

# BSc in Electrical Engineering

## Program description:

The BSc Program in Electrical Engineering is designed to give students a thorough understanding of the tools, methods, applications and practice of electrical engineering. It is both theoretical and practical in its orientation, with the goal to provide an education that is directly applicable to positions in industry.

The program has an integrated curriculum. Out of the 210 credits to earn during the 7 semesters, 80 credits are dedicated to electrical engineering and the underlying knowledge. On one hand, this is provided through lecture courses for the apprehension of the theoretical background. On the other hand, there are plenty of practical and laboratory courses for acquiring the necessary proficiency and skills. Furthermore, the curriculum contains English language courses (6 credits) and basic studies in economics (10 credits). In addition to these compulsory subjects, 10 credits are to be obtained from elective subjects related to the field, and 4 credits from electives in human and economic sciences.

The first 4 semesters of the program comprise mainly foundation and core engineering subjects. The last 3 semesters also include specialization subjects, laboratory work and project work. Besides, the economics subjects and the electives are to be taken during this period. In the 7th semester, students should write a thesis as well. To earn the degree, they have to take a final exam and defend their thesis.

Students can choose from the below *specializations* to study from the 5th semester:

- “Sustainable Electric Energetics” covers the design and safe operation of electrical energy transmission and distribution systems, the design and operation of electric machines, and operational principles and applications of low and high voltage switching devices.
- “Embedded and Control Systems” focuses on computer-based and application-oriented systems, which operate autonomously and have intensive information exchange with their physical-technological environment.
- “Infocommunication Systems” is concerned with telecommunication and computer network-based applications (voice, data, image, video, multimedia and composite social information systems).

## Entry requirements:

- 1) Completed SECONDARY-school studies with an overall result of min. 70%. This should be proven by a leaving CERTIFICATE (high-school diploma) AND the TRANSCRIPT of all corresponding records.  
Applicants still at school should upload, IN ADDITION to the transcript, an official certificate of the EXPECTED date of graduation.
- 2) Appropriate knowledge of ENGLISH, proven by *EITHER*
  - a) a recent certificate of an internationally recognised, INTERNATIONAL language EXAM of overall B2 level, covering ALL the 4 basic SKILLS (reading, listening, writing, speaking), as detailed below\*;

OR

  - b) an official medium-of-INSTRUCTION certificate of the SECONDARY-school studies (only if the FULL programme is given in English)\*\*.
- 3) Sufficient knowledge in MATHEMATICS and PHYSICS, proven at online TESTS during the admission procedure. (There is a minimum entry score set for both tests respectively.)

\* **ONLY** the following language exams and results are accepted:

- IELTS min. 5.5
- TOEFL IBT min. 80
- Cambridge FCE min. 162
- Pearson PTE min. 51

Exams of LOCAL language schools or educational institutions or NATIONAL organisations are **NOT** accepted as proof of English proficiency!

LATER uploading of the language exam certificate is accepted **ONLY IF** at the application, it is substituted by a **DECLARATION** of the planned exam!

\*\* The medium-of-instruction certificate **CANNOT** be uploaded later!

### **Admission procedure:**

During the admission procedure, applicants should write an online test both in mathematics and physics. (The language of the tests is English.) Practice tests are available beforehand.

During the selection process, both the admission test results and the submitted documents are evaluated.

#### *Selection criteria:*

- the scores at BOTH TESTS should reach the entry minimum\*;
- the LANGUAGE CERTIFICATE should be uploaded on time and should be appropriate\*\*;
- the SECONDARY-SCHOOL documents (transcript + leaving certificate (diploma) OR certificate of expected graduation date) should be uploaded on time and should show an overall result of min. 70%.

\* Applicants whose score is just below the entry minimum in EITHER test can be accepted to the Pre-Engineering Programme, if they have proper documents uploaded.

#### *\*\* Accepted language certificates:*

a) medium-of-INSTRUCTION certificate of the SECONDARY-school studies done FULLY in English → **only IF** uploaded AT THE APPLICATION;

OR

b) *EITHER* of the below exam certificates → **only IF** the CERTIFICATE itself, OR a substitute DECLARATION is uploaded AT THE APPLICATION:

- IELTS overall band score min. 5.5
- TOEFL IBT min. 80
- Cambridge FCE min. 162
- Pearson PTE min. 51

**NO** certificates of LOCAL or NATIONAL language exams are accepted!

### **Contact:**

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