UCD Agriculture, Food Science and Human Nutrition

UNDERGRADUATE PROGRAMMES

2020 ENTRY

VOTED NO. 1 IN IRELAND FOR GRADUATE EMPLOYABILITY
2018 & 2019

CONTENTS

UCD School of Agriculture and Food Science

#1 **1st destination of choice in Ireland**
for students interested in studying Agriculture and Food Science

Ranked **19th Globally** & **5th in Europe** for Agricultural Sciences

(US news and World Report Subject Rankings 2018)

TOP 1%

Expertise

UCD is ranked in the top 1% of higher education institutions world-wide

Opportunity

12 Undergraduate Programmes

International Study Opportunities

13 Exchange Partner Universities

PWE

Professional Work Experience is a component of all programmes including international placements

Only University in Ireland with a School of Agriculture and Food Science

QS GRADUATE EMPLOYABILITY RANKINGS®

VOTED NO. 1 IN IRELAND FOR GRADUATE EMPLOYABILITY

2018 & 2019

Support

Over 70 student scholarships, prizes and medals awarded annually.

WELCOME

UCD is Ireland's Global University and is currently ranked within the top 1% of higher education institutions world-wide. With over 160 years of tradition, 30,000 students from over 139 countries, 400 exchange partners and 235,000 alumni worldwide, UCD is at the forefront of global knowledge. We provide programmes with a curriculum that is constantly changing, responding to external demands, is informed by innovative research and driven by lecturers and professors at the cutting edge of their disciplines.

The School of Agriculture and Food Science is one of UCD's largest Schools and is the number one destination of choice in Ireland for students who wish to study agriculture, food science and human nutrition. Ranked number one in Ireland, nineteenth globally and fifth in Europe for the study of agricultural science (U.S. News & World Report rankings November 2018), students at the UCD School of Agriculture and Food Science will be exposed to the latest scientific discoveries and knowledge that underpins each of our four-year honours degree programmes.

The School offers 12 undergraduate programmes each of which will provide you with an opportunity to study a range of subjects central to many of the major global challenges of today. These include, food production, food security, non-food land uses, environmental sustainability, rural development, nutrition, health, business and economics.

The School of Agriculture and Food Science is committed to gender equality and was one of the first four schools in UCD to be awarded the Athena Swan Bronze award in 2019.

The world is increasing its focus on the need for both sustainable and innovative foods for its increasing population, many of whom demand more sophisticated food and health solutions for a changing lifestyle. At the same time, environmental, sustainability and societal challenges are becoming more and more relevant in the context of agriculture, food businesses and policy making.

Agriculture and Food is Ireland's largest indigenous industry, employing over 165,000 people and is one that continues to show considerable growth and resilience with great potential into the future. Graduates of our programmes obtain a holistic education giving them the capacity to contribute significantly to the Irish and global agriculture and food industries.

The School of Agriculture and Food Science is unique being the only university in Ireland with a School of Agriculture and Food Science with programmes that span the entire food chain, providing a diverse range of career opportunities in Ireland and internationally.

A modular syllabus, Professional Work Experience and International Study Abroad opportunities contribute to the development of highly sought-after graduates.

Please study this brochure and see for yourself the wide range of programmes on offer at the UCD School of Agriculture and Food Science.

We look forward to welcoming you to our community.

Professor Alexander Evans
UCD Dean of Agriculture

> **Our focus at the UCD School of Agriculture and Food Science is to develop the next generation of agriculture and food leaders.**


AIB
Date 18th May 2019
Pay Irish Motor Neurone Disease Association
Forty Thousand Euro Only
€40,000
UCD Ag Soc
www.aib.ie
AIB
Date 18th May 2019
Pay Kevin Bell Repatriation Trust
Twenty-Five Thousand Euro Only
€25,000
UCD Ag Soc
www.aib.ie

WHAT TO EXPECT?

Our reputation for being the most friendly and close-knit community in UCD is well known. Small class sizes enable you to get to know your class and lecturers quickly. Active student committees ensure a full itinerary of events throughout the year.

Year one on each of our programmes are similar and you will undertake core science subjects such as Biology, Chemistry, Physics and Maths on each programme. (Students enrolling on the Dairy Business programme (DN252) will not be required to undertake a Physics subject in year one). Each of these subjects are taught from a basic level to facilitate all students. This strong scientific foundation will serve you well for years 2-4 of your programme and indeed when you graduate with excellent and diverse career opportunities.

Supports and initiatives such as the Mathematics Support Centre, tutorials, laboratories and continuous assessment are designed to assist you along the way. Your timetable is fully modular and you will undertake and be examined in approximately six subjects each semester, ensuring you always have a manageable workload. In later years, your programme will become more specialised and you will undertake more subjects directly related to your preferred programme. You can't be expected to achieve unless you have access to the best facilities, technologies and support.

Students on our programmes will have access to modern lecture and teaching facilities, a full range of laboratories and a new dedicated food science building, a 250ha research farm with its own laboratories, a horticulture field station and computer access for all students. Professional Work Experience (PWE) and international study opportunities are available to students on each of our programmes and normally take place during year three. Students continually highlight PWE as the most enjoyable aspect of the programme and details on PWE and the UCD Agriculture, Food Science and Human Nutrition Study Abroad Exchange Programme are included in this brochure.

Student welfare is a priority at UCD and a number of non-academic support services are available. Peer Mentors' can assist with your transition to UCD offering support, advice and guidance through your first year. Throughout your time at UCD a dedicated Programme Office and Student Adviser will be available to provide guidance and support in relation to any personal, social or practical issues.

“

Our goal is to deliver science-based solutions to the tillage industry, while also providing training opportunities for students seeking to work within the sector. We need students with initiative coupled with a strong willingness to learn and we consistently see this with the UCD cohort.

Over the years, the contribution of placements from UCD has been key to the completion of our research objectives and based on the high standard of students we receive is something we have come to rely on.

Dr. Ewen Mullins
Principal Research Officer,
Head of Crop Science Department,
Teagasc

* In 2019 56 students from UCD completed their placements in various advisory or research roles with Teagasc.

PROFESSIONAL WORK EXPERIENCE

Professional Work Experience (PWE) is the term the School of Agriculture & Food Science use for the student internship process which is undertaken as part of our undergraduate programmes.

There is huge importance attached to this applied learning experience which gives students the opportunity to experience the practical application of knowledge in their chosen area. Many students will say that PWE was the most memorable part of their degree programme.

Students may arrange to take one or a number of placements during their PWE and placements may be taken with an approved provider in Ireland or internationally. The opportunity to complete your PWE placement internationally and the network of partners available to apply to is a unique benefit based on our 180 years of experience and global research links.

The duration of PWE varies depending on what programme students are undertaking and is outlined in the table below. All placements take place in Stage 3.

Programme of Study	Duration	Start
Human Nutrition	40 weeks	September
Animal and Crop Production	30 weeks	January
Food & Agribusiness Management	28 weeks	January
Dairy Business	20 weeks	July
All other programmes*	16 weeks	April

** Students studying Food Business with Chinese Studies will study abroad in Year 3. PWE is optional on this programme.*

Student View

Rachel Lowry
Human Nutrition, Final Year Student

I chose to study Human Nutrition at UCD as it was the perfect way to combine a passion for food with my favourite subjects from school - Chemistry and Biology. The highlight of my degree was my PWE where I undertook a 10-month internship with the US Department of Agriculture (USDA) in their research centre on the University of California, Davis campus. This gave me the opportunity to learn from world renowned research scientists while experiencing student life on an American college campus.

In 2018/19:

29%
Students took their PWE placement overseas

114
International Placements

12
International Destinations

4
Industry Travel Bursary's awarded

11
awards for PWE Placement Excellence

STUDY ABROAD

13
PARTNER UNIVERSITIES

14%*
STUDENTS STUDYING ABROAD

15*
STUDENT EXCHANGE SCHOLARSHIPS

STAGE 3

AMERICA, AUSTRALIA NEW ZEALAND

STUDY ABROAD DESTINATIONS

UCD Majors	Michigan State University	Purdue University	Kansas State University	Iowa State University	Cornell University	Texas A&M Universiy	University of Illinois at Urbana-Campaign	University of Connecticut	University of California (UC Davis)	University of Queensland	Lincoln University	Universiy of Maryland	University of Vermont
Agri Environmental Sciences	•	•	•	•	•	•	•	•	•	•	•	•	•
Agricultural Systems Engineering	•	•		•		•	•	•	•	•		•	
Animal & Crop Production	•	•	•	•	•	•	•				•		
Animal Science	•	•	•	•	•	•	•	•		•	•	•	•
Animal Science - Equine	•	•	•	•		•		•		•		•	
Food & Agribusiness Management	•	•	•	•	•	•	•	•	•	•	•	•	•
Food Science	•	•	•	•	•	•	•		•	•	•	•	•
Forestry	•	•	•	•	•	•	•	•	•	•	•		•
Horticulture, Landscape & Sportsturf Management	•	•	•	•	•	•	•	•	•	•	•	•	•

* ACADEMIC YEAR 2019 - 2020

STUDY ABROAD

There are exciting opportunities for UCD students enrolled on the BAgrSc & BSc Food Science programme to study at partner universities overseas - we call this the Student Exchange Programme.

Students can avail of opportunities to spend a semester studying at American, Australian and New Zealand universities under established exchange programmes.

A semester on the student exchange programme provides a unique opportunity to experience a university environment in a foreign country, broaden your academic experience, earn college credits while living abroad, make lifelong friends and learn about agriculture and food science from another country's perspective, all while experiencing a different culture and lifestyle.

This opportunity can be taken in Year 3 and while no university fees are incurred, students are responsible for covering the cost of their own travel, accommodation, etc. There are a limited number of scholarships available which can support the cost of travel.

