



Bachelor's degree in **FOOD ENGINEERING**



Quality and Safety in food production and processing for a healthier life

Agro-food engineering, Food processing and beverages, Food quality and safety, Probiotics, Value-added food...



UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH

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INTRODUCTION

The bachelor's degree in Food Engineering will provide you with the scientific and technological knowledge necessary to design, plan, manage and organise resources related to the technology and the processing of agricultural and food products, quality control and food safety mechanisms, and the economic viability of food business. You will receive multidisciplinary training in procedures for processing agricultural products, quality control and food safety, as well as in technological engineering principles applied to the design and use of facilities and equipment for the food industry. You will attain the necessary skills to analyse and evaluate the environmental impact of agricultural product processing and to manage the waste it generates.

Professional recognition Technical agricultural engineer

Duration 4 years

Study load 240 credits (including the bachelor's thesis).
One credit is equivalent to a study load of 25-30 hours.

Delivery Face-to-face classes.

PROFESSIONAL OPPORTUNITIES

- Technical management of companies and industries in the food sector.
- Sales and marketing in food industries.
- Management and control of food processing in dairies, meat processing, canning, mining, fishing, etc.
- Research, design and technological development of new food products.
- Freelance work: projects, consultancy, expert advice, appraisal, site management, environmental studies, etc.



COURSE STRUCTURE

	FALL	SPRING
1st year	FIRST SEMESTER	SECOND SEMESTER
	General Biology (6) Drawing for Engineering (6) Physics I (6) Mathematics I (6) Chemistry I (6)	Plant Biology (6) Earth Sciences (6) Physics II (6) Mathematics II (6) Chemistry II (6)
2nd year	THIRD SEMESTER	FOURTH SEMESTER
	Ecology and Environmental Management Systems (6) Economics and Business Administration (6) Statistics (6) Hydraulics (6) Energy Systems and Components (6)	Foundations of Plant Production (6) Animal Production (6) Plant Production Systems (6) Geomatics (6) Market Analysis and Agricultural Valuation (6)
3rd year	FIFTH SEMESTER	SIXTH SEMESTER
	Extraction and Fermentation Industries (6) Food Microbiology (6) Food Chemistry and Biochemistry (6) Technology of food preservation (6) Unit Operations in the Food Industry (6)	Food Processing Operations (6) Food Analysis (6) Construction and Structural Design (6) Food industry Design (6) Meat and Dairy Industries (6)
4th year	SEVENTH SEMESTER	EIGHTH SEMESTER
	Waste Management in the Food Industry (6) Bachelor's Thesis or Project (24) Work Placement (12) National and International Mobility: Sicue, Erasmus...(up to 24)	Food Quality and Food Safety Management (6) Bachelor's Thesis or Project (24)
	ELECTIVE COURSES: (up to 24)	ELECTIVE COURSES: (up to 24)
	New Products Design and Formulation (6) Sensorial Analysis (6) Food and Beverages Industries (6) Entrepreneurship in the Agro-Food Sector (6)	Advanced statistics (6) Case Studies in Food Industry (6)