

University Bachelor of Technology (B.U.T.)

Applied Physics (MP)

The objective of the **Applied Physics B.U.T.** is to train multi-task qualified technicians who will carry out and process measurements after a three-year course: they will rely on a wide range of knowledge in fields such as **physics, chemistry, materials science, electronics and computer science**, as well as skills centred on industrial monitoring, metrology, instrumentation (laboratory tests, assays, research and development...), characterization of physical and physico-chemical quantities and environmental measures.

With 26 weeks of internship over two years, opportunities for work-based training, over 800h of practical work and 600h dedicated to projects, this training course offers a **direct connection with the industry, research and expertise fields**.

Applied Physics B.U.T. graduates are therefore able to practise their professional activity in any secondary sector companies as well as in some tertiary sector (in fields such as energy, motor and space industries, aeronautics, chemistry, pharmaceutical industry, food, processing, biomedical industry...). They are equipped to consider various further studies options, notably within engineering schools.

Study tracks

• Instrumentation techniques study track:

Graduates have expertise in designing and implementing a measurement and instrumentation chain.

Their study track equips students to adapt to test laboratories and industrial monitoring in any company of the instrumentation sector.

Career prospects:

Scientific instrumentation technicians, measurement chain design technician, measurement instruments supervisor

• Materials and physico-chemical monitoring study track:

Graduates have expertise in material characterisation and physico-chemical control.

Their study track equips students to adapt to companies and organizations with test and control laboratories focused on materials or physico-chemical analysis departments.

Career prospects:

Materials characterisation technician, physico-chemical control technician, industrial analysis technician

• Measurements and environmental study track:

Graduates have expertise in environment control, monitoring and analysis and provide sustainable solutions within the frame of measurements implementation.

Their study track equips students to adapt to survey and control organizations focused on environmental quality, environmental analysis laboratories, companies whose activity is linked to environment and energy production fields.

Career prospects:

Environmental measurements technician, pollution analysis technician, environment technical executive

Skills

The purpose of this training course is to equip Applied Physics B.U.T. students with five core skills:

- **Conducting** a measurement campaign
- **Applying** metrology and quality processing
- **Implementing** a measurement and instrumentation chain
- **Characterising** physical and chemical quantities as well as the properties of a material
- **Defining** measurement specifications within an environmental approach

Entry requirements

The Applied Physics B.U.T. is open to high school graduates from **general or technological backgrounds** or to those changing study path.

Admission is based upon examination of academic records. When considering applications, some departments might require an interview. The B.U.T. can also be prepared within the Lifelong education scheme or on a vocational basis (apprenticeship training or work-based learning). The diploma can also be delivered on Accreditation of Prior Experiential Learning (APEL).

B.U.T. Applied Physics in France