"The highlight of my college career was the semester I spent at Cornell University. I couldn't pass on an opportunity to study at a world-renowned Ivy League university in New York."

Joanne O'Keeffe
ACP Student & Ad Astra Academic Scholar

Student View

Stephanie O'Callaghan | Food and AgriBusiness Management Graduate

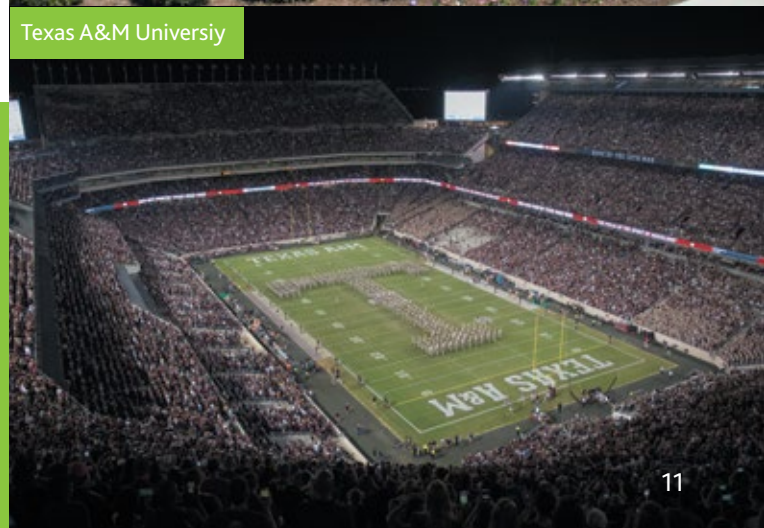
For my semester abroad I went to the University of Illinois. Undertaking a semester abroad is not only highly sociable, with endless activities and events for students, it also allows students to get a more tangible sense of how agricultural practices differ globally. This was a truly unforgettable experience and I cannot recommend enough taking the opportunity to travel as part of your studies.

Not only will you have an amazing time, it will also benefit you when it comes to career development and post graduate opportunities. Getting to experience college life in the U.S as well as work experience in Singapore is not something I would have been able to do in a lot of other courses.

Lincoln University

Purdue University

Texas A&M Universiy




GRADUATE
GRADUATE

CAREERS

Due to the broad nature of our degree programmes students gain positions of employment in a variety of roles. Graduates have an excellent record in obtaining challenging and fulfilling roles.

Careers in sectors such as food, health, agriculture, business and services include: Enterprise management; Technical service and consultancy; Research; Education; Policy; Marketing & communications and Primary production of quality food and drink products.

The School of Agriculture and Food Science has a very strong and unique relationship with industry and students are exposed to employers coming on to campus in search of talented soon-to-be graduates each year. The final year undergraduate students in the School of Agriculture & Food Science are the only student body on campus to organise their own Careers Fair annually. In 2019 more than 46 exhibitors attended a very successful UCD Agriculture, Food Science and Human Nutrition Career Day.

Students have an invaluable opportunity to network when they are undertaking their PWE placements. Each year a selection of graduates commence employment with organisations that provided them with placement opportunities during PWE.

What do School of Agriculture and Food Science graduates do?

Each year the Higher Education Authority (HEA) commissions a report tracking the first destination of university graduates. The First Destination Report highlights the employment rate, as well as the type of roles and organisations where graduates gain employment directly following graduation. The most recent First Destination Report for UCD School of Agriculture and Food Science graduates found:

69.4%
In Employment

27.8%
In Further Study or Training

According to the HEA'S First Destination Report, the UCD School of Agriculture and Food Science class gained employment with a variety of organisations including:

KEPAK, Lidl, glanbia, pwc, Alltech, Department of Agriculture, Food and the Marine, An Roinn Talmhaíochta, Bia agus Mara, DAWN MEATS, COILLTE, Ornua, NUTRICIA Advanced Medical Nutrition, teagasc, AIB

GRADUATE VIEW

Tendai O'Connor
Junior Brand Ambassador, Pernod Ricard and recipient of the Grad Ireland Employee of the Year Award 2019

Food and Agribusiness Management was the ideal course for me because it contained many of the areas I wanted to pursue in one course. I was interested in business and science, especially food production and how to get a product from the farm to the consumer.

A highlight from the course was the professional work experience placement which I completed at the Hilton Food Group in the Netherlands. This was my first exposure to how the business of food production and marketing operates and gave me a feel for what area I was particularly interested in going into my final year.

In addition to the academic side UCD suited me as I was also able to play rugby and many other sports which I have always been heavily involved in from a young age.

Since graduation everything I learned on this course, I have been able to apply while on the Jameson graduate programme, in my role as a Jameson Brand Ambassador and now as a Junior Brand Manager for Pernod Ricard in Mozambique.

WATCH ONLINE
Catch Careers Day 2019
ucdagfood

UCD LYONS FARM

Lyons Farm is a key enabler of UCD's teaching and research ambitions. It forms an integral part of the teaching and research infrastructure of the College of Health and Agricultural Sciences, and specifically of the School of Agriculture and Food Science and School of Veterinary Medicine.

UCD is unique amongst third level universities in Ireland by having its own teaching and research farm to provide students and academics with access to large animal and crop enterprises for the delivery of teaching and research programmes. These programmes are of national importance and underpin technical innovation and science-driven education and discovery for the agri-food industry, which helps maintain international competitiveness and addresses challenges and opportunities for innovation as they emerge.

Currently these include:

- Increasing globalisation and competition,
- The removal of production linked subsidies within the EU,
- The demand for production of healthy food at affordable prices,
- Food produced with due regard to animal health and welfare,
- The need for proper sustainable management of land and animals to protect natural resources (air, water and plant and animal biodiversity),
- The importance of maintaining viability of rural communities and recreational activities,
- The reduction of greenhouse gas emissions from agriculture (currently comprising 33% of national emissions),
- The need to reduce the fossil fuel inputs into agricultural production.

Given the need for food production to be carried out on an internationally competitive and sustainable basis, taking into account food quality and safety to meet the increasingly discriminatory demands and international array of foods available to the consumer, UCD is uniquely positioned to conduct research on the complete spectrum of healthy food production for the consumer from the the very basics of the impact it has on soil and environment through to how its consumption impacts human health on an individual and societal basis.

Education and Research at Lyons Farm

UCD Lyons Long-Term Grassland Platform

The UCD Lyons Long-Term Grassland Platform is an exciting new beef systems experiment established in 2019. The Platform consists of 24ha divided into three farmlets, each sown under a different sward type and grazed by its own beef herd.

Swards are:

- Perennial ryegrass
- Perennial ryegrass and white clover
- Multispecies mixture with grasses, legumes and forage herbs

This Platform will allow UCD researchers to investigate the long-term sustainability and resiliance of pasture-based beef production in terms of animal performance and health, greenhouse gas emissions, biodiversity, water quality, soil fertility and carbon, and economic performance.

This site is part of the Global Farm Platform, an international network of sites working to improve the sustainability of ruminant production systems.

Agricultural Science

DN250

WHY AGRICULTURAL SCIENCE?

From animal science to farm management and conservation and protection of the wider environment, from the animal feed industry to enterprise development, equine science and innovation, from crop protection and global agribusiness to alternative energy sources and food chain technology, Agricultural Science will provide you with the foundation to take your career anywhere in the world.

Our exciting range of programmes cover a wide variety of different subjects offering you a broad choice of lifestyle and career path. If you are interested in Agricultural Science, but are not yet certain of which area to specialise in, you can select the No Preference (NPF) option on your CAO form. Then, during your first year at UCD, you can choose your area of specialisation. Once you receive an offer on the Agricultural Science programme (DN250) you will be guaranteed a place in any of the six specialisations from second year.

If, on the other hand, you know which of the following six programmes you'd like to specialise in, you can select ONE of these programmes on your CAO application. The CAO codes for the degree specialisations offered are:

- **DN250** Agricultural Science
- **DN250** Agricultural Systems Technology
- **DN250** Animal and Crop Production
- **DN250** Animal Science
- **DN250** Animal Science - Equine
- **DN250** Food and Agribusiness Management
- **DN250** Food Business with Chinese Studies

If you select one of the six programmes when applying via the CAO, you can still change between any of the above six programme options up until the end of year one.

Students interested in progressing to the Food Business with Chinese Studies degree must undertake one Chinese language module in semester one and transfer to the Food Business with Chinese Studies degree option by the end of semester one.

What will I study?

All our programmes have a similar first year, designed to give you a strong foundation in the core sciences, maths and economics, which are needed for the rest of your studies. You will study subjects in

- Maths
- Chemistry & Physics
- Cell and Plant Biology
- Agricultural Economics & Business
- Animal Biology & Evolution
- A selection of Agricultural Science based subjects

Your subjects in year two will depend on which of the six programmes you decide to specialise in from year two.

DN250
Agricultural Science

CAO Points
Average 2019 (Round 1) **474**
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Agricultural Systems Technology

DN250

Why Agricultural Systems Technology?

With a focus on design, numeracy and technology, students of Agricultural Systems Technology will be committed and engaged with farming and food production, and specifically with technology to enhance efficiency, sustainability and reliability. Technologies of interest range from computer systems, networks, data management and sensors through machinery systems to precision agriculture. This degree will appeal to students who wish to build their knowledge and skills-base to address the complexities of developing, deploying and managing technology for the agriculture and food sector.

DN250 Agricultural Systems Technology

CAO Points

Average 2019 (Round 1) **474**
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Staff View

Prof. Kevin McDonnell | Professor Crop Science & Biosystems Engineering, UCD and Fulbright TechImpact Scholar 2019

Where is the future of agriculture going? In various guises, information technology is taking over agriculture and therefore drones, satellite-guided planting, fertilization and harvesting reports, and other high-technology applications are enhancing the personal judgments of farmers as they make agronomic decisions.

