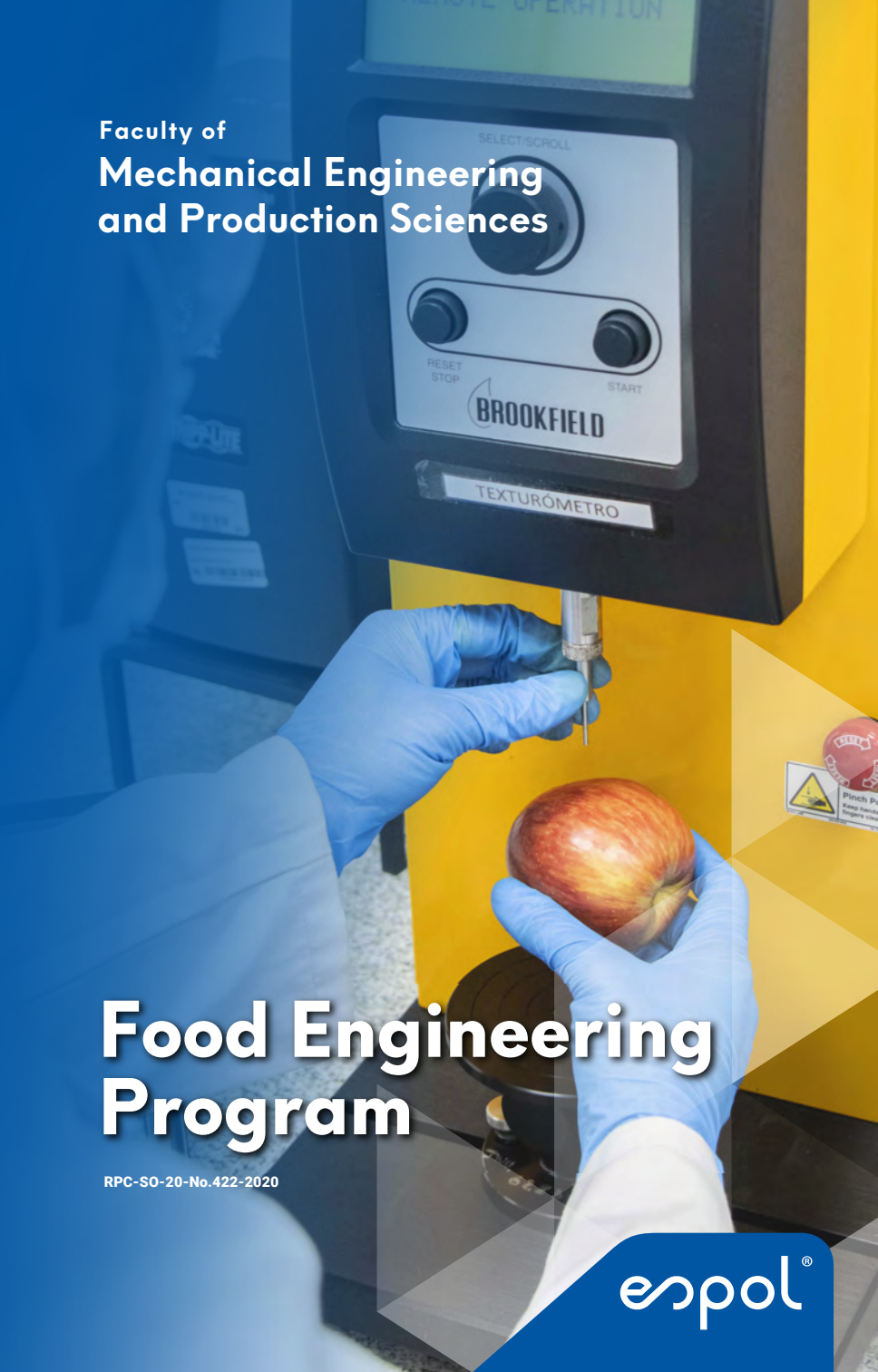
Faculty of

Mechanical Engineering and Production Sciences



Food Engineering Program

RPC-SO-20-No.422-2020

espol®

Bachelor of
Science in Food Engineering

Applicant Profile

If you want to innovate in the food sector, are committed to society and productive development, and consider yourself proactive, perseverant, entrepreneurial, and passionate about science and technology, this program is made for you.

