

The Biological and Food Engineering specialization (now GBA, formerly STIA), is a Master's-level program that trains generalist engineers for professions in Food and biotechnology activities, with awareness on sustainable development issues and the ability to adapt to different corporate cultures.

#### **KEYWORDS**

BIOCHEMISTRY AND PHYSICO CHEMISTRY BIOPROCESSES AND FOOD TECHNOLOGY SUSTAINABLE DEVELOPMENT FORMULATION – BIOLOGICAL ENGINEERING – AND BIOTECHNOLOGY INNOVATION – NUTRITION – INDUSTRIAL OPTIMIZATION – PRODUCTION QUALITY – FOOD SAFETY

### ALL POLYTECH PROGRAMS LEVERAGE A SOLID PARTNERSHIP NETWORK WITH:

- The industrial world (800 internships, 200 industry projects, and 50 apprenticeship contracts per year)
- Academic research (14 associated research laboratories)
- International partners (over 100 partner universities around the world)

#### 5<sup>th</sup> YEAR SPECIALIZATION

GBA students may choose between technological innovation and industrial optimization, quality, safety and environment, or production management. They may also complete their 5<sup>th</sup> year abroad at European and international partner universities.

### TARGET PROFESSIONS

### When GBA engineering students graduate:

they have acquired a solid foundation in biology, biochemistry, chemical physics, nutrition, biological engineering, and process engineering.

they have strong knowledge of bio-processes and food technologies. They are capable of designing food and biological matrices taking into account sanitary, organoleptic, and nutritional aspects.

they can manage the technical, human, and economic aspects of projects for biological and food-related products and processes. They also know how to optimize and innovate while respecting regulations and sustainable development.

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### Graduates are qualified for many jobs:

- →Research and Development Engineer (R&D)
- → Production Management Engineer
- →Quality and Environmental Security Engineer (QSE)
- →Sales and Technical Engineer
- →Supply Chain Engineer
- →Marketing Engineer



- Food and biological industries: approximately 65% of jobs
  Pharmaceutical industry and cosmetics sector: approximately 15% of jobs
- **Commerce and distribution:** approximately 10% of jobs

Atelier

in bria

Shutt

Camille Boulicault for Campus Communicat

Groupe Archimède -

Photos:

# MAIN PROGRAM TOPICS

- ightarrowbiology and microbiology
- $\rightarrow$  biochemistry and chemical physics
- →nutrition
- ightarrowbiological engineering
- $\rightarrow$ process engineering
- $\rightarrow$ food technologies
- ightarrow decision-making tools and methods
- →computer science
- ightarrowhuman and social sciences
- ightarrowmodern languages

A complete list of courses offered at POLYTECH, and total hours, is available on <a href="http://www.polytech-montpellier.fr">www.polytech-montpellier.fr</a>

# PROJECTS AND INTERNSHIPS

Engineering students participate in several internships with companies or research laboratories.

- ightarrow1 month internship at the end of the 3<sup>rd</sup> year
- ightarrow2-3 months internship at the end of the 4<sup>th</sup> year
- ightarrow 5-6 months internship at the end of the 5<sup>th</sup> year

5<sup>th</sup> year students perform an industry project at the end of their studies (300 hours), which places them in a professional context and helps establish their independence.

## STIA" GBA" AND "STIA" GRADUATES

Guilhem Carrier, Site Director, Kerry Foods Ravifruit (STIA 2006) Nelly Dumont, Industrial Director, Biomérieux (STIA 1997) Bruno François, CEO, Aseptic Process (STIA 1982)

Lorence Jeantet, Vice President Global Medical and Quality Danone Nutricia (STIA 1991)

## ADMISSION REQUIREMENTS

### 3<sup>rd</sup> year

- →For students in preparatory classes at higher education establishments: recruitment via Polytech competition.
- →For holders of L2, L3, DUT, BTS, or equivalent foreign diploma: competition via written application and interview.
- →For PeiP2 students (Polytech engineering schools program): after curriculum validation and national ranking.

### 4<sup>th</sup> year

For holders of an M1 degree or equivalent foreign degree: competition via written application and interview.

### Vocational contracts

Students accepted to initial education may complete their 5<sup>th</sup> year with a vocational contract.

### **Continued education**

The Biological and Food Engineering program is also available as certified continued education under some conditions, for employees who can demonstrate at least three years of professional experience related to this specialization.

### STRONG PARTNERSHIPS WITH COMPANIES

## Professionals in the food and biological sector play an important role in the GBA program:

- they help keep program content up-to-date.
- they lead classes and conferences.
- they participate in seminars and round tables organized by the school.
- they are also involved in guiding engineering students in their internships and industrial projects.

The school is an associate member of the Terralia and Qualiméditerranée competitiveness clusters. It has also signed agreements with LRIA and Ecotrophélia France.

 TO FIND OUT MORE +

 More information regarding the number of ECTS, course descriptions, research partnerships, and international opportunities on: www.polytech-montpellier.fr.

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