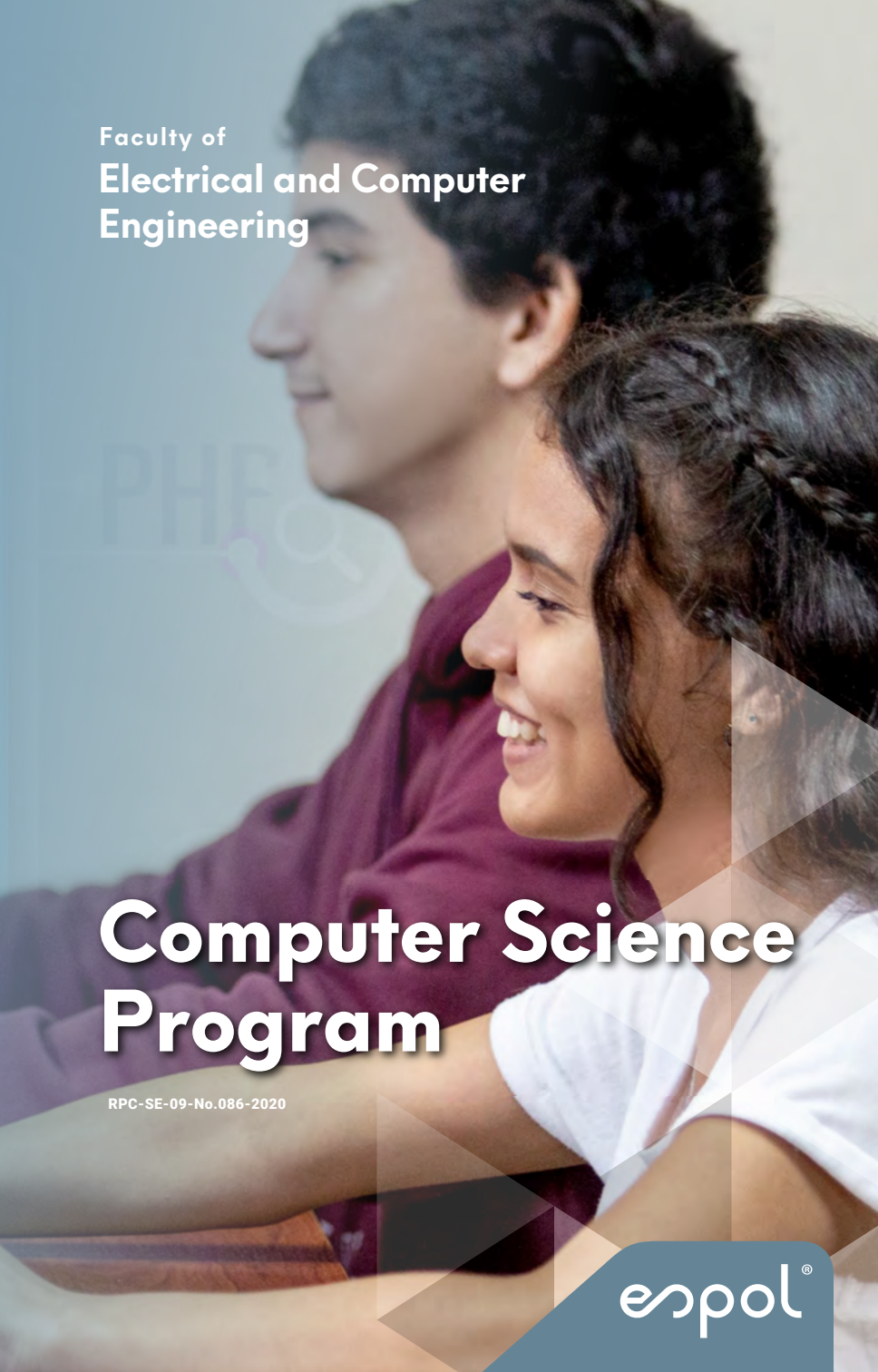




Faculty of
**Electrical and Computer
Engineering**

Computer Science Program

RPC-SE-09-No.086-2020

espol[®]

Bachelor of Science in Computer Science



Applicant Profile

We look for curious, imaginative, creative, and innovative students who possess:

- ▶ Basic computer knowledge
- ▶ Numerical aptitude and basic Math knowledge
- ▶ Ability for abstraction, analysis, synthesis, and logical reasoning
- ▶ Willingness to work in teams
- ▶ Reading comprehension in English
- ▶ Strong perception and attention skills



Professional skills

After 4 years in the program, you will be able to:

- ▶ Apply coherent and comprehensive tools for the automated processing of information in areas such as Software Engineering, Information Technologies, Information Systems, and related fields.
- ▶ Solve professional challenges at a global level, applying the fundamentals of the profession and innovation, considering social, economic, and environmental aspects framed within ethics and moral responsibility.
- ▶ Successfully lead and develop solutions related to your discipline, contributing valuable proposals to different segments of society.
- ▶ Acquire and improve technical and scientific skills and knowledge throughout your professional life, considering contemporary aspects, research, and entrepreneurship.



Employability

You will be able to work as an entrepreneur, manager, director, auditor, advisor, or consultant on projects involving:

- ▶ Analysis, design, and implementation of information, multimedia, and computer systems in general.
- ▶ Management and development of IT projects.
- ▶ Database design and administration.
- ▶ Design, administration, and operation of computer networks and systems for data transmission.
- ▶ Implementation of cutting-edge technological solutions that make use of cloud services, algorithms to infer big data patterns, optimization algorithms, and techniques aimed at ensuring information security.

