

# A Typical Student Journey (Residential MS)

We engage every student in creating their own journey through the school, with robust faculty and staff support and hands-on, holistic academic advising.

While in some ways there is no “typical” student journey at The Friedman School, this is intended to give a general overview of the choices available to all residential MS students. We encourage you to work with your advisor to design the pathway that works for you.

## Friedman Core

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
Foundational knowledge on the impact of nutrition on biologic functions and human health	Tools and skills for interpreting and understanding scientific analyses	Understanding mechanisms and functions of policy processes and initiatives (e.g., laws, regulations, programs)	Hands-on practical experience to enhance the in-class learning experience	School-wide venue to promote intellectual exchange on food and nutrition, featuring top scholars and professionals
<i>1 or 2 courses, 3-9 credits*</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits*</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

*\*Varies, depending on the specialization*

Because recommended nutrition science and quantitative reasoning coursework varies across specializations, students pursuing specializations with different requirements must complete the more comprehensive course or course sequence. Additionally, completion of one policy course fulfills the policy core requirement. Students are not required to complete the recommended policy course for each specialization they choose unless it is a specialization-specific requirement.

# A Typical Student Journey (Residential MS, continued)

## Design Your Pathway\*\*

### Specialization 1 & 2

(4 courses and 12 credits each)

#### *Required courses*

Foundational knowledge and skills within a given topic area or discipline. These courses provide a knowledge base that students can build on and apply to more specific areas within the specialization.

*3 or 4 courses, 9-12 credits\**

#### *Recommended courses*

Skills and topic areas that, depending on a student's interests, may be considered fundamental to their course of study

*0-2 courses, 0-6 credits\**

#### *Related courses*

Skills and topic areas related to the specialization that will be differently relevant for students with different interest areas

*Varies*

*\*Varies, depending on the specialization*

*\*\*Please note that what is listed on each slide may be subject to change as course offerings change over time.*

### Elective

courses

After completing the Friedman Core and 2 specializations, most students will have room for elective courses that may have little to do with their declared specializations. Depending on which areas they choose to focus in, students may have room for between 1 and 4 elective courses.

# Sample Pathway 1: AFE and Community Interventions and Behavior Change

## Friedman Core (15 credits)

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 Scientific Basis for Nutrition – Micronutrients <b>AND</b> NUTR 246 Scientific Basis for Nutrition – Macronutrients	NUTR 207: Statistical Methods for Nutrition Science and Policy	NUTR 238: Economics of Food, Agriculture, and Nutrition	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>2 courses, 6 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Approx. 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization 1: Agriculture, Food, and Environment (AFE)

Required courses (12 credits)	Elective coursework (0 credits)
NUTR 215: Fundamentals of U.S. Agriculture NUTR 233: Agricultural Science and Policy I NUTR 333: Agricultural Science and Policy NUTR 341: Environmental Economics of Food and Agriculture	

## Specialization 2: Community Interventions and Behavior Change

Required courses (12 credits)	Elective coursework (3 credits)
NUTR 204: Principles of Epidemiology NUTR 211: Theories of Behavior Change and Their Application in Nutrition and Public Health Interventions NUTR 217: Monitoring and Evaluation of Nutrition and Food Security Projects NUTR 228: Community and Public Health Nutrition	NUTR 307: Regression Analysis for Nutrition Science and Policy

## Elective coursework (6 credits)

NUTR 285: Food Justice: Critical Approaches in Policy and Planning  
 NUTR 393: Data Visualization and Effective Communication

# Sample Pathway 2: BMN and Food Business and Entrepreneurship

## Friedman Core (21 credits)

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 370/371: Nutritional Biochemistry and Physiology: Macronutrients / Micronutrients	NUTR 206: Biostatistics 1	NUTR 238: Economics of Food, Agriculture, and Nutrition	NUTR 236: Practicum in Bioresearch Techniques	2 semesters of Friedman Seminar Course
<i>2 courses, 9 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization 1: Biochemical and Molecular Nutrition (BMN)

Required courses (12 credits)	Elective coursework (3 credits)
NUTR 204: Principles of Epidemiology BCHM 223: Graduate Biochemistry NUTR 240: Nutrition Science Journal Club NUTR 309: Biostatistics 2	NUTR 248: Precision Nutrition

