



ESPOL: a change exalted by our strengths.

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ESPOL
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Content

1. ESPOL: who are we?
2. Education: our point of view.
3. Some of our work.
4. Internationalization.



**ALL YOU
NEED IS
ECUADOR
.TRAVEL**



ECUADOR 
South America

Population: 15,74 millions



GUAYAQUIL

Guayaquil is a coastal city, capital of the Guayas Province.

Located nearby the Guayas River, it is the largest city of the country, with a population of around **2.4 million people**.



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Guayaquil is the host of most of the industrial enterprises in the country.

It is the main Ecuadorian port, through which most of the commerce (export and import) of the country passes.

INSTITUTIONAL MILESTONES



Founded on October 29th

1958

Start of academic activities

1960's

BID/ESPOL I PROJECT
(1972 – 1982)

1970's

BID/ESPOL II PROJECT (1983 – 1992)

- Improvement of existing laboratories.
- Technical Programs (3 years programs) started.
- Creation of graduate programs.
- Beginning of research activities.
- Construction of Campus Gustavo Galindo Velasco.

1980's

INSTITUTIONAL MILESTONES

1990'S

Inauguration of Campus Gustavo Galindo (1991)
Creation of CENAIM-ESPOL

2000

VLIR-ESPOL PROGRAM

- Cooperation with Belgian Flemish Universities.
- Contribution to strengthening of research capacities at ESPOL.
- 16 Ph.D. graduate.
- 6 research centers.
- Physical and technological infrastructure improvement.

2009

Recognition as A-level
higher education institution

- National Accreditation CEAACES
- International Accreditation: **ABET, AACSB**

2014

VISION

To be a leader and a benchmark for international higher education.



MISSION

To educate professionals of excellence, leaders, entrepreneurs, with solid moral and ethical values to contribute to the development of the country, impelling its social, economic, environmental and political scopes.
To do research, technology transference and high quality extension to serve society.

ESPOL in numbers: Professors



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10%
91
Tenure

17%
154
Tenure-
Track

74%
683
Instructors

**928
Professors
and
Instructors**

83%
Full-Time

17%
Part-Time



239 Professors with doctorate degree
All Professors with Master's and Ph.D. Degree
87 Professors currently as Ph.D. Students
26 Graduates as M.Sc. Students

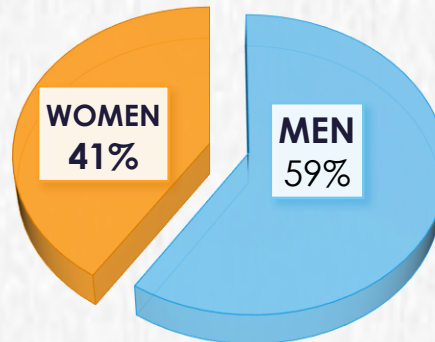
ESPOL in numbers: Students



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**Around 12,500
Students**

**25,000
Graduates from ESPOL**



- ✓ 31 Undergraduate Programs: around 11,000 students
- ✓ 16 Graduate Programs: around 1,500 students

Education: our point of view



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- ✓ Educate to promote reasoning.
- ✓ Institutional education focus:
 - ✓ Reasoning
 - ✓ Bio-consciousness
 - ✓ Entrepreneurship (understood as adding value)
 - ✓ Systematic thinking
 - ✓ Knowledge contextualization
- ✓ Institutional learning outcomes

Education: our point of view



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- ✓ Millennium goals for development.
- ✓ Qualities for a professional
 - ✓ Technology usage
 - ✓ Communicative
 - ✓ Empathic
 - ✓ Constant learning
 - ✓ Analytic
 - ✓ Research/creativity
 - ✓ Multi-disciplinary – hands on approach
 - ✓ Entrepreneurship – viable models
 - ✓ Multi-cultural – global implementation
 - ✓ Social consciousness – service approach

Institutional Learning Outcomes



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- ✓ Effective communication
 - ✓ Spanish
 - ✓ English

- ✓ Long-life learning

- ✓ Teamwork

- ✓ Entrepreneurship

- ✓ Knowing contemporary issues

- ✓ Professional and ethical responsibility

Our way...



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- ✓ Curricular routes: formation and evaluation
 - ✓ Focused not only in the disciplinary aspects but soft skills too.

