

MASTER OF SCIENCE IN FOOD SCIENCE AND NUTRITION, NUTRITION SPECIALIZATION

The Master of Science in Food Science and Nutrition, Nutrition Specialization includes work in advanced nutrition science and nutrient metabolism, recent developments in human nutrition, research statistics, and nutritional epidemiology. Additional coursework in basic or applied behavioral sciences is also necessary, with selected electives depending on whether the student's interest is more in community/public health nutrition or nutrition metabolism. Ultimately, the Nutrition Specialization focuses on the relationship between nutrition and health. The program provides students with training for doctoral studies in basic and applied sciences, advanced preparation for professional degrees, and careers in the industry. A minimum of 35 credits is required for the M.S. degree.

Learn more about the Master's in Food Science and Nutrition, Nutrition Specialization on the Department of Food Science and Human Nutrition website (<https://www.chhs.colostate.edu/fshn/programs-and-degrees/m-s-in-food-science-and-nutrition/>).

Plan A Effective Fall 2021

Code	Title	Credits
Required Courses		
FSHN 550	Advanced Nutritional Science I	3
FSHN 551	Advanced Nutritional Science II	3
FSHN 640	Selected Topics in Nutritional Epidemiology	2
Select one course from the following:		2
FSHN 650A	Recent Developments in Human Nutrition: Protein, Vitamins, and Minerals	
FSHN 650B	Recent Developments in Human Nutrition: Carbohydrates, Lipids, and Energy	
FSHN 650C	Recent Developments in Human Nutrition: Genomic, Proteomics, and Metabolomics	
FSHN 692	Seminar	1
Thesis		
FSHN 699B	Thesis: Nutrition	10
or FSHN 699C	Thesis: Food Service Management	
Required Statistics/Research Methods Courses – Select one course from the following:		3-4
EDRM 600	Introduction to Research Methods	
EDRM 606	Principles: Quantitative Data Analysis	
EDRM 704	Qualitative Research	
EDRM 705	Qualitative Data Analysis	
PSY 652	Methods of Research in Psychology I	
PSY 653	Methods of Research in Psychology II	
STAR 511	Design and Data Analysis for Researchers I	
STAR 512	Design and Data Analysis for Researchers II	
Electives		10-11

Select a minimum of 10 credits not taken elsewhere in the program in consultation with the graduate committee (see Example Elective Courses list below)

Program Total Credits: 35

Example Elective Courses

Code	Title	Credits
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BC 465	Molecular Regulation of Cell Function	3
BC 517	Metabolism	2
BC 565	Molecular Regulation of Cell Function	4
BC 663	Gene Expression	2
BIOM 526/ECE 526	Biological Physics	3
BMS 430	Endocrinology	3
BMS 500	Mammalian Physiology I	4
BMS 501	Mammalian Physiology II	4
BMS 505/NB 505	Neuronal Circuits, Systems and Behavior	3
BMS 610A	Managing a Career in Science: Survival Skills for Coursework (M.S.)	1
BMS 631	Mechanisms of Hormone Action	2
BMS 632	Metabolic Endocrinology	2
BZ 455	Human Heredity and Birth Defects	3
EDRM 600	Introduction to Research Methods	3
EDRM 606	Principles: Quantitative Data Analysis	3
EDRM 704	Qualitative Research	3
EDRM 705	Qualitative Data Analysis	3
ERHS 542	Biostatistical Methods for Qualitative Data	3
ERHS 544/STAT 544	Biostatistical Methods for Quantitative Data	3
ERHS 567	Cell and Molecular Toxicology Techniques	3
ERHS 611	Cancer Genetics	2
FSHN 445/HDFS 445	Early Childhood Health, Safety, and Nutrition	3
FSHN 496A	Group Study in Dietetics and Nutrition: Energy, Weight Management	1
FSHN 496B	Group Study in Dietetics and Nutrition: Sustainable Food Issues	1
FSHN 496C	Group Study in Dietetics and Nutrition: Nutrition and Chronic Disease	1
FSHN 496D	Group Study in Dietetics and Nutrition: Nutrition for Athletes	1
FSHN 496E	Group Study in Dietetics and Nutrition: Food Safety	1
FSHN 496F	Group Study in Dietetics and Nutrition: Service Marketing	1
FSHN 496G	Group Study in Dietetics and Nutrition: Food and Consumer Issues	1
FSHN 496H	Group Study in Dietetics and Nutrition: Public Health and Policy	1
FSHN 496I	Group Study in Dietetics and Nutrition: Special Topics	1
FSHN 500	Food Systems, Nutrition, and Food Security	2
FSHN 520	Advanced Medical Nutrition Therapy	3