Syngenta predicts that by 2050, without technological advances, there won't be sufficient nutrition for the world's burgeoning population. Additionally water availability, environmental impacts and soil health will continue to challenge growers in the future. But new technologies will help them deal with these issues more efficiently.

Digital agriculture encompasses all of these issues by utilising sensor technologies – deployed at different points and in different ways throughout the agricultural production process to gather information, and integrating these data streams with satellite images, disease recognition software, weather data etc to enable the industry to farm in a climate-smart way which can achieve sustainable food security under climate change. Data management will be a key tool for the future agricultural industry and this programme equips students with the necessary skills to address this industry need.

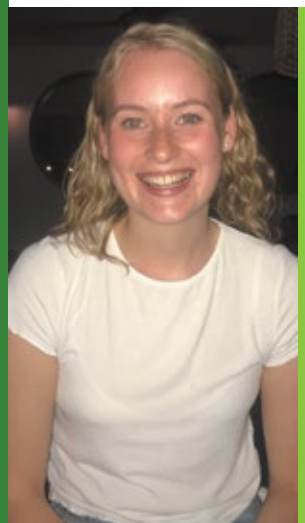
Programme Pathway

Agricultural Systems Technology — DN250

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Agricultural Eng Principles	Agri Mech: Engines and Crops	Databases & Information Systems
Introductory Chemistry	Food Physics	Agri Mech: Hydraulics & Component	Capstone Project
Mathematics	Animal Nutrition	Biosys Eng Research Trends	Life Cycle Assessment
Physics	Soil Science Basics	Business Management	Waste Management
Ag Economics & Business	Principles of Crop Science	Grass & Forage Production	Quantitative Risk Assessment
Information Skills	Health, Welfare & Safety	Numerical Methods for Agriculture	Precision Livestock Mgmt
Biosystems Engineering Design Challenge	Introduction to Animal Science	Sensors and Sensing	Optical Sensing Technology
Cell & Plant Biology	Food Macronutrients	Professional Work Experience	Precision Agriculture
Elective Modules	Applied Biostatistics	Applied Programming for Ag Technology	Farm Business Mgmt
	Agricultural Microbiology		Elective Module
	Elective Modules		

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MEng Food Engineering	Technical Engineer	Technical Sales Manager	Postgraduate Diploma in Education
MSc and PhD Research	Teacher/Lecturer	Scientist	MSc Business Studies
MSc Food Safety & Risk Analysis	Production Manager	Environmental Consultant	Master of Business Administration
MSc Public Health	Farm Manager	Project Manager	HDip Computer Science
MAgrSc Sustainable Agriculture and Rural Development	Operations Manager	Food Processing	Master of Accounting
MSc Environmental Resource Mgt	Policy Analyst	Banker	
	Business Manager		



Student View

Claudia McCormick | Year 3

Growing up on a beef farm in County Offaly, I have always been involved in farming and felt Agricultural Science was the best path for me. I chose Agricultural Systems Technology, as I have always had a keen interest in not only farming but engineering, technology and understanding why things do what they do.

For third year I am travelling to Brisbane, Australia where I will spend a semester abroad studying in University Queensland advancing my agricultural knowledge. I will get the opportunity to further my studies in programming and food based technology subjects while experiencing new people and cultures. With the demand for technology increasing, and the global population rising, this is the perfect course to combine agriculture and technology to better our world.

Animal and Crop Production

DN250

Why Animal and Crop Production?

The science and business of producing Animals and Crops in an efficient, sustainable and environmentally friendly manner is one example of the challenges facing Agricultural Scientists, Farmers and Agribusinesses. As an Animal and Crop Production student you will have access to international experts that will help you develop:

- Knowledge of the growth, development and improvement of farm animals and crops
- The capacity to formulate animal and crop production systems that are economical and sustainable
- Communication and IT skills
- The capacity for lifelong learning so as to remain informed of evolving technical, economic and regulatory frameworks
- Knowledge of the agribusiness industry.

DN250
Animal and Crop Production

CAO Points

Average 2019 (Round 1) **474**
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View

Emmet Landy | Year 4

I always had my mind set on agriculture in UCD but it was in my 2nd year that it became apparent that ACP was the course for me. Studying both crop and animal science has opened up an unlimited amount of options for me in Ireland and indeed globally. PWE exposes students to the practical work of each sector which reiterates the importance of the science-based modules we study in the course.

Outside of my course work I achieved more than I could have imagined with two All-Ireland hurling titles and an All-Ireland handball senior doubles title. Studying agriculture and playing sport combined my two passions in life.

Being part of the close-knit agricultural community in UCD and wearing the prestigious colours of UCD has given me some unforgettable memories and indeed friends for life. It is this community spirit and willingness to achieve that makes UCD agriculture so special and sets us apart from any other course in my opinion.

Programme Pathway

Animal and Crop Production — DN250

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Agricultural Botany	Animal Reproduction	Grass and Forage Production
Physics	Soil Science Basics	Pests and Parasites	Professional Communications
Introductory Chemistry	Genetics and Biotechnology	Soil Science Applications	Practical experience at UCD's Lyons Farm
Maths	Agricultural Microbiology	Plant Diseases - Biology	Non-ruminant Animal Production
Ag Economics & Business	Animal Nutrition I	Professional Work Experience	Cereal Production
Intro to Animal Science	Health, Welfare and Safety	Animal Breeding	Farm Business Management
Intro to Crop Science	Business Management	Animal Nutrition II	Root & Alternative Crop Production
Information Skills	Applied Biostatistics		Agricultural Policy
Cell & Plant Biology	Buildings & Environment		Beef Production
Intro to Biomolecules	Arable Crop Production		Dairy Production
Land Use & Environment	Agricultural Biochemistry		Sheep Production
Elective Modules	Elective Modules		Elective Module

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MAgrSc Agricultural Extension and Innovation	Agricultural Consultant	Project Management	Postgraduate Diploma in Education
MAgrSc Sustainable Agriculture and Rural Development	Teacher/Lecturer	Technical Engineer	Graduate Veterinary Medicine
MAgrSc Environmental Resource Mgt	Production Manager	Policy Analyst	MSc Business Studies
MSc Crops and Green Energy	Farm Manager	Government Official	Master of Business Administration
Walsh Fellowship Research Opportunities	Journalism	Business Manager	HDip Computer Science
MSc and Phd by Research	Agricultural Inspector	Technical Sales Manager	Master of Accounting
	Communications Manager	Scientist	

Graduate View

Ellen Buckley | Graduate Programme, Kepak

It was only after studying Agricultural Science in my leaving cert that I considered agriculture as a career path. I chose UCD as it was the top Level-8 Agricultural Science course in Ireland. When I first came to UCD and saw the wide-open spaces, world class teaching facilities and vibrant student life, I knew it was the place for me. Agricultural Science provided me with a good balance of theory and practical learning. UCD also offers many extra-curricular opportunities such as being involved in Ag Soc, providing peer-mentor support to first year students and the UCD Volunteers Overseas programme. The most memorable part of my four years was my professional work experience placement on an 840 cow dairy farm in New Zealand for which I was lucky enough to be awarded an industry travel bursary. Prior to graduation from UCD, I secured a place on the Kepak Graduate Programme. My time in UCD gave me the necessary tools, knowledge and network of friends to succeed in my career and I look forward to the future.

Animal Science

DN250

Why Animal Science?

Animal Science is connected with all aspects relevant to the development, growth and health of animals including breeding, nutrition, reproduction, genomics and physiology. At the core of Animal Science is the study of the applied sciences that are fundamental to understanding how animals function and also underpin the principles of livestock production. The degree will give you an appreciation of:

- The growth and development of domestic farm animals
- Animal behaviour and welfare
- Animal production systems and how the components are integrated and managed in an environmentally friendly and sustainable manner
- The animal industry in Ireland, the context in which it operates and its relationship to animal industries in Europe and worldwide.

DN250
Animal Science

CAO Points

Average 2019 (Round 1) **474**

Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

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Graduate View

Rachel White
Sales and Marketing Manager (MENA), Ornua

I loved every minute of my four years at UCD. Coming from a dairy background, Animal Science fueled my interest in nutrition, reproduction, breeding and so much more across a range of enterprises.

Something that drew me to the course was the opportunity to study abroad, which I did for a semester in 3rd year at Cornell University. It was by far the highlight of my college experience and something that still benefits me to this day. I spent the first part of my PWE at the college's top-class research facility before returning to Ireland where I continued my PWE on Lyon's farm and in industry with prominent agri-businesses.

The benefit of having PWE built into our degree is priceless, it instantly makes you more employable and was key in many students, including myself, securing positions in leading agri-businesses after college.

As AgSoc's career chairperson, final year culminated for me in the annual career's day, attended by Michael Creed T.D., Minister for Agriculture, Food and the Marine, and over 40 agri-business exhibitors. It was a hugely successful day that showcases the talents and hardworking character of agricultural science graduates. On graduation I joined Ornua on their graduate programme and am now based in Dubai working as Sales and Marketing Manager MENA (Middle East/ North Africa).

