

A photograph of two scientists, a man and a woman, in a laboratory setting. They are both wearing white lab coats, blue surgical masks, and safety glasses. The man is also wearing blue gloves. They are working with a yellow and black mechanical testing machine. The woman is holding a red apple, and the man is using a tool to interact with the machine. A computer monitor in the background displays a graph with a red line. The image has a blue overlay at the top and bottom right.

Faculty of
**Mechanical Engineering
and Production Sciences**

Food Engineering

RPC-SO-20-No.422-2020

espol[®]

Bachelor of Science in Food Engineering



Applicant Profile

Students with a desire to innovate the food sector, a strong commitment to society and productive development, a proactive, persevering, and entrepreneurial mindset, and an interest in science and technology are strong candidates for Food Engineering.



Employability

Food Engineering Alumni are involved in industries dedicated to the production of food for human and animal consumption, as well as companies related to the production and commercialization of inputs for the food sector. They also engage in independent professional practice through consulting and advisory services and contribute to public institutions.

Since 2017

80%

of capstone projects have been carried out in collaboration with industry partners, addressing real-world challenges. This collaboration has enabled students to establish professional connections and employment opportunities within these organizations. In addition, capstone projects may focus on research topics related to the development of the food sector.



Professional Skills

After four years of study, students will be prepared to contribute to the food industry by designing, controlling, and improving food processes. They apply science and engineering principles to develop safe, sustainable, and innovative products.



In fact...

Food Engineers have the versatility to pursue a wide range of specialization opportunities, both in process management and food safety, as well as in food science through research aimed at developing solutions to current challenges.



LEARN MORE



Curriculum

N 100 - I		PROBLEM SOLVING	SINGLE VARIABLE CALCULUS	PHYSICS: MECHANICS	GENERAL CHEMISTRY	ARTS, SPORTS AND LANGUAGES ELECTIVE COURSES	ENGLISH I
N 100 - II		PROGRAMMING FUNDAMENTALS	VECTOR CALCULUS	THERMOFLUIDS	GENERAL BIOLOGY	ORGANIC CHEMISTRY	ENGLISH II
N 200 - I		STATISTICS	DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA	COMMUNICATION	FOOD MICROBIOLOGY	FOOD CHEMISTRY	ENGLISH III
N 200 - II	QUALITY CONTROL AND SENSORY EVALUATION OF FOOD	FUNDAMENTALS OF FOOD ENGINEERING	FLUID RHEOLOGY	FOOD SAFETY	FOOD BIOCHEMISTRY	FOOD ANALYSIS	ENGLISH IV
N 300 - I		SYSTEMS AND PRODUCTION PROGRAMMING	HEAT AND MASS TRANSFER	ENTREPRENEURSHIP AND INNOVATION	FERMENTATION AND FOOD ENZYMOLOGY	FRUIT AND VEGETABLE PROCESSING	ENGLISH V
N 300 - II	SUSTAINABILITY SCIENCE	HUMANITIES ELECTIVE COURSES	THERMAL PROCESS DESIGN I	FOOD PROCESS ENGINEERING	DAIRY PROCESSING	MEAT, FISH AND SEAFOOD PROCESSING	COMMUNITY SERVICE INTERSHIPS
N 400 - I		OPTIMIZATION AND SIMULATION OF FOOD PROCESSES	THERMAL PROCESS DESIGN II	SANITATION AND HYGIENE IN FOOD PROCESSING	FARINACEOUS AND OILSEED PROCESSING	FOOD PRODUCT DEVELOPMENT	SELECTED ELECTIVE COURSE
N 400 - II				FOOD PLANT DESIGN		FOOD ENGINEERING CAPSTONE COURSE	SELECTED ELECTIVE COURSE
							PRE-PROFESSIONAL BUSINESS INTERSHIPS



Engineering
Accreditation
Commission



This field is among the 10 careers of the future, with professionals expected to be in demand worldwide. For this reason, ESPOL prepares professionals with expertise in the design, development, preservation, processing, packaging, distribution, and use of safe, nutritious foods with desirable sensory characteristics.

The program also holds the excellence designation of the Institute of Food Technologists (IFT). This international recognition supports the quality of undergraduate programs in Food Science, ensuring high standards in curriculum design, faculty expertise, and laboratory facilities.

www.fimcp.espol.edu.ec

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International Relations

Through its External Relations Office, ESPOL promotes and develops partnerships with international cooperation organizations, academic institutions, and research centers. These partnerships create mobility opportunities for the entire ESPOL community and contribute to the excellence that distinguishes the institution.

More than 226 international agreements allow students to participate in experiences abroad, including semester or year-long exchange programs, pre-professional internships, research placements, and participation in conferences, competitions, and other academic activities.

