

University Bachelor of Technology (B.U.T.) Social Careers (C.S.)

The **Bachelor of Technology in Social Careers** prepares for occupations that are developing in connection with the evolution of society and the issues it encounters, by focusing on personal and collective development, as well as on reducing cultural, social, environmental and territorial vulnerabilities.

These occupations are currently in high demand within difficult economic and social conditions, where inequalities are growing (in terms of employment, housing, education, culture, health, environment, etc.).

Study tracks

- The **Social and Socio-Cultural Animation study track** trains skilled professionals who will be able to design and implement personal and collective development projects focusing on a local population on a given territory. The coordinators use – cultural, education, sports, etc – materials to build up activity projects intended for publics of various age groups, origins, etc.

Skills

- Analysing society's challenges in relation with professional fields
- Building partnership dynamics
- Strengthening the public's individual and collective capacities for action
- Implementing educational approaches and animation techniques in a project approach
- Contributing to the development of the professional field of animation

- The **Special Needs Education study track** trains skilled professionals who, in a global educational and social approach, will be able to support individuals, groups or families in difficulty in the development of their capacities for socialization, autonomy, integration or inclusion.

Skills

- Designing interventions adapted to the challenges of society / Analyzing the challenges of society in relation with the professional fields
- Building partnership dynamics / networks
- Establishing a relationship conducive to educational work
- Adapting the support to the issues and specificities of the public
- Managing an educational project
- Team working

- The **Social Assistance study track** trains skilled professionals who will be able to work in partnership with public or private institutions in the social and medico-social sector and act as interfaces between them and the public.

Skills

- Designing interventions adapted to the challenges of society / Analyzing the challenges of society in relation with the professional fields
- Building partnership dynamics / networks
- Establishing an individual and/or collective relationship of social support
- Developing and transmitting information within an ethical and deontological framework

- The **Coordination and Management of Health and Social Institutions and Services study track** trains skilled professionals who, by the end of their training, have all the intervention skills and methods expected by the structures of the sector in terms of middle management and social and medico-social support.

Skills

- Designing interventions adapted to the challenges of society / Analyzing the challenges of society in relation with the professional fields
- Building partnership dynamics / networks
- Leading a project for health and social institutions and services
- Building adapted supports
- Providing supervision and coordination

- The **Sustainable Cities and Territories study track** trains skilled professionals involved in territorial policies to improve the living environment of the inhabitants of a territory. They participate in setting up projects between institutions and citizens. They mobilize different local actors on issues as diverse as urban renewal, access to housing, cultural development, economic revitalization, public spaces development, mobility, or prevention...

Skills

- Designing interventions adapted to the challenges of society / Analyzing the challenges of society in relation with the professional fields
- Building partnership dynamics
- Developing territorial diagnoses
- Communicating with the publics and territorial actors
- Leading projects for territories in transition

Entry requirements

This program is mainly intended for STMG **technological baccalaureate holders**, but does not exclude other specialties, and holders of **general and vocational baccalaureates or equivalent diplomas**. It is also suitable for higher education students wishing to change study path.

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).

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

Corporate and Administration Management (GEA)

The **University Bachelor of Technology in Corporate and Administration Management** aims to train multi-skilled managers who are capable of understanding legal, digital, economic and social environments on a national and/or international level. The aim is to provide these managers with in-depth knowledge of the law, accounting and tax techniques, as well as of management, to enable them to contribute to the running of organisations at every stage of their development. It also concerns training professionals ready to take on the latest challenges of organisations with regards to sustainable development, their social responsibility and ethics, as well as technological change.

Study tracks

- The **Accounting, Tax and Financial Management study track (GC2F)** allows students to work in accounting firms or in the accounting and finance department of an organisation.

Career prospects:

Accounting manager, management auditor in a company, tax controller or inspector in the civil service, inspector in the civil service (competitive examination), URSSAF controller or inspector, public accounting manager, management assistant, assistant to the chief accountant in a company or association, junior legal or contractual auditor in a company

- The **Management Control and Performance Management study track (CG2P)** enables students to work in the management control departments or in the accounting and finance departments of organisations.

Career prospects:

Business management analyst, assistant management controller, CFO assistant, commercial management controller, financial management controller, junior management or industrial or social or logistical or banking controller, operational manager, head of reports and dashboards, junior auditor, quality controller

- The **Human Resources Management and Leadership study track (HRM)** enables students to work as human resources assistants in organisations.

Career prospects:

Payroll assistant/manager, training assistant/manager, recruitment assistant/manager, personnel administration assistant/manager, career manager, recruitment officer, human resources officer, employment and professional integration advisor, internal communication assistant, diversity/disability officer

- The **Management, Entrepreneurship and Activity Management study track (GEMA)** enables students to carry out a variety of management functions in organisations linked to operational marketing that may lead to the creation or takeover of an activity.