## Specialization 2: Food Business and Entrepreneurship

Required courses (9 credits)	Recommended coursework (3 credits)
NUTR 280: Nutrition and Entrepreneurship: Idea to Impact NUTR 284: Food Law and Regulation NUTR 393: Data Visualization and Effective Communication	NUTR 278: Corporate Social Responsibility in the Food Industry

# Agriculture, Food, and Environment

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 238: Economics of Food, Agriculture, and Nutrition	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 215: Fundamentals of U.S. Agriculture</p> <p>NUTR 233: Agricultural Science and Policy I</p> <p>NUTR 333: Agricultural Science and Policy</p> <p>NUTR 341: Environmental Economics of Food and Agriculture</p>	<p>Climate, Agriculture, and Policy (Course number TBD)</p>	<p>NUTR 256: Climate Change: Risk and Adaptation for Food Systems and Beyond</p> <p>NUTR 342: Food Systems Modeling and Analysis</p> <p>NUTR 346: Simulating Biophysical Processes</p> <p>NUTR 278: Corporate Social Responsibility in the Food Industry</p>

## Skills and Knowledge Gained

Knowledge of major trends in agriculture and pros/cons of policy and technical solutions for climate/environmental concerns; Role of policy and management in shaping food production efficiency and environmental impact; Ability to propose solutions for case study problems; Environmental impacts of different types of food production and diet choices; Designing food production systems to meet dietary needs

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.



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# Climate, Sustainability, and Food

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science	NUTR 207: Statistical Methods in Nutrition Science and Policy		Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>n/a</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 256: Climate Change: Risk and Adaptation for Food Systems and Beyond</p> <p>NUTR 331: Environmental Lifecycle Assessment</p> <p>Climate, Agriculture, and Policy (Course number TBD)</p>	<p>PH 279: Climate and Health</p> <p>UEP 293: Greenhouse Gas Management</p>	<p>NUTR 233/333: Agricultural Science and Policy I / II</p> <p>NUTR 241: Food for all: ecology, biotechnology, and sustainability</p> <p>NUTR 278: Corporate Social Responsibility in the Food Industry</p> <p>NUTR 341: Environmental Economics of Food and Agriculture</p> <p>NUTR 346: Simulating Biophysical Processes</p> <p>Sustainable Agriculture and Food Systems Graduate Certificate Courses</p>

## Skills and Knowledge Gained

Knowledge of climate change mitigation and adaptation strategies; pros/cons of policies and technical solutions in the food system; Ability to propose solutions to case studies; Impact of climate and environmental changes on food production and distribution; Role of climate policy in shaping sustainability of food systems; Food equity and sustainability

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.



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# Food Systems Modeling

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science	NUTR 207: Statistical Methods in Nutrition Science and Policy		Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>n/a</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses**	Recommended courses	Related courses
NUTR 231: Fundamentals of Graphic Information Systems (GIS) NUTR 331: Environmental Lifecycle Assessment NUTR 342: Food Systems Modeling and Analysis <i>Applied Systems Thinking to agriculture and Food Systems**</i>	NUTR 307: Regression Analysis for Nutrition Science and Policy NUTR 278: Corporate Social Responsibility in the Food Industry	NUTR 233/333: Agricultural Science and Policy I / II NUTR 341: Environmental Economics of Food and Agriculture NUTR 346: Simulating Biophysical Processes NUTR 285: Food Justice: Critical Approaches in Policy and Planning DHP P288: Climate Change: Risk and Adaptation for Food Systems and Beyond

## Skills and Knowledge Gained

Quantifying environmental impact of food production and distribution; quantifying the relationship between food and nutrition needs and food production at different scales; spatial analysis of food production and access

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\*Course in development; not yet required



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## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science <b>OR</b> NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 203: Fundamentals of Nutrition Policy and Programs	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits <b>OR</b> 2 courses, 6 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR or NUTB 238: Economics of Food, Agriculture, and Nutrition</p> <p>NUTR 303: Determinants of US Food Policy <b>OR</b> NUTR 304: Nutrition, Food Security, and Development</p> <p>NUTR 307: Regression Analysis for Nutrition Science and Policy</p>	<p>NUTR 217: Monitoring and Evaluation of Nutrition and Food Security Projects</p> <p>NUTR 227 International Nutrition Programs</p> <p>NUTR 228: Community and Public Health Nutrition</p>	<p>NUTR 210: Survey Research in Nutrition</p> <p>NUTR 215: Fundamentals of U.S. Agriculture</p> <p>NUTR 284: Food Law and Regulation</p> <p>NUTR 310: Qualitative Research Methods for Nutrition</p> <p>NUTR 325: Evidence Based Interventions for Child Malnutrition</p> <p>NUTR 330: Anthropology of Food and Nutrition</p> <p>NUTR 341: Environmental Economics of Food and Agriculture</p>

