of our courses feature site visits and field trips. Presentations from guest speakers strengthen our links with both the commercial and research worlds.

Your personal tutor
All students at the School of Biosciences have a personal tutor who is a member of the academic staff and will take a close interest in your academic progress and general well-being.

University is a time of great personal development; sensitive guidance and encouragement from your tutor can help you make the most of your time here. You will be able to talk to your tutor (in confidence) about academic and other, more general concerns; they can be a valuable source of information, sympathy and common sense.

Library and computing services
At Nottingham, you will benefit from access to an extensive collection of printed and online library resources. In addition, you will have both on- and off-campus access to a very wide range of databases, ejournals and ebooks, to assist your learning wherever you are working.

At Sutton Bonington, the James Cameron-Gifford Library is one of the best of its kind in the country, providing access to a wide range of books, periodicals and other resources supporting your chosen degree course.
As a highly successful, research-led school we have excellent laboratory and field facilities, including:

- A customised Clinical Skills Centre primarily used for preparing dietetics students for their placements. Students can practice consultations and other clinical skills, be recorded and assessed. The Centre is also being used for a wide range of research projects.
- Purpose-built dietetics laboratory for production of test meals for research projects and training of students studying dietetics.
- Specialist laboratories – for biochemistry, molecular and environmental sciences, flavour research and food structure.
- Metabolism laboratories – for nutritional studies with farm animals.
- Plant and animal tissue culture units.
- An extensive glasshouse complex – including the Future Crops Research Unit.
- A state-of-the-art building for research in food chemistry, food physics and microbiology – including a containment laboratory for working with genetically engineered micro-organisms.
- An animal science teaching laboratory and an extensive suite of teaching and research laboratories in animal sciences covering molecular, cellular and tissue studies.
- A purpose-designed Plant Sciences Building.
- A campus-based University Farm and Dairy Centre – we have a 450 hectare mixed farm, with arable crops, 200 dairy cows (robotically milked) a sheep flock, environmental stewardship land and new and established woodland. The farm is commercially run, with facilities for research and teaching, including a Farm Demonstration Centre; farm staff contribute to the teaching on our degree programmes.
- The Bioenergy and Brewing Building – has state-of-the-art facilities for research and teaching in brewing science, food processing (pilot plant) and bioenergy production. The food processing facility includes bakery equipment, canning facilities and a taste-test room.
- The Learning Resource Centre – up-to-date, 24-hour IT facilities.
How will I be assessed?

Assessment methods
Modules are assessed by a combination of examinations, both written essays and multiple-choice questionnaires, and coursework. The latter comprises a range of exercises, including reports based on laboratory work or problem-based case studies, posters, oral presentations and written essays and articles. Most module assessments comprise 25-40% coursework.

Credits
Your BSc honours degree course will be made up of 360 credits – 120 each year. You will normally take 60 credits each semester, made up of 10 and 20 credit modules. A 10-credit module accounts for approximately 100 hours of study, with typically 20-30 contact hours spent in lectures or laboratory studies and the remainder for private study in your own time.

The teaching year
The teaching year is divided into two semesters. A semester is made up of 12 weeks of teaching and usually two or three weeks of assessment.

This division is for organisational purposes, fitted into the traditional pattern of three terms: one before Christmas; one between Christmas and Easter; and one after Easter.

Your final degree classification
Both your second and third year results together count for 100% of your final, overall grade. The first year is a qualifying year, which means you must pass this year to progress to the second year, but your mark will not contribute to your degree classification.

“There have been many opportunities for working in the lab – it gets you out of the lecture theatre and you can build on the skills learnt at A level.”

Alice Hawker
BSc Nutrition
Study abroad

Certificate in European Studies (Biosciences)
Our BSc degree courses offer the opportunity to follow your chosen degree at one of our partner institutions in France, Germany or Spain for one extra academic year, taken after the second year.

