

ELECTRICAL ENGINEERING, BSc



SHORT DESCRIPTION

The aim of the program is to provide a comprehensive education that prepares students for a successful engineering practice and/or advanced studies. Students learn about the basic physical laws governing our environment, material science and technology at the macro- micro- and nanometer level, as well as mathematics and informatics. They acquire practical knowledge in computer engineering and electronic technology, microelectronics and energy systems, optical materials and automation. Apart from basic and applied knowledge, students will be trained in e-commerce, planning, solving and managing problems efficiently.

During the first year, the BSc program offers introductory and advanced courses in Mathematics, Physics, Informatics, Materials Science, and Chemistry that provides a basis for the next step. In the Advanced Professional Module, the focus is on Electronics, Programming, Digital Techniques, Automation, Electricity and Magnetism, Measuring Technology and Energetics. Optional Professional Subjects are selected according to the two specializations (Infotechnology and Automation) which start in the last three semesters: Photonics, Nanotechnology and Nanoelectronics, Digital Signal Processing, Electric Drives, Sensors, PLC, Power Electronics. The courses on Environmental Studies, Economics and Management, Civil Law and Intellectual Properties support the development of management skills. In the last three semesters, students work in elective laboratories, have a four-week training at factories and conduct their thesis research, based on different research programs and co-operation with industrial partners.

PROGRAM FACTS

- **Program name/academic level:** Electrical Engineering, BSc
- **Institution:** University of Debrecen
- **Faculty:** Faculty of Science and Technology
- **Starting date:** September
- **Duration:** 7 semesters
- **Language requirements:** English language proficiency (TOEFL 513 /IELTS 5.5/oral examination)
- **Academic requirements:** high school certificate; Mathematics and Physics (written and oral)
- **Tuition Fee:** 5.500 USD/year
- **One time fees:** application fee 150 USD, entrance examination fee 350 USD

