

FACULTY OF SCIENCE (FS)

HISTORY

By joining FS, you choose to engage with a faculty where academic excellence is a standard and technological innovation is a tradition. FS provides an exceptional environment for generating knowledge and expertise, supporting advanced higher education, and fostering technological innovation and its practical applications.

Founded in 1997, FS trains researchers in basic and applied sciences, and equips multidisciplinary scientific professionals to meet the demands of the job market. To achieve these objectives, FS has put in place a strategy enabling it to become a scientific platform for industrial and commercial companies, not forgetting its role in training French-speaking secondary school teachers in the basic sciences: mathematics, physics, chemistry and life and earth sciences-biochemistry.

Since its establishment, FS has undergone considerable development and growth at both academic and research levels. It offers 17 academic programs, five Bachelor's degrees, ten Master's degrees and four PhDs, all recognized by the Lebanese Ministry of Education and Higher Education.

It has succeeded in setting up three multidisciplinary research units: Research Unit: Agri-Food Technologies and Valorization (UR-TVA), Research Unit: Environment, Functional Genomics, and Proteomics (UR-EGP) and the Research Unit: Mathematics and Modeling (UR-MM). The three Research Units (RU) bring together 25 instructors-researchers and approximately 40 PhD candidates working in 17 research teams.

Through the Center for Research and Analysis (CAR), the Laboratory of Metrology and Isotopic Fractionation (LMFI) and the Lebanese Human Tissue Bank (BLTH), FS offers routine expertise and analysis. It is worth noting that CAR is recognized by the Ministry of Agriculture for various analyses in the food sector. FS has also partnered with Lebanese industry through multiple contracts, enabling technology transfer and leveraging the advanced expertise developed by LMFI researchers over the past fifteen years. LMFI is ISO 17025 accredited and is the only laboratory of its kind in Asia. FS is also home to the NGO Jourour Loubnan.

Since 2012, FS has set up three regional branches in the North Lebanon Campus (CLN), the South Lebanon Campus (CLS) and the Zahle and Beqaa Campus (CZB). CLN and CLS offer a Bachelor in Mathematics, concentration: Data Science and a Bachelor in Life and Earth Sciences - Biochemistry, while CZB offers a Bachelor in Mathematics, concentration: Data Science.

FS programs are widely recognized and highly sought after in the Lebanese job market. Consequently, nearly all new graduates secure employment within three months of completing their studies.

FS students benefit from access to world-class research laboratories, enabling them to take part in research internships that deepen their scientific knowledge and help them explore potential career paths.

FS maintains strong academic links with other USJ institutions, mainly the Faculty of Engineering and Architecture and the faculties of medical sciences. Students may transfer to these institutions through competitive exams or file review processes. These pathways were designed to support students' academic progression within Lebanon's highly competitive academic environment.

FS's openness to external partnerships has allowed it to build collaborative networks on both national and international levels, with local companies, NGOs, ministries, and municipalities, as well as with academic institutions, particularly in France, the United States and Canada. These networks and partnerships enhance academic training and facilitate graduates' access to career opportunities and integration into the job market.

Finally, it is crucial to mention that FS has adopted an "Open Doors" strategy focused on student support and guidance. Throughout their studies, students can rely on dedicated instructors and a responsive administrative team to guide them through their academic journey.

MISSION

The mission of the Faculty of Science of the Saint Joseph University of Beirut is summarized as follows:

- Implement the charter and bylaws of the Saint Joseph University of Beirut.
- Conduct active research in applied fields.
- Train teachers for complementary French-language science teaching at secondary and university levels.
- Provide initial and lifelong training in mathematics, physics, chemistry and life and earth sciences - biochemistry.
- Meet new market requirements.
- Become a national scientific platform.