Prior to placement, you will undertake a special European module (including language study) to improve your knowledge of the scientific and cultural aspects of your chosen country. Placements are arranged via the Erasmus European Exchange Programme. Our partner institutions are:

France
• Angers: Ecole Supérieure d’Agriculture d’Angers
• Lille: Université des Sciences et Technologies de Lille
• Lille: Institut d’Agriculture de Lille (ISA)
• Lyon: Institut Supérieur d’Agriculture Rhône-Alpes
• Paris: AgroParisTech (Institut des sciences du vivant et de l’environnement)
• Toulouse: Ecole Supérieure d’Agriculture de Purpan

Germany
• Göttingen: Georg-August-Universität Göttingen

Spain
• Valencia: Universidad Politécnica de Valencia

The academic year in most European countries finishes in late May/early June so you can remain in your host country working or on holiday before you return to Nottingham. This stay aids further language development and allows you to make friends and experience life in another country.

Entry requirements
To be eligible, you must have a minimum of grade B at GCSE or AS level (or equivalent) French, German or Spanish (as appropriate to the host country, and which is not your home language).

How to apply
You can apply to transfer to this four year route during the first semester of your course (subject to meeting language requirements).

Tuition fees
All UK students who spend a full academic year abroad on the Erasmus programme pay reduced tuition fees to The University of Nottingham for the study abroad period.

Assessment
The marks you are awarded as part of your certificate do not count towards your BSc classification.

Malaysia Campus
Students on the BSc Nutrition course may have the opportunity to study for one semester or full academic year at our Malaysia Campus as part of their three-year degree programme. All teaching at our Malaysia Campus is in English and the modules and exams are very similar to those in Nottingham. Students from the UK campuses pay a reduced tuition fee during their time abroad and living costs in Malaysia are lower than in the UK.

Universitas 21
Nottingham is a founder member of Universitas 21 which is a global alliance of key universities. You will be able to apply to spend one semester (the first of your second year) studying in one of our partner institutions (including Australia, China, Korea, Mexico, North America, New Zealand, Singapore). Competition for these placements is high but the rewards are considerable.

Find out more about study abroad opportunities at www.nottingham.ac.uk/internationalstudents/exchanges/index.aspx.
Many of our students take advantage of an optional industry placement between years two and three of their degree. This year-long, paid placement allows students to develop a range of skills and enhance their employment prospects.

The school has excellent links with a wide range of businesses and research institutes and recent students have enjoyed placements at companies and research centres including Cadbury, Campden BRI, Dr Oetker, GlaxoSmithKline, Kellogg’s, McDonald’s, Marks and Spencer, Mars, Mondelez, Nestle, Pepsico, Philips Healthcare, Sainsbury’s, Tesco and Unilever. Placement students become employees of their chosen organisation and are paid a salary for the work they undertake.

Students undertaking an industry placement year will have their degree certificate endorsed with ‘Industrial Placement Award’ in recognition of this year.

Fourth-year BSc Nutrition and Food Sciences student Harriet Bunday did her placement at Mondelez International (formerly Kraft Foods). Harriet worked on Roast and Green Technology in the Research, Development and Quality (RD&Q) department based at Banbury.

“I had two projects in the coffee category. The first looked at raw coffee and I coordinated a small team to conduct analytical testing on my samples. The second looked at a spectroscopy technique and analysing the spectra I had collected. I also took part in sensory training, which made me appreciate the importance of checking consumer opinions.

Before my placement I’d thought that a large part of research and development would be brainstorming new ideas in a large boardroom, but I now have a much wider understanding of the complexities of not only creating new products, but also in research.”

Find out more about the experiences of some of our industry placement students at www.nottingham.ac.uk/biosciences/undergraduate/industryplacements
Career and employment prospects

Our aim is to provide the best environment for teaching, learning and research. The outcome of this is reflected in the success of our graduates.

Graduate career destinations

There are a wealth of graduate opportunities available to graduates in food and nutritional sciences. From the conception and manufacture of innovative food products, to the improvement of consumer health through dietary intervention, exciting and diverse roles exist in the UK and beyond. Some of the careers pursued by recent graduates are shown below.

