POLYTECH ANGERS

BIOLOGY AND HEALTH SYSTEMS

Master of Engineering Degree

Engineers in Biology and Health Systems become quickly operational in different fields such as **health care structures, public health organisations, pharmaceutical, cosmetic, biotechnology or agri-food companies, etc.**

Our students acquire scientific knowledge and skills in the field of bioproducts, innovation, quality, risks and project management. Our graduates are able to:

- **Conceive, develop and optimize** innovating processes and products for the health industry
- **Implement appropriate tools and methods for the management** of health structures and projects
- **Set up and develop Quality methods** and optimize logistics
- **Identify and measure risks** related to health activities and environments

POSITIONS

— PROJECT AND ORGANISATION MANAGEMENT
Manager and Assistant Manager of Medical and Health Care establishments – Clinical Research Associate – Biomedical research coordinator

— QUALITY AND LOGISTICS
Quality manager –Risk Management Quality Engineer – Qualification-validation Engineer – Logistics and Flow Manager – Auditor and Quality consultant

— RISK MANAGEMENT
HSE Manager – Risk Manager – Information Systems and/or Operation Manager – Manager in Sanitary Quality of Buildings – Coordinator of Sanitary and Energy Renovation of Buildings

— INNOVATION AND PLANNING
Research Engineer – Project Manager – Product Conception and Development Manager – Production Manager – Regulatory Affairs Manager

FIELDS OF ACTIVITY

— MEDICAL OR HEALTH CARE ESTABLISHMENTS: Clinics, retirement homes, public hospitals: in Management, Quality and Risk Management Department and Clinical Trials

— HEALTH PRODUCTS INDUSTRY: Cosmetics, Pharmaceutical, agri-food, biotechnology, health and nutrition companies: in the Quality, R&D, Logistics, Regulatory Departments

— CONSULTANCY, INSTITUTIONS, PROFESSIONAL BODIES: Quality, Indoor Air Quality, Health and Nutrition Consultant Offices, Health or Audit Agencies, Clinical Trial Companies

More information on www.polytech-angers.fr

Collaborative work by Istia / Com UA / Graphisme/Pao: Catherine Barritault 06 84 78 60 05 - Credit photos@Istia is courtesy of the students - December 2017 - Impression service reprographie UA

CURRICULA

Projects:

- innovation
- real case studies
- cross disciplinary projects
- professional partnerships
- team spirit

3

3RD YEAR

General courses
English – Spanish or German – Sports – Drama – Communication Tools and Methods

Fundamentals in Engineering
Quality Policy (approach, methods and tools) – Project Management – Information Management (Research and information watch, databases, intellectual property, investigation techniques, etc.)– Company Environment (Organisation and management)

Health and Biology Engineering
Hygiene and Hazards (agri-food microbiology, water-air-environment, control, cleaning and disinfection, infectious agents and risks) – Bioproduct Technologies (molecular and immunological detection, immunotechnology, DNA technology, bioinformatics, extraction, purification, conservation, etc.) – French Health Care Systems

Applied Study Project – Individual Professional Project

Internship abroad (3 months)

4

4TH YEAR

General courses
English – Spanish or German – Sports or Drama – Communication Simulation – Law and Regulations – Preparation for Professional Integration

Fundamentals in Engineering
Quality (HSE management, quality management, audits…) – Project Management – Company Environment (HR management, financial and economic management, flow management, strategy, marketing, etc.) – Conception, Innovation, R&D and Production Approaches and Tools (conception-innovation, automated systems, packaging, R&D, production…)

Health and Biology Engineering
Hygiene and Hazards (control, GLP/GMP, qualification, validation, traceability) – Bioproducts Technologies (transformation – formulation, etc.)

3 Specialisation Programs:
- **Innovative Engineering of Health Products (IPPS)**
- **Risk Management in Health Sectors (GRSS)**
- **Management of Complex Processes in the Health Sector (MPCS)**

Applied Study Project – Individual Professional Project

Internship (4-5 months)

5

5TH YEAR

General courses
English – Sports or Drama – Communication and crisis management – Law and Regulations – Preparation for Professional Integration

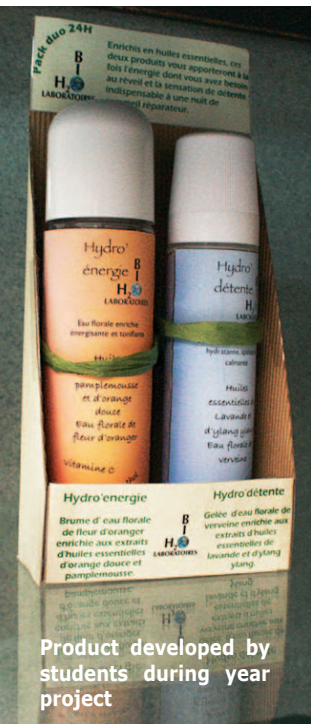
Fundamentals in Engineering
Company Environment (project funding and cost management, change management, etc.) – Conception, Innovation, R&D and Production Approaches and Tools – Reliability, Performance and Risk Management

Health and Biology Engineering - 3 specialisation programmes:
- **Innovative Engineering of Health Products (IPPS)**
- **Risk Management in Health Sectors (GRSS)**
- **Management of Complex Processes in the Health Sector (MPCS)**

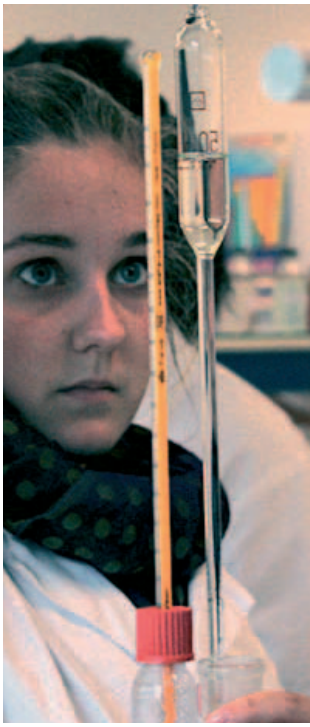
Applied Study Project – Individual Professional Project

Internship (5-6 months)

40%
of trainers are professionals



Product developed by students during year project



3 SPECIALISATION PROGRAMMES

→ Innovative Engineering of Health Products (IPPS)

Sylvanie, Nutrition Regulations , **Yves Ponroy Laboratories**

Cédric, - Senior Project Manager, **Novo Nordisk**

Mathilde, R&D Engineer, **Labeyrie**

→ Risk Management in Health Sectors (GRSS)

Auriane, Information Systems Security Manager, **GCS e-santé Pays de la Loire**

Kevin, HSE Manager, **Vilmorin SA**

Laura, Quality and Risk Management Engineer, **Angers University Hospital**

→ Management of Complex Processes in the Health Sector (MPCS)

Laura, Quality Assurance Manager, **Make-up Forever**

Magali, Clinical Research, Arcagy-Gineco association, **Hotel-Dieu Hospital Paris.**

Florence, Nursing Home Manager, **Emera Group**

université angers

Polytech Angers
International Office
international.polytech@univ-angers.fr | Tel: +33 244 687 542