Professional Skills

After 4 years of study, you will be able to contribute to the food industry by designing, controlling, and improving food processes. Our graduates apply science and engineering to develop safe, sustainable, and innovative food products.

Employability

Our graduates work in companies involved in the production of food for human and animal consumption, as well as in organizations that supply the food industry. They also develop independent careers through consulting and advisory services, and often join public institutions.

Since 2017
80%

Many capstone projects are carried out in collaboration with industry, solving real-world problems. This connection has allowed students to secure employment opportunities within these companies.

Additionally, capstone projects may address research topics related to the development and advancement of the food sector.

Curriculum Structure

LEVEL 100 - I

- PROBLEM SOLVING
- SINGLE VARIABLE CALCULUS
- PHYSICS: MECHANICS
- GENERAL CHEMISTRY
- ARTS, SPORTS AND LANGUAGES ELECTIVE COURSES
- ENGLISH I

LEVEL 100 - II

- PROGRAMMING FUNDAMENTALS
- VECTOR CALCULUS
- THERMOFLUIDS
- GENERAL BIOLOGY
- ORGANIC CHEMISTRY
- ENGLISH II

LEVEL 200 - I

- STATISTICS
- DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA
- COMMUNICATION
- FOOD MICROBIOLOGY
- FOOD CHEMISTRY
- ENGLISH III

LEVEL 200 - II

- QUALITY CONTROL AND SENSORY EVALUATION OF FOOD
- FUNDAMENTALS OF FOOD ENGINEERING
- FLUID RHEOLOGY
- FOOD SAFETY
- FOOD BIOCHEMISTRY
- FOOD ANALYSIS
- ENGLISH IV

LEVEL 300 - I	SYSTEMS AND PRODUCTION PROGRAMMING	HEAT AND MASS TRANSFER	ENTREPRENEURSHIP AND INNOVATION
	FERMENTATION AND FOOD ENZYMOLOGY	FRUIT AND VEGETABLES PROCESSING	ENGLISH V
LEVEL 300 - II	SUSTAINABILITY SCIENCE	HUMANITIES ELECTIVE COURSES	THERMAL PROCESSES DESIGN I
	FOOD PROCESS ENGINEERING	DAIRY PROCESSING	MEAT, FISH AND SEAFOOD PROCESSING
	COMMUNITY SERVICE INTERNSHIPS		
LEVEL 400 - I	OPTIMIZATION AND SIMULATION OF FOOD PROCESSES	THERMAL PROCESSES DESIGN II	SANITATION AND HYGIENE IN FOOD PROCESSING
	FARINACEOUS AND OILSEEDS PROCESSING	FOOD PRODUCT DEVELOPMENT	SELECTED ELECTIVE COURSE
LEVEL 400 - II	FOOD PLANT DESIGN	CAPSTONE DESIGN - FOOD ENGINEERING	SELECTED ELECTIVE COURSE
	PRE-PROFESSIONAL BUSINESS INTERNSHIPS		

By the way...

Food engineers have the versatility to pursue various areas of specialization, including process management, food safety, and food science, through research aimed at generating solutions to current challenges.

International Relations

ESPOL, through its Office of International Relations, creates and strengthens ties with international cooperation agencies and academic institutions. These connections generate mobility opportunities for the entire ESPOL community and contribute to the academic excellence that defines us.

More than 165 agreements allow our students to participate in semester or annual exchanges, professional internships, research stays, conferences, competitions, and other academic activities.

106
universities
worldwide

Accredited Program

ABET Engineering Accreditation Commission

European Accreditation of Engineering Programmes EUR-ACE®

Undergraduate Program IFT Approved for 2020-2025

Did you know?

This program is part of the Top 10 programs of the Future, with professionals expected to be in high demand worldwide.

We train engineers with experience in designing, developing, preserving, processing, packaging, distributing, and utilizing safe, nutritious foods with pleasant sensory characteristics.

www.fimcp.espol.edu.ec

www.admision.espol.edu.ec

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