## Skills and Knowledge Gained

*Technical skills:* quantitative and qualitative research, study design, and survey methods, analytical skills to understand the evidence base, effective policy formation and program design  
*Content knowledge:* Economic development, the impact of poverty on nutrition outcomes, the economic impact of healthy diets, determinants of nutritional outcomes in the US and across the globe, food law and regulation, and anthropology of food and nutrition

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.



## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science	NUTR 207: Statistical Methods in Nutrition Science and Policy**	NUTR 203 <b>OR</b> NUTR 215 <b>OR</b> NUTR 238 <b>OR</b> NUTB 206***	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 229: Humanitarian Action in Complex Emergencies</p> <p>NUTR 308: Nutrition in Emergencies</p>	<p>NUTR 222: Gender, Culture and Conflict in Complex Humanitarian Emergencies</p> <p>NUTR 243: Forced Migration</p> <p>NUTR 324: International Humanitarian Response</p> <p>NUTR 339: Famine, Livelihoods and Resilience</p> <p>NUTR 256: Climate Change: Risk, and Adaptation for Food Systems</p> <p>ILO L216: International Humanitarian Law</p> <p>DHP D240: Children, Violence, Protection and Resilience</p>	<p>NUTR 210: Survey Research in Nutrition</p> <p>NUTR 217: Monitoring and Evaluation of Nutrition and Food Security Projects</p> <p>NUTR 228: Community and Public Health Nutrition</p> <p>NUTR 231: Fundamentals of Geographic Information Systems (GIS)</p> <p>NUTR 238: Economics of Food, Agriculture, and Nutrition</p> <p>NUTR 301: Nutrition in the Life Cycle (1.5 SHU)</p> <p>DHP D220: Processes of International Negotiation</p> <p>DHP D223: Theories of Conflict and Conflict Resolution</p> <p>DHP P222: Development Aid in Policy and Practice</p> <p>DHP D245M: Working in Difficult Research Environments with Vulnerable Populations: Advanced Field Research Methods</p> <p>ILO L 224: Peace Operations</p>

# Humanitarian Assistance (continued)

## Skills and Knowledge Gained

Describe the relevance of the humanitarian principles and International Humanitarian Law to contexts of humanitarian crises; Explain the latest approaches to food security, nutrition, and livelihoods analysis and programming in humanitarian crises; Conduct gender and intersectional analyses of humanitarian crises to inform appropriate responses; Communicate research and evidence to decisionmakers and operational managers; Apply this knowledge of humanitarian assistance approaches to real-world or simulations of real-world situations.

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\*Students may substitute DHP 235 and DHP 244

\*\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs



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# Food Business and Entrepreneurship

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 202: Fundamentals of Nutrition Science	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 203 <u>OR</u> NUTR 215 <u>OR</u> NUTR 238 <u>OR</u> NUTB 206**	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 280: Nutrition and Entrepreneurship: Idea to Impact</p> <p>NUTR 284: Food Law and Regulation***</p> <p>NUTR 393: Data Visualization and Effective Communication***</p>	<p>NUTR 278: Corporate Social Responsibility in the Food Industry</p>	<p>NUTR 213: Social Media for Health and Nutrition Communication</p> <p>NUTR 273: Social Psychology of Eating Behavior</p> <p>NUTR 306: Communicating Health Information to Diverse Audiences</p> <p>Nutrition for Industry Entrepreneurs graduate certificate courses</p>

## Skills and Knowledge Gained

Create a complete business plan, including financials, pitch decks, and strategy development; Gain practical insights into entrepreneurship while learning from industry experts; Strengthen leadership and teamwork skills through collaborative projects and presentations; Ensure students are seen as industry-ready, not just policy-focused; Learning to identify problems (instead of just jumping to solutions); Teamwork, presenting skills, and breaking down startup impostor syndrome; Getting comfortable hearing different perspectives, taking criticism, and networking; Integrating private sector insights to build on the deep policy and macro learning; General understanding of the principles of entrepreneurship and innovation; Key legal and regulatory underpinnings of the food business across the supply chain

