

University of Buenos Aires, School of Engineering, Gas and Oil Institute

Contact

Web: www.fi.uba.ar/es/node/127

E-mail: igpuba@fi.uba.ar

Address: 2214, Las Heras Ave., (1127) Buenos Aires, Argentina

Tel. +54 11 4514-3026

Institution profile

The University of Buenos Aires was founded on August 12, 1821. Since then, it has been an institution characterized by its academic excellence and it has the honor of having trained three Nobel Prizes: Bernardo Houssay, Federico Leloir and César Milstein.

At present, it represents a well-known prestigious place for the training of professionals with over 6650 teachers and more than 100,000 students characterized by its strong commitment to society. It offers more than one hundred university degrees.

Within the area of science and technology, the University of Buenos Aires has an outstanding structure made up of around 6000 researchers and scholars and over 1500 ongoing research projects financed by the University, national research councils and other organizations. This structure is a substantial part of the national scientific body and, as such, has a role of utmost importance in a period of growing scientific and technological demands.

UBA's academic offer is based on thirteen Schools. The main activities related to the mission objectives are developed in the School of Engineering.

School of Engineering (FIUBA)

- Students and staff: Over 7500 students, including a growing number from Latin-America and Europe attend our classrooms and laboratories. Our staff consists of over 1500 teachers and researchers.
- Positioning: After the first engineer graduated in 1870, more than 35000 others have followed since then. FIUBA has become an important asset for national development. This school continues to transfer the information, knowledge and technology obtained by its research and development teams to its host community.
- Educational programs: 10 Undergraduate Degrees, 1 Professional License, 15 Specialization Degrees, 11 Masters Programs, 1 Doctoral Program.
- Research and development: The school is home to over 70 research teams, many of which work in collaboration with other national and international institutions.

- The School of Engineering offers postgraduate courses for the oil and gas industry in the Gas and Oil Institute.

Gas and Oil Institute (IGPUBA), School of Engineering, University of Buenos Aires

- Postgraduate Courses

The IGPUBA offers the following Specializations Degrees related to the Oil and Gas Industry: Specialization Degree in Oil, Specialization Degree in Gas, and Specialization Degree in Reservoir Engineering. They can be obtained in one year of part-time study.

Moreover, IGPUBA offers an Annual Coursework in Geosciences Applied to Hydrocarbon Exploration and Development. It is also possible to take some courses separately, without completing a specific degree.

The IGPUBA also offers a Master's Degree in Oil and Gas Engineering. To obtain this degree students have to pass specific courses and complete a Master's Thesis.

- Research Activities

Additionally, Research Activities are developed in IGPUBA. The main areas of interest are:

1. Numerical simulation of primary, secondary and enhanced oil recovery processes. As an example, we are now participating in a research project on Chemical Enhanced Oil Recovery (CEOR) with other two Argentine National Universities. This project is supported by Oil Companies.
2. Multiphase flow with geomechanical effects, to model fracturing procedures in unconventional hydrocarbon reservoirs (fracking).
3. Wave propagation in viscoelastic and Biot media, to detect hydrocarbon reservoirs and to characterize the seismic response of highly heterogeneous porous media.
4. Carbon Dioxide Sequestration: numerical simulation of CO₂ injection and Seismic Monitoring of this process to analyze and predict the CO₂ behavior in the underground over long periods of time.
5. Pipelines modeling: corrosion problems caused by telluric currents. 1D and 2D models of the surface are developed to simulate the geoelectric field produced by the vertical impact of a variable magnetic field. Statistical models that predict maximum values of geomagnetic activity are developed in order to prevent and mitigate the impact of anomalous currents on pipelines.

Representative in this mission

Dr. Gabriela Savioli (Executive Director, Gas and Oil Institute, FIUBA, e-mail: gsavioli@fi.uba.ar)

