





Pontificia Universidad
JAVERIANA
Bogotá





Institutional Overview

Founded in 1623, Pontificia Universidad Javeriana is one of Colombia's oldest and most prestigious private universities. Located in the heart of Bogotá and affiliated with the Society of Jesus, it is part of a global Jesuit university network. Javeriana is deeply committed to academic excellence, social transformation, and innovation with purpose.

With over 28,000 students, more than 3,000 professors, and 190+ academic programs, the University is a key player in higher education in Latin America. It holds the highest level of national accreditation from the Colombian Ministry of Education and shares its Jesuit legacy with institutions such as Georgetown University and Boston College.

Rankings & Recognition

Javeriana consistently ranks among the top universities in Colombia and Latin America, standing out for its quality in teaching, research, and graduate employability.

Top 5

university in Colombia
(QS Latin America Rankings 2024)

Top 40

Among the in Latin America
(THE Latin America Rankings 2024)

Member

of the International Association
of Jesuit Universities (IAJU)

85%

graduate employability rate
of within months of graduation

Innovation & Research Capacity

Research and innovation are strategic pillars at Javeriana, embedded into its educational mission, social impact agenda, and national contribution. The University operates through an integrated ecosystem composed of:

Research Directorate



Innovation Directorate

Assistance for Artistic Creation



Center for Entrepreneurship and Business Development

Key indicators and milestones (as of 2024):

- **108 research groups** recognized by MinCiencias, with **66%** in categories A1 and A
- **200 research seedbeds**, involving students in early-stage R&D
- **150 patent applications**, 40 granted patents (17 in Colombia, 23 internationally)
- **11,135 Web of Science** articles and **10,731 Scopus-indexed** publications (2012–2024)
- Over **1,100 scientific publications** in 2024 alone, plus 62 chapters and 11 books
- **26,000+ total academic publications** with ~237,000 citations
- **160+ funded research projects** in the past two years, valued at ~**COP \$53 billion**
- Over **1,000 agreements** signed with public/private organizations for knowledge transfer

Fields of excellence include:

- Sustainability and environmental engineering
- Digital transformation and emerging technologies
- Public health, epidemiology, and health systems
- Biotech, neurodevelopment, and biomedical engineering
- Peacebuilding, social innovation, education, and public policy

The University's Innovation Office supports researchers and entrepreneurs in maturing, protecting, and transferring their innovations. Javeriana has also developed social impact tolos, and hosts a growing portfolio of prototypes, registered trademarks, and technological solutions.



University-Industry Collaboration

Javeriana actively collaborates with the private and public sectors to co-create knowledge and develop solutions to pressing societal and environmental challenges. These partnerships span consultancy, R&D projects, testing, executive education, and spin-off creation.

- 250+ consultancy projects, totaling over USD \$24 million in the last 5 years
- Custom executive education and innovation bootcamps
- Technical services in energy, water, climate action, health, infrastructure, and digital ecosystems
- Innovation labs, entrepreneurship programs, and support for patent commercialization



Facilities Snapshot

Javeriana's 18-hectare urban campus in Bogotá integrates cutting-edge infrastructure with green, flexible learning spaces.

- 45 buildings, including specialized facilities for medicine, law, engineering, arts, and environmental sciences
- 210+ laboratories and workshops, such as:
 - Process Automation and Control Lab
 - High-Performance Computing Center (ZINE)
 - Georeferenced Information Lab
 - ATiCO Audiovisual and Digital Production Center
 - Comparative Biology Unit (with BSL research level)
- 24/7 Central Library with over 700,000 resources (physical + digital)
- Indoor and outdoor sports facilities, health center, and cultural venues



International Collaboration

The University maintains strong international connections across five continents. Through global mobility, dual-degree programs, and collaborative research, Javeriana fosters cross-cultural learning and innovation.

- 400+ international agreements in 45+ countries
- Member of AUSJAL, IAJU, and other global academic networks
- Active partnerships with universities in the U.S., Germany, France, the UK, and Latin America
- Hosts international conferences and offers programs fully taught in English



Infrastructure & New Engineering Laboratories

- About the tour

The Engineering Laboratories Building, inaugurated in 2023, is a flagship facility designed to boost applied research and collaboration between academia, industry, and society.

- 14,089 m² steel structure with 15 floors and 3 underground levels
- 94 research/testing labs, 15 teaching labs, and 700 m² of collaborative coworking space
- Designed with bioclimatic principles, natural ventilation, high-performance glazing, and seismic monitoring sensors
- Supports projects in civil, environmental, systems, industrial, and electronics engineering

The **Structural Model Laboratory** is a 400 square meter space designed for the characterization of materials and for the study of structures or structural elements against gravitational and seismic loads. This laboratory has:

- An 8.5 meter wall with a 1.50 meter thickness for the application of horizontal loads, by actuators of 100 to 1000 Kilo Newtons, on full-scale structural models.
- Two tables for the simulation of real earthquakes in real and reduced-scale structures; one of these uniaxial of 1.5 meters on a side and the other biaxial of 3 meters on a side.
- A 6 meter high universal testing machine for the characterization of materials, with dynamic compression and traction load capacity of up to 2500 Kilo Newtons.
- And more than 100 sensors for the instrumentation of structural models among accelerometers, strain gauges, laser sensors, among others.

[Ver video](#)

The **Integrated Manufacturing Center** is a 121 square meter space in which you can program, control and physically simulate activities associated with supply chains and industrial processes. This laboratory incorporates elements of industrial robotics, storage and distribution logistics, as well as information systems duly integrated through industrial communication networks.

This 4.0 Industrial technology center seeks the complete digitization of a company's value chains through the integration of data processing technologies, artificial intelligence and sensors. The laboratory has several work stations that include a warehouse for raw materials and finished products, a conveyor belt for the flow of material, robot manipulators, a quality control station by artificial vision, a machining station and an automatic control lathe.

[Ver video](#)

The **Water Quality Laboratory** is a 209 square meter space for the physical-chemical characterization of environmental matrices. Holding specialized equipment such as: gas chromatograph coupled to mass spectrometer, ion chromatograph, atomic absorption spectrophotometer, emission spectrometer with simultaneous detection-optical ICP, laser granulometer, total organic carbon analyzer, among others.

[Ver video](#)

The **Hydraulic Laboratory** is a 77 square meter space designed for the study and modeling of the movement of water in canals and pressure pipes. Suited for teaching exercises and with a 10-meter-long channel with multiple sensors, a bank of pressure pipes and a bank of pumps. For research, it has a 12 meter length channel with variable width, for simulating hydrographic basins on a reduced scale. In addition, it has a set of three tanks that allow the recirculation of water in the laboratory and the measurement of the output flow of the laboratory models.

[Ver video](#)



About the Researchers

This tour is led by a multidisciplinary team of professors and researchers from the Schools of Engineering and Sciences at Pontificia Universidad Javeriana. Each member brings extensive experience in applied research, laboratory development, and collaborative innovation.

School of Engineering

Yezid Alvarado
Laboratory Director
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Federico Nuñez
Associate Professor
[View profile](#)

School of Sciences

Ziv Arbeli
Associate Professor
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