Career prospects:

Assistant product manager, research officer, multi-skilled manager, community manager, business founder, managerial assistant, assistant project manager, assistant in charge of internal or external communication, marketing or e-marketing assistant (SEM/SEO), sales assistant, client account manager

Skills

The aim of this course, built on a multidisciplinary base of general and technical knowledge, is to equip students with such skills as:

- Assisting in managerial decision-making
- Analysing the processes of the organisation within its environment
- Identifying and evaluating performance criteria
- Establishing legal, tax and accounting procedures
- Identifying and measuring value creation
- Overseeing the management of human resources within organisations
- Understanding project management and the entrepreneurial approach
- Contributing to the implementation of an efficient information system
- Building a critical analysis

Entry Requirements

This program is mainly intended for **STMG technological baccalaureate holders**, but does not exclude other specialties, and holders of **general and vocational baccalaureates** or equivalent diplomas. It is also suitable for higher education students wishing to change career path.

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

Civil Engineering- Sustainable Construction (GCCD)

The **B.U.T. GCCD** trains future middle management professionals in the fields of **Construction and Civil engineering/Public Works (BTP)**, both in **Building Design** and **Construction**. The core skills studied target the whole construction process: from building foundations to installation of technical components, from structural engineering to questions of thermal, acoustic and visual comfort, from choice of materials to the definition of construction techniques, from groundwork to road layouts and works of art.

The course takes the technical and methodological changes linked to energy transformation, environmental requirements, the digital revolution and health and safety issues into account. Notions such as **sustainable construction** and the generalisation of the **BIM approach** (Building Information Modelling) are thus omnipresent in the course content.

Study tracks

- The **Building study track** aims to train technicians who will work in the construction phase of buildings.

Career prospects:

Construction site manager, new building site manager, clerk of works all trades, business manager all trades, property developer programme manager, SPC coordinator, and health and safety officers

- The **Civil engineering study track** aims to train technicians who will work in the construction phase of a Public Works project.

Career prospects:

Site manager (highways-diverse networks), site manager roads, pipe networks site manager, public works clerk of works, highways manager, public works technician, railway operations and maintenance technician, local authorities' technician, and QA manager materials

- The **Building restoration and environmental performance improvement study track** aims to train technicians who will work in building restoration projects targeting improvement of environmental performance.

Career prospects :

HVAC account managers (Heating-Ventilation-Air-conditioning), energy performance assessor, fluids technician, consultant and auditor for energy savings, site manager technical equipment, design office assistant-thermal studies, environmental quality technician for buildings

- The **Design Office study track** aims to train technicians who will work in the design phase of a building or public Works/Civil engineering projects.

Career prospects :

BIM technician, designer/drafter, structural designer, contractor's assistant, assistant design office engineer, design office fluids and thermal studies technician VRD-QS and draughtsman, lab trials technician, and quality management technician

Skills

The training course develops 5 professional skills:

- **Developing technical solutions** for part or the totality of a **Construction project**.
- **Developing technical solutions** for part or the totality of a **Civil engineering project**.
- **Structural sizing** for buildings and equipment.
- **Managing** a construction site.
- **Carrying out the technical supervision of a construction** throughout its lifecycle.

Entry requirements

The B.U.T. GCCD is open to high school graduates from **general** and more especially from **technological (STI2D) backgrounds** without ruling out students from other options or students wishing to change degree programme.

Admission is based upon examination of academic records. When considering applications, some departments might require an interview.

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).

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

Mechanical & Manufacturing Engineering (GMP)

The **B.U.T. GMP** trains mechanical engineering industry technicians who are able to work in diverse business sectors to ensure the commercialisation of new products through the first three phases of their life cycle: the design phase during which the product is defined, the industrial phase where manufacturing and assembly processes are developed, and finally the operational management phase where production and assembly lines are managed and optimised. Such versatility enables graduates to better adapt to changing corporate requirements and to the professions of tomorrow. They are involved in the engineering process, from the definition of customer needs to the implementation of technological solutions which comply with deadlines as well as cost and quality constraints.

B.U.T. GMP graduates work as industry consultants or proximity design, manufacturing, or operations managers. For the three positions, they are required to implement problem-solving and continuous improvement techniques in the mechanical engineering field and work alongside a host of industry stakeholders.

Skills

The course aims to develop 4 core skills required by industry in three professional situations: product design, product manufacturing and operations management.