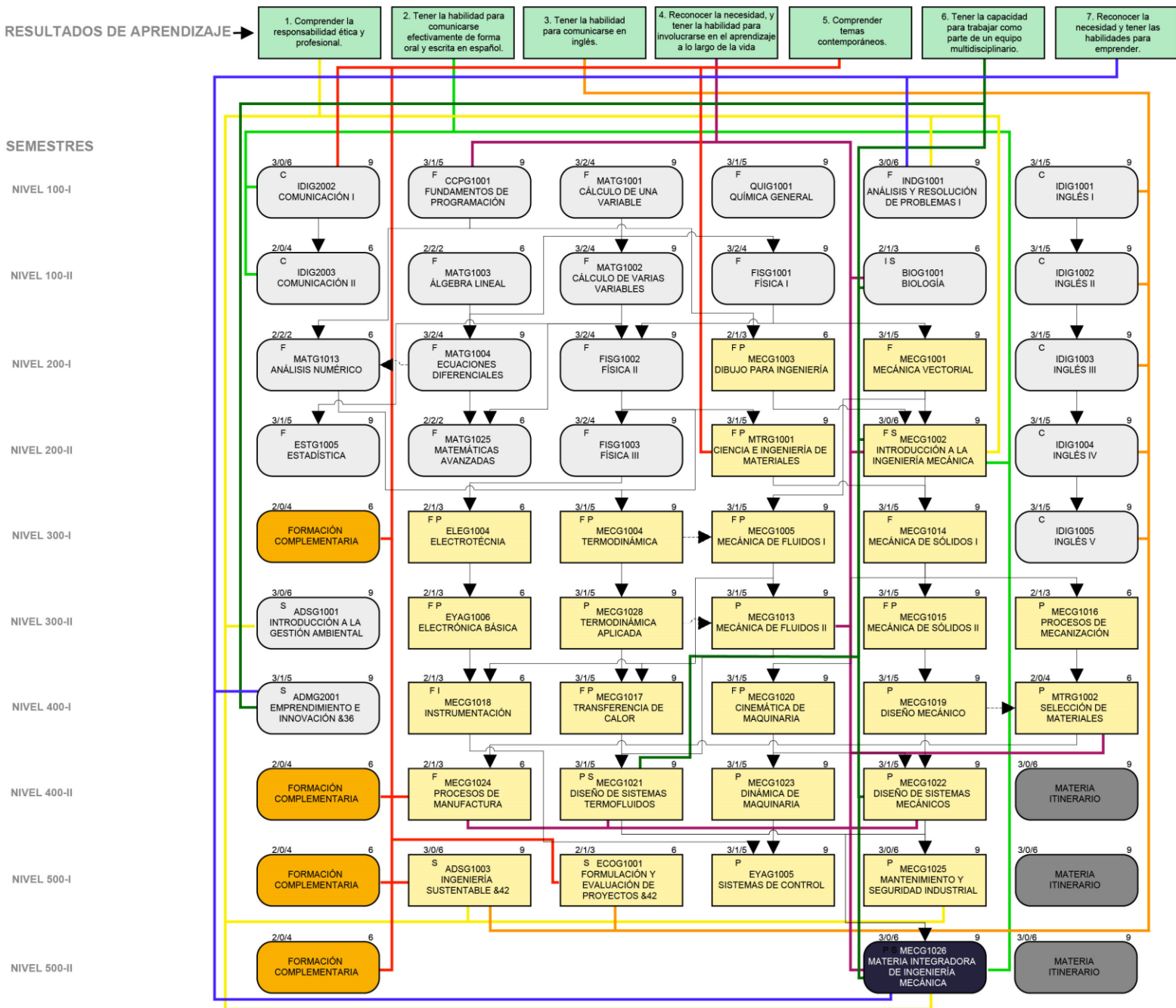
- ✓ Capstone (integrating course)
 - ✓ To validate the professional profile
 - ✓ Horizon: integrate students from different programs to solve real problems.

- ✓ Accompaniment
 - ✓ Counseling
 - ✓ Student-to-student tutoring
 - ✓ Clubs
 - ✓ Induction processes for students and teachers
 - ✓ Pedagogical preparation and support