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\* Waivers for substitution encouraged for cross-registration



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## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 370/371: Nutritional Biochemistry and Physiology: Macronutrients / Micronutrients	NUTR 206: Biostatistics 1	NUTR 203 <u>OR</u> NUTR 215 <u>OR</u> NUTR 238 <u>OR</u> NUTB 206**	NUTR 236: Practicum in Bioresearch Techniques	2 semesters of Friedman Seminar Course
<i>2 courses, 9 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
NUTR 204: Principles of Epidemiology	NUTR 225: Introduction to Modern Biology Techniques	NUTR 346: Simulating Biophysical Processes
BCHM 223: Graduate Biochemistry	NUTR 248: Precision Nutrition	Biomedical Data Science (course number TBD)
NUTR 240: Nutrition Science Journal Club	NUTR 272: Nutrition, Physical Activity and Health	Statistical Methods for Microbiome Data Analysis***
NUTR 309: Biostatistics 2	NUTR 319: Intermediate Epidemiology	Microbial Communities and the Human Microbiome***
	NUTB 243: Nutrition, Brain and Behavior	Physiological Mechanisms of Health and Disease***
	NUTB 316: Advanced Medical Nutrition Therapy	
	NUTR 397: Directed Study	

## Skills and Knowledge Gained

Demonstrate understanding and a working knowledge of macronutrient and micronutrient metabolism, bioavailability, homeostasis, and functions; Knowledge about biostatistical and data analysis methods for biomedical sciences; Practical and experiential methodology for carrying out laboratory experiments in nutrition sciences; Apply appropriate study designs and experimental methods to advance and resolve gaps and controversies in nutrition science; Ability to critically read and evaluate the literature in nutrition sciences; Identify gaps and controversies in the relationships between nutrients and disease prevention or promotion.

\*This specialization is particularly appropriate for students who want to pursue a PhD. Some courses may require prerequisites beyond the school-wide requirements; please contact the Dean for Education for more information, or if you would like to request an exemption or substitution from any of the core courses.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\* Indicates a course that offered at Harvard School or Boston University Schools of Public Health

# Nutrition, Diet and Disease Across the Lifecycle

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients <b>OR</b> NUTR 370/371: Nutritional Biochemistry and Physiology: Macronutrients / Micronutrients	NUTR 206: Biostatistics 1 <b>OR</b> NUTR 207: Statistical Methods in Nutrition Science and Policy <b>OR</b> NUTB 250: Statistical Methods for Health Professionals I	NUTR 203 <b>OR</b> NUTR 215 <b>OR</b> NUTR 238 <b>OR</b> NUTB 206**	NUTR 236: Practicum in Bioresearch Techniques <b>OR</b> NUTR 397 Directed Study***	2 semesters of Friedman Seminar Course
<i>2 courses, 9 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
NUTR 204: Principles of Epidemiology NUTR 301: Nutrition in the Lifecycle NUTR 312: Nutrition and Chronic Disease NUTR 272: Nutrition, Physical Activity and Health	NUTR 248: Precision Nutrition NUTR 247: Biology of Aging NUTR 309: Biostatistics 2 <b>OR</b> NUTR 307: Regression Analysis for Nutrition Science and Policy <b>OR</b> NUTB 350: Biostatistics for Health Professionals II NUTR 315: Applied Nutritional Biochemistry**** NUTB 316: Advanced Medical Nutrition Therapy	NUTR 346: Simulating Biophysical Processes NUTC 269: Nutrition, Health, and Disease I: Pregnancy to Adolescence NUTC 270: Nutrition, Health and Disease II: Adulthood NUTR 374: Advanced Clinical Nutrition Practice in Kidney Disease Biomedical Data Science (course number TBD)

# Nutrition, Diet and Disease Across the Lifecycle (continued)

## Skills and Knowledge Gained

Recognize the roles of micronutrients and macronutrients in the prevention or promotion of disease at each life stage; Identify gaps and controversies in the relationships between nutrients and disease at each life stage; Identify appropriate approaches and methods to advance nutrition knowledge and resolve gaps/controversies at each life stage; Develop programs that promote consumer health, wellness, and lifestyle management; Demonstrate knowledge of various disease states, lifecycle phases, and accompanying conditions and associated dietary implications; Accurately translates science into evidence-based practice.

