CORSO DI LAUREA IN MEDITERRANEAN FOOD SCIENCE AND TECHNOLOGY

ARGOMENTI TESI DI LAUREA 2025-2026

Insegnamenti del primo anno

Agroindustry Sustainable Systems and Plants - C.I.

Modulo: *Food Production and Agro-Industrial Plants (Prof. Mariangela Vallone)*

1. Innovations in Extra Virgin Olive Oil extraction plant;
2. Design Improvements and Technological Evolution of Pneumatic Wine Presses
3. Development and Innovation in Winemaking Plant Systems

Modulo: *Sustainable Agroindustry Systems (Prof. Francesco Guarino)*

1. 1. Life Cycle Assessment of Mediterranean Agri-Food Products: Environmental Hotspot Analysis and EPD Development
2. Product Environmental Footprint (PEF) for Mediterranean Agri-Food SMEs: Compliance Assessment and Industry Readiness
3. Carbon Footprint and Ecodesign Scenarios in Mediterranean Food Supply Chains: an ISO 14067-Based Hotspot Analysis

Applied Technology on Mediterranean Food (Prof. Luciano Cinquanta)

1. Non-thermal food preservation systems
2. Techniques for sensory analysis of food
3. Water availability and mobility on the shelf life of foods

Aquatic Food Production - C.I.

Modulo: *Marine Resources and Utilization (Prof. Concetta Maria Messina)*

1. Innovation in marine aquaculture and fishery;
2. integrated multitrophic aquaculture;
3. Valorization of marine by-products.

Modulo: *Freshwater Production (Prof. Simona Manuguerra)*

1. Freshwater aquaculture;
2. Biomarkers for welfare in aquaculture;
3. Evaluation of marine bioactive compounds properties.

Enzimology and Food Chemical Analysis - C.I.

Modulo: *Food Chemical Analysis and Safety Control (Prof. Claudio De Pasquale)*

1. Extraction and Characterization of Polyphenols from Mediterranean Agro-Food By-Products for Functional Food Applications;
2. Bioactive Molecules from Mediterranean Aromatic Plants as Natural Antimicrobial Agents in Food Systems;
3. Encapsulation of Mediterranean Bioactive Compounds for Food Safety and Functional Foods.

Modulo: *Enzimology (Prof. Patrizia Proia)*

1. Functional foods for supporting performance and sports recovery;
2. Bioactive compounds and physical activity: effects on oxidative stress and antioxidant enzymes;
3. Feasibility study for the formulation of sports foods.

Food Industry Management and Entrepreneurship (Prof. Giuseppina Migliore)

1. Behavioural Economics in Food Industry Management: Experimental Analyses of Entrepreneurial Decision-Making;
2. Cost–Benefit Analysis and Break-Even Strategies in Food Business Management: Experimental Approaches to Entrepreneurial Decisions;
3. Entrepreneurship and Innovation in the Food Industry: Applications of Behavioural Economics and Business Management.

Food Microbiology (Prof. Luca Settanni)

1. Design of tailored fermentation processes for the development of functional foods through the valorization of agri-food waste and food production by-products;
2. Microbiological profiling of traditional foods to assess their diversity and functional potential;
3. Characterization of food-associated microbiota for the selection and optimization of starter cultures.

Insegnamenti del secondo anno

Consumer Behaviour and Food Marketing (Prof. Giuseppina Migliore)

1. Consumer Behaviour toward Sustainable and Healthy Foods: Experimental Evidence from Food Choice Analysis;
2. The Impact of Digital Marketing, Packaging, and Social Media Communication on Food Choices: An Experimental Consumer Analysis;
3. Emotions, Branding, and Purchase Intentions in Food Markets: Experimental Approaches in Consumer Behaviour and Marketing Research.

Food Sensory Analysis (Prof. Pasquale Crupi)

1. Shelf-life studies of fresh and processed food products;
2. Green extraction technologies for bioactive compounds from food matrices;
3. Sensory profiling and qualitative–quantitative analysis of nutraceutical compounds in foods.

Food Trade and Safety Legislation (Prof. Marco Gjomarkaj)

1. The consumer as the "driving force" of the eco-sustainable transition of the European single food market;
2. Protecting animal welfare: balancing ethical, religious, and social principles;
3. Food safety and the impact of Industry 4.0 technologies.

Pest Management and Disease Control in the Foodservice Industry - C.I.

Modulo: *Pest Control for the Foodservice Industry (Prof. Ezio Peri)*

1. Chemical communication in insect pests of stored products;
2. New chemical attractants to improve control of insect pests of stored products;
3. Use of semiochemicals in integrated pest management in urban environment.

Modulo: *Biotic Contaminants and Food Control (Prof. Andrea Giovanni Caruso)*

1. Occurrence and Impact of Mycotoxins in Food Products: Sources, Toxicity, and Food Safety Implications;
2. Analytical Methods for the Identification and Diagnosis of Mycotoxins in Food Matrices;
3. Control Strategies and Preventive Approaches for Mycotoxin Reduction in the Food Supply Chain.