Syllabus

Commercial Software Engineering with concentration in Automation and Testing

Year 1

First semester

Logic
Programming 1
Operating Systems 1
Database Development 1
Database 1
Discrete Mathematics
Calculus 1
Communication 1

Second semester

Linear Algebra
Programming 2
Database 2
Software Development 2
Operating Systems 2
Communication 2
History of Software Development

Year 2

Third semester

Programming 3
Software Quality Engineering 1
Calculus 2
Software Development 3
Computer Networks 1
Software Quality Engineering 2
Statistics
Writing and Composition 1

Fourth semester

Programming 4
Algorithms 1
Software Development 4
Computer Networks 2
Software Quality Engineering 3
Software Quality Engineering 4
Ethics and Intercultural Perspectives
Writing and Composition 2

Year 3

Fifth semester

Algorithms 2
Operating Systems 3
Software Quality Engineering 5
Script Programming
Unix Administration
Software Quality Engineering 6
Web Software Quality

Sixth semester

Operations Development 1
Software Quality Engineering 7
Database 3
Software Quality Engineering 8
Automation 1
Automation 2
Social Issues and Professional Practice

Year 4

Seventh semester

Operations Development 2
Web Software Quality
Research Project in Software Quality 1
Research Project in Software Quality 2
Mobile Application Software Quality
Automation 3

Eighth semester

Research Project in Software Development 3
Metrics Analysis and Risk Management
Research Project in Software Development 4
Performance Testing
Cloud Software Quality 1
Cloud Software Quality 2

English for Specific Purposes (ESP) for Software Engineers

The program combines training in intercultural communication skills, English for Business, and English for Software Engineering.

Year 1

> **Primer semestre**

ESP 1: Beginning English for Software Engineers I

Lab. M2L2 – Lab. M3L1 – Lab. M3L2

> **Segundo semestre**

ESP 2: Beginning English for Software Engineers II

Lab. M4L1 – Lab. M4L2 – Lab. 5L2 – Lab. M6

Year 2

> **Tercer semestre**

ESP 3: Business English

Lab. M7- Lab. M9

> **Cuarto semestre**

ESP 4: English for Software Engineering I

ESP 5: Interview Preparation & Written Communication I

Lab. M10

Year 3

> **Quinto semestre**

ESP 6: English for Software Engineering II

Lab. M13- Lab. M14

> **Sexto semestre**

Lab. M16- Lab. M17 - Lab. M18- Lab. M19

Year 4

> **Séptimo semestre**

ESL 7: Interview Preparation & Written Communication II

> **Octavo semestre**

For initial placement in the program, all students must complete a placement test, administered by the Admissions Department, before their first semester at the University. Based on their results, they will be assigned to Level 1 or Level 2 of the program.

*Asynchronous practice labs for students.