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\*Options listed here are *suggested*, not required

\*\*\*\* Recommended for students taking NUTR 245/246 to fulfill their nutrition science requirement; not appropriate for students taking NUTR 370/371

# Nutritional Epidemiology and Public Health Nutrition

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients <b>OR</b> NUTR 370/371: Nutritional Biochemistry and Physiology: Macronutrients / Micronutrients	NUTR 206: Biostatistics	NUTR 203 <b>OR</b> NUTR 215 <b>OR</b> NUTR 238 <b>OR</b> NUTB 206**	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>2 courses, 6 credits <b>OR</b> 2 courses, 9 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
NUTR 204: Principles of Epidemiology NUTR 305: Principles of Epidemiology NUTR 309: Biostatistics 2 NUTR 319: Intermediate Epidemiology	NUTR 228: Community and Public Health Nutrition NUTR 237: Data Management Using SAS NUTR 375: Applied Genetic Epidemiology and Biostatistics in Nutrition Research NUTR 392: Nutrition Systematic Reviews and Knowledge Translation	NUTR 210: Survey Research in Nutrition NUTR 231: Fundamentals of Geographic Information Systems (GIS) NUTR 346: Simulating Biophysical Processes NUTR 393: Data Visualization and Effective Communication NUTR 394: Advanced Data Analysis PH 202: Public Health Assessment: Data Determinates, and Systems PH 203: Public Health Action: Programs, Policy and Advocacy PH 291: Analysis of Multilevel & Longitudinal Data Biomedical Data Science (course number TBD)

# Nutritional Epidemiology and Public Health Nutrition (continued)

## Skills and Knowledge Gained

Technical skills: Study design, dietary assessment, data management, statistical analysis, causal inference; Critical thinking skills for clarifying the causal relationship between nutrition and health. Translation of evidence to inform public health policies and interventions

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs



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## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients	NUTR 206: Biostatistics 1	NUTR 203 <u>OR</u> NUTR 215 <u>OR</u> NUTR 238 <u>OR</u> NUTB 206**	Project-based coursework	2 semesters of Friedman Seminar Course
<i>2 courses, 6 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 390: Introduction to AI-Based Applications for Nutrition and Health Research (AIRNH)</p> <p>NUTR 393: Data Visualization and Effective Communication</p> <p>NUTR 394: Advanced Data Analysis</p> <p><i>Ethical Use of Data Analytics and AI ***</i></p>	<p>NUTR 204: Principles of Epidemiology</p> <p>NUTR 237: Data Management Using SAS</p> <p>NUTR 309: Biostatistics 2</p>	<p>NUTR 210: Survey Research in Nutrition</p> <p>NUTR 231: Fundamentals of Geographic Information Systems (GIS)</p> <p>NUTR 392: Nutrition Systematic Reviews and Knowledge Translation</p>

## Skills and Knowledge Gained

Proficiency in statistical analysis; Data visualization; Critical thinking in data interpretation; Gain hands-on experience with real-world data sets; Incorporate ethical considerations in data analysis and use of AI; Develop understanding of capabilities and limitations of AI algorithms and practical skills for AI use

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\**Course in development; not yet required*

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 203 <u>OR</u> NUTR 215 <u>OR</u> NUTR 238 <u>OR</u> NUTB 206**	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
<i>2 courses, 6 credits</i>	<i>1 course, 3 credits</i>	<i>1 course, 3 credits</i>	<i>Minimum of 120 hours</i>	<i>2 semesters, 1.5 credits each</i>

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR or NUTB or NUTC 211: Theories of Behavior Change and Their Application in Nutrition and Public Health Interventions</p> <p>NUTR 218: Communications Strategies in Nutrition and Health Promotion</p> <p>NUTR 322: Writing Well About Food and Nutrition</p> <p>NUTR 393: Data Visualization and Effective Communication</p>	<p>NUTR 213: Social Media for Health and Nutrition Communication</p> <p>NUTR 306: Communicating Health Information to Diverse Audiences</p>	<p>NUTC 230: Interpreting Nutrition Evidence</p> <p>NUTC 285: Current Controversies in Nutrition Science</p> <p>Public Speaking for Managers***</p>

