Biomedical

TAUGHT IN FRENCH

Angers

/ AIMS

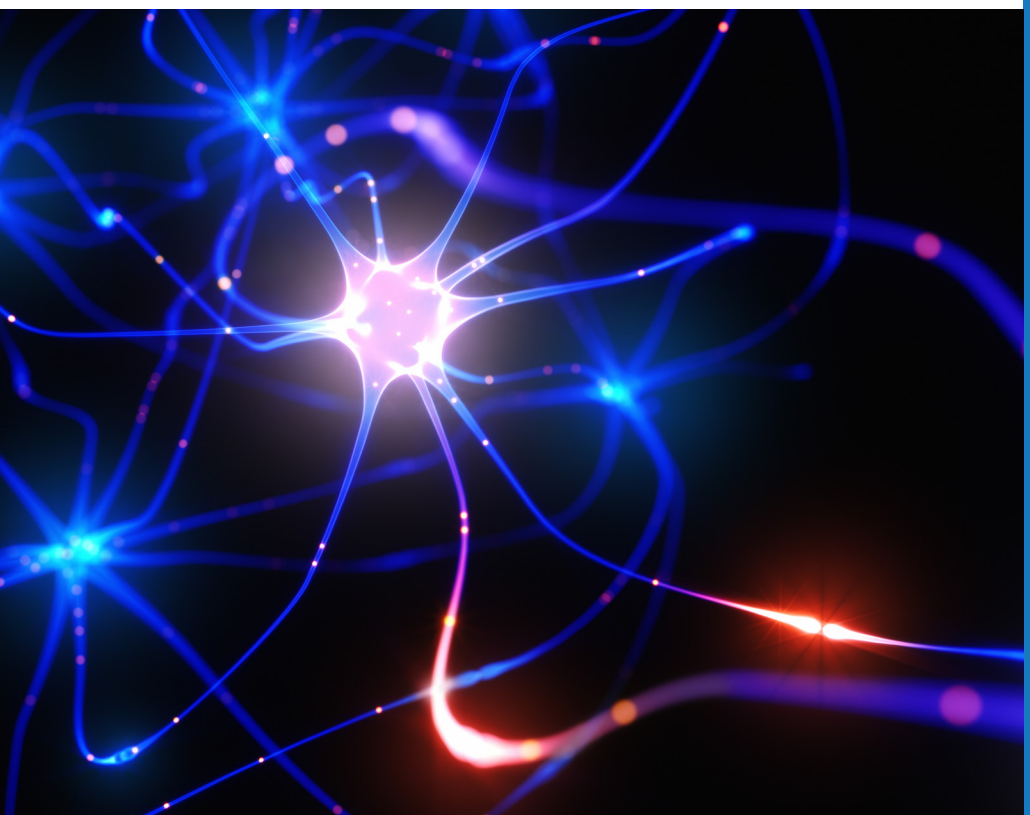
The Biomedical major aims at training electronic and computer engineers in the fields of biology and medicine. Their mission is, amongst other things, to bridge the gap between scientists and medical staff due to their solid grounding in science and technology and their understanding of the healthcare environment. This cross-disciplinary course focuses on acquiring, processing and analysing physiological data. Some missions may involve helping a practitioner to make a better diagnosis or improving a patient's well-being through technology.

/ ACQUIRED SKILLS

This multi-disciplinary major builds on the school's traditional skills and expertise in electronics, embedded systems, signal and image processing, IT as well as artificial intelligence. A solid grounding is also provided in the field of life sciences such as biology, physiology or anatomy. Special attention is paid to the working knowledge of the hospital system and its organisation, including its regulatory and legislative aspects.

/ CAREER OPPORTUNITIES

The targeted career opportunities and business areas for Biomedical students range from health establishments such as University Hospitals and clinics to large corporations in the medical sector like General Electric, Siemens or Philips as well as SMEs/SMIs and biomedical engineering research centres. You will access positions such as junior consultant, technical sales engineer and many more.as well as with SMEs and biomedical engineering research centres.
Some possible positions: Junior Consultant, Technical Sales Engineer etc.



COURSE UNITS

/ SEMESTER 8

- **Basic Knowledge in Biosciences:** 28 hrs - 2.5 ECTS
- **Image Processing:** 28 hrs – 2.5 ECTS
- **Tomography:** 28 hrs – 2.5 ECTS
- **Biosignals and Acquisition:** 56 hrs – 5 ECTS
- **Signal Processing:** 56 hrs – 5 ECTS
- **C++:** 28 hrs – 2.5 ECTS
- **DataScience:** 28 hrs – 2.5 ECTS
- **English:** 28 hrs – 2.5 ECTS
- **Transversal Skills:** 28 hrs – 2.5 ECTS

+ 1 Course Unit from:

- **Android Development:** 28 hrs – 2.5 ECTS (ES major)
- **Relational Databases:** 28 hrs – 2.5 ECTS

/ SEMESTER 9

- **Final Year Project:** 252 hrs - 20 ECTS
- **Medical Imaging:** 28 hrs – 2 ECTS
- **Health Information Technology:** 28 hrs - 2 ECTS
- **Conferences:** 28 hrs – 2 ECTS
- **Deep Learning:** 28 hrs - 2 ECTS
- **Data Acquisition:** 28 hrs – 2 ECTS