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

Food Science
and Technology

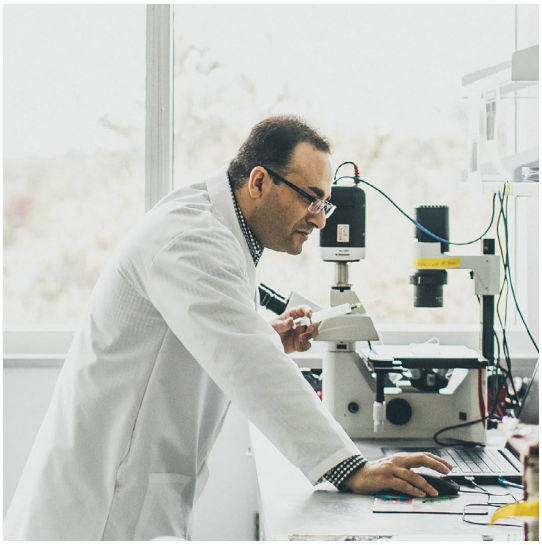
Food Chemistry and Product Development Focus Area

The food chemistry and product development focus area emphasizes understanding the analytical, chemical, physical, nutritional, and toxicological aspects of foods and food ingredients.

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

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

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. This master's degree program broadens expertise and expands professional versatility to produce the next generation of innovative leaders.



Alireza Abbaspourrad, Associate Professor of Food Chemistry and Ingredient Technology

#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 Cornell.

With the guidance of a faculty advisor, students work on solving a real-world problem, providing 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 have held a range of titles, including:

Product Development Scientist

Quality Control Specialist

Associate Research Scientist

Food Scientist

Regulatory Food Data Analyst

Research and Development Technologist

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.*

Food Chemistry and Product Development

This area of study focuses on the relationships between the structure and functional properties of food molecules to improve the nutritional, safety and sensorial aspects of food. Students take courses covering the general principles that govern the behavior of food materials, and the chemical reactions and changes that take place during processing and storage, as well their effects on the quality and nutritional characteristics of these foods.

Sample Curriculum

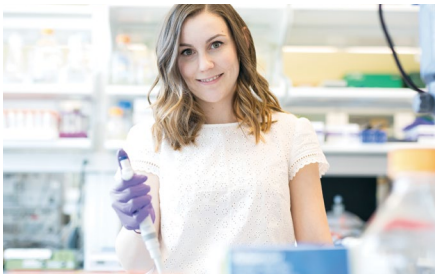
FALL

COURSE	TITLE
CHEM 6700	Fundamental Principles of Plymer Chemistry
FDSC 5100	Sensory Evaluation of Food
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
FDSC 6950	Current Readings in Food Science
ALS 5900	Project Development

SPRING

COURSE	TITLE
FDSC 5010	Concepts of Food Product Development
FDSC 6170	Food Chemistry
FDSC 6220	Foods, Dietary Supplements, and Health
FDSC 6000	Seminar in Food Science
ALS 5900	Project Development
ALS 5910	Project Completion

Alumni Spotlight



Meghan Marchuk, MFS '18, Operations/Product Associate

I have an undergraduate degree in chemistry from Queen's University in Canada. Although I enjoyed my undergraduate program and felt I left with a solid science education, I wanted to work on other skills and gain practical experience in a professional environment. The Cornell MFS program stood out as a unique opportunity to gain fundamental Food Science knowledge and transition into the food industry in a short period of time and without taking too much time away from my career.

The greatest strengths of the MFS program are the resources and professional support. From the amazing supportive faculty and staff, to the career guidance, and interview practice. I definitely feel I got my money's worth and the tools I need to be successful.