Food Science
- Product or process technologist, specification technologist
- Sensory scientist
- Innovation technologist
- Quality assurance technologist
- Specifications technologist
- Commercial and manufacturing options
- Raw materials buyer
- Production manager
- Operations improvement
- Government agencies with responsibility for food standards, labelling laws or environmental health

Nutrition
- National Health Service – either in hospitals or within the community. A dietician can choose to specialise in a range of areas such as paediatrics, obesity, renal or liver disease, diabetes and health promotion.
- Private practice
- Sports nutrition
- Media and journalism
- Education
- Food and drink industries
- Overseas development and consumer organisations (registration in dietetics in the UK is recognised in many countries overseas)

See our website for profiles of some of our recent graduates: www.nottingham.ac.uk/biosciences/careers

Average starting salary

In 2013, 94% of first-degree graduates in the School of Biosciences who were available for employment had secured work or further study within six months of graduation. The average starting salary was £20,688 with the highest being £32,500.*

* Known destinations of full-time home and EU graduates, 2012/13.

Nutrition and Dietetics
- Nutritionist and food labelling advisor
- Product or process technologist
- New product development
- Quality assurance technologist
- Specifications technologist
- Nutrition and Dietetics
- National Health Service – either in hospitals or within the community. A dietician can choose to specialise in a range of areas such as paediatrics, obesity, renal or liver disease, diabetes and health promotion.
- Private practice
- Sports nutrition
- Media and journalism
- Education
- Food and drink industries
- Overseas development and consumer organisations (registration in dietetics in the UK is recognised in many countries overseas)

Further study opportunities

Many of our graduates choose to continue their studies and undertake further research to MSc, MRes, MPhil or PhD level at The University of Nottingham or elsewhere. Opportunities for further study within the school include taught postgraduate courses in a wide range of specialist subject areas.

Careers and Employability Service

Our Careers and Employability Service offers an extensive range of careers-oriented services, including CV-writing sessions, interview advice, presentations by major employers and general career advice. As a University of Nottingham graduate, you will receive lifelong support from the service. This means that you can ask a careers advisor to look over your job application and you can also access a database of graduate vacancies.

At Sutton Bonington Campus there is a senior careers adviser and an employability officer who work together to provide a series of skills workshops and employer-led sessions relevant to our students. For more information see www.nottingham.ac.uk/careers

The Nottingham Advantage Award

The University’s advantage award is a programme of activities developed to recognise and reward extracurricular responsibilities. It allows you to gain recognition for participating in a wide range of activities accredited by the University and shows employers that you have gained valuable skills. For further information, please visit www.nottingham.ac.uk/advantageaward

Dietetics students acquiring skills in supporting hospitalised, bed-bound patients in the Clinical Skills Suite.
“At school I was really interested in chemistry and home economics. They tied together really well so food science was the most obvious progression. The facilities here I think are brilliant – the library stays open 24/7 which is really good around exam time. And the computer rooms are open 24/7 too.”

Catherine Carville / BSc Nutrition and Food Science with an Industrial Placement

Find out more about Catherine’s experience at www.nottingham.ac.uk/ugvideos/catherinecarville

Catherine is using the spray dryer to produce milk powder from evaporated milk in the Biomaterials Lab.
Your student experience

You’ve read lots about the degree programme you are interested in, now it is time to explore life outside of the lecture theatre. Read on to discover why being a student at The University of Nottingham is a truly exciting experience.

There really is something for everyone to get involved in, and you may be surprised at the volume of activities and opportunities on offer; all designed to make your time at university as memorable as possible. University is not all work, work; there is much more to it than that!

Your University of Nottingham – at home and around the world

We are proud of our stunning campuses and are continually investing in our grounds, buildings and facilities to ensure that you have only the best surroundings in which to live and study. Our main UK campuses have all gained external recognition, in the form of numerous awards over the years, and it’s not hard to see why.

With campuses in China and Malaysia, as well as links with more than 220 partner institutions in over 40 countries, studying at The University of Nottingham will also give your degree a truly global perspective and the chance to explore the world around you. Find out more:

www.nottingham.ac.uk/about/campuses

Your new home from home

The University of Nottingham offers a guarantee of University accommodation for one year to all new full-time undergraduate students, subject to the following conditions: that you make Nottingham your firm choice, return your accommodation application by the set deadline*, accept your offer of accommodation by the deadline given, and have an unconditional status no later than August 2015. If you are an international student, this guarantee applies for the duration of your course.

