SCHOOL OF ENGINEERING OF BEIRUT (ESIB)

HISTORY

In 1910, the Rector of the Académie de Lyon (France), Mr. Paul JOUBIN, reported to the Council of the University of Lyon the potential benefits of establishing an academic presence in the Middle East. A commission was formed and undertook several missions to Lebanon and the Middle East to bring this idea to life.

On November 14, 1913, the French School of Engineering of Beirut (EFIB) was inaugurated alongside the French School of Law. An admission test to EFIB took place on October 17, 1913, and 19 candidates were admitted. By the end of the first preparatory year, 14 students were considered suitable for the second year of study.

Due to World War I, on November 2, 1914, diplomatic relations between France and the Ottoman Empire were severed, and the school buildings were requisitioned on November 14. An armistice was signed on the island of Moudros on October 30, 1918, allowing plans for the school's reopening to be set in motion once again.

After an agreement was signed on January 27, 1919, between the Lyon Association for the Development of Higher and Technical Education Abroad and the Society of Jesus, the EFIB officially opened on November 10, 1919. The program duration was initially set at three years, then extended to four years starting in 1936.

The model for the School of Engineering of Beirut was undoubtedly Ecole Centrale de Lyon, emphasizing a general training for polyvalent civil engineers with potential for further specialization. This program was simply altered to adapt it to Lebanese requirements. As a result of this similarity, the engineering degree awarded to EFIB students held the same value as that of the Ecole Centrale de Lyon. EFIB students could therefore attend specialization courses at Ecole Centrale de Lyon without an entrance exam. The first engineering degree (called Diplôme in the French system) was awarded to Mr. Gabriel Rezkallah ARACTINGI in 1922.

Initially, courses focused on civil engineering, mechanics, and electricity. Over time, civil construction, public works, and hydraulics gained importance. In 1942, alongside the Civil Engineering program, an Industry program was introduced to train engineers in utilizing local industrial resources during the war. At the same time, the "National Committee of Fighting France" also authorized the school to offer science courses during the war. In 1945, the Industry program was replaced by an Architecture program, better suited to the country's needs.

On November 1, 1948, EFIB was renamed the "School of Engineering of Beirut" (ESIB). For 40 years, EFIB and then ESIB remained the first and only School of Engineering in Lebanon and the Middle East, training the region's first engineers from Lebanon, Syria, Egypt, Palestine, Iran, Turkey, and other countries.

In 1959, the Electromechanical Engineering program was introduced.

In 1963, the study duration was extended to 5 years after the Lebanese Baccalaureate (freshman year in the US System), and in October 1971, the School relocated to its current premises in Mar Roukoz. During this time, new concentrations were introduced. Notably, in the academic years 1968-1969 and 1972-1973, the School trained geographic engineers for the Lebanese Ministry of National Defense.

The events of 1975 forced the school, completely plundered, to close its doors again in March 1976, but courses resumed in December 1976. ESIB became part of the new Faculty of Engineering of the Saint Joseph University of Beirut (USJ). Significant efforts have been made since 1977 to equip the laboratories with modern, high-performance equipment. In 1978, the programs were restructured, and the third-year concentrations were adapted to meet the new needs of the market.

In 1979, the engineering preparatory classes (first two years) were restructured, with the creation of the Higher and Special Mathematics classes preparing students for the admission tests of the French Grandes Ecoles (Ecole Polytechnique, Ecole Centrale de Lyon, CentraleSupélec, Ecole Nationale des Ponts et Chaussées, Ecole des Mines, Télécom Paris), held in Lebanon under the responsibility of the French Embassy.

Between 1978 and 1980, ESIB relocated six times due to the Lebanese war, resuming activities in its Mar Roukoz premises in October 1980.

Since 1993, the normalization of the situation allowed the gradual establishment of postgraduate programs (Master and PhD). The renewed partnership with France, from 1996 to 2000, accelerated this process. In 1998, the Faculty of Engineering founded its teaching and testing laboratories as research centers. ESIB includes five research centers: The Wajdi Najem Regional Center for Water and the Environment, the Lebanese Center for Construction Studies and Research, the Center for Electrical Industries and Telecommunications, the Center for Computer Science, Modeling and Information Technology, and the Center for Physics and Chemistry.