ADMINISTRATION

Dean:

Maher ABOUD

Honorary Deans

Ragi ABOU CHACRA, Toufic RIZK, Richard MAROUN

Heads of Department

Mathematics: Rami HADDAD

Physics: Wehbeh FARAH

Chemistry: Joseph BEJJANI

Life and Earth Sciences - Biochemistry: Laure (EL) CHAMY

Research Center Directors: Center for Research and Analysis (CAR)

Director: Nicolas LOUKA

Technical Director: Charbel AFIF

ADMINISTRATIVE STAFF

Secretariat

Academic Affairs Administrative Coordinator: Rita ABOU JAOUDÉ BRAX

Assistant to the Dean: Jeannette KHOURY

Academic Support Officer: Gladys HAYKAL

Academic Support Officer: Myrna ABI NAHED ISKANDAR

Academic Support Officer: Georges RAÏ

Laboratory Managers

Life and Earth Sciences - Biochemistry: Joseph YAGHI

Computer Science: Edgard SEIF

Laboratory Assistants

Chemistry: Hilda HNEIN

Center for Research and Analysis: Helga FRANCIS KEHDI

Physics: Rita MATAR

FACULTY

Professors

Maher ABOUD, Marie ABOUD MEHANNA, Charbel AFIF, Joseph BEJJANI, Magda BOU DAGHER KHARRAT, Wehbeh FARAH, Ziad FRANCIS, Mireille KALLASSY AWAD, André KHOURY, Nicolas LOUKA, Roger LTEIF, Richard MAROUN, Dominique SALAMEH, Toni SAYAH, Toufic RIZK

Associate Professors

Joanna BODGI TARAZI, Laure (EL) CHAMY, Georges FARES, Rami (EL) HADDAD, Zeina HOBAIKA KHOURY, Gihane MANSOUR ABOU JAOUDÉ, Joseph YAGHI

Lecturers

Georges GERMANOS, Marc BOUJI, Edgard SEIF, Helga FRANCIS KEHDI

Instructors

Denise ABOUD, Elie ABOUD, Andre ABI AWAD, Walid ABI HABIB, Martine ABI KHALIL, Tony ABI TANNOUS, Tony AL KHAWAND, Minerva ANDREA, Jennifer AOUAD AL HALABY, Randa AOUN, Jean-Claude ASSAF, Ortanse

ATTARIAN JABRE, Soumaya AYADI, Roula AZAR DOUGLAS, Farès AZOURY, Georges BADR, Elias BÉCHARA, Nadine BEJJANI, Liliane BOU KHDOUD, Sarah BOU MAROUN, Fadi BOUTROS, Elias CHAHINE, Lamia CHAMAS, Alain CHEBLY, Aicha CHEIKH, Jad CHÉMALY, Ronald CHIDIAC, Nancy CHOUCAIR ALAM, Jessy CHRABIEH, Christian CREMONA, Rudy DACCACHE, Roua DAOU, Carla DEEB, Sami DIB, Adham DIMASHKI, Gilbert DOUMIT, Joanne DOUMIT, Wissam (EL) AMIL, Cynthia (EL) HAJAL, Pamela (EL) HAJJ, Leina (EL) HOSRY, Rita (EL) SOKHN, Dany ELIAS, Carine ELYA, Cynthia ESBER, Nancy FAKHRI, Nicolas FARAH, Nancy FAYAD, Christelle FRANSAWI, Samih GEHA, Ziad GEMAYEL, Roger GHANEM, Nathalie GHANTOUS, Tala GHANTOUS, Hussein GHAZI, Lamice HABIB, Elias HADDAD, Consuelle HAJJ, Christine HAJJAR MOUAMMER, Sara HARIRI HAYKAL, Maha HOTEIT (EL) HAGE, Bachir ISKANDAR, Rosario ISSA, Christian JREYSSATY, Rhea KAHALE, Hani KALLASSY, Elias KAMMOUN, Steve KARAM, Gaby KHALAF, Hanane KHANAFER, Grace KHOURY, Rindala (EL) KHOURY, Sandra KOBAITER MAARRAWI, Chloé KOLEILAT LADKI, Joseph KOZAILY, Ralph LTEIF, Samar MALEK, Julie MALKOUN, Waleed MALLAH, Maya MARGIE YOUNÉS, Chadi MASSOUD, Antoine MATAR, Elie MÉDAWAR, Jean-François MÉGARBANÉ, Chadi MEHANNA, Marvin MOGHABGHAB, Tharwat MOKALLED, Abbas MOURAD, Ramzi MRAD, Marc MSANNE, Youssef NADDAF, Joanna NADER ABDO, Grace (EL) NAJJAR, Benoît NAOUS, Fadi NASSIF, Rabih RAMMOUZ, Justin RAPHAEL, Chadia RIZK, Najat RIZK, Nour ROUMIEH, Rock ROUPHAEL, Fadi SAADE, Nada SABRA, Amani SALAMEH, Lucille SALHA, Nada SALIBA, Youakim SALIBA, Lara SAMAHA, Dana SANIOURA, Mabelle SAYAH, Pierre SEBAALANI, Rola SHEIKH, Mayada SLAYMAN, Didier SLOUKGI, Carol SUKHN, Wassim TABBAH, Arlette TABET, Tania TABET SADAKA, Nagi TANNOUS, Elias TAWIL, Elie WAKIL, Diala WEHBEH, Grace YOUNES MADI, Sahar YOUSSEF, Sahar ZALLOUA ZANTOUT, Rola (EL) YAMAN, Maya ZEENY, Sally ZGHEIB, Antoine ZOGHBI

