

COURSE DETAIL

ADVANCED FOOD CHEMISTRY

Country

Netherlands

Host Institution

Wageningen University and Research Center

Program(s)

Wageningen University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Chemistry Agricultural Sciences

UCEAP Course Number

143

UCEAP Course Suffix**UCEAP Official Title**

ADVANCED FOOD CHEMISTRY

UCEAP Transcript Title

ADVANCED FOOD CHEM

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

Knowledge of the chemical composition and properties of food is of primary importance to ensure product quality, safety, and stability. In the lectures of this course, the effects of processing and storage conditions on the chemical composition of the major food constituents (lipids, carbohydrates, and proteins) and phenolic compounds are discussed. Examples are the modification of lipids and the importance of lipid refining, modification of polysaccharides to optimize their properties, reactivity (e.g. oxidation) of phenolic compounds, and stability & chemical reactivity of proteins. The course focuses on the occurrence and reactivity of these compounds in different food products and raw materials, the analysis of these compounds and their reaction products, and the effect of reactions during storage and processing on the chemical composition and properties of raw materials and food products. Information discussed during the lectures is applied in tutorials, digital case studies, and a practical in which students design the experiment.

Language(s) of Instruction

English

Host Institution Course Number

FCH30806

Host Institution Course Title

ADVANCED FOOD CHEMISTRY

Host Institution Campus

Wageningen University and Research Center

Host Institution Faculty

Host Institution Degree

Host Institution Department

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