Starting October 2001, ESIB adopted a new admission system based on a selection by one of the following three methods: early admission through the study of school records, an entrance exam, or achieving the Mention Very Good and above on the Lebanese or French Baccalaureate. The objective of this system is to allow the best students to be admitted to ESIB very early.

In 2003, ESIB, within the framework of the Faculty of Engineering, adopted the "European Credit Transfer and Accumulation System" (ECTS). At the same time, it signed co-graduation agreements with several major schools of engineering in France. In September 2005, it restructured its Master's degrees.

In September 2013, recognizing the strategic importance of the Oil and Gas sector, ESIB launched its first Master in Oil and Gas: Exploration, Production and Management (Upstream and Downstream), in collaboration with the "Institut Français du Pétrole" (IFP School), making it the first ESIB program fully taught in English.

In 2015, ESIB began the process of accrediting its engineering programs. At the same time, the Electrical and Mechanical Engineering program was divided into two programs: The Electrical Engineering (EE) program with concentrations in Electromechanical Engineering and Industrial Systems, and the Computer and Communications Engineering (CCE) program with concentrations in Software Engineering and in Telecommunication Networks.

In 2017, a Chemical and Petrochemical Engineering program and a Master in Data Science were created in collaboration with the Faculty of Science of the Saint Joseph University of Beirut. In 2020, the Mechanical Engineering program was launched at ESIB. In 2022, a section of the Computer and Communications Engineering program entirely taught in English opened at ESIB. In 2024, ESIB launched the Industrial Engineering program.

MISSION

The School of Engineering of Beirut (ESIB) of the Saint Joseph University is a French-speaking engineering institution dedicated to higher education and research, serving Lebanon and the wider region.

ESIB provides students with a robust education to acquire high-level scientific and technical skills in several areas of the engineering profession, allowing them to work effectively in design and research as well as on site and in industry.

The academic experience of students goes beyond course knowledge to skill-based learning, including creativity, innovation, cooperation, collaboration with peers, and tolerance.

ADMINISTRATION

Dean:
Wassim RAPHAEL
Heads of Departments and Centers:
Department of Preparatory Classes: Melhem (EL) HELOU
Department of Civil Engineering and Environment: Muhsin Elie RAHHAL
Department of Electrical and Mechanical Engineering: Flavia KHATOUNIAN (EL) RAJJI
Department of Chemical and Petrochemical Engineering: Jihane RAHBANY (EL) MOUNSEF
Department of Computer and Communications Engineering: Chantal SAAD HAJJAR
Department of Doctoral Studies: Ragi GHOSN
Center for Electrical Industries and Telecommunications: Elias RACHID

Center for Computer Science, Modeling and Information Technology: Rayan MINA
Lebanese Center for Construction Studies and Research: Fouad KADDAH
Wajdi Najem Regional Center for Water and the Environment

Honorary Deans: Maroun ASMAR, Sélim CATAFAGO, Wajdi NAJEM, Fadi GEARA

ADMINISTRATIVE STAFF

Dean's Office
Assistants to the Dean: Ghada AOUAD, Rita-Maria AZAR TANNOUS
Executive Assistants: Rose DAGHER MRAD, Tatiana JABBOUR, Elyse SALIBA
Supervisor: Jihad KHAWAND
Employee: Joyce CHEHADE
Department of Preparatory Classes
Executive Assistants: Cynthia KHAYRALLAH, Grace MAALOUF
Department of Civil Engineering and Environment
Executive Assistant: Lina HANY AZAR
Department of Electrical and Mechanical Engineering
Executive Assistant: Lynn SADER
Department of Chemical and Petrochemical Engineering
Executive Assistant: Zeina SAWAYA BOUEIZ
Department of Doctoral Studies and Department
Executive Assistant: Zeina SAWAYA BOUEIZ
Coordinator of the Master in Road Safety Management: Marguerita MOUAWAD
Center for Electrical Industries and Telecommunications
Head of the Electromechanical Unit: Michel MOUGHABGHAB
Center for Computer Science, Modeling and Information Technology
Programmer: Carine BOUSTANY SAWAYA
Lebanese Center for Construction Studies and Research
Executive Assistant: Zeina SAWAYA BOUEIZ
Lab Technician: Charbel AOUN
Wajdi Najem Regional Center for Water and the Environment
Lab Assistant: Elie KHACHO