DEGREES, DIPLOMAS AND CERTIFICATES AWARDED

Bachelor:

- Bachelor in Chemistry
- Bachelor in Mathematics
- Bachelor in Mathematics, concentration: Data Science
- Bachelor in Physics
- Bachelor in Life and Earth Sciences - Biochemistry

Master:

- Master in Food Chemistry
- Master in Functional Genomics and Proteomics
- Master in Sensor Physics and Instrumentation, concentrations: Medical Radiophysics, Sensors and Instrumentation
- Master in Actuarial and Financial Sciences
- Master in Environmental Science and Management
- Master in Industrial Technology
- Master in Biomarketing
- Master in Data Science

PhD:

- PhD in Chemistry
- PhD in Mathematics
- PhD in Physics
- PhD in Life Science

University Diploma in Applied Statistics

JOB OPPORTUNITIES

BIOMARKETING

Graduates can pursue roles as:

- Marketing Manager
- Product Range Manager
- Market Research Manager
- Technical Sales Manager
- Sales Representative
- Communication Manager
- Project Manager

- Consultant

Graduates may also advance through:

- Executive courses (MBA, eMBA, DBA) in management, marketing and communication
- PhD studies

FOOD CHEMISTRY

Graduates can pursue roles in:

- Research and development in food processes
- Food analysis, control, and audit
- Food quality and safety
- Standardization of industrial processes and systems

Graduates may also continue with:

- PhD studies

ENVIRONMENTAL SCIENCE AND MANAGEMENT

Graduates can pursue roles as:

- Experts, consultants, project managers, or eco-advisers in consultancy firms, research organizations, international institutions, public administrations, companies, and local authorities
- Secondary school science teachers or coordinators

Graduates may also continue with:

- PhD studies

FUNCTIONAL GENOMICS AND PROTEOMICS

Graduates can pursue roles in:

- Research in public and private sectors
- Management of R&D departments in biotechnology, pharmaceutical, and parapharmaceutical companies
- Consulting within pharmaceutical, parapharmaceutical, and biotechnology sectors
- Diagnostics and biological or biochemical analyses in medical or industrial sectors

Graduates may also continue with:

- PhD studies

INDUSTRIAL TECHNOLOGY

Graduates can pursue roles in:

- Industrial research and development
- Industrial design and engineering
- Process or chemical engineering
- Industrial logistics
- Production management and processes
- Laboratory analysis and control
- Quality, safety, and environmental management
- Quality management systems
- Industrial management

Graduates may also continue with:

- PhD studies

SENSOR PHYSICS AND INSTRUMENTATION

Graduates can pursue roles as:

- Project Manager or Specialist in sectors such as medical, hospital, environmental, agri-food, electromechanical, and electronics
- Hospital Physicist
- Metrologist
- Industrial Control Professional
- Secondary School Physics Teacher or Coordinator
- Project Manager in industrial R&D for sensors, acquisition systems, instrumentation simulations, and data processing

