

Welcome to Sheffield Hallam Food and Nutrition

Dr Caroline Millman

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*Lecturer in Food and Nutrition,
Course Leader - Technical Degree Apprenticeship*



Why study at Sheffield Hallam?

A leading applied university – What does this mean?

You will **learn** through
engaging with academics and
industry specialists.

You will **grow** your confidence
by understanding live, real-
world projects.

You will **develop** your digital
capability, and your ability
solve problems creatively.

You will be **ready to do the
job!**

Applied learning in outstanding facilities

- You'll be able to take on **real-world problems** and do **industry-relevant** work experience in every year of your course
- Experience applied learning in every module whilst benefitting from **state-of-the-art facilities** and **expert technical staff**



Learn from our experts...

Our courses are designed and taught by industry experts



New product
development

Obesity and
weight
management

Public health
nutrition

Microbiology

Biochemistry
and
physiology

Eating
behaviour and
appetite

Sports
nutrition

Food safety

Infant
nutrition

TEF
2023
Gold

UKAT
**OUTSTANDING
STUDENT SUPPORT**

ed^{north}
**2022
Winner**
University
of the Year

THE AWARDS
2022
Shortlisted
University
of the Year

ed^{north}
**2024
Finalist**
Apprenticeship
Award

THE AWARDS
2021
Winner
Outstanding
Entrepreneurial
University

Food Careers

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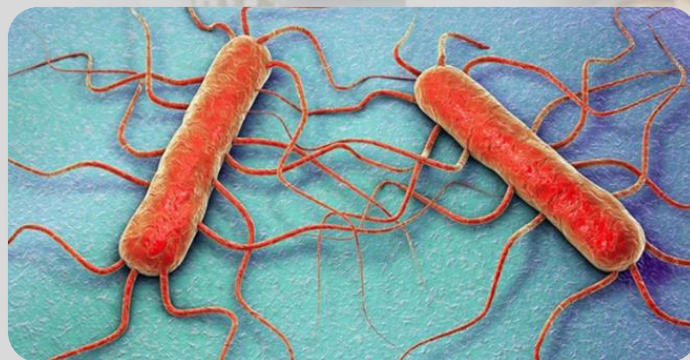
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Aims of the session

- Connecting food careers in schools
- Current challenges in the pipeline
- Careers in food
- Resources
- Food at Hallam





Greencore

MANCHESTER
1824

E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

relu
Rural Economy and
Land Use Programme



The University
of Manchester



Poultry House Rules



for the great write up
Glad to hear that the Year
7's are still washing their hands well!