Programme Pathway

Animal Science — DN250

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Genetics & Biotechnology	Animal Reproduction	Animal Health, Behaviour & Welfare
Introductory Chemistry	Animal Nutrition I	Animal Breeding	Grass & Forage Production
Mathematics	Applied Biostatistics	Animal Physiology	Students visit UCD's Lyons Research Farm to get hands-on practical experience
Physics	Business Management	Animal Genomics	Non-ruminant Animal Production
Intro to Biomolecules	Agricultural Microbiology	Food Microbiology	Farm Business Management
Ag Economics & Business	Soil Science Basics	Professional Work Experience	Professional Communications
Intro to Animal Science	Buildings & Environment	Exp Design & Data Analysis	Agricultural Policy
Information Skills	Agricultural Biochemistry	Animal Nutrition II	Beef Production
Cell & Plant Biology	Health, Welfare and Safety	Elective Modules	Sheep Production
Land Use & Environment	Elective Modules		Dairy Production
Intro to Crop Science			Elective Modules
Elective Module			

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc Humanitarian Action	Teacher/ Lecturer	Nutritionist	Postgraduate Diploma in Education
MAgrSc Sustainable Agriculture and Rural Development	Production Manager	Quality Assurance Officer	Graduate Veterinary Medicine
MAgrSc Environmental Resource Mgt	Farm Manager	Technical Engineer	MSc Business Studies
MAgrSc Agricultural Extension and Innovation	Journalism	Policy Analyst	Master of Business Administration
Walsh Fellowship	Agricultural Consultant	Government Official	HDip Computer Science
Research Opportunities	Agricultural Inspector	Business Manager	Master of Accounting
MSc and Phd by Research	Communications Manager	Technical Sales Manager	
	Embryologist	Scientist	

Student View

Michael Keane | Year 4

From the moment I stepped foot in UCD I knew I had made a valuable decision for my future. The Animal Science degree allows for the perfect combination of practical and theoretical knowledge, with a mixture of lectures, lab work, and practical days on Lyons Farm.

In addition to the academic side UCD offers a wide range of extracurricular activities and I was lucky enough to be involved with UCD Tag Rugby, the Student Ambassador programme and I was also a member of the national winning Great Agri-Food debate team in 2018.

By far, the highlight of my degree in Animal Science was my time spent on Professional Work Experience. During this time, I experienced all aspects of animal enterprises in Ireland and spent 3 months on a 25,000-cow dairy farm is Southern Idaho, USA.

Animal Science - Equine

DN250

Why Animal Science - Equine?

Animal Science – Equine focuses on the applied sciences that underpin animal and veterinary biosciences, with emphasis on the horse. The degree provides the scientific knowledge and professional skills necessary for professional leadership roles within many aspects of the animal and equine science industries. You will learn about:

- The growth and development of farm animals, how they function, their behaviour and welfare
- Animal production systems and how the components are integrated and managed in an environmentally friendly manner
- The equine industry in Ireland, its global context and entrepreneurial opportunities
- Equine health, reproduction, genetics, breeding, nutrition and exercise physiology
- Advances and future directions in research on equine reproduction and genetics/genomics.

DN250

Animal Science - Equine

CAO Points

Average 2019 (Round 1) **474**

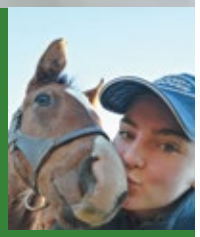
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View

Hannah Rooney | Year 4



Choosing to study Animal Science- Equine at UCD has provided me with the strong foundation I need to pursue a career in the equine industry. Lectures are delivered by researchers who are experts in their fields and passionate about their subject which makes for challenging and yet exciting class discussions. Outside of class I thoroughly enjoyed life at UCD and took advantage of lots of extracurricular activities on offer. I got involved with the Horse Racing Society and was involved with organising trips and events such as the annual trip to the Cheltenham Festival.

The highlight of my time in UCD was my six-month professional work experience placement in third year, which I completed in Hunter Valley Farm, Kentucky, USA. Here I gained practical experience rearing and producing young thoroughbreds. My time at UCD has been unforgettable, providing me with many life-long friends and memories.

Programme Pathway

Animal Science - Equine — DN250

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Genetics and Biotechnology	Animal Reproduction	Farm Business Management
Introductory Chemistry	Animal Nutrition	Animal Breeding	Animal Health, Behaviour & Welfare
Physics	Agricultural Microbiology	Animal Genomics	Equine Genetics
Mathematics	Soil Science Basics	Animal Physiology	Equine Nutrition
Ag Economics & Business	Agricultural Biochemistry	Agri-Env Issues & Policy	Grass & Forage Production
Intro to Animal Science	Business Management	Professional Work Experience	Agricultural Policy
Information Skills	Equine Industries	Equine Reproduction and Breeding Management	Exp Design & Data Analysis
Cell & Plant Biology	Food Macronutrients	Scientific Writing & Review	Professional Communications
Intro to Biomolecules	Applied Biostatistics	Equine Health & Husbandry	Elective Modules
Intro to Crop Science	Health, Welfare & Safety	Elective Module	
Land Use & Environment	Elective Module		
Elective Module			

BAgrSc Honours

UCD Graduate Study

- MAgrSc Sustainable Agriculture and Rural Development
- Walsh Fellowship Research Opportunities
- MSc and PhD Research Opportunities
- MAgrSc Environmental Resource Mgt
- MAgrSc Agricultural Extension and Innovation
- MSc Food Safety & Risk Analysis
- MSc Humanitarian Action

Career Opportunities

- Equine Enterprise Management
- Teacher
- Marketing Manager
- Equine leisure, recreation and tourism activities
- Stud Management
- Journalism
- Lecturer
- Equine Geneticist
- Business Manager
- Communications Manager
- Technical Sales Manager
- Equine Scientist
- Government Official
- Policy Analyst
- Consultant

Conversion or Complementary Courses

- Postgraduate Diploma in Education
- Graduate Veterinary Medicine
- MSc Business Studies
- Master of Business Administration
- HDip Computer Science
- Master of Accounting
- Darley International Student Programme

Graduate View

Lee Dooley
Indian Creek Farm, Kentucky

Having grown up around horses choosing the Animal Science – Equine course at UCD was a natural progression. Moving to UCD for four years was most enjoyable and the friends I made still remain close to me today.

I particularly enjoyed the equine modules and being able to apply what I had learned in the field at home. The opportunity to travel abroad for PWE in third year has set me up in the job I am in today. I completed my PWE in Dromoland Farm in Lexington Kentucky.

Following graduation I worked for four years at Hunter Valley Farm. I am now the Assistant Farm Manager at Indian Creek Farm in Paris Kentucky.

Food and Agribusiness Management

DN250

Why Food and Agribusiness Management?

If you enjoy science and business, the Food and Agribusiness Management degree programme provides a unique opportunity to gain an understanding of both subjects.

During the Food and Agribusiness Management degree, you will learn how the principles of economics and business management apply to farming, food production and marketing. You will gain an understanding of how the Irish and international food systems deliver food products and services that people want, and how farmers and food manufacturers can produce profitably, while also taking care of the natural environment.

The four year degree programme provides a unique opportunity to understand both business and science, focusing on the agri-food sector – Ireland's largest indigenous industry.

DN250
Food and Agribusiness Management

CAO Points

Average 2019 (Round 1) **474**
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Graduate View

Elaine O'Connor | Graduate and Bord Bia Origin Green Ambassador

When filling out my CAO form I wasn't sure what career path I wanted to follow, but I knew I wanted a course that had both elements of business and science. Food and Agribusiness Management was one of a few courses I found that had a broad focus. I felt my career could go in any direction after finishing the course.

I completed my PWE with an American dairy company following a semester studying abroad in Kansas State University. These were brilliant opportunities. I always had a huge passion for agriculture and the Irish food sector and to gain global experience and develop my skillset internationally was great for my career development.

After graduating I joined the Dawn Meats Graduate Programme and progressed to Country Manager for the Belgium Market.

I am currently an Origin Green Ambassador which is a two-year programme run by Bord Bia and the Michael Smurfit Business School. This is a fantastic opportunity to develop my skills and gain a further perspective on the global food industry while promoting the Irish industry abroad. The programme has enabled me work on sustainability projects for companies such as Starbucks, where I spent nine months in their HQ in Seattle, and Danone, Amsterdam where I am currently working. The diversity in my career to date has all been made possible by my decision to study FAM.

Programme Pathway

Food & Agribusiness Management — DN250

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Business Management	Financial Planning and Control	Farm Business Management
Introductory Chemistry	Business Law	Food Chain Integrity	Agri-Environmental Economics
Physics	Principles of Crop Science	Principles of Meat Science	Professional Communications
Mathematics	Applied Economic Analysis	Statistics & Econometrics	Research Project
Ag Economics & Business	Applied Biostatistics	Spreadsheet Modelling	Agricultural Policy
Intro to Food & Agbus Mgmt	Food Macronutrients	Professional Work Experience	IT and E-Business
Land Use & Environment	Agricultural Microbiology	Elective Modules	International Food Marketing
Cell & Plant Biology	Health, Welfare & Safety		Enterprise Development
Intro to Biomolecules	Elective Modules		Food & Agribusiness Strategy
Intro to Animal Science			Agri-Taxation
Elective Modules			Elective Module

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc Humanitarian Action	Business Manager	Technical Sales Manager	Postgraduate Diploma in Education
MAgrSc Sustainable Agriculture and Rural Development	Teacher/Lecturer	Business Development Officer	MSc Business Studies
Walsh Fellowship	Marketing Manager	Government Official	Master of Business Administration
MSc and PhD Research	Farm Manager	Policy Analyst	HDip Computer Science
MAgrSc Environmental Resource Mgt	Journalist	Agricultural Consultant	Master of Accounting
MSc Food Safety & Risk Analysis	Project Management	Quality Assurance Officer	
MSc Food, Nutrition & Health	Production Manager	Market Analyst	
MSc Food Business Strategy	Communications Manager	Stockbroker	

Student View

Thomas O'Brien | Year 3

When arriving at UCD I was excited to begin my journey of deepening my knowledge of the agri-food industry industry. From the outside UCD looked so big but after studying here, I can definitely say it's a close-knit community especially in the School of Agriculture and Food Science.