FACULTY

Professors
Maroun CHAMOUN, Rémi Ziad DAOU, Fadi GEARA, Ragi GHOSN, Marc IBRAHIM, Fouad KADDAH, Hadi KANAAN, Flavia KHATOUNIAN, Rima KILANY CHAMOUN, Dany MEZHER, Toni NICOLAS, Elias RACHID, Muhsin Elie RAHHAL, Wassim RAPHAEL, Hadi SAWAYA
Associate Professors
Alain AJAMI, Nancy CHALHOUB, Georges CHAMOUN, Melhem EL HELOU, Rafic FADDOUL, Fares MAALOUF, Chantal MAATOUK, Rayan MINA, Jihane RAHBANY (EL) MOUNSEF, Renalda SAMRA (AL) KHALIL, Chantal SAAD HAJJAR, Ali (AL) SHAER, Sami YOUSSEF
Assistant Professors
Pascal ABBOUD, Cynthia ANDRAOS, Youssef BAKOUNY, Nadine BEJJANI, Marina DACCACHE, Rim DBAISSY, Khalil HARISS, Ali HARKOUS, Farah HOMSI, Joseph KESERWANY, Gabriel KHOURY, Malek MSHEIK, Katia RAYA, Guilnard SADAKA, Melissa SAID, Wafa SAOUD, Jean SAWMA, Tina YAACOUB
Lecturers
Juliana (EL) RAYESS, Maria HABIB
Visiting Professors
Said BITAR, Claude BOCQUILLON, Maurice FADEL, Hussein IBRAHIM, Eric MONMASSON, Nicolas PATIN
Faculty members of another USJ institution
Maher ABBOUD, Nancy ALLAM CHOUCAIR, Nizar ATRISSI, Hayat AZOURI TANNOUS, Joseph BEJJANI, Ursula EL HAGE, Roger LTEIF, Dominique SALAMEH