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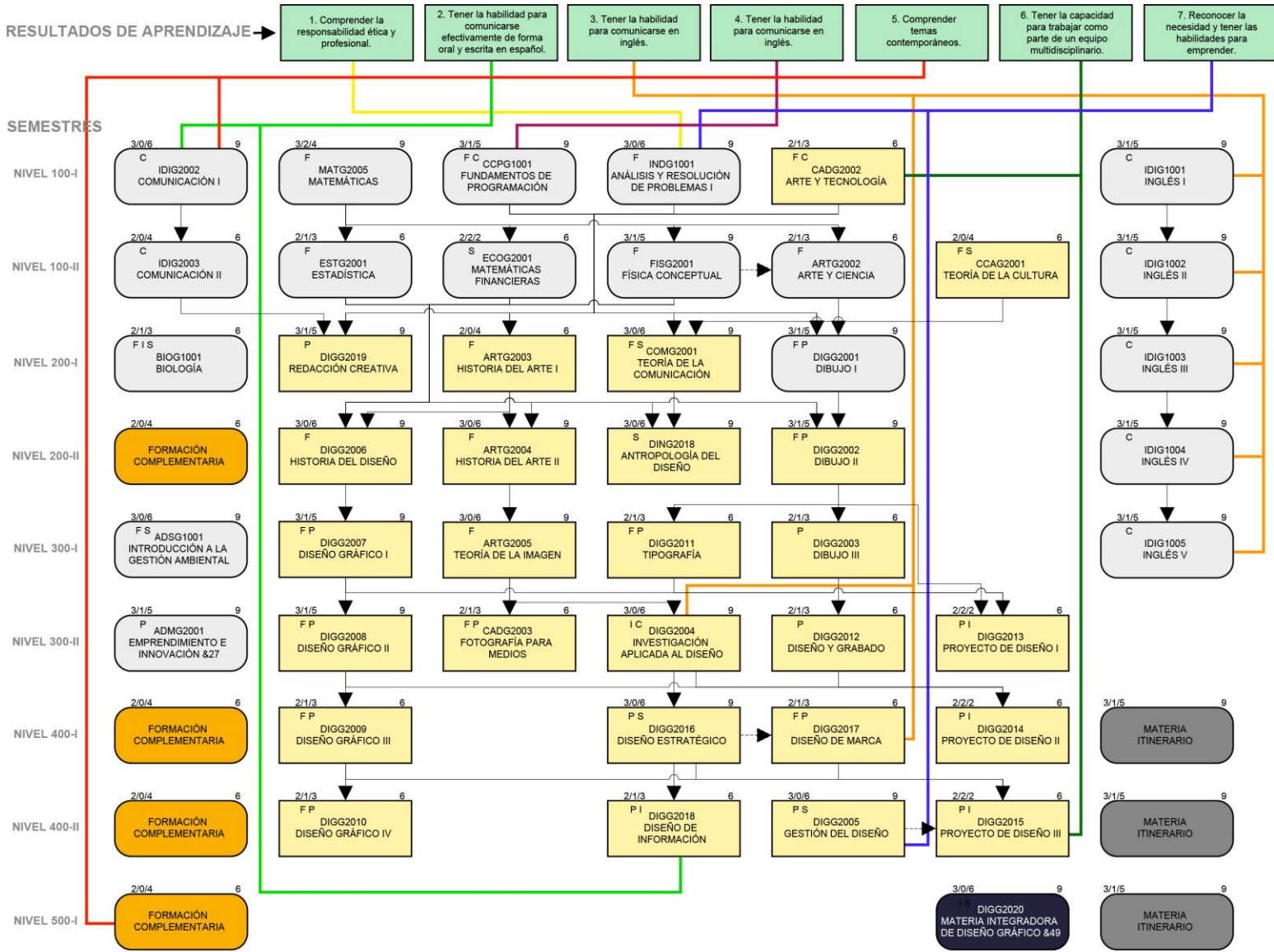
Institutional Learning Outcomes: routes for Mechanical Engineering





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Institutional Learning Outcomes: routes for Graphic Design



Our basis



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- ✓ A solid education in basic sciences and mathematics.
- ✓ Top-qualified faculty: PhDs and MSc from the best universities around the globe (Shanghai Rankings).
- ✓ The foundation: a culture of learning outcomes assessment strengthened by the ABET-ESPOL Project since 2008.

Learning Environments



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Centro de
Escritura
ESPOL



Writing
Center
ESPOL

Learning Environments



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English
Clubs
ESPOL

**Languages Clubs (English, French,
Korean, German, Mandarin)**



Learning Environments



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Students Clubs

- Students Professional Chapters
- Cultural clubs
- Transversal skills clubs



acción universitaria
MOVIMIENTO DE VIDA CRISTIANA

Learning Environments



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EXPO
B.I.D.A



Innovation in Learning Environments



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peer project learning

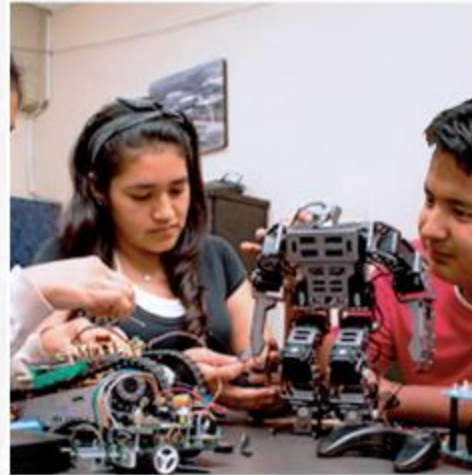


Innovation in Learning Environments



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Gamification (Programming)