Graduates may also continue with:

- PhD studies

ACTUARIAL AND FINANCIAL SCIENCES

Graduates can pursue roles in banks, insurance companies, finance firms, and industrial or service companies, including:

- Technical Management Assistant

- Risk Management Manager
- Asset and Liability Manager
- Trader
- School Teaching in Mathematics or Computer Science

Graduates may also continue with:

- PhD studies

DATA SCIENCE

Graduates can pursue roles such as:

- Data Scientist
- Chief Data Officer
- Data Analyst and Manager
- Data strategist, Consultant
- Big Data Consultant
- Statistical Expert
- Project Manager
- Business Developers

TUITION FEES

Bachelor in Chemistry, Bachelor in Mathematics, Bachelor in Data Science, Bachelor in Physics, Bachelor in Life and Earth Sciences – Biochemistry, Master in Food Chemistry, Master in Functional Genomics and Proteomics, Master in Sensor Physics and Instrumentation, concentrations: Medical Radiophysics, Sensors and Instrumentation, Master in Actuarial and Financial Sciences, Master in Environmental Science and Management, Master in Industrial Technology, Master in Biomarketing, Master in Data Science: 135 Fresh US Dollars and 5,162,000 Lebanese Pounds (for semester 1), equivalent in Fresh US Dollars to 192 (exchange rate = 89,500 LBP)

PhD in Chemistry, PhD in Mathematics, PhD in Physics, PhD in Life Science: 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

Article 1. Diplomas

- The diplomas awarded by the Faculty of Science are as follows:

Bachelor in:

- Mathematics
- Mathematics, concentration: Data Science
- Physics
- Chemistry
- Life and Earth Sciences - Biochemistry

Master in:

- Actuarial and Financial Sciences
- Data Science
- Astrophysics
- Sensor Physics and Instrumentation, concentrations: Medical Radiophysics, Sensors and Instrumentation
- Environmental Science and Management
- Food Chemistry
- Industrial Technology
- Functional Genomics and Proteomics
- Analysis and Probability for Partial Differential Equations
- Biomarketing

PhD in:

- Mathematics
- Physics
- Chemistry
- Life Sciences

Article 2. Admission

- Admission to the Bachelor's degree program follows the procedures outlined in Article 12 of the "Common Provisions" of the USJ Internal Regulations of Study.
- Admission to the first year of the Master's program is based on a study of the student's application to the Faculty of Science. Admission is subject to an interview with a selection jury on dates set by the Faculty Board. Students from outside the Faculty of Science wishing to enroll in a Master's program in the second year may apply. They must submit their application and attend an interview with the selection jury. If they are admitted, a request for equivalence will be examined by the USJ Equivalence Commission.
- Students holding a Master's degree (M2) from the Faculty of Science or another diploma deemed equivalent by the USJ Equivalence Commission may apply for a PhD on the basis of their qualifications. Admission to the PhD program is governed by the rules and regulations of the Doctoral School of Health and Science and the Doctoral School of Engineering, Science and Technology.

Article 3. Academic Cycles and Course Organization

- The courses offered in each cycle, as well as their description and distribution over the semesters, are published on the Faculty website: <http://fs.usj.edu.lb/>

Article 4. Changes to Registration

- Course registration is completed before classes begin, but students are allowed a two-week period at the start of each semester to adjust their registration, as outlined in Article 20 of the "Common Provisions" of the USJ Internal Regulations of Study. All changes must be approved by the student's advisor. Any withdrawal requests made after the registration period require approval from the Faculty administration.

Article 5. Assessment System

- Any absence from an assessment, other than the final examination, shall result in the grade of zero, unless an exemption is made by the Head of the cycle upon the presentation of a valid written excuse within three working days.

Article 6. Practical Work Sessions

- Practical sessions are compulsory and are graded as part of the corresponding course. Any damage to laboratory equipment resulting from improper handling by the student will be reimbursed on an ad hoc basis.