

FOOD SCIENCE (FOOD)

FOOD 7090 Unit Process Operations 3 cr

A study of unit operations which are commonly utilized in the food industry with emphasis on separation processes, particle size reduction and heat transfers.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite or co-requisite: BIOE 3530 or equivalent.

FOOD 7130 Food Science Seminar 3 cr

Verbal and written presentation of selected topics in Food Science.

This is a required course for all M.Sc. candidates in the Food Science Department.

FOOD 7150 Food Proteins 3 cr

An examination of the structural and functional properties of proteins in foods. Laboratory sessions will emphasize experimental approaches to study proteins in foods, including topics such as surface characterization, thermal properties, rheological behaviour, and chemical modification.

FOOD 7160 Food Carbohydrates 3 cr

A study of the physico-chemical properties and functionality of food carbohydrates. Laboratory sessions will focus on quantitation, structural characterization, thermal properties and rheological behaviour of carbohydrates.

FOOD 7180 Food Science of Cereal Grains 3 cr

The course deals with cereal grains used for human food, the structure of constituents, and the relationship of constituent structure to functionality in the processing of the grains into food products. Emphasis will be on constituents and properties that contribute to optimum processing of wheat.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: CHEM 2360 or CHEM 2770 or MBIO 2360 or MBIO 2770, or permission of instructor.

FOOD 7200 Advanced Food Microbiology 3 cr

Detection and quantitation of foodborne microorganisms and related toxins using developing methodology, including rapid microbiological assays with a comprehensive account of basic principles and advanced techniques.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: MBIO 2100, FOOD 4150 or consent of instructor.

FOOD 7240 Topics in Food Science 3 cr

An in-depth study of selected topics of current relevance in Food Science. Available to students in the M.Sc. programs and in the Interdepartmental Ph.D. in Food and Nutritional Sciences.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: written consent of Department Head.

FOOD 7260 Advanced Meat Science 3 cr

Builds on fundamental aspects of muscle biochemistry and function to explain how pre- and post-harvest technology affect meat quality and safety. Issues of current concern, their resolution as well as recent advances will be discussed.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: Consent of instructor.

FOOD 7270 Food Rheology 3 cr

Evaluation of the textural properties of foods provides critical information in the development of quality food products. This course deals with the principles and methodologies in food rheology and includes an examination of the rheological properties of selected food systems.