Faculty of Engineering and Architecture (FEA)
Historical Background

The first programs leading to a master's degree were introduced in 1962. Since then other programs have been added to help meet the growing demand for advanced engineering education. Between October 1990 and October 1994, six new master's degree programs were introduced: the Master of Engineering Management (1990); four programs leading to the degree of Master of Engineering, with majors in computer and communications engineering; electric power engineering; electronics, devices and systems, and environmental and water resources engineering (1991-93); the Master of Mechanical Engineering (1994) with majors in applied energy, materials and manufacturing, or thermal and fluid sciences. In 1998 two additional programs were added, the Master of Urban Design and the Master of Urban Planning and Policy.

In 2007 PhD programs accepted students in three departments of FEA: Civil Engineering (PhD in Civil Engineering and a PhD in Environmental and Water Resources Engineering), Electrical and Computer Engineering (PhD in Electrical and Computer Engineering), and Mechanical Engineering (PhD in Mechanical Engineering).

Mission

The Faculty of Engineering and Architecture (FEA) at the American University of Beirut is a leading professional school in the Middle East. The FEA offers educational programs of the highest standards, advances knowledge through research and scholarly creative work of its
faculty and students, and provides services to the community at large, while addressing the needs of Lebanon and the region. The FEA undergoes continuous improvement to maintain a challenging and intellectually stimulating environment, and prepares its students to be lifelong learners, innovators, and professionals capable of being leaders in their chosen careers, committed to personal integrity, and civic responsibility.

Graduate Programs
Master’s Degree Programs

The Faculty of Engineering and Architecture offers graduate programs of study leading to the degree of Master of Engineering (ME), with majors in civil engineering; environmental and water resources engineering; electrical and computer engineering; and mechanical engineering. The Faculty also offers the degrees of Master of Engineering Management (MEM); Master of Urban Design (MUD); Master of Urban Planning and Policy (MUPP); Master of Science in Environmental Technology (MS); and Master of Engineering (ME), major applied energy.

The requirements for admission to the master’s programs are those specified for the master’s degree in the Admissions section in this catalogue, with the following interpretations and additions:

Deadlines

Applications for admission to graduate study should be submitted to the Office of Admissions according to deadlines set in the Admissions section pages 33–45.

- Applications are considered complete upon receipt of at least two letters of recommendation from professors or supervisors of the applicant, and an official transcript covering at least the end of the first semester of the senior year or its equivalent. In addition, applicants to the electrical and computer engineering graduate programs are required to sit for the GRE General Test.
- All applications may include an application for graduate assistantships. All applications for graduate assistantships received after admission application deadlines will be considered, pending availability.

Process of Admission

- The Office of Admissions forwards applications for graduate admission to the Dean’s Office. The Dean’s Office in turn forwards the applications to the departments. The graduate faculty adviser, the departmental representative on the graduate studies committee, and the chairperson consider each case individually.
- Recommendations for admission and the departmental acceptance letters are forwarded to the FEA Graduate Studies Committee from the Dean’s Office.
- The Faculty Graduate Studies Committee meets in ‘special sessions for admission’ and recommends applicants for admission.
- Upon confirmation of the admission list by the Graduate Studies Committee, the Dean’s Office forwards the list and the departmental acceptance letters to the university Office of Admissions.
• The Office of Admissions prepares and sends the admission packages.
• Students who are accepted must confirm their acceptance of admissions and assistantships within one month. If a student does not respond within this time, the assistantship will be re-assigned.

Criteria for Admission to Master’s Programs
Admission to graduate study offered by the departments of FEA is merit-based and limited to applicants who either hold a bachelor’s degree from AUB or from an approved institution in an appropriate field as specified by the department. Furthermore, such applicants should have completed undergraduate or graduate study that is of sufficient quality and scope to indicate high promise of success in the opinion of the Graduate Studies Committee and the department in which the applicant proposes to study. Admission to graduate study is in one of three categories. The minimum admission standards in all categories are described below. Additional requirements specific to each graduate program within FEA are included in the departmental sections.

Admission as a Regular Student
An applicant is admitted as a regular student if s/he meets the following minimum admission requirements: has an average of 80 for the last two years at AUB or the equivalent at other universities as determined by the Faculty, adequate English proficiency as established by the University, and at least two letters of recommendation from faculty or supervisors familiar with the academic ability of the applicant. An applicant whose last semester’s grades are not included in the application is admitted provided that s/he has maintained an average of 80 for the last two years. The average in all three categories is to be calculated based on all required courses taken during the last two years of the student’s undergraduate studies. If the number of credits taken during the last two years is fewer than 60, previous terms will be considered until this number is at least 60.

Admission on Probation
An applicant is admitted on probation if s/he meets the following minimum admission requirements: an average for the last two years of 75 at AUB or the equivalent at other universities as determined by the Faculty, adequate English proficiency as established by the University, and at least two letters of recommendation from faculty familiar with the academic ability of the applicant. A student whose last semester’s grades are not included in the application is admitted on probation provided that s/he has maintained an average of 75 for the last two years of undergraduate study. In addition, an applicant who does not meet the above minimum requirements but appears to have reasonable potential for success as a graduate student, as manifested by appropriate practical experience or a high score on a relevant standardized exam such as the GRE, may be admitted on probation. A student admitted on probation must complete nine credits of graduate level courses during the first two semesters of graduate studies, must pass all courses, and must attain a minimum cumulative average of 80 to receive regular student status. If the student fails to meet any of these conditions, s/he will be dropped from the program.
Admission as a Prospective Master’s Student

This category is reserved for students applying to graduate study in a field other than that of their undergraduate major. An applicant is admitted as a prospective graduate student if s/he meets the following minimum admission requirements: an average of 75 for the last two years at AUB or the equivalent at other universities, as determined by the Faculty, in their undergraduate study; demonstrated competence in courses related to the field being sought; adequate English proficiency as established by the University; and at least two letters of recommendation from faculty members familiar with the academic ability of the applicant. The Graduate Studies Committee shall act on the admission of prospective graduate students upon the recommendation of the department or program of the intended major. The department or program of the intended major recommends the supplementary undergraduate courses the applicant must take before s/he may be considered for admission, to graduate work, by the Graduate Studies Committee. Upon the completion of the supplementary undergraduate courses with an average of at least 80, the department or the academic unit may recommend to the Graduate Studies Committee admission of the applicant to the graduate program. The supplementary courses must be completed within four consecutive semesters, excluding summers.

