

General Aim:

To develop Integral Civil Engineers with a humanistic, analytic, creative and entrepreneur vision, being able to identify and solve problems efficiently, throughout planning, designing, building, operating and conservation of infrastructure projects, within the global framework, sustainability, and quality; contributing to the society development.

EDUCATIONAL PROGRAM AIMS.

No.	Educational Aim	Performance criteria description	
EA 1	To implement society required development projects strategies, applying current regulations.	To collaborate on some project's stages related to land routes.	100% students
EA 2	To innovate using sustainability projects strategies or land routes maintenance.	To collaborate on building-process projects, maintenance and conservation of overland routes.	% graduated
EA 3	To develop competences in an integral, analytic, creative and entrepreneur way.	Graduated students must be part of action-teams in order to solve problems and innovation of them.	90% 5%

Competence

Civil infrastructure projects management.

Mission

To develop engineers capable of detecting, understanding, evaluating, and solving infrastructure demands in a global-dynamic society throughout the development of Civil Engineering formative areas competences, researching, mastering and tech-innovating, instilling ethic values and principles which let them contribute to the economic, politic and social development within their society and country, keeping actions and environment equivalence.

View

Civil Engineering Degree will develop professionals with values and principles well-integrated during different required elements which let them contribute to the national social, economic and political development, supported by the new technologies which may build safe and efficient civil projects besides preserving environment, achieving the learning teaching process throughout an active collaboration of the academic staff.

Admission requirements

Extensive knowledge of Mathematics, Physics and Chemistry.

Service vocation, critical thinking, and interested in applying abilities on the scientific and technological field.

Ability to apply knowledge to solve problems and interact with other disciplines needed for teamwork.

Ability to integrate stages of study, planning and project mapping.

Alumni profile

Major Profile: Professional and researcher able to efficiently and sustainably solve land route problems and innovate strategies according to today's world requirements.

Educative graduate program profile: the major provides professional competencies that develop, build, innovate, and preserve land routes projects focused on sustainability and the use of ITC.

Graduation Attributes

A 1. To plan, map, design, build, operate and preserve hydraulic and sanitation Works, structural systems, land routes, building and urban and industrial infrastructure works.

A 2. To lead and participate in studies to determine environmental, economic, technical and financial feasibility of civil work projects.

A 3. To Develop and implement research projects and technological development in the civil engineering field.

A 4. To innovate, create, generate, adapt and apply new technologies on studies, projects and building of civil works, applying scientific methods.

A 5. To optimize the use of resources in the construction processes of civil works.

A 6. To use control quality techniques on material and building processes.

A 7. To use Information and Communication Technology (ITC) software and electronic tools for Civil Engineering.

A 8. To undertake productive projects belonging to knowledge of mathematics, physics and chemistry.

Fields that alumni must cover

- Pipelines and Tunnels hydrocarbons conductive works, tunnels that accommodate them and are complementary to communication routes.
- Oil industry and power generation.
- Hydraulic Water control, water catchment, distribution and water storage in dams, canals, and irrigation works, as well as potable water and sewage systems.
- Building Housing units, care and educational facilities, shopping centers, and sport units, clinics and hospitals, convention centers, hotels and recreational villas.
- Structures Design, planning, construction and maintenance of structures that will accommodate buildings, concert halls, stadiums, vehicle and pedestrian bridges.
- Land routes and road network Roads, railroads, airports, and road networks as well as their complements: bridges, tunnels and in general every complement that allows the communication and economic exchange.
- Urban amenities Infrastructure building of utility services and ancillary services as potable water, sewer system, electricity and lighting, paved roads, road system, green areas, parks and gardens.
- Other areas where civil works are required.