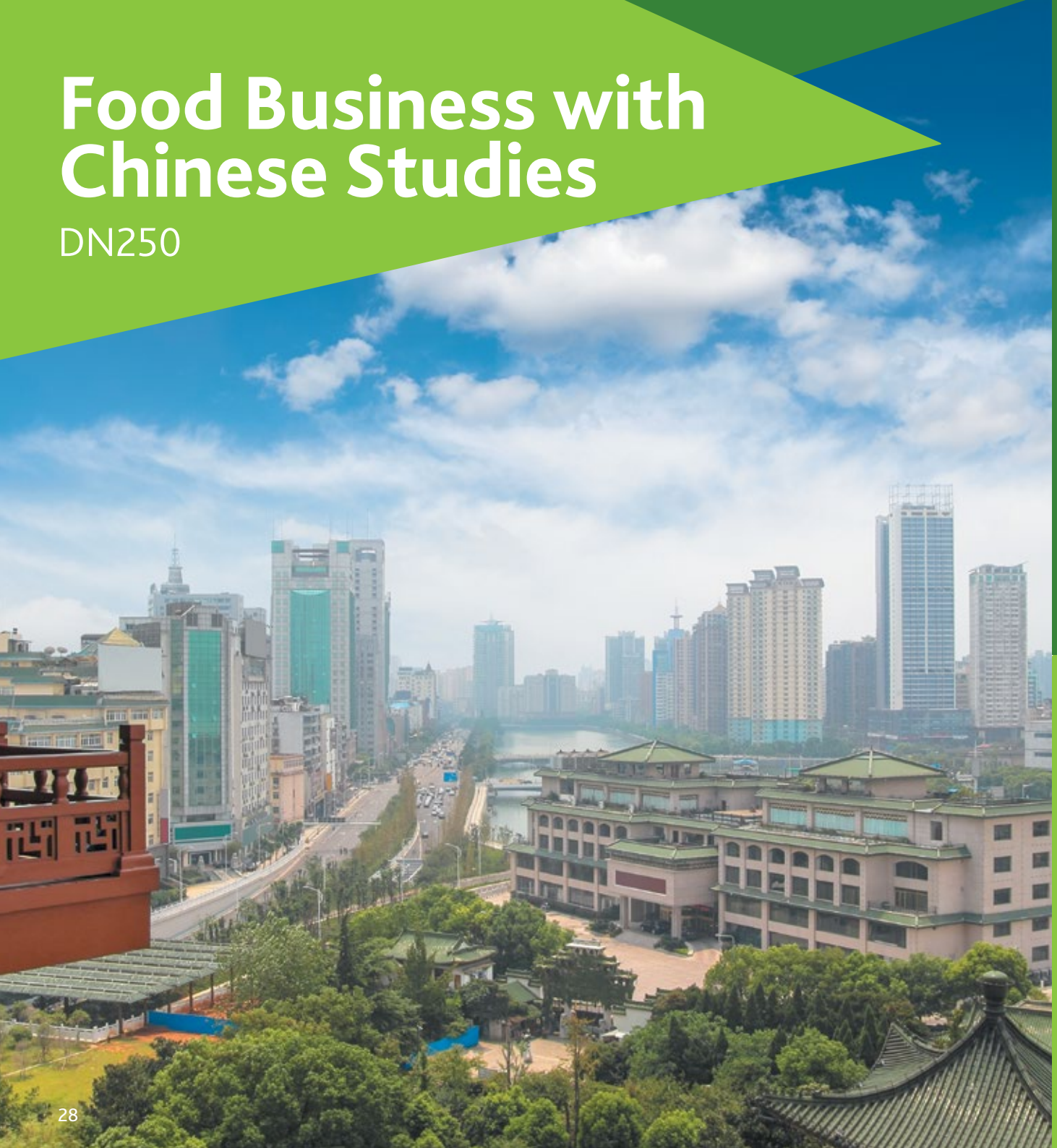
One of the major benefits of UCD for me was the option of studying an elective from across a range of modules. After studying certain modules, I knew I had a strong skillset in the business management and accounting side of agribusiness. This is a major advantage of this course.

My PWE placement with KPMG has been the biggest highlight of my time in college and undoubtedly the most valuable experience.

I was lucky enough to be awarded an Ad Astra Scholarship based on my results for first year. This scholarship gave me access to the Ad Astra Academy's resources, tutorials and workshops and the opportunity to learn a whole new

Food Business with Chinese Studies

DN250



Why Food Business with Chinese Studies?

The Food Business with Chinese Studies programme reflects the changing market landscape, and aims to develop graduates with the skills and talent urgently required by the Irish food industry. With Brexit and the uncertainty involving the UK market, export expansion to the emerging markets has critical strategic importance to the Irish food industry and the overall economy. The changing market landscape requires improved foreign language capability of Irish companies to facilitate access to new markets, and to help sustain and strengthen the modern agrifood and agribusiness companies.

STUDY ABROAD IN CHINA

Students will complete year three of their studies in China at one of UCD's partner Universities, where you will take intermediate or advanced Chinese language courses and a range of interesting and relevant modules.

See more information on the Study Abroad pages earlier in this prospectus.

DN250

Food Business with Chinese Studies

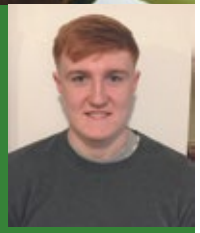
CAO Points

Average 2019 (Round 1) **474**
Minimum 2019 (Round 1) **425**

Minimum A Level:
AAB or ABB +B @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View



Eoin Gaine
Year 2 Student

I am currently studying Food Business with Chinese Studies at UCD and I am loving every minute of it. This course has allowed me to meet so many new people. The brand-new Confucius Institute, overlooking one of UCD's beautiful lakes, is a building dedicated to Chinese studies and my favourite building on campus.

Ireland and China have been building up strong trade links, especially in the food and drink sector. There will be no shortage of employment for a student who understands agribusiness and has obtained fluency in Chinese. All of third year is spent in Renmin University in Beijing, one of China's top business schools.

Here we will be given the opportunity to immerse ourselves in Chinese culture and broaden our knowledge of the language. The combination of food, business and learning the Chinese language, makes this a unique course that I am very excited to study at UCD.

Programme Pathway

Food Business with Chinese Studies — DN250

Year 1 Subjects
- Intro to Food and Agbus Mgmt
- Ag Economics and Business
- Mathematics
- Chemistry
- Biology
- Physics
- Land Use & Environment
- Chinese Language Experience
- Elementary Written Chinese
- Elementary Spoken Chinese

Year 2 Subjects
- Business Management
- Applied Economic Analysis
- Financial Planning and Control
- Health, Welfare & Safety
- Intermediate Spoken Chinese
- Intermediate Written Chinese
- Optional Modules

Year 3 Subjects
- One year Study Abroad at UCD partner university in China

Year 4 Subjects
- Food and Agribusiness Strategy
- International Food Marketing
- Agricultural Policy
- Enterprise Development
- Chinese Economy
- Doing Business in China
- Optional Modules

BAgrSc Honours

UCD Graduate Study
- MSc Humanitarian Action
- MAgrSc Sustainable Agriculture and Rural Development
- Walsh Fellowship
- MSc and PhD Research
- MAgrSc Environmental Resource Mgt
- MSc Food Safety & Risk Analysis
- MSc Food, Nutrition & Health
- MSc Food Business Strategy

Career Opportunities
- Business Manager
- Teacher/Lecturer
- Marketing Manager
- Farm Manager
- Journalist
- Project Management
- Production Manager
- Communications Manager
- Business Development Officer
- Government Official
- Policy Analyst
- Global Markets Executive
- Agricultural Consultant
- Quality Assurance Officer
- Market Analyst
- Stockbroker

Conversion or Complementary Courses
- Postgraduate Diploma in Education
- MSc Business Studies
- Master of Business Administration
- HDip Computer Science
- Master of Accounting