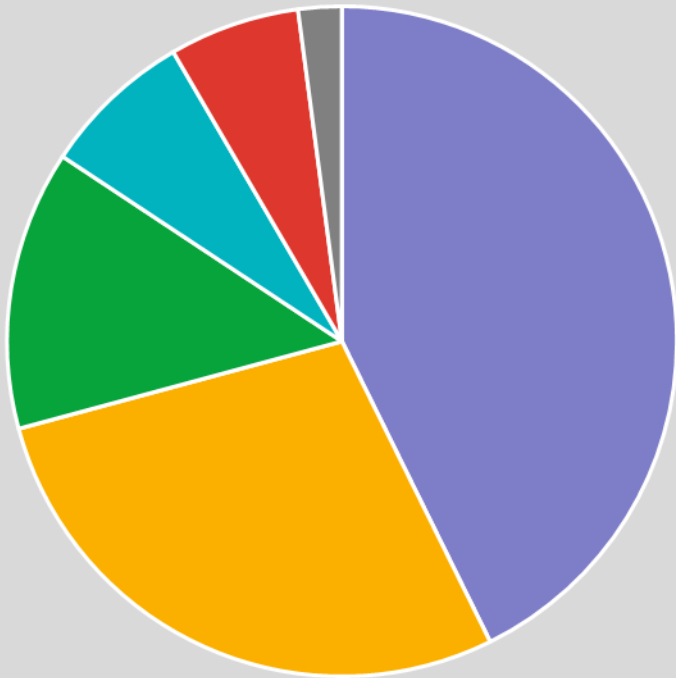




Role models for food careers

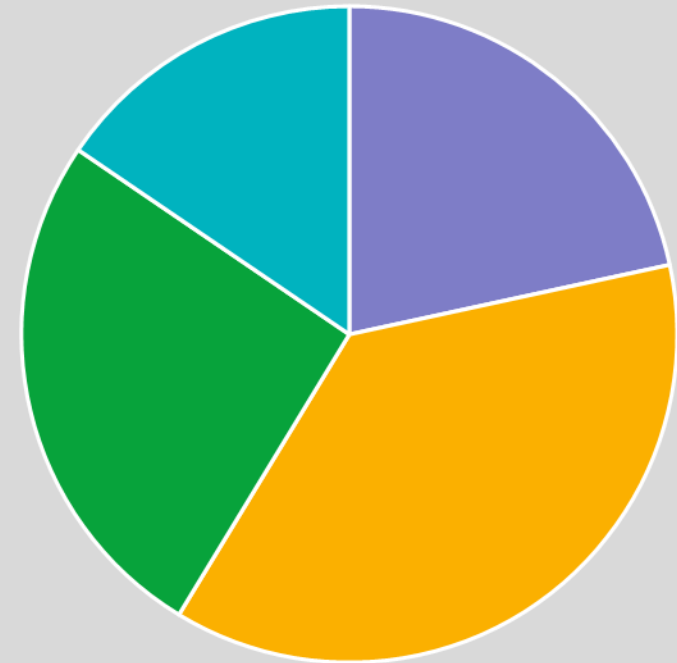
Student career information

Who did you confide in about careers?



- Subject teacher
- Family member
- Career advisor
- Year or course head
- I can't remember
- Nobody or no single person

When did you develop an interest in a food career?



- 12-14 Years old
- 15-16 Years old
- 17-18 Years old
- After 18 Years old



Do you fancy a career within the food & drink manufacturing sector?

Check out some of the fantastic career path opportunities!

CAREERS MAP
TASTYCAREERS.ORG.UK

Facebook: [FACEBOOK.COM/TASTYCAREERS](https://www.facebook.com/tastycareers) Twitter: [@TASTYCAREERS](https://twitter.com/tastycareers)

HOW DO YOU MAKE
A CHICKEN SALAD?

tasty
CAREERS
in food & drink

...It's not as simple as you might think...

FARMERS invest time, money and expertise to produce chickens for us to eat. **ANIMAL WELFARE OFFICERS** rigorously check that the poultry is farmed and its meat produced to the highest standards before the chicken is prepared then cooked in production facilities using equipment designed and maintained by **FOOD INDUSTRY ENGINEERS** using processes developed by **FOOD PROCESS TECHNOLOGISTS**. Crispy salad crops are produced by **GROWERS** to standards developed, overseen and audited by **AGRONOMISTS** and harvested using equipment designed by **AGRICULTURAL ENGINEERS**.

BUYERS carefully select the best grade crops which are harvested when the quality is just right and they are then cooled for to keep them fresh. The crispy salad and cooked chicken are sent to the salad manufacturer where they are checked by, the **QUALITY TEAM** to ensure they are the right quality. Tasty dressings are developed by **FOOD SCIENTISTS AND TECHNOLOGISTS** who work with the **PRODUCT DEVELOPMENT TEAM** which creates new recipes with **NUTRITIONISTS**. The Product Developers also work with **FOOD PACKAGING RESEARCHERS** to present the chicken salad in a way that appeals to potential consumers. The **PRODUCTION MANAGER** works with **TEAM LEADERS** to ensure that **PROCESSING OPERATIVES** prepare the chicken salad appropriately. Preparation is monitored by **QUALITY TEAMS** working for the **QUALITY ASSURANCE MANAGER** to ensure good food hygiene and safety procedures are being maintained. The whole process is managed by the **TECHNICAL MANAGER**.

Finally **SALES AND MARKETING** using **THE INFORMATION TECHNOLOGY DEPARTMENT** say when the chicken salad needs be despatched to the shop by the **DISTRIBUTION TEAM** using **CHILLED LOGISTICS SPECIALISTS**.

This is normally on the same day that it is made to make sure that when it gets into your shopping basket it is fresh,
wholesome and tasty!

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BET YOU THINK
OF CHICKEN

HOW DO YOU MAKE
FRUIT JUICE?

tasty
CAREERS
in food & drink



It's BIOLOGY

Where do micro-organisms
come from and do they
need to be controlled?

What is DNA and how can
it track pathogens?



It's PHYSICS

How much energy is needed to
heat and chill soup safely?

What affects heat transfer to a food?

How does the way you cook food
affect the energy that gets into food?

Why is this so important?



It's CHEMISTRY

How can pH help food
last longer?