* For details of the deadline, please check
www.nottingham.ac.uk/accommodation

Most new students at Sutton Bonington live in Bonington Hall (the generic name for all accommodation at Sutton Bonington which is spread across the campus). You will have your own study bedroom in a shared flat with a fully fitted kitchen/diner. There are several different room types to choose from. For more information, including a breakdown of pricing, see

www.nottingham.ac.uk/accommodation

Your support network

Throughout your University journey there are numerous people on hand to support you, including tutors and dedicated staff who will be able to advise you on various aspects of life as a student.

In addition, our Student Services Centres, found on all three UK campuses, provide a range of support, information and specialist services to enhance your student experience, and form part of a comprehensive network of services at the University, designed to support you through your studies.

Academic Support provide a personal and practical approach to academic study – the service also provides specialist academic support for students with dyslexia, dyspraxia and other specific learning difficulties; Disability Support co-ordinates support and access arrangements for disabled students and those with long term medical conditions; Financial Support provide information on the sources of finance available from government agencies and the University itself, and advice about financial matters.

Student Services also advise on a number of other issues, ranging from childcare, counselling and health, to international student support, chaplaincy and faith support, as well as advice on paying your fees, for tuition or accommodation. Whatever you may need support with, they will be able to help or point you in the right direction of someone who can. Find out more:

www.nottingham.ac.uk/studentservices

Getting involved in your Students’ Union

As soon as you start at The University of Nottingham, you are automatically a member of the Students’ Union, considered one of the best in the country. You can choose to get involved with over 200 student-run societies, covering all interests and abilities, more than 70 sports clubs, as well as local and national volunteering projects.

The Sutton Bonington Guild is part of the Students’ Union and represents the students at Sutton Bonington. The Guild’s elected student officers are active in arranging a wide range of welfare services, clubs and societies and social events on campus. Find out more:

www.su.nottingham.ac.uk/sb/about

Exploring your new surroundings

Nottingham city centre has plenty to offer, whatever you like to get up to in your spare time. Also a bus ride away are Leicester, Loughborough and Derby with their own shops, bars, restaurants and cultural and sporting offerings.

Find out more by downloading our guides to Sutton Bonington and Nottingham city:

www.nottingham.ac.uk/ugstudy/downloads
The School of Biosciences is based at Sutton Bonington Campus, situated to the south of Nottingham. Most of our courses are located here with some modules taken at University Park Campus, although the Environmental Science degrees are primarily studied at University Park, with some modules taught at Sutton Bonington.

Sutton Bonington Campus has its own accommodation, sports centre, social amenities and state-of-the-art teaching and research facilities. The campus is also home to the School of Veterinary Medicine and Science and there are around 2,000 students studying on campus.

Travel facts
Sutton Bonington is a 25-minute bus or car journey from University Park Campus in Nottingham. There is a free daily and evening bus service providing a link between campuses and at weekends with Nottingham city centre.

Sutton Bonington Campus is also close to Loughborough (6 miles), Derby (10 miles) and Leicester (15 miles). There are excellent road, rail and air links to the rest of the UK and overseas:
• Two miles from junction 24 of the M1 motorway
• Five miles from East Midlands airport
• East Midlands Parkway railway station (three miles); Loughborough railway station (six miles), both with direct links to London

Tour the campus with one of our students: www.nottingham.ac.uk/about/campuses/campusvideos

Sutton Bonington Campus has plenty of green spaces, perfect for outdoor study and socialising.
Applying for a place

We are looking for students who have the ability and motivation to benefit from our courses, and who will make a valued contribution to the school and the University. Candidates for full-time admission are considered on the basis of their Universities and Colleges Admissions Service (UCAS) form. For more information on how to make your application stand out, have a look at our online prospectus: www.nottingham.ac.uk/ugstudy/applying

Application process
All applications for an undergraduate place to study at The University of Nottingham (including applications by overseas students) must be made through UCAS. Applications should be made online at www.ucas.com. Candidates will be notified of decisions through UCAS Track at www.ucas.com.

Suitable candidates for MNutr in Nutrition and Dietetics will be invited to attend a selection interview.

Your personal statement
This is the section of your UCAS form that tells us most about you, and you should make the best use of it. Be as specific and detailed as you can – we would like to see that you are a student who can work hard, be self-motivated and make the best possible use of the opportunities that our courses offer you. We also welcome information about your interests and hobbies outside your studies.

