

Food Science (FOOD)

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Food Science (FOOD) Courses

FOOD 5100 [0.5 credit]

Advanced Food Processing and Technology

Major techniques used in food processing and preservation of raw agricultural materials. Targeted food groups include dairy, cereal grains and oilseeds.

FOOD 5101 [0.5 credit]

Advanced Nutrition and Metabolism

Metabolism of macronutrients in the human body. Detailed catabolic and anabolic reactions of carbohydrates, lipids and proteins. Regulatory control points in healthy and diseased states. Discussion of the literature pertaining to nutrition, metabolism and disease.

FOOD 5102 [0.5 credit]

Food Biotechnology

Developments in biotechnology related to food production and quality. Traditional food biotechnology and novel biotechnological methods related to the production of food; the use of traditional food crops in other bio-industries. Aspects of microbiology and genetic engineering.

FOOD 5103 [0.5 credit]

Cellular Redox in Health and Disease

Crucial interactions of free radicals with biomolecules in living organisms. Procedures for detecting cellular and DNA damage, lipid and protein oxidation products; the link between oxidative stress and chronic diseases.

FOOD 5104 [0.5 credit]

Theory and Principles of Food Quality and Control

Sampling plans and statistical methods. Physical, chemical, biological and microbiological tests in quality control as it relates to food safety and regulation. Also offered at the undergraduate level, with different requirements, as FOOD 4001, for which additional credit is precluded.

FOOD 5105 [0.5 credit]

Functional Foods and Nutraceuticals

Study of the scientific basis for bioactive components of functional foods and nutraceuticals, their sources, chemistry, process technology, efficacy, safety and regulation. The relationship between chemical structure and functionality; interactions between compounds in food. Precludes additional credit for CHEM 5103 (no longer offered).

Prerequisite(s): FOOD 3001.

Summer session: some of the courses listed in this Calendar are offered during the summer. Hours and scheduling for summer session courses will differ significantly from those reported in the fall/winter Calendar. To determine the scheduling and hours for summer session classes, consult the class schedule at central.carleton.ca

Not all courses listed are offered in a given year. For an up-to-date statement of course offerings for the current session and to determine the term of offering, consult the class schedule at central.carleton.ca