Why does cut iceberg
lettuce turn pink?

How and why should you
limit contaminants?



The Cool World of Food Science



fdf
AWARDS

food and drink federation

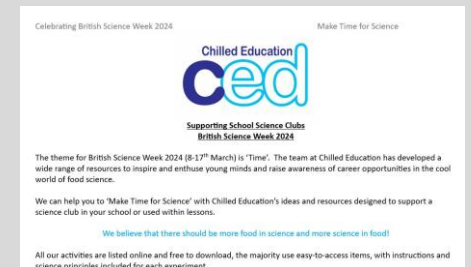
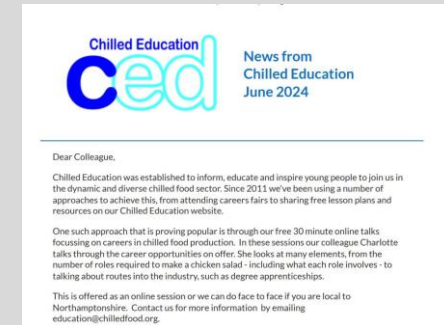
2024

WINNER

Resources

We aim to inspire more young people to use their interest in science, and food science, to follow careers in the industry.

- Termly Chilled Education Newsletter
- Career Paths & Job Descriptions
- Career Interviews & Videos
- Lesson Plans
- Store Cupboard Science Activities
- Science Club Resources
- STEM Club Resources - NEW
- Teacher Themed Calendar for 2025 - NEW
- Spreadsheet split into themes of our resources (100+)
- Micro Trumps & Nanobug Tattoos (paid for resource)
- Glo Germ Handwashing Kit (paid for resource)
- Online or face-to-face sessions 'Cool World of Food Science' covering science and careers within the sector



[Chilled Education Resources – chilledfoodassociation](https://www.chilledfoodassociation.org)

Why Chilled Food?

- Employs more than 100,000 people in the UK
- Make 15,000 different foods every day
- Fast-paced, constantly changing and seriously demanding
- One of the world's most innovative and advanced food sectors
- UK market for chilled prepared foods is worth around £10.5bn

The **Chilled Food Association** (CFA), the people behind Chilled Education, represents some of the biggest UK chilled food manufacturers. Our members supply major retailers with foods ranging from sandwiches and prepared salad to chilled prepared meals and desserts.



Find out more: career pathways, courses, case studies, lesson plans and experiments..

www.chillededucation.org
education@chilledfood.org



SAM EXPLAINS HOW TO MODEL DNA USING SWEETS



JOB DESCRIPTIONS

Chilled Education
ced
TEN YEARS OF INSPIRING FUTURE FOOD SCIENTISTS

Have a go at our store cupboard science experiments and become a food scientist! You should be able to find everything you need in your store cupboard at home.

Sweet Sustainable Science for Years 7 and 8

The Chilled Food Association, together with science teacher and author Sam Holyman, has developed hands-on activities to bridge between traditional science teaching and food science – try out our easy activities below. Each activity links to the science National Curriculum in England (as well as GCSE specifications in science and food science). Full lesson plans (with guidance for teachers) can be found on our website at tinyurl.com/2d4lmswv and in a PowerPoint presentation at tinyurl.com/3wdc5pex. Our food science is fun and easily accessible, both in the classroom and at home.

Immiscible Liquids and the Effects of Emulsifiers

When we shake that salad dressing ready to drizzle over our food we're creating a physical reaction. The contents of the bottle are melting into each other. Here's how you can see it happen.

Grab a Capful syringe and a tablespoon of cooking oil and a tablespoon of water. You'll also need a few drops of washing up liquid. With a finger carefully over the end of the syringe add the oil and the water. It may seem how they separate. Put the plunger in and even after you shake them up, they will still divide into two. Add a drop of washing up liquid and shake the syringe again. What happens? The oil and water mix together. Water molecules are already attracted to each other. This is the same for oil and because they are more attracted to their own molecules than just don't mix together. Detergent is attracted to both water and oil, helping them join together to form something called an emulsion.

Under Pressure: Shrinking and Growing Marshmallows

Discover more at: tinyurl.com/wmf7h3ck

Using a Capful syringe and mini marshmallows, we can demonstrate gas pressure. Plug the capillary in the end of the syringe with the end of a finger and pull up the plunger. The marshmallows are gently heated. The pressure inside the syringe is reduced so the bubbles of air expand, making the marshmallows expand too. Push the plunger back down and the marshmallows go smaller again.