ABET Experience at ESPOL



Programs Accredited since August 2014

- Mechanical Engineering
- Computer Science

In accreditation process

- Civil Engineering
- Industrial Engineering
- Naval Engineering
- Electricity Engineering

Expected accreditation by August 2017

Accreditation Impact... at ESPOL



Mechanical Engineering

No.	Question	2012		2015	
		Mean	Standard Error of Mean	Mean	Standard Error of Mean
1	Contribution to products, processes and systems design.	4.077	0.348	8.538	0.169
2	Social, cultural, economic, environmental aspects considered in problem solving.	3.923	0.211	8.346	0.183
3	Ethics considered in problem solving.	4.308	0.237	9.346	0.146
4	Effective communication in Spanish.	4.385	0.213	8.269	0.366
5	Effective communication in English.	3.385	0.331	8.269	0.366
6	Teamwork habilities.	3.769	0.303	8.731	0.204
7	Longlife learning capacities.	3.846	0.249	9.154	0.154

Accreditation Impact... at ESPOL



Computer Science

No.	Question	2012		2015	
		Mean	Standard Error of Mean	Mean	Standard Error of Mean
1	Social aspects considered in problem solving.	2.6	0.245	6.485	0.341
2	Economic aspects considered in problem solving.	3.6	0.245	7.262	0.287
3	Ethics considered in problem solving.	4	0.316	9.415	0.143
4	Oral effective communication in Spanish.	4.2	0.374	8.587	0.245
5	Written effective communication in Spanish.	4.2	0.374	8.638	0.264
6	Oral effective communication in English.	2.2	0.374	6.915	0.327
7	Written effective communication in English.	3.2	0.374	7.213	0.327
8	Teamwork habilities.	3.6	0.245	8.564	0.169
9	Leadership capacities.	3.8	0.2	7.598	0.275

Accreditation Impact... at ESPOL



Other Engineering Programs

No.	Question	Industrial		Naval		Civil		Electrical	
		Mean	Standard Error of Mean	Mean	Standard Error of Mean	Mean	Standard Error of Mean	Mean	Standard Error of Mean
1	Social aspects considered in problem solving.	5.846	0.557	6.444	0.884	6.440	0.444	6.641	0.435
2	Ethics considered in problem solving.	9.192	0.192	9.000	0.333	9.500	0.146	9.078	0.149
3	Oral effective communication in Spanish.	8.385	0.278	9.111	0.389	9.110	0.267	9.000	0.185
4	Written effective communication in Spanish.	8.680	0.243	9.111	0.351	9.330	0.181	9.078	0.152
5	Oral effective communication in English.	6.885	0.424	7.778	0.641	7.220	0.540	7.469	0.442
6	Written effective communication in English.	6.577	0.416	7.556	0.729	7.350	0.514	7.328	0.434
7	Teamwork habilities.	8.846	0.213	9.333	0.333	8.610	0.325	7.969	0.256

Our Graduates in the community



2 Vice-presidents (the current one and a former one)

Ministers and Secretaries of State

National Congressmen

Ecuador's Representative to International Monetary Fund

Ecuador's Representative to Inter American Development Bank



Professors at International Universities

CEO's on Transnational Firms

Industry Leaders

Internationalization



- ✓ We realize in order to educate a global citizen our students should interact around the globe: a major effort since 2015.
- ✓ We understand it as a two-way exchange.
- ✓ Some numbers:
 - ✓ More than 10 events organized by ESPOL
 - ✓ More than 25 events assisted
 - ✓ 134 cooperation agreements (USA: 18)
 - ✓ 74 students from ESPOL went to other universities (2016-2017)
 - ✓ 62 students came to ESPOL from other universities (2016-2017)

Research



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- **VLIR – ESPOL Program**
- **PARCON**



Research Programs

- Agriculture and animal production
- Climate and environment
- Education and communication
- Alternative and renewable Energy
- Environmental management
- Industrial Technology
- Economics, business and entrepreneurship
- Human development
- Basic science development

Research Based Learning (RBL)



- ✓ RBL is intended for our graduate programs.
- ✓ A first experience is implemented with our M.Sc. programs coordinated with VLIR (Belgium)
 - ✓ Applied bio-sciences
 - ✓ Water resource management
- ✓ This first experience will be used to deepen our capacities for RBL in order to implement it for all our M.Sc. Programs and later on into some last-year courses for undergraduate studies.



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