Academic Evaluation

- A student admitted on probation must complete nine credits of graduate level courses during the first two semesters of graduate studies, must pass all courses, and must attain a minimum cumulative average of 80 to receive regular student status. If the student fails to meet any of these conditions, s/he will be dropped from the graduate program.
- A student is placed on probation if s/he attains a cumulative average of 70 or more, but less than 80. This probation is removed at the end of the following term by the attainment of a cumulative average of at least 80. If the student fails to remove the probation, s/he will be dropped from the graduate program.
- A student is dropped from the graduate program if s/he attains a cumulative average of 70 or more, but less than 80, in any term and fails one course in that term. (This rule does not apply to the first term of study.)
- A student is dropped from the graduate program if s/he attains a cumulative average of less than 70 or fails two courses in one term.
- A student who fails the comprehensive examination twice will be dropped from the program.
- A student who accumulates two consecutive failures in the seminar course will be dropped from the Faculty.
- A student dropped from a graduate program will not be allowed to re-enroll in the same program at any future date.

Regulations for Master’s Students taking Undergraduate Courses

- Master’s-level students who are required to take undergraduate courses must obtain a grade of at least 70 in each undergraduate course taken.
• If a student fails to obtain a grade of 70 in any of these undergraduate courses, the student is allowed to repeat that course only once.

• Failure to meet the requirements stipulated above will result in the student being dropped from the graduate program.

**English Requirements for Master’s Students**

Applicants to the graduate program, other than AUB graduates and graduates of recognized colleges or universities in North America, Great Britain, Australia, and New Zealand, must meet the English Language Proficiency Requirement (ELPR). Please see the Admissions section of the Graduate Catalogue for details regarding the ELPR. *Please note that students who score below 81 on the Internet-based TOEFL (or 213 on the Computer-based TOEFL, or 550 on the Paper-based TOEFL, or 475 on the EEE) will not be admitted.*

**Graduation Requirements**

To be eligible for graduation with a master's degree from the Faculty of Engineering and Architecture, a graduate student must have

• completed the credit hours of course work required by the program;

• passed a comprehensive examination;

• completed thesis or project requirements, as appropriate;

• met the residence requirements specified for the master's degree in the section on admissions in this catalogue; and

• satisfied the faculty regarding the adequacy of the student's professional development and conduct.

**Comprehensive Examination**

The comprehensive examination should be taken as soon as the student completes most of the course requirements and not later than the second week of the term in which the student is expected to graduate. A student who does not pass the comprehensive examination may take it a second time after a period of at least three months.

**Curricula and Courses**

The curricula and courses offered in each department are presented in the appropriate sections of this catalogue.

**Courses Open to Students from Other Faculties**

Students from other Faculties are allowed to take any course for credit offered by the FEA, provided space is available, the prerequisites are satisfied, and the student has prior approval of both his/her Faculty and the department offering the course.
Doctor of Philosophy (PhD) Programs

The Faculty of Engineering and Architecture offers graduate programs leading to the degree of Doctor of Philosophy (PhD) with specializations in civil engineering, electrical and computer engineering, environmental and water resources engineering, and mechanical engineering.

Criteria for Regular Admission to PhD Programs

Candidates for a doctoral degree program must hold a master’s degree or its equivalent and must demonstrate outstanding academic ability (minimum average of 85 or its equivalent) at the master’s level, as well as the potential to conduct scholarly research. Additional specific requirements for each program can be found in the departmental sections of this catalogue. Application to the doctoral program will follow the deadlines set by the Admissions Office. All applicants are required to take the General Exam part of the Graduate Record Examination (GRE) and submit their scores. Students other than AUB graduates and graduates of recognized colleges or universities in North America, Great Britain, Australia, and New Zealand must meet the English language proficiency requirements described for Master’s students.

Admission to a PhD program requires the recommendations of a department, the FEA Graduate Studies Committee, and the approval of the AUB Board of Graduate Studies.

Criteria for Admission to the Accelerated PhD Programs

To apply to the accelerated program, students must have an average in their undergraduate work of 85 or above. This applies to the average in the major as well as the cumulative average.

In addition to meeting the requirements described in the General University Academic Information Section of the AUB catalogue there may be specific requirements described in the departmental sections of the catalogue.

Financial Support Available to Graduate Students

The FEA offers three types of financial assistance to the most qualified applicants to its graduate programs: fellowships, graduate research assistantships (GRA), and graduate teaching assistantships (GA).

The students who receive financial support are expected to maintain a high level of academic performance, satisfactory progress toward a degree, and a satisfactory performance of the work assignments associated with the aid.

Fellowships, GRAs, and GAs, covering tuition and stipends are available for students at the graduate level in return for assisting faculty members in teaching and/or research for a specified number of hours per week in an academic department. Recipients are selected on the basis of their academic record and departmental need. Applications may be obtained from the FEA Dean’s Office and should be submitted prior to the beginning of the semester (see deadline on the FEA webpage).