DNA Modelling – with Sweets!

Chilled Education
ced
TEN YEARS OF INSPIRING FUTURE FOOD SCIENTISTS

Have a go at our store cupboard science experiments and become a food scientist! You should be able to find everything you need in your store cupboard at home.

Store cupboard Science ideas for Years 5 and 6

What's one thing we all need to live? Food! But what is food? How is it made? Why does it look and taste the way it does? Food is all about science and the people who make it are called food scientists. Every day they are using their science knowledge to give us a great choice of tasty and safe food. You'll discover that science is not only fun, but links to everything around us, what you eat and even your future career!

Dancing Raisins!

Can you make a raisin dance in a jam jar?

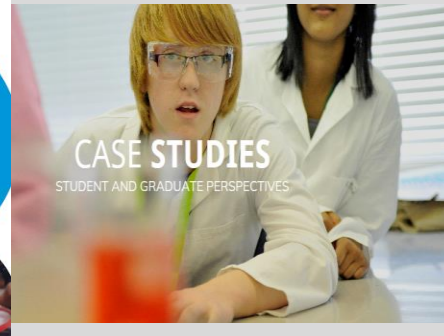
Discover more with Chilled Education! tinyurl.com/3d4lmswv

When you add raisins to lemonade they sink because they are heavier than the lemonade so they push it aside. Lemonade, like all fizzy drinks, contains dissolved carbon dioxide gas. In the bottle, the gas doesn't form bubbles because the liquid is under pressure. As soon as we open the bottle we release the pressure and bubbles of gas appear. When adding the raisins to lemonade, bubbles form on the rough surface of the raisins. These bubbles make the raisins lighter than the lemonade so they float, and then the carbon dioxide gas escapes. The bubbles sink, making the raisins heavier so they sink, and then the cycle starts again, making the raisins dance up and down in the jar. The gas can't escape, so they move up and down.

Lava Lamp

Using food science knowledge create your own lava lamp with everyday items and a jam jar. Find out how at tinyurl.com/3d4lmswv

What's a lava lamp got to do with food? It's all about the oil and the water. They don't mix together – no matter how hard you shake them! They are called immiscible. Raisins, in your jam jar the oil drops to the bottom, taking it to the bottom, so it falls the salt dissolves in the water, the oil is now lighter than the water falls back to the surface. Think of your salad dressing. The oil and vinegar separate out and you shake the bottle to mix it up. It's the same reaction. Food Technologists ensure that the salad dressings you buy mix together with natural emulsifiers.



CASE STUDIES
STUDENT AND GRADUATE PERSPECTIVES



COURSES



FOOD SCIENCE & TECHNOLOGY
CAREER PATHS
CONSIDERING A CAREER IN FOOD SCIENCE & TECHNOLOGY?



Be inspired with a career in food

Careers are as diverse as the food we eat!

From farm to fork – careers that feed the nation



Producing

Agriculture
Aquaculture and fishing
Agronomy (soil and crop science)
Forestry and land management
Animal husbandry
Horticulture



Processing

Food safety and quality
Food science
Ingredient purchase and sales
New product development
Nutrition
Packaging
Primary processing and manufacturing
Technology and engineering



Providing

Events management
Hospitality and catering
Professional cookery
Retailing

From farm to fork – careers that inform the nation



Advising

Dietetics
Health care
Environmental health
Nutrition



Educating

Research
Teaching
Resource production
Training



Communicating

Advertising
Food styling
Campaigning
Food writing
Designing
Marketing

Read inspiring career journeys here:
www.foodafactoflife.org.uk/whole-school/careers