FSHN 525	Nutrition Education Theories and Practice	2
FSHN 540	Nutrigenomics and Advanced Lipid Metabolism	3
FSHN 561	International Nutrition Studies	2
FSHN 600	Responsible Conduct of Research	1
FSHN 620	Community Nutrition Planning and Evaluation	3
FSHN 628	Advanced Nutrition Counseling Techniques	2
FSHN 630/HES 630	Integrative Exercise and Nutrition Metabolism	3
FSHN 650A	Recent Developments in Human Nutrition: Protein, Vitamins, and Minerals	2
FSHN 650B	Recent Developments in Human Nutrition: Carbohydrates, Lipids, and Energy	2
FSHN 650C	Recent Developments in Human Nutrition: Genomic, Proteomics, and Metabolomics	2
FSHN 660	Women's Issues in Lifecycle Nutrition	2
FSHN 686A	Practicum: Counseling	1-3
FSHN 686B	Practicum: Nutrition	1-3
FSHN 695B	Independent Study: Nutrition	1-3
FSHN 700	Cellular Nutrition	2
FSHN 750	Nutritional Basis of Chronic Disease	2
FSHN 792	Seminar-Research Topics in Nutrition	1
FSHN 795	Independent Study	1-4
FTEC 570	Food Product Development	2
FTEC 578/HORT 578	Phytochemicals and Probiotics for Health	3
GRAD 792	Seminar on College Teaching	2
HDFS 608	Program Planning and Implementation	3
HES 603	Advanced Topics in Exercise Physiology	3
HES 610	Exercise Bioenergetics	3
HES 630/FSHN 630	Integrative Exercise and Nutrition Metabolism	3
HORT 579	Mass Spectrometry Omics-Methods and Analysis	3
JTC 614	Public Communication Campaigns	3
JTC 630	Health Communication	3
JTC 661	Information Design	3
JTC 662	Communicating Science and Technology	3
MIP 540	Biosafety in Research Laboratories	2
MIP 555	Principles and Mechanisms of Disease	3
MIP 612	Applied Immunology	3
MIP 614	Medical Microbiology	3
PSY 652	Methods of Research in Psychology I	4
PSY 653	Methods of Research in Psychology II	4
STAR 511	Design and Data Analysis for Researchers I	4
STAR 512	Design and Data Analysis for Researchers II	4
VS 562	Applied Data Analysis	3

A minimum of 35 credits are required to complete this program.

Plan B Effective Fall 2021

Code	Title	Credits
Required Courses		
FSHN 550	Advanced Nutritional Science I	3
FSHN 551	Advanced Nutritional Science II	3
FSHN 640	Selected Topics in Nutritional Epidemiology	2
Select one course from the following:		2
FSHN 650A	Recent Developments in Human Nutrition: Protein, Vitamins, and Minerals	
FSHN 650B	Recent Developments in Human Nutrition: Carbohydrates, Lipids, and Energy	
FSHN 650C	Recent Developments in Human Nutrition: Genomic, Proteomics, and Metabolomics	
FSHN 692	Seminar	1
Research Project – Select one course from the following:		4
FSHN 698A	Research: Dietetics	
FSHN 698B	Research: Nutrition	
FSHN 698C	Research: Food Service Management	
Required Statistics/Research Methods Courses – Select one course from the following:		3-4
EDRM 600	Introduction to Research Methods	
EDRM 606	Principles: Quantitative Data Analysis	
EDRM 704	Qualitative Research	
EDRM 705	Qualitative Data Analysis	
PSY 652	Methods of Research in Psychology I	
PSY 653	Methods of Research in Psychology II	
STAR 511	Design and Data Analysis for Researchers I	
STAR 512	Design and Data Analysis for Researchers II	
Electives		16-17
Select a minimum of 16 credits not taken elsewhere in the program in consultation with the graduate committee (see Example Elective Courses list below)		
Program Total Credits:		35