Curriculum Structure

LEVEL 100 - I

SINGLE VARIABLE
CALCULUS

PHYSICS:
MECHANICS

PROBLEM SOLVING

PROGRAMMING
FUNDAMENTALS

ARTS, SPORTS AND
LANGUAGES ELECTIVE

ENGLISH I

LEVEL 100 - II

LINEAR ALGEBRA

VECTOR CALCULUS

COMPUTERS AND
SOCIETY

OBJECT ORIENTED
PROGRAMMING

COMMUNICATION

ENGLISH II

LEVEL 200 - I

ELECTRICAL
FUNDAMENTALS AND
DIGITAL SYSTEMS

DISCRETE
MATHEMATICS

DATA STRUCTURES

SOFTWARE DESIGN

DATABASE SYSTEMS

ENGLISH III

LEVEL 200 - II

COMPUTER
ORGANIZATION

SYSTEMS
PROGRAMMING

STATISTICS

HUMAN COMPUTER
INTERACTION

DATA NETWORKS

ENGLISH IV

LEVEL 300 - I

OPERATING
SYSTEMS

ANALYSIS OF
ALGORITHMS

WEB AND MOBILE
APPLICATIONS
DEVELOPMENT

SOFTWARE
ENGINEERING

ENTREPRENEURSHIP
AND INNOVATION

ENGLISH V

LEVEL 300 - II

INFORMATION
SECURITY

RESEARCH
METHODOLOGY IN
COMPUTING

PROGRAMMING
LANGUAGES

SOFTWARE
ENGINEERING II

SUSTAINABILITY
SCIENCE

COMMUNITY
SERVICE
INTERNSHIPS

LEVEL 400 - I

ARTIFICIAL
INTELLIGENCE

INFORMATION
SYSTEMS

DISTRIBUTED
SYSTEMS AND
CLOUD COMPUTING

COMPUTER PROJECT
MANAGEMENT

SELECTED ELECTIVE
COURSE

LEVEL 400 - II

HUMANITIES
ELECTIVE
COURSES

COMPUTER SCIENCE
CAPSTONE COURSE

SELECTED ELECTIVE
COURSE

PRE-PROFESSIONAL
BUSINESS
INTERNSHIPS



By the way...

The field of computing is currently one of the most demanded.

Between 65% and 70% of students in the program obtain their first job before graduating.



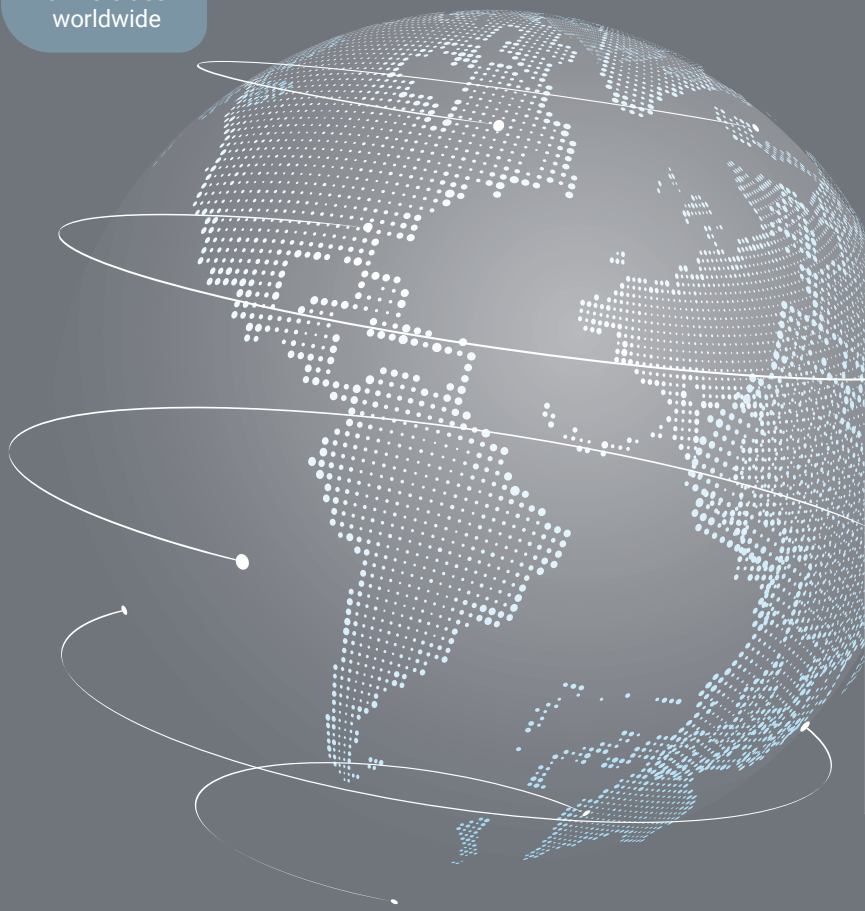
International Relations

ESPOL, through its Foreign Relations Office, promotes and develops partnerships with international cooperation agencies and academic/research institutions, creating mobility opportunities for the entire university community and contributing to the excellence that defines us.

More than 165 agreements allow students to participate in semester- or year-long exchanges, internships, research placements, conferences, competitions, and other academic activities abroad.

106

universities
worldwide



Accredited Program



Did you know?

This program trains professionals who will, throughout their careers, strengthen their abilities to research, propose, design, and implement solutions to the problems of our country and the region.

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