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www.foodafactoflife.org.uk

- <https://www.foodafactoflife.org.uk/whole-school/careers-in-food/>







<https://www.ifst.org/lovefoodlovescience>

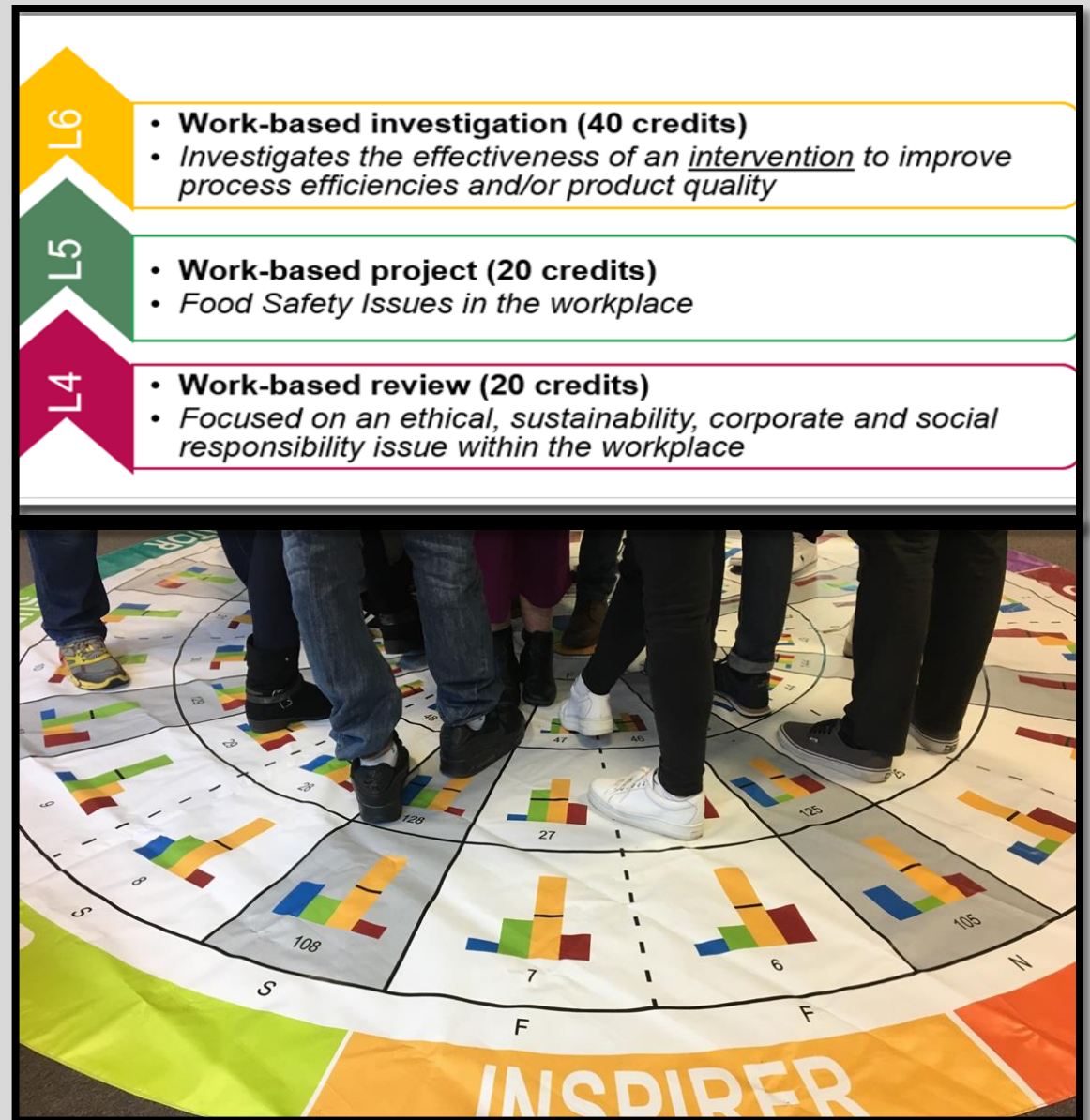
‘My teacher was an inspiration and a big advocate for food being a career and not just a hobby’.

‘There was no advertisement of jobs in the food industry or the fact you could even study it at university’!

Our courses at a glance

Course title	Professional body accreditation	Placement year?	Course length	Entry requirements
BSc (Hons) Food and Nutrition UCAS code: DB44		Optional 1-year	3 – 4 years	112-120 (AL: BBC / BTEC: DMM)
BSc (Hons) Food and Nutrition with foundation year UCAS code: A082			4 – 5 years	64 (DDE)
BSc (Hons) Human Nutrition and Health UCAS code: A007		Optional 1-year	3 – 4 years	112-120 (AL: BBC / BTEC: DMM)
BSc (Hons) Human Nutrition and Health with foundation year UCAS code: D011			4 – 5 years	64 (DDE)

Specialist
Personal and Professional Development
Work Based Learning



“It’s a virtuous circle – the apprentice works towards a degree, putting their learning into practice in industry, whilst industry experience will help in their course work. Plus, of course, they are being paid. And the employer has a flexible, adaptable staff member who can be trained in the company’s approach right from the start of their working relationship.”

