NUTRITION MAJOR - METABOLISM, HEALTH AND DISEASE (B.SC.(NUTR.SC.)) (90 CREDITS)

Offered by: Human Nutrition (Faculty of Agricultural and Environmental Sciences)
Degree: Bachelor of Science (Nutritional Sciences)
Program credit weight: 90

Program Description

This Major offers a core emphasis on the scientific fundamentals of nutrition and metabolism throughout the lifespan from the molecular to the organismal level. This concentration emphasizes the influence of diet and nutrition on human health and the pathophysiology of inherited and acquired chronic disease. The links of nutrigenomics, nutrigenetics, and biotechnology with human health and regulation of metabolism are explored. This program does not lead to professional licensure as a dietitian/nutritionist.

Degree Requirements — B.Sc.

This program is offered as part of a Bachelor of Science (B.Sc.) degree.

To graduate, students must satisfy both their program requirements and their degree requirements.

- The program requirements (i.e., the specific courses that make up this program) are listed under the Course Tab (above).
- The degree requirements—including the mandatory Foundation program, appropriate degree structure, and any additional components—are outlined on the Degree Requirements page.

Students are responsible for ensuring that this program fits within the overall structure of their degree and that all degree requirements are met. Consult the Degree Planning Guide on the SOUSA website for additional guidance.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (63 credits)

All required courses must be passed with a minimum grade of C.

Expand allContract all

Course	Title	Credits
AEMA 310	Statistical Methods 1.	3
ANSC 234	Biochemistry 2.	3
ANSC 323	Mammalian Physiology.	3
ANSC 424	Metabolic Endocrinology.	3
FDSC 200	Introduction to Food Science.	3
FDSC 251	Food Chemistry 1.	3
FDSC 305	Food Chemistry 2.	3
LSCI 204	Genetics.	3
LSCI 211	Biochemistry 1.	3
LSCI 230	Introductory Microbiology.	3
NUTR 207	Nutrition and Health.	3
NUTR 214	Food Fundamentals.	4
NUTR 307	Metabolism and Human Nutrition.	3
NUTR 322	Applied Sciences Communication.	3
NUTR 337	Nutrition Through Life.	3
NUTR 344	Clinical Nutrition 1.	4
NUTR 401	Emerging Issues in Nutrition.	1
NUTR 450	Research Methods: Human Nutrition.	3
NUTR 507	Advanced Nutritional Biochemistry.	3
NUTR 512	Herbs, Foods and Phytochemicals.	3
NUTR 537	Advanced Human Metabolism.	3

Complementary Courses (12 credits)

12 credits of complementary courses are selected as follows:

Common Complementary Courses

6 credits selected from:

Expand allContract all

Course	Title	Credits
ANSC 433	Animal Nutrition and Metabolism.	3
ANSC 560	Biology of Lactation.	3
FDSC 537	Nutraceutical Chemistry.	3
FDSC 545	Advances in Food Microbiology.	3
NUTR 501	Nutrition in the Majority World.	3
NUTR 503	Nutrition and Exercise.	3
NUTR 505	Public Health Nutrition.	3
NUTR 511	Nutrition and Behaviour.	3
NUTR 545	Clinical Nutrition 2.	4
NUTR 546	Clinical Nutrition 3.	4
NUTR 551	Analysis of Nutrition Data.	3
PARA 438	Immunology.	3

6 credits selected from:

Expand allContract all

Course	Title	Credits
ANAT 214	Systemic Human Anatomy.	3
ANAT 261	Introduction to Dynamic Histology.	4
ANAT 262	Introductory Molecular and Cell Biology.	3
ANAT 322	Neuroendocrinology.	3
ANSC 312	Animal Health and Disease.	3
ANSC 324	Developmental Biology and Reproduction.	3
ANSC 400	Eukaryotic Cells and Viruses.	3

ANSC 560	Biology of Lactation.	3
BIOL 300	Molecular Biology of the Gene.	3
BTEC 306	Experiments in Biotechnology.	3
MICR 341	Mechanisms of Pathogenicity.	3
NUTR 430	Directed Studies: Dietetics and Nutrition 1.	3
PARA 424	Fundamental Parasitology.	3
PATH 300	Human Disease.	3
PHAR 300	Drug Action.	3
PHAR 301	Drugs and Disease.	3
PHAR 303	Principles of Toxicology.	3
PHGY 311	Channels, Synapses and Hormones.	3
PHGY 312	Respiratory, Renal, and Cardiovascular Physiology.	3
PHGY 313	Blood, Gastrointestinal, and Immune Systems Physiology.	3

Elective Courses (15 credits)

15 credits of electives are taken to meet the minimum credit requirement for the degree. A reciprocal agreement allows all students to take a limited number of electives at any Quebec university. With prior approval students can take electives at any Canadian or international university.