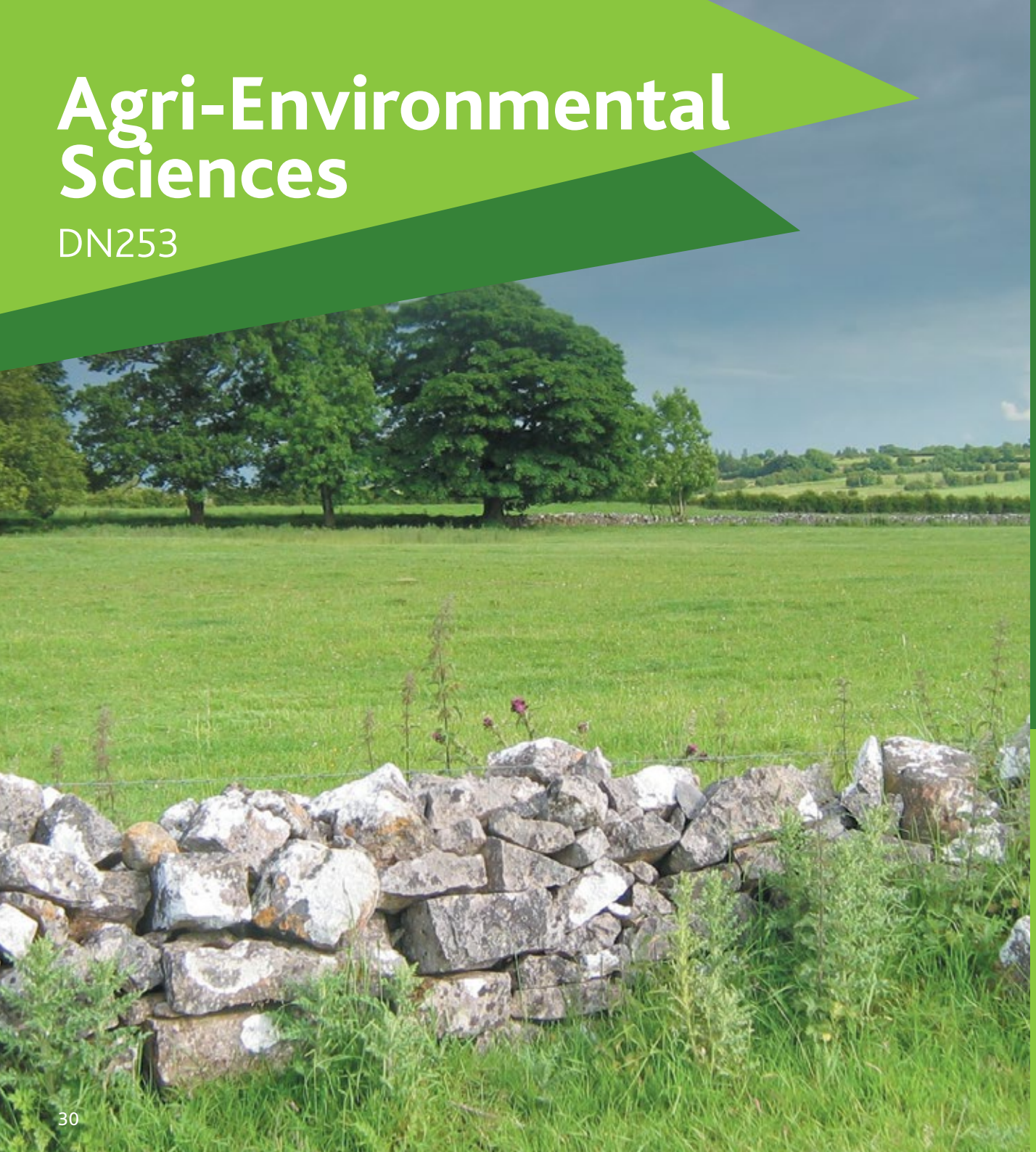
Industry View

Tara McCarthy
CEO, Bord Bia

China has a population of 1.4bn people, a rapidly growing economy, increasing urbanization and an appetite for high quality food and ingredients that cannot be sourced locally. Irish food & drink exports to China was approximately €794 million in 2018, making it Ireland's 5th largest export market and second largest market for dairy and pork. It is critical that Ireland develops a sustainable pipeline of talented, globally focused young people who can lead Irish food and drink's continued success in this market. The UCD Food Business with Chinese programme is well equipped to deliver these future industry leaders.

Agri-Environmental Sciences

DN253



Why Agri-Environmental Sciences?

Agriculture has an increasingly recognised global impact and responsibility for the quality of the natural environment. In turn, the security of food production systems at both Irish and global levels depends upon the quality of management of natural processes and resources in farming and food production systems.

The Agri-Environmental Sciences programme is designed to equip its graduates with the knowledge and skills needed for progressive development of improved sustainability in farming and food production systems.

On completion of this specialist programme, you will have:

- A wide knowledge of the applied agricultural and environmental sciences that underpin sustainable agriculture, food production and rural land use systems
- A comprehensive understanding of rural environmental issues in Ireland, the EU and worldwide
- Practical experience of agri-environmental research through completion of a supervised final year project on your chosen topic
- Scientific and environmental management skills to contribute to future farming and land use industries, as either a scientist, consultant or policy-maker
- Interpersonal and professional skills required to follow your chosen career path.

DN253
Agri-Environmental Sciences

CAO Points

Average 2019 (Round 1) **426**
Minimum 2019 (Round 1) **403**

Minimum A Level:
ABB or ABC+C @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Staff View

Dr. Dara Anne Stanley | Lecturer/Assistant Professor in Applied Entomology

With increasing global population and rising environmental concerns such as climate change and biodiversity loss, there is an increasingly fundamental need to sustainably manage our agricultural systems. Agriculture and the environment are inextricably linked; agriculture benefits from healthy ecosystems in terms of factors such as soil fertility, water provision, decomposition, natural pest control, pollination and many others. At the same time the way we manage agricultural areas also has consequences for biodiversity and the environment. The study of agri-environmental science explores many of these issues, to produce leaders in sustainable agriculture for the future.

I teach into various modules around insects, their role in agriculture, and the sustainable management of agricultural systems.

Programme Pathway

Agri-Environmental Sciences — DN253

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Diversity in the Rural Landscape	Agri-Env. Issues and Policy	Nutrient Management
Introductory Chemistry	Agricultural Botany	Pests and Parasites	Plant Pathology & Biotechnology
Physics	Soil Science Basics	Soil Science Applications	Pest Management
Mathematics	Applied Zoology	Systems Ecology	Environmental Management
Land Use & Environment	Agricultural Microbiology	Plant Diseases: Biology	Grass and Forage Production
Information Skills	Applied Biostatistics	Scientific Writing and Review	Research Project
Cell and Plant Biology	Genetics and Biotechnology	Professional Work Experience	Elective Modules
Intro to Biomolecules	Env Biology and Ecology	Agrichemicals & Environment	
Intro to Food & AgBus Mgmt	Health, Welfare and Safety	Climate, Carbon & Soil	
Elective Modules	Intro to Animal Science	Elective Modules	
	Principles of Crop Science		
	Elective Module		

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc Wildlife Conservation & Mgt	Environmental Consultant	Technical Engineer	Postgraduate Diploma in Education
MAgrSc Rural Environmental Conservation and Management	Teacher	Policy Analyst	MSc Business Studies
MAgrSc Environmental Resource Mgt	Farm Manager	Government Official	Master of Business Administration
MSc and PhD Research	Journalist	Parks Superintendent	HDip Computer Science
MAgrSc Agricultural Extension and Innovation	Agricultural Consultant	County Heritage Officer	Master of Accounting
MAgrSc Sustainable Agriculture & Rural Development	Agricultural Inspector	Scientist	
	Lecturer	Science Communications	

Graduate View

Saoirse Cummins | Graduate

When considering what I would like to study after school I was drawn to Agri Environmental Sciences due to my love of the rural landscape and environment. AES opened my eyes to the diversity of the Irish landscape and the challenges it faces. These were highlighted on the various farm visits and class trips, especially on our study trip to the Burren and to Achill Island where I based my final year thesis. The course allows you to pursue avenues of your own interest through electives and essay/project titles. For my professional work experience I worked with a Teagasc advisor on a dairy farm and in an environmental chemistry. I gained a lot of experience, practical skills and professional contacts. PWE is definitely a huge advantage to you when you graduate.

I made so many memories and friends for life in the Ag building. Following graduation, I went straight into a PhD researching the impact of grass-legume mixtures on greenhouse gas emissions.

Dairy Business

DN252

Why Dairy Business?

The Irish dairy industry makes a major contribution to the Irish economy adding over €4 billion to food exports and employing approximately 18,000 dairy farmers and a similar number working on farms, in the processing industry and ancillary services.

The dairy industry is experiencing significant change at the present time with expansion in farm and herd size, accelerated by the abolition of quotas in 2015. This programme is designed to equip future leaders in the dairy industry with the necessary scientific, technical and business skills to cope with this business and enterprise expansion.

DN252

Dairy Business

CAO Points

Average 2019 (Round 1) **438**

Minimum 2019 (Round 1) **398**

Minimum A Level:
ABB or BBC +A* @AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Graduate View

Emma Gilsenan | Graduate

Having grown up on dairy farm and always having a keen interest in the sector, gave me the confidence to put Dairy Business in UCD down as my number one choice.

The trip of a lifetime was when I travelled to New Zealand where I worked on an 1100 cow dairy farm for my professional work experience. This experience along with our time spent studying in Teagasc Moorepark were definitely some of the highlights of the course for me. In Moorepark we received lectures from some of the top researchers in the industry and had the opportunity to visit some of the best dairy farms in the country.

The experience and knowledge gained throughout my time in UCD has allowed me to make better decisions on our 190 cow dairy herd home farm where I work part-time, along with securing the position of Dairy Technical Journalist with AgriLand media.

WATCH ONLINE

Want to know what drives passion?

Associate Professor Karina Pierce speaks about what inspires her.

ucdagfood

Programme Pathway

Dairy Business — DN252

Year 1 Subjects
- Animal Biology & Evolution
- Ag Economics and Business
- Introductory Chemistry
- Cell & Plant Biology
- Mathematics
- Intro to Animal Science
- Information Skills
- Intro to Food & Agribus Mgmt
- Introduction to Management
- Business Management Simulation
- Elective Modules

Year 2 Subjects
- Animal Reproduction
- Soil Science Basics
- Applied Biostatistics
- Accounting for Non-Business Students
- Business Law
- Animal Nutrition 1
- Principles of Dairy Production
- Health, Welfare & Safety
- Marketing: Firms, Customers & Society
- Global Operations & SCM
- Elective Modules

Year 3 Subjects

JULY-DECEMBER

- Professional Work Experience Students encouraged to travel to New Zealand

JAN-MAY

- Modules undertaken at Teagasc, Moorepark, Co. Cork include:
- Herd Health and Milk Quality
- Grassland Management & Applied Dairy Nutrition
- Applied Dairy Breeding and Fertility
- Dairy Systems
- Dairy Business Project

Year 4 Subjects
- Farm Business Management
- Food and Agribusiness Strategy
- Agri-Env. Issues and Policy
- Leadership and Change Management
- Agricultural Policy
- Animal Nutrition II
- Animal Breeding
- Professional Communications
- Exp Design and Data Analysis
- Nutrient Management
- Elective Modules

BAgrSc Honours

UCD Graduate Study
- MAgrSc Sustainable Agriculture and Rural Development
- Walsh Fellowship Research Opportunities
- MSc/PhD Research Opportunities
- MAgrSc Environmental Resource Mgt
- MSc Food Business Strategy
- MAgrSc Agricultural Extension and Innovation
- MSc Food Safety & Risk Analysis

Career Opportunities
- Farm Manager
- Lecturer/Teacher
- Agricultural Consultant
- Marketing Manager
- Journalism
- Business Manager
- Communications Manager
- Technical Sales Manager
- Scientist
- Government Official
- Policy Analyst
- Consultant

Conversion or Complementary Courses
- Postgraduate Diploma in Education
- Graduate Veterinary Medicine
- MSc Business Studies
- Master of Business Administration
- HDip Computer Science
- Master of Accounting

Student View

Patrick Horgan | Year 3

The Dairy Business degree at UCD is the perfect choice for any young person interested in the expanding dairy industry at both a national and international level. The course offers unrivalled opportunities to study under the top dairy research experts in both UCD and Teagasc Moorepark. In third year I travelled to New Zealand for my professional work experience. A busy spring and summer on dairy farms in New Zealand showed me the efficiencies and work-life balance that can be achieved. I gained huge amounts of knowledge and practices to take home, all while travelling across a beautiful country with my classmates.