The common core skills include:

- Defining and specifying: determining the best technical and economic requirements and solutions based on the client's needs
- Developing: determining optimal design solutions
- Manufacturing: implementing the chosen technical solutions
- Operating: managing product life cycles and manufacturing processes

An additional fifth skill is linked to the study track chosen.

Study tracks

From year 2, students choose a study track which enables them to acquire an additional fifth skill. The latter provides the opportunity to gain in-depth knowledge in a more specialised field or to move into a new field related to mechanical engineering. There are five different study tracks (depending on the IUT).

- The **Innovation for Industry study track** aims to train general technicians in the field of mechanical engineering to have expertise in creative tools and techniques, further innovation and understand industrial property rights.

Career prospects:

Pre-project R&D assistant, assistant designer, industrial property rights assistant, technology monitoring assistant

- The **Digital simulation and virtual reality study track** aims to train mechanical engineering technicians with additional preparation on the implementation of digital tools for advanced simulation, from virtual and augmented reality through to digital twin.

Career prospects:

R&D assistant, digital designer-modeller, process simulation technician, production systems simulation assistant

- The **Operations process management study track** aims to train general technicians in the field of mechanical engineering with additional training in workforce management, to act as the interface between different corporate departments throughout the product's lifecycle.

Career prospects:

Project manager, team leader, production manager, (workstation, line, workshop, plant, etc.), quality department manager

- The **Sustainable design and manufacturing study track** aims to train general technicians in the field of mechanical engineering to have awareness and expertise on environmental issues in industry.

Career prospects:

Environment manager, sustainable development manager, change manager, environmental and regulatory affairs manager, eco-designer, environmental and circular economy monitoring assistant

- The **Industrial business manager study track** aims to train general technicians in the field of mechanical engineering with additional training in marketing and sales management.

Career prospects:

Technical business manager, bespoke technical solutions sales manager, starting a new company or acquiring an existing firm

Entry requirements

The B.U.T. GMP 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).

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).

Quality, Logistics and Industrial Organisation (QLIO)

The **Bachelor of Technology in Quality, Logistics and Industrial Organisation** focuses its training on the organization of the production of goods and services, the management of physical and information flows and the control of the quality of products and processes. Graduates with a B.U.T. QLIO work in both the industrial and service sectors.

Skills

The common skills to the core activity developed during the B.U.T. QLIO are:

- **Managing the company using quality tools and standards**

In the context of change management, the graduate guarantees that the requirements of a quality standard are respected and is able to control and manage the company using quality tools and standards.

- **Managing physical and information flows**

In the context of production management, and using a continuous improvement approach, the graduate is able to improve the circulation of flows in order to make a production system more efficient.

- **Organising the production of goods or services**

In the context of the implementation of a production system and project management, the graduate is able to make a production system evolve.

These skills aim to improve performance and ensure the operational excellence of companies producing goods and services.

Career prospects :

Technician or manager in the following fields: production management, planning, scheduling, quality control, procurement, inventory management and continuous improvement.

Study tracks

- The **study track in Management of the production of goods and services** focuses on the management of a team in production, logistics or quality. It thus integrates two dimensions: **a technical dimension** focused on performance management and flow optimisation, taking into account the issues of quality, costs, deadlines, safety, environment and sustainable development & **a human dimension** centred on leading and improving the activities of employees and on team dynamics, by encouraging collective intelligence and the development of skills.

Career prospects :

Production manager, autonomous production unit manager, workshop manager.

- The **study track in Digital Transformation Support** focuses on supporting the digital transformation of the company by organising and managing its production processes using permanent technological innovations (cobotics, arti-

ficial intelligence, Big Data, augmented reality, connected devices, etc.).

Career prospects :

Logistics platform manager, logistics information system planner, supply chain manager

- The **study track in Digital Transformation Support** focuses on supporting the digital transformation of the company by organising and managing its production processes using permanent technological innovations (cobotics, artificial intelligence, Big Data, augmented reality, connected devices, etc.).

Career prospects :

ERP software configuration technician, IT project manager, information systems architect, information system auditor, coordinator - integrator of digital processes, data manager.

- The **Managing Quality and Integrated Management Systems** study track focuses on the organisation, diagnosis and improvement of company activities in the fields of Quality, Hygiene, Safety, Health, Environment and Sustainable Development. The aim is to design and implement a quality policy that takes into account the aforementioned dimensions, and which is in line with the company's strategic orientations. Another important goal is to support and prepare the company for the monitoring and/or obtaining of certification standards.

Career prospects :

QHSE coordinator, QHSE project manager, risk prevention manager/advisor, food health and safety manager, environment/sustainable development manager.

Entry requirements

The QLIO 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).