Instructors
Nadine ABBAS, Jack ABDO, Joanna ABDOU NADER, Roy ABI ZEID DAOU, Naji ABOU ASSALY, Adel ABOU JAOUDÉ, Joanna ABOU JAOUDÉ, Abdallah ABOU RAHHAL, Marc ABOU RJEILI, Georges ABOU SLEIMAN, Hani AGHAR, Nancy ALAM CHOUCAIR, Elie AOUAD, Angèle AOUAD RIZK, Nathalie AOUAD ROUHAYEM, Khattar ASSAF, Ortanse ATTARIAN JABRE, Ahmad AUDI, Zeina AWADA, Soumaya AYADI MAASRI, Maroun AYLI, Rita AZZI, Jean-Marie BACHA, Hilda BAIRAMIAN, Mounia BEDRAN, Danielle BEDROSSIAN, Nabil BEJJANI, Elie BOU CHAKRA, Maroun BOULOS, Nathalie CHAHINE, Raymond CHAKHTOURA, Carla CHAMOUN, Dima CHEBIB, Saïd CHEHAB, Saleh CHEHADE, Aida CHEIKH, André CHKAIBANE, Esber CHOUEIRY, Nadim CHOUEIRY, Joseph CONSTANTIN, Ibtissam CONSTANTIN KIWAN, Adham DIMASHKI, Joelle FADDOUL, Toufic FAKHRY, Fady FARAH, Joseph FARES, Robert FARHA, Mohamad FARHAT, Hussein FARROUKH, Antoine FÉGHALY, Christelle GEARA, Shawki GHARIB, Nada GHORRA CHÉHADÉ, Bassam HABRE, Ghassan HACHEM, Naji HACHEM, Rania HACHEM SAAD, Georges HADDAD, Ronald HAGE, Antoine HAGE, Ahmad HAJJ, Ali HAJJ HASSAN, Wassim HAJJAR, Massaad HAKIM, Ziad HAKIM RAHMÉ, Najib HARB, Roy HARB, Elias HELOU, Rouba HELOU SARKIS, Nabil HENNAOUI, Nadim HENOUD, Alaa HIJAZI, Houssam HIJAZI, Rayan HIJAZI, Elie HLEIHEL, Jihad (EL) HOKAYEM, Mary (EL) HOKAYEM, Najate (EL) HOKAYEM, Antoine HREICHE, Eliane IBRAHIM, Lina ISKANDAR HAWAT, Cyril JABRA, Georges JAMAL, Samar KADDAH, André KANAAN, Tala KANSON, Jean-Michel KAOUKABANI, Firas KHALIFE, Walid KHALIL, Tony KHALIL, Marina KHOURY, Grace (EL) KHOURY, Ibrahim KIWAN, Joseph KOZEILY, Elie MAALOUF, Hiam MALLAT, Johny MATAR, Roger MATTA, Rodolphe MATTAR, Joseph MCHAYLEH, Hassan MCHEIK, Elias MECHREF, Rabih MOAWAD, Alfred MORCOS HAYEK, Fouad MOTI, Charbel MOUAWAD, Carole MOUKAWAM DIB, Cynthia MOUSSA, Manal MOUSSALLEM, Bassel NASR, Nassib NASR, Bassam NASRALLAH, Danielle NASRALLAH, Zulfiqar NASSER AL DEEN, Rana NASSIF, Georges NAWFAL, Faten NAZZAL, Hiam NEHMÉ, Rawad NICOLAS ASSAF, Joanna NSEIR, Elie RAHMÉ, Ahmad RAMMAL, Georges REAIDY, Elie RENNO, Bassam RIACHI, Alexandre RICHA, Nicolas ROUHANA, Nour ROUMIEH, Kamal SAFA, Yara SAFI, Georges SALLOUM, Caline SAMAHA MAHBOUB, Abed Ellatif SAMHAT, Ibrahim SAMMOUR, Nour SARDOUK, Maria SAROUFIM, Joseph Mary SARROUH, Antoine SAWAYA, Jinane SAYAH, Graziella SEBAALY, Vahe SEFERIAN, Marlène SEIF AOUAD, Saad SFEIR, Ahmad TABIKH, Yehia TAHER, Anthony TANNOURY, Fadia TAWIL KARAM, Mansour TAWK, Martine TOHMÉ, Naji WAK, Claude WEHBÉ CHALHOUB, Georges YARACK, Jean-Yves YOUSSEF, Marie-José ZACCA, Christiana ZARAKET, Elie ZEIDAN, Élise ZGHEIB

DEGREES, DIPLOMAS AND CERTIFICATES AWARDED

- Bachelor of Engineering in Chemical and Petrochemical Engineering
- Bachelor of Engineering in Civil Engineering, concentrations: Buildings and Engineering Management, Public Works and Transportation, Water and Environment
- Bachelor of Engineering in Computer and Communications Engineering, concentrations: Artificial Intelligence, Software Engineering, Telecommunication Networks
- Bachelor of Engineering in Electrical Engineering
- Bachelor of Engineering in Industrial Engineering
- Bachelor of Engineering in Mechanical Engineering, concentrations: Mechatronics, Energy, Mechanical Design
- Master in Artificial Intelligence
- Master in Data Science
- Master in Electrical and Electronic Engineering
- Master in Renewable Energy
- Master in Road Safety Management (MANSER)
- Master in Structures and Soil Mechanics
- Master in Telecommunications, Networks and Security
- PhD in Civil, Water and Environmental Engineering
- PhD in Computer and Telecommunications Engineering
- PhD in Electrical and Energy Engineering
- University Diploma in Artificial Intelligence
- University Diploma in Web Development and Cybersecurity

JOB OPPORTUNITIES

Bachelor of Engineering in Chemical and Petrochemical Engineering
Graduates work in companies from major sectors including:
- Chemistry

- Biotechnology
- Pharmacy
- Energy
- Environment
- Oil and gas
- Materials processing industries (glass, cement, paper, textile, paint, cosmetics, agri-food industries, etc.).

