

Mediterranean Agronomic Institute of Chania

B. Centre of Applied Agrobiological and Food Sciences

B3. Food Quality Management and Chemistry of Natural Products

Objectives

- To provide advanced knowledge of the areas related to chemical composition of foods and microbiological processes.
- -To introduce indispensable bioactive ingredients of quality and safety in all levels of production of food or other products.
- -To present current advances for the isolation, characterization and application of natural products in food and other industries.
- -To incorporate hands on laboratory experience in food and natural product analysis.
- -To merge quality assurance requirements with the development, processing, preservation and packaging of edible products.

1. Training sequence

Section 1 - Fundamental Overviews [11/10/2004-05/11/2004]

Unit 1 – Scientific English (3 ECTS)

Miss L. Lucas,
MAICh, Greece

Unit 2 – Introductory Computing (3 ECTS)

N. Boretos,
MAICh, Greece

Unit 3 – Statistical Procedures (3 ECTS)

Dr. A. Kanas,
University of Crete, Rethymnon,
Greece

Section 2 - Advanced Food Chemistry [08/11/2004-07/02/2005]

Unit 1 – Organic Chemistry (3 ECTS)

Dr. A. Detsi,
Institute of Organic and
Pharmaceutical Chemistry, Athens,
Greece

Unit 2 – Analytical Chemistry I (3 ECTS)

Prof. A. Calokerinos,
University of Athens, Greece

Unit 3– Foods/Lipids/Antioxidants (3 ECTS)

Prof. D. Boskou,
Aristotle University of Thessaloniki,
Greece

Unit 4– Water Food Carbohydrates (3 ECTS)

Prof. C. Biliaderis,
Aristotle University of Thessaloniki,
Greece

Unit 5– Food Microbiology (3 ECTS)	Dr. Z. Kassaify, American University of Beirut, Lebanon
Unit 6– Food Proteins and Enzymes (3 ECTS)	Dr. E. Tsakalidou, Agricultural University of Athens, Greece
Unit 7– Fermented Dairy Products (3 ECTS)	Dr. T. Bintsis, Aristotle University of Thessaloniki, Greece
Unit 8 – Analytical Chemistry II (3 ECTS)	Prof. A. Calokerinos, University of Athens, Greece
Unit 9 – Trends in Food Processing-Preservation Technologies (3 ECTS)	Prof. C. Billaderis, Aristotle University of Thessaloniki, Greece

Section 3 - Chemistry of Natural Products [14/02/2005-25/03/2005]

Unit 1 – Biochemistry of Secondary Metabolism (3 ECTS)	Dr. J. Degenhardt, Max Planck Institute for Chemical Ecology, Jena, Germany
Unit 2 – Chemistry of Terpenoids and Essential Oils (3 ECTS)	Ass. Prof. V. Roussis University of Athens, Greece
Unit 3 – Chemistry of Alkaloids, Flavonoids, and Other Phenolics (3 ECTS)	Ass. Prof. E. Kokkalou, Aristotle University of Thessaloniki, Greece
Unit 4 – Laboratory Techniques I (3 ECTS)	Dr. A. Detsi, Institute of Organic and Pharmaceutical Chemistry, Athens, Greece
Unit 5 – Laboratory Techniques II (3 ECTS)	Dr. D. Makris, National Agriculture Research Foundation, Athens, Greece

Section 4 - Topics in Food Sciences [28/03/2005-01/07/2005]

Unit 1 – New Concepts in Food Packaging (3 ECTS)	Dr. G. Boskou, Charokopio University, Athens, Greece
Unit 2– Functional Foods and Bioactive Ingredients (3 ECTS)	Dr. Z. Zawistowski, Functional Foods and Nutraceuticals, Vancouver, Canada
Unit 3 – Food Legislation (3 ECTS)	M. Tsimidou, Aristotle University of Thessaloniki, Greece

Unit 4 – Food Product Development (3 ECTS)

Dr. E. Katsanidis,
PELEKAN (Pelco) Food Industry,
Thessaloniki, Greece

Unit 5 – Predictive Modelling of Food Quality (3 ECTS)

Prof. C. Biliaderis,
Aristotle University of Thessaloniki,
Greece

Unit 6 – Quality Assurance (3 ECTS)

Y. Arvanitoyannis,
University of Thessaly, Volos, Greece

Unit 7 – Products of Appellation of Origin (3 ECTS)

Dr. D. Hornero,
Instituto de la Grasa, Sevilla, Spain