## Skills and Knowledge Gained

Apply behavioral and communications theories and strategies to develop accessible health messaging for diverse audiences; Evaluate a communications campaign; Develop engaging and effective food and nutrition messages across various technologies, platforms, and channels.; Apply behavioral theories to inform the design, implementation, and evaluation of food and nutrition communication initiatives; Develop and/or adapt communication initiatives to be culturally appropriate and relevant.; Skills in data visualization; Ability to succinctly summarize primary and secondary sources for a variety of audiences, technical and non-technical; Learn to find, solicit, and interview primary sources; Understand article structure and guiding and keeping reader attention through the length of an article or paper; Develop a compelling and individual writing voice. Edit, simplify, and clarify text

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\*Cross listed at Harvard School of Public Health

# Community Interventions and Behavior Change

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 203 <u>OR</u> NUTR 215 <u>OR</u> NUTR 238 <u>OR</u> NUTB 206**	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
2 courses, 6 credits	1 course, 3 credits	1 course, 3 credits	Minimum of 120 hours	2 semesters, 1.5 credits each

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 204: Principles of Epidemiology</p> <p>NUTR or NUTB or NUTC 211: Theories of Behavior Change and Their Application in Nutrition and Public Health Interventions</p> <p>NUTR 217: Monitoring and Evaluation of Nutrition and Food Security Projects</p> <p>NUTR 228: Community and Public Health Nutrition</p>	<p>NUTR 307: Regression Analysis for Nutrition Science and Policy</p> <p><i>Ethics of Community Engagement***</i></p>	<p>NUTR 210: Survey research in Nutrition</p> <p>NUTR 310: Qualitative Research Methods for Nutrition</p> <p>NUTR 273 Social Psychology of Eating Behavior</p> <p>NUTC 212: Developing Equitable, Inclusive Community Environments for Physical Activity</p> <p>NUTB 227: Global Nutrition Programs</p> <p>PH 262: GIS for Public Health</p> <p>PH 290: Qualitative Methods and Data Analysis</p> <p>PH 246: Public Health Advocacy</p> <p>PH 210: Law in Public Health</p>

# Community Interventions and Behavior Change (continued)

## Skills and Knowledge Gained

Use health-related behavior theory to design, implement, and evaluate intervention; Know the strengths and weaknesses of different study designs and be able to choose an appropriate one; Evaluate an intervention by choosing appropriate outcomes and measures, and understand how and when to take measurements; Have a basic knowledge of implementation science; Use frameworks, models, and systems thinking to develop community and individual level evidence-based interventions; Demonstrate the ability to conduct comprehensive needs assessments to identify community priorities to inform nutrition intervention development; Describe community engagement principles and how to apply them to build collaborative partnerships with community members, organizations, and/or interest holders to enhance nutrition interventions; Develop and/or adapt nutrition interventions to be culturally appropriate and relevant, by applying community engagement, equity-focus, cultural adaptation principles to work; Describe the breadth of community intervention settings and strategies for promoting healthy eating and active living; Explain and apply steps in intervention / program development

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* NUTR203: Fundamentals of Nutrition Policy and Programs; NUTR 215: Fundamentals of US Agriculture; NUTR 238: Economics of Food, Agriculture, and Nutrition ; NUTB 206: Global Nutrition Policy and Programs

\*\*\* Course currently in development

# Nutrition Equity

## Friedman Core\*

Nutrition science	Quantitative reasoning	Policy and programs	Experiential learning	Friedman Seminar
NUTR 245 & 246: Scientific Basis for Nutrition, Micro & Macronutrients	NUTR 207: Statistical Methods in Nutrition Science and Policy	NUTR 203: Fundamentals of Nutrition Policy and Programs	Internship directed study, practicum, job, or other non-classroom experience	2 semesters of Friedman Seminar Course
2 courses, 6 credits	1 course, 3 credits	1 course, 3 credits	Minimum of 120 hours	2 semesters, 1.5 credits each

## Specialization Requirements

Required courses	Recommended courses	Related courses
<p>NUTR 307: Regression Analysis for Nutrition Science and Policy</p> <p>NUTR 285: Food Justice: Critical Approaches in Policy and Planning</p> <p>NUTR 303: Determinates of US Food Policy</p> <p><i>Equity in Food, Agriculture, and Nutrition**</i></p>	<p>NUTR 228: Community and Public Health Nutrition</p> <p><i>Ethics of Community Engagement**</i></p>	<p>NUTR 330: Anthropology of Food and Nutrition</p> <p>PH 210 - Law in Public Health</p> <p>PH 246 - Public Health Advocacy</p> <p>PH 262: GIS for Public Health</p> <p>PH 290: Qualitative Methods and Data Analysis</p>

## Skills and Knowledge Gained

Understand historical and structural factors that result in inequitable systems; Understand how to design interventions to address inequities; Be able to apply an equity lens to all aspects of the research process; Assess social determinants of health and their relationship to food security; Demonstrate the ability to apply health equity frameworks and solutions to food and nutrition-associated programs and policies; Demonstrate ability to use cultural adaptations and culturally humble approaches; Develop engagement, empowerment, and advocacy skills and strategies for accelerating nutrition equity

\*Please speak with your advisor or the Dean for Education if you would like to request an exemption or substitution.