Required subjects
The general requirements for entry onto our undergraduate courses are:
• Three A levels including two science-based subjects (please see page 5 for specific subjects required). Where only two A levels are offered, both must be in science-based subjects; AS levels will be considered alongside but not in isolation from A levels
• Advanced Vocational Certificates of Education (Double Awards) in science – this will be considered, but will normally require additional AS levels
Like many others, The University of Nottingham does not make offers through the tariff system within the Curriculum 2000 initiative.

The BSc degrees may also be taken with the Certificate in European Studies or study abroad option (see page 21) or an industry placement (see page 24).

Information on current entry requirements can be found on the University’s online prospectus: www.nottingham.ac.uk/ugstudy/biosciences

Alternative qualifications
We accept alternative qualifications to A levels, including:
• International Baccalaureate – a minimum of 30 points, including specified grades in science subjects
• European Baccalaureate – 75% minimum overall, depending on your chosen course, including specified grades in science subjects
• Scottish Advanced Highers – a minimum of two Advanced Highers and five Highers at BB+BBBB, preferably from biology, chemistry, physics and mathematics, depending on your chosen course
• Irish Leaving Certificate – AAABB-BBBBB, with five subjects taken at Higher Level and specified science subjects required
• Welsh Baccalaureate – a minimum of BBB/ABC including the Welsh Baccalaureate Core plus two A levels in specified sciences

Access and BTec courses – these are considered on an individual basis, subject to the suitability of the modules taken

If you hold a qualification other than those listed above, please contact us using the details on page 38 for advice before making an application.

MNutr in Nutrition and Dietetics
This four-year degree is specifically designed as an undergraduate programme and is not suitable for postgraduate entry. The University of Nottingham does not offer a two-year postgraduate direct entry route into this degree. The integrated nature of the degree means that we cannot offer exemption from modules through accredited prior learning. The British Dietetic Association and Health and Care Professions Council websites provide details of alternative postgraduate courses.

Flexible admissions policy
We recognize that some educational and personal circumstances affect achievement. If we judge that you have exceptional circumstances that have adversely affected your achievement, we will consider them when assessing your academic potential. Some courses may vary the offer as a result. For the most up to date information about our offers, please see the course fact files in our online prospectus and for more information about this policy, please see www.nottingham.ac.uk/ugstudy/applying

Mature applicants
We encourage applications from mature students (which means all those aged 21 or over when the course begins). You should apply in the normal way through UCAS. While we accept a range of qualifications, you should check our specific requirements on UCAS course entry profiles. If in doubt, please contact the admissions tutor, using the details on page 37, who will be happy to answer any specific queries you have about applying as a mature student.

Part-time study
The courses covered in this brochure are offered part-time, except for the Master of Nutrition and Dietetics degree. Applications for part-time study should be made directly to the University.

International applicants
We welcome applications from international students and have students from many parts of the world studying with us at undergraduate and postgraduate level. All international candidates for undergraduate courses should apply through UCAS. The University’s International Office offers guidance and advice on matters such as visa and immigration regulations, working and living in the UK, entry requirements and preparing for coming to Nottingham – and arranges a Welcome Programme for new international students each September. If you would like to visit the University and are unable to attend an open day, the International Office will be happy to arrange a tailor-made visit for you. For further information please visit www.nottingham.ac.uk/international

English language requirements
IELTS 6.0 (no less than 5.5 in any element) Pearson Test of English (Academic) 67 (no less than 51)

Master of Nutrition and Dietetics
IELTS 7.0 (no less than 6.5 in each element) Pearson Test of English (Academic) 87 (no less than 67)

Deferred entry
Applicants who wish to defer their entry by a year will not be at a disadvantage. Please tell us something about your plans for your gap year in your UCAS personal statement.