Example Elective Courses

Code	Title	Credits
BC 401	Comprehensive Biochemistry I	3
BC 403	Comprehensive Biochemistry II	3
BC 465	Molecular Regulation of Cell Function	3
BC 517	Metabolism	2
BC 565	Molecular Regulation of Cell Function	4
BC 663	Gene Expression	2
BIOM 526/ECE 526	Biological Physics	3
BMS 430	Endocrinology	3
BMS 500	Mammalian Physiology I	4
BMS 501	Mammalian Physiology II	4
BMS 505/NB 505	Neuronal Circuits, Systems and Behavior	3
BMS 610A	Managing a Career in Science: Survival Skills for Coursework (M.S.)	1
BMS 631	Mechanisms of Hormone Action	2
BMS 632	Metabolic Endocrinology	2

BZ 455	Human Heredity and Birth Defects	3	FSHN 795	Independent Study	1-4
EDRM 600	Introduction to Research Methods	3	FTEC 570	Food Product Development	2
EDRM 606	Principles: Quantitative Data Analysis	3	FTEC 578/HORT 578	Phytochemicals and Probiotics for Health	3
EDRM 704	Qualitative Research	3	GRAD 792	Seminar on College Teaching	2
EDRM 705	Qualitative Data Analysis	3	HDFS 608	Program Planning and Implementation	3
ERHS 542	Biostatistical Methods for Qualitative Data	3	HES 603	Advanced Topics in Exercise Physiology	3
ERHS 544/STAT 544	Biostatistical Methods for Quantitative Data	3	HES 610	Exercise Bioenergetics	3
ERHS 567	Cell and Molecular Toxicology Techniques	3	HORT 579	Mass Spectrometry Omics-Methods and Analysis	3
ERHS 611	Cancer Genetics	2	JTC 614	Public Communication Campaigns	3
FSHN 445/HDFS 445	Early Childhood Health, Safety, and Nutrition	3	JTC 630	Health Communication	3
FSHN 496A	Group Study in Dietetics and Nutrition: Energy, Weight Management	1	JTC 661	Information Design	3
FSHN 496B	Group Study in Dietetics and Nutrition: Sustainable Food Issues	1	JTC 662	Communicating Science and Technology	3
FSHN 496C	Group Study in Dietetics and Nutrition: Nutrition and Chronic Disease	1	MIP 540	Biosafety in Research Laboratories	2
FSHN 496D	Group Study in Dietetics and Nutrition: Nutrition for Athletes	1	MIP 555	Principles and Mechanisms of Disease	3
FSHN 496E	Group Study in Dietetics and Nutrition: Food Safety	1	MIP 612	Applied Immunology	3
FSHN 496F	Group Study in Dietetics and Nutrition: Service Marketing	1	MIP 614	Medical Microbiology	3
FSHN 496G	Group Study in Dietetics and Nutrition: Food and Consumer Issues	1	STAR 511	Design and Data Analysis for Researchers I	4
FSHN 496H	Group Study in Dietetics and Nutrition: Public Health and Policy	1	STAR 512	Design and Data Analysis for Researchers II	4
FSHN 496I	Group Study in Dietetics and Nutrition: Special Topics	1	VS 562	Applied Data Analysis	3
FSHN 500	Food Systems, Nutrition, and Food Security	2	A minimum of 35 credits are required to complete this program.		
FSHN 520	Advanced Medical Nutrition Therapy	3			
FSHN 525	Nutrition Education Theories and Practice	2			
FSHN 540	Nutrigenomics and Advanced Lipid Metabolism	3			
FSHN 561	International Nutrition Studies	2			
FSHN 600	Responsible Conduct of Research	1			
FSHN 620	Community Nutrition Planning and Evaluation	3			
FSHN 628	Advanced Nutrition Counseling Techniques	2			
FSHN 630/HES 630	Integrative Exercise and Nutrition Metabolism	3			
FSHN 650A	Recent Developments in Human Nutrition: Protein, Vitamins, and Minerals	2			
FSHN 650B	Recent Developments in Human Nutrition: Carbohydrates, Lipids, and Energy	2			
FSHN 650C	Recent Developments in Human Nutrition: Genomic, Proteomics, and Metabolomics	2			
FSHN 660	Women's Issues in Lifecycle Nutrition	2			
FSHN 686A	Practicum: Counseling	1-3			
FSHN 686B	Practicum: Nutrition	1-3			
FSHN 695B	Independent Study: Nutrition	1-3			
FSHN 700	Cellular Nutrition	2			
FSHN 750	Nutritional Basis of Chronic Disease	2			
FSHN 792	Seminar-Research Topics in Nutrition	1			