"This is my first year and currently I'm attending university every second month for three to four day modules. It is a perfect way to work and study at the same time and gives a chance to get away from everyday routine, so when I go back to work, I have more energy and new ideas to implement within the business."

The Serious Sweet Co



"My degree apprenticeship helped me grow my confidence."

Hannah is a Development Technologist at The Serious Sweet Co, she is studying on our BSc (Honours) Professional Practice in Food Technology degree apprenticeship.

Hannah's story

Find an apprenticeship

[Search](#)



We offer apprenticeship qualifications in the following departments:

- Engineering
- IT
- Sales & Marketing
- Production & Operations
- Technical
- Butchery
- Agriculture & Livestock
- Finance & Accounting
- HR and Learning & Development

Each of our programmes has been specifically tailored to meet the needs of that department. As you gain experience and skills, you are enhancing your prospects of securing a full-time role once you have qualified.

Does this sound like an opportunity for you?

Submit your CV and Cover Letter to

Apprenticeship.Applications@cranswick.co.uk by 3rd February 2025 and start your journey with Cranswick!

Placements



Emma: New Product Development Student Technologist

Rhiannon: Sensory Panel Leader

Abbie: Student Technical Project Co-Ordinator



Lucy: New Product Development



Lorna: Food Quality Assistant



Natasha: Performance Nutritionist



Jed: Research and Development Intern



Around **92,000 new jobs** will be needed in **Food and Drink Manufacturing** between **2017** and **2024** across the UK

There are **around 11,675** Enterprises in the sector

The UK **Food and Drink Manufacturing** sector has a turnover of around

£112bn



Employability



**GRADUATE
OUTCOMES**

Within 15 months of graduating:

100%

in employment or
further study

83%

in highly skilled
employment

NHS
Sheffield Teaching Hospitals
NHS Foundation Trust

WAITROSE
& PARTNERS

BAKKAVÖR

A stylized tree with green leaves and a black trunk.
SIMPLYFOODSOLUTIONS

A stylized 'M' made of two teal shapes.
MYPROTEIN

A large black 'G' with a horizontal line through it.
Givaudan

A green leaf graphic.
**PREMIER
FOODS**

A stylized bird logo.
CRANSWICK *plc*
Great British Taste

ice
makebetterhappen

Jardox
THE TASTE BEHIND THE BRANDS

A red oval with a white silhouette of a person's head.
Dr. Oetker

**CAFÉ
DIRECT**

The **average salary** in the food and drink sector is

£35,277



this is **rising faster** than any other manufacturing sector.

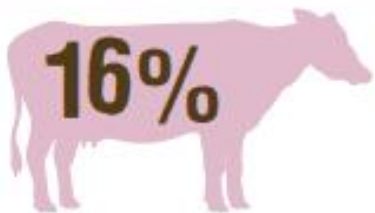
The **Food and Drink Manufacturing** sector delivers

almost **£30bn** of gva

the highest contributing sub sectors are:



20%



16%



15%

87%

of people in the **Food and Drink** sector are employed on a **full-time** basis, compared to

13% who are **part-time**



FIND OUT MORE...

OPEN DAYS



Check Sheffield Hallam's
website for our latest open
day dates:
www.shu.ac.uk/visit-us

LIVE CHAT



Chat to our students and
staff to find out more
about life at Sheffield
Hallam

SOCIAL MEDIA



Follow us @shuoutreach on
Instagram for top tips,
information and
competitions



Thank you!

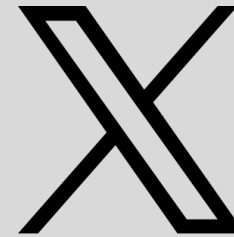
Dr Jordan Beaumont, RNutr

j.beaumont@shu.ac.uk

Lecturer in Food and Nutrition / Recruitment Lead

shu.ac.uk/sbs

**Sheffield
Hallam
University**
Food and
Nutrition



@HallamFood

UCAS

Deadline: 29th January 2025

Get in touch...

- [Dr Caroline Millman](#) PhD BSc (Hons) FIFST MSOFHT
- Senior lecturer in Food and Nutrition | Course Leader - Food Technical Degree Apprenticeship | Research Theme Lead: Healthier Lives at the Advanced Food Innovation Centre
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- Twitter: @foodbugclub

Thank you for your time!
Any questions?