Equal opportunities policy
The University aims to create the conditions whereby students and staff are treated solely on the basis of their merits, abilities and potential, regardless of gender, race, colour, nationality, ethnic or national origin, age, socio-economic background, disability, religious or political beliefs, trade union membership, family circumstances, sexual orientation or other irrelevant distinction.
Frequently asked questions

How much are the fees?
Like many universities in England, Nottingham charges full-time UK and EU students an annual tuition fee of £9,000. However, you will not have to pay your fees while studying – the government will lend eligible students the money, which you will start to pay back once you have left university and are earning at least £21,000. For more information, please see www.nottingham.ac.uk/fees

Students on the MNutr Nutrition and Dietetics course may expect to have their tuition fees paid in full by the NHS and may receive financial support in the form of a bursary. However, the fee and bursary arrangements are subject to approval by the Department of Health and the conditions of the NHS Student Bursaries Scheme. Funding restrictions imposed by these sponsors mean that all applicants must be eligible to have their fees paid by the Department of Health. Hence, it is necessary to have been resident in an EU country for at least three years prior to applying for the course.

Fees for students from outside the EU vary from subject to subject. For more information, please see the ‘New international students’ section on www.nottingham.ac.uk/fees

What support do you offer for students with a disability or dyslexia?
The school, like the University, is committed to promoting access for students who have a disability, dyslexia or a long-term medical condition. Services provided by the University aim to enable students to fulfil the inherent requirements of the course as independently as possible. The University’s Disability Statement, which lists services, facilities and opportunities available throughout the University can be viewed at www.nottingham.ac.uk/disability

What are Key Information Sets?
Key Information Sets (KIS) are comparable sets of information about full- or part-time undergraduate courses that are designed to meet the information needs of prospective students. All KIS data is published on the Unistats website: www.unistats.co.uk

For Nottingham’s KIS data, please see individual course entries at: www.nottingham.ac.uk/ugstudy

What bursaries and scholarships are available?
Around a third of students at Nottingham are likely to be eligible for a non-repayable University of Nottingham Core Bursary. Some students will also be eligible for support through Nottingham Potential Bursaries and the National Scholarship Programme. These are in addition to any support you may receive from the government. For more information please see www.nottingham.ac.uk/financialsupport
Visiting and contacting us

Open days
If you're considering applying to The University of Nottingham you should try to attend one of the University-wide open days, which are held in June and September each year. You can talk with members of academic staff, attend subject sessions and tour the campus with current students. Find out more: www.nottingham.ac.uk/opendays

Mini open days
The University runs tours on some Wednesdays throughout the year, please contact the Enquiry Centre on +44 (0)115 951 5559 or email undergraduate-enquiries@nottingham.ac.uk

UCAS visit days
All candidates who receive an offer are invited to a UCAS visit day, which is an opportunity for you to see the school and the University for yourself. You will hear about the school and its courses from members of academic staff and they will answer any questions you might have. You will also be given a tour of the campus by current students.

Contact us
Food Science/Nutrition and Food Science
Dr David Gray
Admissions Tutor
t: +44 (0)115 951 6147
e: david.gray@nottingham.ac.uk

Nutrition
Dr Simon Welham
Admissions Tutor
t: +44 (0)115 951 6129
e: simon.welham@nottingham.ac.uk

Nutrition and Dietetics
Mrs Amanda Avery
Admissions Tutor
t: +44 (0)115 951 6238
e: amanda.avery@nottingham.ac.uk

For general enquiries, contact:
Student Recruitment Manager
t: +44 (0)115 951 6005
t: +44 (0)115 951 6020
e: biosciences-enquiries@nottingham.ac.uk
w: www.nottingham.ac.uk/biosciences

For international student enquiries, contact:
The International Office
t: +44 (0)115 951 5247
t: +44 (0)115 951 5155
e: international-office@nottingham.ac.uk
w: www.nottingham.ac.uk/international

You can also connect with fellow applicants and current students on our applicants’ Facebook and Twitter pages – search for UoN Applicants.

This publication is available in alternative formats:
t: +44 (0)115 951 4591

The University of Nottingham has made every effort to ensure that the information in this brochure was accurate when published. Please note, however, that the nature of the content means that it is subject to change from time to time, and you should therefore consider the information to be guiding rather than definitive.

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Printed August 2014.
Design: www.campbellrowley.com

Your passion can be your success. Study what you love.

The world needs scientists and engineers. But not just any scientists or engineers. It needs people who will transform their love of the subject into life-changing inventions and discoveries. If you have the enthusiasm, we have the lecturers to fire it.

Find out more: www.nottingham.ac.uk/studywhatyoulove