Bachelor of Engineering in Civil Engineering
Graduates can work in all sectors of civil engineering and construction including:
- Engineering companies
- Building construction
- Public works
- Structural and geotechnical engineering
- Infrastructure projects
- Maritime works
- Airports
- Dams
- Water and wastewater treatment
- Teaching and research

Bachelor of Engineering in Computer and Communications Engineering
Graduates work in companies from major sectors including:
- Digital services
- Software publishing
- Telecommunications operators: service and network operators
- Network and business communication systems integration
- Electronics and telecommunications equipment manufacturing
- Technology startups
- Consulting firms and design firms
- Banking and insurance
- Home automation
- Robotics
- Teaching and research

Bachelor of Engineering in Electrical Engineering
Graduates work in companies from major sectors including:
- Consulting and design
- Home automation
- Robotics
- Electrical networks: production, conversion, transmission, and distribution of electrical energy
- Electrification projects
- Industrial
- Banking and insurance
- Management
- Teaching and research
- Technology startups

Bachelor of Engineering in Industrial Engineering
Graduates work in companies from major sectors including:
- Consulting
- Project management
- Manufacturing
- Production and supply chain management
- Business, economics, finance, and banking
- Optimization, quality, and sustainability
- Management

- Teaching and research

Bachelor of Engineering in Mechanical Engineering
Graduates work in companies from major sectors including:
- Production and distribution of goods
- Mechanical systems design, construction, monitoring, and maintenance
- Steel industry
- Automotive industry
- Control and automation
- Biomedical engineering and biomaterials
- Aeronautics (exchange program with ISAE-SUPAERO Toulouse)
- Heating, air conditioning, and plumbing
- Energy production and conversion
- Refrigeration
- Renewable energy

TUITION FEES

Bachelor of Engineering in Chemical and Petrochemical Engineering, Bachelor of Engineering in Civil Engineering, concentrations: Buildings and Engineering Management, Public Works and Transportation, Water and Environment, Bachelor of Engineering in Computer and Communications Engineering, concentrations: Artificial Intelligence, Software Engineering, Telecommunication Networks, Bachelor of Engineering in Electrical Engineering, Bachelor of Engineering in Industrial Engineering, Bachelor of Engineering in Mechanical Engineering, concentrations: Mechatronics, Energy, Mechanical Design: 188 Fresh US Dollars and 7,209,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 268 (exchange rate = 89,500 LBP).

Master in Artificial Intelligence, Master in Structures and Soil Mechanics, Master in Electrical and Electronic Engineering: 76 Fresh US Dollars and 2,865,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 108 (exchange rate = 89,500 LBP).

Master in Data Science: 134 Fresh US Dollars and 5,190,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 192 (exchange rate = 89,500 LBP).

Master in Renewable Energy, Master in Telecommunications, Networks and Security: 120 Fresh US Dollars/Credit.

Master in Road Safety Management (MANSER): 77 Fresh US Dollars and 2,954,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 110 (exchange rate = 89,500 LBP).

PhD in Civil, Water and Environmental Engineering, PhD in Computer and Telecommunications Engineering, PhD in Electrical and Energy Engineering: 76 Fresh US Dollars and 2,865,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 108 (exchange rate = 89,500 LBP).

SPECIFIC PROVISIONS OF THE INTERNAL REGULATIONS OF STUDY

Title Seven – Articles Specific to ESIB

Article 2.d – bis
To obtain an engineering degree from ESIB, students must complete a minimum of 10 regular semesters (4 semesters of preparatory classes and 6 semesters of major engineering classes).

Article 2.e – bis
At ESIB, students may register for a maximum of 18 credits during the summer trimester.
At ESIB, students on probation (see Article 54) may not register for more than 24 credits per semester.
Similarly, "anticipatory registration" (see Article 16) in the engineering cycle is possible (i.e., a student who still has not validated all the credits of the preparatory classes); however, the student may not register for more than 24 credits. In this case, enrollment in the preparatory classes is compulsory and has priority, as long as these courses are offered throughout the semester in question.

