

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

Energy Transition and Energy Efficiency (MT2E)

The **Bachelor of Technology Energy Transition and Energy Efficiency** is a three-year undergraduate degree programme intended to train future thermal energy senior technicians, consultants or middle managers working in building and industrial fields. Graduates are versatile and gain strong technological skills, they can work in energy generation, supply and use.

Graduates are able to size, optimize, perform on-site installation coordination, operate and maintain Building Services facilities, Heating, Ventilation and Air Conditioning facilities, Refrigeration facilities, Renewable Energy facilities, Industrial Utilities and District Heating networks... Graduates' focus is on energy efficiency, energy saving, renewable energy use and waste heat recovery. They apply their technical skills to suggest energy saving and low environmental impact solutions for companies or clients. They are players in energy transition and can address energy climate challenges.

Study tracks

- The **Energy optimization for buildings and industrial processes study track (OPTIM)** equips graduates to conduct energy audits, recommend solutions to optimize the energy and environmental performance of buildings-Building Envelope, lighting, heating, ventilation, air-conditioning (HVAC) solutions, and of industrial utilities-steam, superheated water, chilled water, compressed air.

Career prospects:

Thermal fluid design engineer, renewable energy consultant, industrial and commercial refrigeration consulting engineer, energy saving consultant, energy retrofit consultant

- The **On-site installation coordination for buildings and industrial processes facilities study track (REAL)** equips graduates to manage a project, perform HVAC installation coordination in buildings and industrial utilities from bidding to supervising HVAC work completion.

Career prospects:

HVAC sales engineer, HVAC plumbing and fire protection sales engineer, HVAC installation sales engineer, HVAC installation coordinator, energy retrofit coordinator

- The **Energy management for buildings and industrial processes facilities study track (MANE)** equips graduates to implement and use Energy Management Systems (EMS) to monitor, analyse and improve Energy Performance of Buildings and energy efficiency in industrial utilities.

Career prospects:

Energy assessor, technical operations manager, fluid power technician, HVAC design engineer, sustainable buildings engineer

- The **Operation and maintenance for Building services and industrial processes study track (EXPLOIT)** equips

graduates to operate energy facilities, i.e. maintain and ensure HVAC facilities in buildings and industrial utilities properly operate, are energy efficient and comply with environmental regulation.

Career prospects:

HVAC operation manager, energy operation manager, District Heating project manager, Refrigeration operation manager, renewable energy operation manager

Skills

The course programme focuses on four core professional skills within the energy field at different levels, depending on chosen the study track:

- **Sizing**
- **Optimizing**
- **Performing**
- **Operating**

Entry requirements

This course is open to high school graduates from **general** and more especially from **technological (STI2D) backgrounds** without ruling out students from vocational backgrounds or with an equivalent degree.

It can be suitable for students **wishing to change degree programme**.

It can also be prepared within the Lifelong education scheme or in apprenticeship (apprenticeship training or work-based learning). The diploma can also be delivered on Accreditation of Prior Experiential Learning (APEL).

B.U.T. Energy Transition & Energy Efficiency in France