I look forward to my final year of studying at UCD and feel confident that my degree will provide me with the skills needed to work competently in any part of the dairy sector.

Food Science

DN261

Why Food Sciences?

Food Science focuses on the biological, chemical and technological aspects of food products and how they are manufactured. If you choose to specialise in Food Science, you will develop your scientific knowledge of how to produce high quality, safe and healthy foods and beverages.

As a food scientist you will have a role to play in all aspects of the food chain from production to processing, storage and marketing. This unique degree ensures you have a broad knowledge of food production and processing, thus gaining the scope and opportunity to develop different types of food products.

DN261

Food Science

CAO Points

Average 2019 (Round 1) **484**

Minimum 2019 (Round 1) **451**

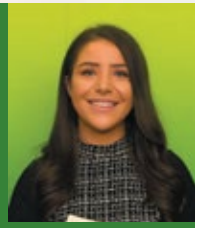
Minimum A Level:

A*AB or AAA

(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View



Michelle Kearns | Year 4

Food Science is a developing, dynamic and highly relevant field to be involved in. It was an obvious choice of study for me and from the beginning, I felt right at home. UCD is such a vibrant place to be. The atmosphere around campus and sense of community is unparalleled. A general science-based first year provides a good foundation for the more in-depth modules delivered from second to fourth year, through well designed projects, laboratories and assignments.

My time spent on professional work experience with the Department of Agriculture, Food and Marine was the highlight of the course for me. I was positioned as an Assistant Agricultural Inspector within the Feeding Stuffs and Poultry Division within the feeding stuffs and poultry division, where I assisted in the implementation of official controls along the food and feed chain. The skills and industry experience I have gained throughout my degree will prove invaluable as I begin my career.

The Food Science Programme at UCD is accredited by the Institute of Food Technologists.

Programme Pathway

Food Science — DN261

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Food Physics	Food Analysis	Milk and Dairy Products
Introductory Chemistry	Sensory Analysis	Food Chemistry	Food Safety
Physics	Agricultural Microbiology	Product Development	Fermented Foods
Mathematics	Human Nutrition I	Food Microbiology	Food Ingredients
Information Skills	Basic Food Analysis	Bioprocess Engineering Principles	Food Process Technology
Food, Diet and Health	Genetics and Biotechnology	Professional Work Experience	Food Chain Integrity
Cell & Plant Biology	Applied Biostatistics	Scientific Writing & Review	Fresh & Processed Meat Products
Intro to Biomolecules	Food Macronutrients	Human Nutrition II	Elective Module
Ag Economics and Business	Nutritional Energy Metabolism	Elective Module	
Elective Modules	Health, Safety & Welfare		
	Elective Modules		

BSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc Research and PhD Options	Food Technologist	Food Microbiologist	MSc Public Health Nutrition
MSc Clinical Nutrition and Dietetics	Quality Assurance Manager	Research Scientist	Postgraduate Diploma in Education
MSc Food Safety & Risk Analysis	New Product Development	Science Journalist / Editor	MSc Business Studies
MSc Food Business Strategy	Teacher/Lecturer	Business Development Manager	Master of Business Administration
MAgrSc Sustainable Agriculture and Rural Development	Food Safety Inspector	Technical Sales Manager	HDip Computer Science
MAgrSc Environmental Resource Mgt	Food Marketing Manager	Government Inspector	Master of Accounting
MSc Food Regulatory Affairs	Nutritionist	Supply Chain Management and Buyer	Graduate Veterinary Medicine
	Regulatory Affairs Specialist	Food Entrepreneur	
	Production Manager		

Graduate View

Brian Flynn | Graduate and Trainee, European Food Safety Authority

I've always had a keen interest in food and enjoyed studying science in secondary school, so it made perfect sense to study Food Science at UCD. The campus is modern and welcoming, and the course is cleverly designed to provide each student with a strong knowledge of the food industry and the scientific principles underlying food processing. The opportunity to complete a final year project gave me an invaluable insight into research and the steps required to bring a research topic to fruition. Presenting my work to my peers and faculty was one of the high points of the programme for me.

My time at UCD also allowed personal development through activities such as the Student's Union and by making friends from a variety of backgrounds and disciplines. Having spent four months undertaking a placement in a food data science company, I was introduced to the fields of exposure science and regulatory affairs, which stood to me when applying for my current role.

Forestry

DN271

Why Forestry?

Forestry is the science, art and profession of managing forests. Foresters manage and create forests in sustainable and environmentally friendly ways to provide a variety of ecosystem services including timber, biodiversity, carbon sequestration, recreation, conservation and aesthetics.

You will discover how the different components of a forest – the trees, soils, water, climate, flora and fauna interact with each other and are affected by human use. The protection and enhancement of biodiversity, soils and air quality are all highly relevant in the creation and management of forests today.

Other aspects of modern forest management which are also addressed in this programme include:

- Carbon sequestration
- Renewable energy resources
- Multifunctional forestry
- Bio-complexity
- Sustainable forest management
- Social and urban forestry
- Adaptation for and mitigation of climate change
- The conservation of genetic resources.

DN271

Forestry

CAO Points

Average 2019 (Round 1) **371**

Minimum 2019 (Round 1) **303**

Minimum A Level:
BCD or AA
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View

James Kinsella | Year 4

My passion for the environment and rural development along with looking for a career with a mix of field and office-based work lead me to forestry. The diversity of the forestry programme in UCD is what appealed to me from the start. The course provided a strong science base through year one and two, with the modules naturally progressing towards forest management in the later stages.

I carried out my professional work experience with Coillte. This allowed for immeasurable exposure to the industry and was a highlight for me. During this time, I was a member of the Establishment and Harvesting Team gaining substantial experience in these fields. Following completion of my placement I was awarded a certificate of excellence from UCD and have since secured a position on the Coillte Graduate Programme.

The forestry industry in Ireland is growing rapidly, with a number of diverse opportunities available to graduates. The UCD journey can only be described as an adventure. I would encourage anyone considering forestry to do it.

WATCH ONLINE

Learn more about where a degree in forestry can take you.

ucdagfood

Programme Pathway

Forestry — DN271

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology & Evolution	Principles of Forestry	Forest Management Economics	Forest Planning
Introductory Chemistry	Professional Forestry Practice	Forest Protection	Research Project
Physics	Soil Science Basics	Geographical Info Systems	Forest Policy & Law
Mathematics	Physiological Plant Ecology	Wood Science	Experimental Design
Ag Economics & Business	Tree Structure & Function	Silviculture	Elective Modules
Trees and Forests in Ireland	Business Management	Professional Work Experience	
Information Skills	Agricultural Botany	Forest Inventory and Sampling	
Cell and Plant Biology	Applied Biostatistics	Forest Harvesting	
Intro to Biomolecules	Agricultural Microbiology	Elective Modules	
Ag Economics and Business	Engineering & Surveying		
Elective Modules	Health, Welfare & Safety		
	Elective Module		

BAgrSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc and PhD Research Opportunities	Forester	Consultancy	Postgraduate Diploma in Education
MAgrSc Environmental Resource Management	Teacher	GIS Analyst	MSc Business Studies
MAgrSc Rural Environmental Conservation & Management	Technical Advisor	Scientist	Master of Business Administration
MAgrSc Sustainable Agriculture and Rural Development	Forest Inspector	Entrepreneur	Master of Accounting
MSc Humanitarian Action	Forest Development Officer	Pricing Analyst	HDip Computer Science
	Purchasing Manager	Marketing Executive	
	Operations Manager	Government Official	
	Harvesting Manager	Farm Management	

Industry View

Marie Doyle | Lecturer in Forestry, UCD

Globally, concern is growing about increasing world populations, climate change, loss of biodiversity and pressures on food production systems. Forests, well-managed and well-regulated have a key role to play in addressing these concerns. Forests protect soil and water resources, store carbon and supply essential timber resources. Forest cover in Ireland is at its highest level in 350 years; there are now over 20,000 forest owners and the timber processing sector continues to become more sophisticated and technologically advanced. Effective management of our forest resource is essential to ensure that timber production, biodiversity enhancement, carbon sequestration, etc. continue to develop in a sustainable manner. To provide leadership in this, highly skilled forestry graduates are needed.

Horticulture, Landscape and Sportsturf Management

DN273

Why Horticulture, Landscape and Sportsturf Management?

Horticulture is the art, science, technology and business of plant cultivation for human use. If you like biology or other science subjects, or you're interested in business studies, home economics or languages, then this course may be for you. It will give you an appreciation of the importance of plants for human life and well-being. The course covers the sciences, environmental studies, business, management and communications, as well as growing food and non-food plants. Landscape & Sportsturf Management focuses on the science behind developing and maintaining Ireland's designed landscapes, golf courses, tennis courts and sport pitches.

