Cornell University Master of Food Science (MFS)
in Agriculture and Life Sciences

Food Science
and Technology

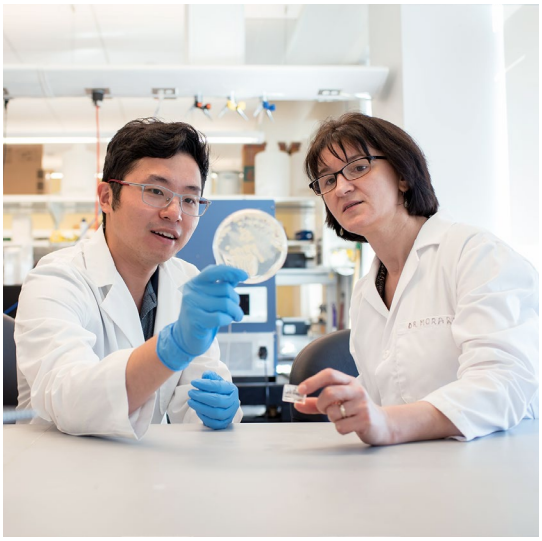
Food Engineering Focus Area

The food engineering focus area emphasizes the development of food products, processes, and equipment using math, physics, chemistry and microbiology as fundamental tools.

One-year, STEM-designated, course-based master's degree program

Offered by Cornell University's #1 nationally ranked Food Science and Technology program, the MFS graduate degree program offers customized coursework and experiential projects to advance technical knowledge and career potential in the Food Industry.

The 30-credit master's degree program can be completed in as little as two semesters of full-time study and prepares individuals for the contemporary workplace through knowledge development, refinement of analytical tools, and advanced training in the latest theory and methodology related to Food Engineering. This master's degree program broadens expertise and expands professional versatility to produce the next generation of innovative leaders in Food Engineering or related fields.



Carmen Moraru, Professor of Food Processing and Engineering (right), with student

#1 Ranked Food Science and Technology Program

Internationally recognized faculty with global reach expertise in all facets of food science.

Excellent selection of courses in basic and applied sciences.

Modern, well-equipped research laboratories and pilot plant facilities.

Established relationships with major national food companies.

Flexible, Interdisciplinary Program

Students work with world-renowned faculty and dedicated program staff to develop an individualized course of study based on their area of interest.

The majority of courses (20 credits) will be within CALS; however, students have the opportunity to take courses across a range of fields of study at Cornell.

With the guidance of a faculty advisor, students work on solving a real-world problem, gaining valuable insights and skills for career next steps.

Dedicated Career Support

Network of supportive Cornell alumni and professionals, such as the Food Science Advisory Council.

Information sessions and networking events with food industry employers.

Assistance with interview skills, résumé writing, and identifying career opportunities through CALS Career Services.

Admissions Requirements

Bachelor's degree in scientific field, such as microbiology, chemistry, biology

For non-science background, at least 15 credits of introductory college-level science courses, including general chemistry, organic chemistry, general biology, and corresponding labs. Coursework in microbiology and biochemistry is recommended.

GRE

TOEFL/IELTS for international applicants

Additional requirements and application can be found at: **gradschool.cornell.edu**

Careers

MFS graduates develop in-demand skills that are valued across multiple career paths and sectors.

Alumni are hired by a range of employers, including:

Happy Family Brands

Proctor and Gamble

AMES International Inc.

FINANCIAL AID *While students are responsible for funding their education, Cornell is committed to a strong return on investment and has dedicated financial aid resources.*

Alumni Spotlight

Catherine Boyles, MFS '18

As I was completing my Bachelor's degree in chemistry, I took an internship in Quality Assurance. It was there that my eyes were opened to a career outside of chemistry. I then decided to gain further knowledge on the field of Food Science by pursuing the CALS MFS program at Cornell. I chose the MFS degree because it allowed me the unique opportunity to take classes and get more hands-on experience as opposed to solely doing research.

The CALS MFS program granted me the opportunity to experience things outside of the typical master's degree. I was able to actively partake in networking events and professional development workshops. These experiences truly gave me the confidence to tackle things such as finding the perfect job, negotiating salaries, and reaching other career-oriented goals.

Food Engineering

Food engineering MFS students gain a thorough understanding of thermodynamics, reaction kinetics, and transport phenomena applied to food processes. Students focus on engineering as it relates to the development of food products, processes, and equipment. Successful Food Engineering students will have knowledge of computer programming, microprocessor applications, statistics, and engineering economics. Courses are available in thermal processing and other unit operations, physical and engineering properties of foods, rheology, and food packaging.

Sample Curriculum

FALL

COURSE	TITLE
BEE 5310	Bio-Fluid Mechanics
BEE 5500	Heat and Mass Transfer in Biological Engineering
FDSC 5210	Food Engineering Principles
FDSC 5230	Unit Operations and Food Packaging
FDSC 6000	Seminar in Food Science
FDSC 6010	Food Science and Technology Graduate Boot Camp
ALS 5900	Project Development

SPRING

COURSE	TITLE
FDSC 5010	Concepts of Food Product Development
FDSC 6250	Food Processing: Conventional and Emerging Technologies
FDSC 6950	Current Readings in Food Science
FDSC 6650	Food and Bioprocessing Systems
FDSC 6000	Seminar in Food Science
ALS 5900	Project Development
ALS 5910	Project Completion