



Systems engineer

## First Semester (16 credits)

Mathematics Fundamentals	2 credits
Logical Mathematics	2
Algorithms and Programming I	3
Introduction to Engineering	1
Research Reading & Writing	1
Philosophical Thinking	2
Complementary Elective 1	2
General Elective 1	2
Human Development Course	1
Total Credits	16

# Second Semester (17 credits)

Linear Algebra	2 credits
Differential Calculus	2
Algorithms and Programming II	3
Mechanics	3
Specific Epistemology	1
Christian Humanism	2
Complementary Elective 2	2
General Elective 2	2
Total Credits	17

## Third Semester (17 credits)

Discrete Mathematics	2 credits
Integral Calculus	2
Numerical Methods	2
Algorithms and Programming III	3
Electricity and Magnetism	2
Professional Ethics	2
Complementary Elective 3	2
General Elective 3	2
Total Credits	17

English Level A1 (verificación)





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# Fourth Semester (17 credits)

Differential Equations	2 credits
Electrical Machines	3
Data Structures I	3
Human-Machine Interaction	3
Descriptive Probability and Statistics	3
Complementary Elective 4	2
General Elective 4	1
Total Credits	17

## Fifth Semester (17 credits)

3 credits
3
3
2
1
2
2
1
17

English Level A2 (verificación)

### Sixth Semester (17 credits

Database Practice	3 credits
Software Analysis and Design	2
Computer Architecture and Organization	2
OS Configuration and Use	2
Simulation	2
Research Processes II	1
Corporate Vision	1
Complementary Elective 6	2
General Elective 6	2
Total Credits	17



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### Seventh Semester (16 credits)

Information Systems Building	3 credits
Software Engineering I	3
Research Seminar Labor Law	1
Entrepreneurial Spirit Fundamentals	1
General Elective 7	3
Foundational Elective I	2
Foundational Elective II	2
Total Credits	16

#### Eighth Semester (16 credits)

Computer Networking	2 credits
Software Engineering II	3
Research Project	1
General Elective 8	2
Foundational Elective III	2
Foundational Elective IV	3
Foundational Elective V	3
Total Credits	16

English Level B1 (verificación)

#### Ninth Semester (16 credits)

Network Security	3 credits
Systems Integration and Architecture	3
Foundational Elective VI	3
Corporate Practicum	6
Total Credits	15
Bachelor's Degree Total Credits	148