Article 2.f – bis

At ESIB, the maximum duration of studies is 8 semesters for the preparatory classes and 12 semesters for the major engineering classes. A student who has not validated all the preparatory classes (120 credits) at the end of 8 regular semesters may no longer pursue their studies. Similarly, a student who has not validated all the major engineering classes (180 credits) after 12 regular semesters is no longer eligible for the Bachelor of Engineering diploma.

Article 3.f – bis

At ESIB, preparatory classes consist of 120 credits (4 semesters) and major engineering classes of 180 credits (6 semesters).

To obtain a Master's degree from ESIB, students in the major engineering classes must validate at least 18 credits (Master with a research thesis) or at least 24 credits (Master with a project or internship), along with 30 credits for a thesis, project or internship.

Article 3.h – bis

Course type	Number of credits suggested by the institution	Number of credits the student should validate
Required courses	At least 126[1]	Credits required by the Institution
Institution's electives	At least 18	At least 12
Open electives	Suggested by the Institution	At least 6

Article 4 – bis

At ESIB, to register and complete the final projects of the engineering programs (16 credits), students must have validated at least 150 credits of the major engineering classes.

Article 16 – bis

At ESIB, Article 16 applies to students who pass from the preparatory classes to the major engineering classes. When 16 or fewer credits are required to complete the preparatory classes, "anticipatory registration" for the major engineering classes is possible for a maximum of 24 credits per semester (including the preparatory class credits), upon the approval of the Institution Board. This requires the favorable opinion of the tutor, the agreement of the Head of the preparatory classes department and that of the Head of the engineering department in question.

Article 27.a – bis

There is no second session at ESIB due to program evaluation requirements.

Article 28.b – bis

At ESIB, any student who is absent for an assessment may repeat the assessment if the excuse they provide is deemed valid by the administration.

Article 34.d – bis

At ESIB, midterm exams and periodic assessments are not anonymous.

Article 50: Passing a Course

To pass a course, students must obtain an average of 10/20. When the course is a project, an internship or practical work, the average is 12/20.

1- This number represents 70% of the total number of credits pertaining to compulsory courses in the first cycle, which is generally 180 ECTS credits.

Article 51: Graduation

To obtain the Bachelor of Engineering diploma, students must pass all the compulsory courses of both the preparatory classes and the major engineering classes and must:

- Meet the conditions for a sufficient command of the Arabic and English languages (Article 6 – paragraphs c and d);
- Validate the 120 credits of the preparatory classes;
- Validate the 180 credits of the major engineering classes;
- Have a cumulative average of 12/20 or more in the major engineering classes.

Article 52: Repeating a Compulsory Course

If a student fails a compulsory course, they must register for it as soon as the course is offered again.

Article 53: Cumulative Average

The cumulative average is calculated at the end of each semester; it represents the weighted average of all the student's grades in the corresponding cycle. In the case of a repeated course, the most recent grade is used.

Article 54: Probation

A student in the preparatory class is placed on probation if:

i. At the end of the first year (including the summer trimester), their cumulative average is less than 10/20.
ii. At the end of the second year (including the summer trimester), their cumulative average is less than 10/20.
iii. They fail the same course* twice in a row.

A preparatory class student who enrolls at ESIB in the second semester of the first year is placed on probation if:

iv. At the end of the first year of study (including the summer trimester), their cumulative average is less than 10/20. That is, at the end of the regular semester 3 of the preparatory classes.
v. They fail the same course* twice in a row.

A major engineering class student is placed on probation if:

vi. At the end of the first year, their cumulative average is less than 11.5/20.
vii. For subsequent semesters, their cumulative average at the end of the semester is less than 12/20.
viii. They fail the same course* twice in a row.

A student is no longer considered to be on probation unless, at the end of a semester, they have met the requirements of that semester for not being on probation.

* If a student is on probation because they have failed the same course twice, they do not come off probation until they have passed the course.