# **FOOD SCIENCE • Masters, PhD**

Our faculty and staff are strategically aligned with:

- Food Safety and Foodborne Disease Prevention
- Food Manufacturing and Entrepreneurship
- · Health and Well-being
- Education Innovation and Effectiveness

Masters (non-thesis): Develops skills to communicate core product and quality concepts in industry settings.

Masters (thesis): Prepares analytical communicators for academic or industry settings. Courses cover chemistry, engineering, microbiology, processing, nutrition, and sensory analysis. Post-graduate opportunities range from technical research positions to pursuing a PhD.

PhD: For those who want in-depth research experience Research areas:

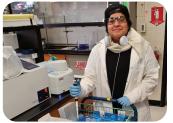
- Diet, health, and disease prevention
- Fermentation, probiotics, and human health
- Flavor chemistry and sensory science of dairy products
- Food ingredient functionality
- Quality and safety of fruits, vegetables, meats, seafood
- Thermal and non-thermal processing of foods
- · Viral and foodborne bacterial pathogens

### Career Possibilities:

- Flavor or sensory scientist
- · Food chemist or engineer
- · Food processing specialist
- · Food product developer
- · Food safety compliance officer
- · Microbial analyst
- · Nutritional quality or labeling specialist
- Teaching, research, or extension specialist

Director, Dr. Jon Allen, jallen@ncsu.edu Student Support, Ms. Juliebeth Briseno





# **NUTRITION • Masters, PhD**

## An interdepartmental program with faculty from:

- Agricultural and Human Sciences
- Animal Science
- Food, Bioprocessing and Nutrition Sciences
- Horticultural Science
- **Molecular and Structural Biochemistry**
- **Prestage Department of Poultry Science**





Masters (non-thesis, online option): Develops skills for jobs in public health, wellness, and food and pharmaceutical industries. Students choose an emphasis in:

- · Feed Science
- Human Nutrition
- · Professional Science Master of Nutrition (Feed Science or Human Nutrition)

Masters (thesis): For those seeking nutrition experience to obtain a technical research position or work toward a PhD.

PhD: An immersive program that includes biological, physical, and social sciences. Research areas:

- · Community nutrition
- Metabolomics
- Phytochemicals and gut microbiome interaction
- Role of diet and nutrition in disease prevention

#### Career Possibilities:

- · Community health advisor or educator
- Consultant for non-profit or government agencies
- Research coordinator
- Policy analyst
- Program manager
- Teaching, research, or extension specialist

Director, Dr. Suzie Goodell, Isgoodel@ncsu.edu Student Support, Ms. Pam Van Emden

# FOOD, **BIOPROCESSING AND NUTRITION SCIENCES**

**Academic Programs** 

fbns.ncsu.edu fbnsligison@ncsu.edu 919.515.2951

NC STATE UNIVERSITY College of Agriculture and Life Sciences

Understand production of safe, sustainable, nutritious, delicious foods for local and global markets through the application of chemistry, microbiology, and engineering.

Science Emphasis: Prepares students for grad school or careers in industry and academia.

**Technology Emphasis:** Coursework that combines science and business to prepare students for food-related entrepreneurial opportunities.

Food Science Minor: Provides a competitive edge for employment in food, pharmaceutical, and related industries.

Food Science Club: Student group with an emphasis on industry networking opportunities.

Institute of Food Technologists: Global community of industry professionals who advance the business and science of food.

#### Career Possibilities:

· Food or flavor chemist

· Sensory scientist



Director, Dr. Keith Harris, gkharris@ncsu.edu Advisor and Student Support, Ms. April Morrison



Understand how to develop and produce fermented foods, biofuels, and healthcare products. Combines biochemistry, microbiology, and molecular biology with hands-on experience with fermenters, bioreactors, and analytical equipment.





**Brewing Science and Technology Minor: Prepares** students for a career in the brewing industry. Hands-on experience in the Wolfpack Brewing Lab.

International Society for Pharmaceutical Engineering: Global organization to advance pharmaceutical manufacturing professionals.

**Biomanufacturing Training and Education Center:** Cross-disciplinary center to develop skilled biomanufacturing professionals.

#### Career Possibilities:

- Fermentation scientist
- Lab analyst, manager, or technologist
- Manufacturing technician
- Process development associate or technician
- Quality assurance specialist
- Quality control analyst
- Validation associate

Director, Dr. John Sheppard, jdsheppa@ncsu.edu Advisor and Student Support, Ms. April Morrison

Understand how nutrients and food affect individuals. families, and communities. Combines chemistry, biology, microbiology, genetics, and psychology.

Nutrition Science: Fulfills prerequisites for medical, dental, pharmacy, optometry, physical therapy, and other health professional programs.

Applied Nutrition: Fulfills prerequisites for physician assistant, nursing, dietitian, public health, and occupational therapy graduate and professional programs.

**Nutrition Minor:** Assists with pursuing careers in healthcare, food industry, or as a health science educator. Students choose an emphasis in human nutrition, animal nutrition, or both.

## **Career Possibilities:**

- Clinical research coordinator
- Community nutritionist
- Extension educator
- · Federal nutrition program analyst
- · Lactation consultant
- Medical professional
- · Project manager or coordinator
- Research technician
- · Wellness health coach

Director, Dr. Natalie Cooke, nkcooke@ncsu.edu Advising and Student Support, Ms. April Morrison, Dr. Sarah Ash, Dr. Nicola Singletary, Ms. Pam Van Emden