The objectives of this degree are to give you:

- Knowledge of the growth, development and protection of plants, and use of plants for food, leisure, sports, social and environmental benefits
- An understanding of horticultural plant production systems and how their components are integrated and managed in an environmentally friendly and sustainable manner
- The skills to become a competent, competitive and confident leader who will excel in the national or global horticulture community as a professional horticulturist or horticultural scientist.

DN273

Horticulture, Landscape and Sportsturf Management

CAO Points

Average 2019 (Round 1) **327**

Minimum 2019 (Round 1) **252**

Minimum A Level:
CCD or BB
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View

Conor Cullen O'Reilly | Final Year Student

The Horticulture, Landscape and Sportsturf Management course at UCD covers a wide breadth of topics, such as science, business, design and practical horticultural knowledge. Gaining experience in these areas opened my eyes to topics I would have never thought of before beginning the course, including the importance of soil health in improving crop production and sustainability. This was the subject of my final year research project.

I particularly enjoyed my professional work experience placement in the Horticulture Division of the Department of Agriculture, Food and the Marine. During this time, I worked on biosecurity inspections and awareness raising campaigns relating to the prevention of invasive plant pests and pathogens entering Ireland.

There are number of scholarships and awards available to students at the School of Agriculture and Food Science and I was delighted to be awarded the Patrick Dempsey Memorial Prize and a PWE Excellence Award. The staff in the UCD Horticulture Department were friendly and approachable throughout my time there and I would recommend the course.

Chartered Institute of Horticulture

The majority of our graduates become professional horticulturists. The HLSM degree is a recognised qualification by the Chartered Institute of Horticulture for membership.

Programme Pathway

Horticulture, Landscape and Sportsturf Management — DN272

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Animal Biology and Evolution	Fundamentals of Horticulture	Plant Protection - Pests	Food Production: Fruit
Introductory Chemistry	Business Management	Soil Science Applications	Applied Biostatistics
Physics	Soil Science Basics	Elements of Landscape Design	Vegetables & Protected Crops
Mathematics	Physiological Plant Ecology	Landscape Trees and Shrubs	Nursery Production & Management
Ag Economics and Business	Agricultural Botany	Sportsturf Construction	Sportsturf Management
Plants and People	Engineering and Surveying	Landscape Management	Enterprise Development
Cell and Plant Biology	Agricultural Microbiology	Plant Diseases: Biology	Professional Communications
Intro to Biomolecules	Food Macronutrients	Scientific Writing and Review	Research Project
Option Module	Agricultural Biochemistry	Professional Work Experience	Elective Module
	Health, Welfare and Safety	Elective Modules	
	Elective Modules		

BAgrSc Honours

UCD Graduate Study	Career Opportunities	Conversion or Complementary Courses
MSc and PhD Research Opportunities	Entrepreneur	Postgraduate Diploma in Education
MAgrSc Sustainable Agriculture and Rural Development	Technical Advisor	MSc Business Studies
MSc Humanitarian Action	Quality Assurance Inspector	Master of Business Administration
MAgrSc Environmental Resource Management	Sportsturf Consultant	Master of Accounting
MAgrSc Rural Environmental Conservation & Management	Scientist	
MSc Food, Nutrition and Health	Researcher	
	Management	
	Teacher/Lecturer	
	Horticulture Production, Logistics and Retail positions	

Graduate View

Niamh Flannelly
Graduate

This broad course suited my interest in both the horticulture and sportsturf industry.

My best experience from UCD was getting the opportunity to travel to Canada for my professional work experience where I assisted in a million-dollar project constructing six new holes on an exclusive golf course, with TDI International.

I also assisted in soccer pitch development and construction and green space development.

This was something I would have never imagined doing before I came to UCD and it took me out of my comfort zone . I am currently completing a Master's at UCD in Sustainable Agriculture and Rural Development.

Human Nutrition

DN262

Why Human Nutrition?

Nutrition – the interaction between food and health – is becoming increasingly important in society. This programme covers many aspects of nutritional sciences, from biochemistry to molecular and public health nutrition, and also includes topics such as nutrition communication and food regulatory affairs.

On graduating you will be able to apply your knowledge to many different areas of the food and health industry.

DN262

Human Nutrition

CAO Points

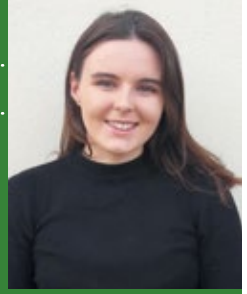
Average 2019 (Round 1) **517**

Minimum 2019 (Round 1) **495**

Minimum A Level:
A*A*B or A*AA+ C@ AS level
(Calculations do not include maths bonus of 25 points)

*Students should note that entry requirements and programme quotas are subject to change and students are advised to contact www.ucd.ie/registry/admissions/er.html prior to submitting an application to determine the entry requirements for a particular programme.

Student View



Ellen Greene | Year 4

I chose to study Human Nutrition due to my keen interest in food and health. This course has given me a great foundation in science and a depth of knowledge in various aspects of nutrition. I thoroughly enjoyed my ten-month professional work experience spent in a research centre in the National Maternity Hospital, where I had the invaluable opportunity to expand my skillset while working alongside experts in the field.

Studying at UCD was a fantastic experience enhanced by the supportive community of students and staff within the Human Nutrition programme. Being part of a small class group made it easy to make friends and to get to know my classmates. If you are interested in a science-based course focused on the relationship between diet and health, I would highly recommend this programme.

AfN ACCREDITED PROGRAMME
ACCREDITATION NO: AC211

The Human Nutrition Programme at UCD is accredited by the Association for Nutrition.

Programme Pathway

Human Nutrition — DN262

Year 1 Subjects	Year 2 Subjects	Year 3 Subjects	Year 4 Subjects
Principles of Cell Biology	Food Macronutrients	One year Professional Work Experience	Food Regulation
Introductory Chemistry	Nutrition Research Method		Nutrition and Communication
Physics	Molecular basis of disease		Molecular Nutrition
Mathematics	Human Nutrition II		Clinical Nutrition
Microbiology	Basic Food Analysis		Food Safety
Cell Biology & Genetics	Nutritional Energy Metabolism		Public Health Nutrition
Human Nutrition I	Nutrition & Health		Human Nutrition Project
Intro to Biomolecules	Practical Statistics		Nutritional Metabolism
Physiology for Nutrition	Health, Safety & Welfare		Elective Modules
Food, Diet & Health	Elective Modules		
Elective Module			

BSc Honours

UCD Graduate Study	Career Opportunities		Conversion or Complementary Courses
MSc Clinical Nutrition and Dietetics	Public Health/Community Nutritionist	Quality Assurance	Graduate Veterinary Medicine
MSc Public Health Nutrition	Sports Nutritionist	Food Safety	Graduate Medicine
MSc Research and PhD Options	Management Nutritionist	Journalism	Postgraduate Diploma Education
MSc Food Regulatory Affairs	Teacher	Lecturer	MSc Business Studies
MSc Food Safety & Risk Analysis	Scientist	Business Manager	Master of Business Administration
MSc and PhD Research Opportunities	Marketing Manager	Microbiologist	Master of Accounting
MEngSc Food Engineering	Health Promotion	Government Official	
MSc Food Business Strategy		R&D Technologist	

Graduate View

Brionn Coffee | Operations Specialist, LetsGetChecked

A passion for the field of health, a love for sport, and the relation between the two was the seed of my desire to study Human Nutrition. My time studying at UCD allowed me to develop both professionally and socially, with my programme being pivotal to this development.

The Human Nutrition class has only around thirty people with is small in comparison to many other courses offered at UCD. This ensured a close-knit group of friends from day one, all interested in the area of food and health.

My highlight of UCD was my year of professional work experience where I worked as a nutritionist with Danone. This experience gave me an insight into the world of business sparking my desire to pursue a career in the sector post-graduation. The broad nature of the course ensures that you are only limited by your own imagination and personal skills when it comes to employment or areas of further education.


UCD
DUBLIN

EVENTS

We know you have to make difficult decisions about your future study plans and careers and therefore we invite you to attend the following events where you can find out more about the Bachelor of Agricultural Science, BSc in Food Science and BSc in Human Nutrition degree programmes.

17 - 19 SEPTEMBER 2019	**National Ploughing Championships** Ballintrane, Fenagh, Co. Carlow
18 - 20 SEPTEMBER 2019	**Irish Times Higher Options** RDS, Dublin
17 OCTOBER 2019	**UCD School of Agriculture and Food Science Kilkenny Information Evening*** New Park Hotel, Kilkenny
24 OCTOBER 2019	**UCD School of Agriculture and Food Science Cork Information Evening*** Rochestown Park Hotel, Douglas, Cork
9 NOVEMBER 2019	**UCD Open Day** O'Reilly Hall, UCD
4 DECEMBER 2019	**UCD School of Agriculture and Food Science Facebook Live Broadcasts** Agricultural Science - Food Science and Human Nutrition - Horticulture and Forestry
7 JANUARY 2020	**UCD CAO Information Evening*** John Hume Institute, UCD
14 JANUARY 2020	**UCD QQI-FET Entry to Science, Computer Science and Agriculture and Food Science Open Day*** Moore Auditorium, UCD O'Brien Centre for Science
10 MARCH 2020	**Farm Walk and Talk** (Visit www.agriaware.ie for more information) UCD Lyons Farm, Celbridge, Co Kildare
4 JUNE 2020	**UCD Agriculture Food Science and Human Nutrition Summer School*** UCD Agriculture and Food Science Centre

*** ADMISSION FREE BUT PRE BOOKING IS ESSENTIAL**
Registration for our events is via our website at www.ucd.ie/agfood

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