\*\* Course currently in development



Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy

# A Typical Student Journey (Online MS)

We engage every student in creating their own journey through the school, with robust faculty and staff support and hands-on, holistic academic advising.

While in some ways while there is no “typical” student journey at The Friedman School, this is intended to give a general overview of the choices available to all online MS students. We encourage you to work with your advisor to design the pathway that works for you.

## Friedman Online Core

Nutrition Science	Experiential Learning	Friedman Seminar
Foundational knowledge on the impact of nutrition on biologic functions and human health	Hands-on practical experience to enhance the in-class learning experience	School-wide venue to promote intellectual exchange on food and nutrition, featuring top scholars and professionals
<i>1-2 courses*, 3-6 credits</i>	<i>Minimum of 120 hours</i>	<i>1 course, 3 credits</i>

\*Varies, depending on the specialization

## Design Your Pathway\*\*

Specialization (4 courses and 12 credits)	Elective courses
Students must choose one specialization from a list of three, and complete at least 12 credits in that area, including an applied policy course. Students may also choose to build their own specialization with guidance of their academic advisor.	After completing their specialization, students must complete a remaining 9 credits of other elective coursework, which may include courses within their area of specialization, or from a totally separate discipline

\*Varies, depending on the specialization

\*\*Please note that what is listed on the following slide may be subject to change as course offerings change over time.

# Specializations and Course Listings

## Friedman Online Core

Nutrition science	Experiential learning	Friedman Seminar
<p>NUTB202: Fundamentals of Nutrition Science</p> <p><b>OR</b></p> <p>NUTR 245 &amp; 246: Scientific Basis for Nutrition, Micro &amp; Macronutrients</p> <p><b>OR</b></p> <p>NUTB205/305: Nutritional Biochemistry, Micro and Macronutrients</p>	<p>Hands-on practical experience to enhance the in-class learning experience</p>	<p>School-wide venue to promote intellectual exchange on food and nutrition, featuring top scholars and professionals</p>
<p>1 course, 3 credits</p>	<p>Minimum of 120 hours</p>	<p>1 course, 3 credits</p>

## Specialization-specific Courses

Climate, Sustainability, and Food	Nutrition Science and Policy	Data Analytics and AI
<p>NUTC 261: Sustainability on the Farm</p> <p>NUTC 262: Sustainable Food Systems and Markets</p> <p>NUTC 263: Sustainability and the Food Consumer</p> <p><i>Climate Change: Risk and Adaptation for Food Systems and Beyond**</i></p> <p><i>Climate, Agriculture, and Policy**</i></p> <p><i>Sustainable Agriculture and Food Systems Graduate Certificate Courses**</i></p>	<p>NUTB 206: Global Food and Nutrition Policy*</p> <p>NUTB 238: Economics of Food, Agriculture, and Nutrition*</p> <p>NUTB 250: Statistical Methods for Health Professionals I</p> <p>NUTB 350: Statistical Methods for Health Professionals II</p> <p>NUTB 204: Epidemiology for Nutrition Professionals</p> <p>NUTB 219: Food Science Fundamentals</p> <p>NUTC 203: Malnutrition Prevention &amp; Response</p> <p>NUTC 211: Theories of Behavior Change</p> <p>NUTC 280: Nutrition and Innovation</p>	<p>NUTB 250: Statistical Methods for Health Professionals I</p> <p>NUTB 350: Statistical Methods for Health Professionals II</p> <p><i>Introduction to AI-Based Applications for Nutrition and Health Research**</i></p> <p><i>Ethical Use of Data Analytics and AI**</i></p> <p><i>Introduction to Data Management**</i></p> <p><i>Intermediate Data Management**</i></p> <p><i>Data Visualization**</i></p> <p><i>Advanced Data Analysis**</i></p>

\*Fulfills applied policy course requirement

\*\* Course currently in development



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