

FOOD SAFETY & NUTRITION

STUDY ABROAD MODULE OPTIONS

LEVEL 1	
DOUBLE SEMESTER: FALL & SPRING	
BIO1303 Chemistry and Composition of Foods (40 CATS)	
BIO1302 Fundamentals of Nutrition and Food Policy (40 CATS)	
LEVEL 2	
SEMESTER 1: FALL	SEMESTER 2 : SPRING
BIO2101 Principles of Food Quality (20 CATS)	BIO2201 Instrumental Food Analysis (20 CATS)

MODULE OVERVIEWS

BIO1303 Chemistry and Composition of Foods

Through this module you will gain an understanding of the fundamental principles of chemistry relevant to the physical and chemical characteristics of food that are subsequently developed in later stages of your degree. Topics to be covered include; the periodic table, chemical bonds and molecular shape, understanding molecular structure, aliphatic and aromatic organic compounds, IUPAC nomenclature, introduction to stereochemistry and functional group chemistry relevant to common biological molecules, states of matter, elementary thermodynamics and an overview of spectroscopy. In addition, you will acquire knowledge and develop understanding of the composition and structure of the major food commodities and develop appropriate practical and analytical skills.

Please note: modules may require demonstration of prior learning. Modules may be subject to change.



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BIO1302 Fundamentals of Nutrition and Food Policy

This module covers a variety of topics including food-relevant molecules; body composition; nutrition & metabolism; population Nutrition; physiology and the general policies governing food. Amongst many other things you will learn how metabolism is controlled and integrated, the structure and behaviour of proteins, carbohydrates and lipids particularly in relation to Food and Nutrition and the importance of the activity of enzymes and factors affecting their activity. You will also learn the relevance of metabolism to food quality, safety and nutrition, the structures of the digestive and immune systems in humans, analytical methods available for nutrient measurement, how to carry out dietary surveys, the role of nutrients in the body, how dietary components are digested and metabolised and how they affect body composition and nutritional information. Teaching on this module will also include practical laboratory skills.

BIO2101 Principles of Food Quality

On completion of the module you will be able to identify the physical and chemical characteristics which influence the formation, stability and texture of food systems and determine and describe the role of food colour and lipid oxidation to the sensory attributes of food. You will also be able to identify the most appropriate sensory test to use in assessing sensory attributes of food products and describe food textural attributes.

BIO2201 Instrumental Food Analysis

This module covers a select number of laboratory methods for testing foodstuffs for beneficial or harmful substances. This includes the application of immunological, biological, spectroscopic and chromatographic methods and some recent advances in rapid and portable food testing.



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