



Specific courses for Bio-engineering and nanotechnology



CONFÉRENCES ET VISITES

CONFERENCES AND VISITS

Lecturers: **Emmanuelle LAURENCEAU, Virginie MONNIER-VILLAUME**

| Lecturers : 20 | TC : 0.0 | PW : 0.0 | Autonomy : 0.0 | Study : 0.0 | Project : 0.0 | Language : FR

Objectives

The objective is to make students discover the numerous possibilities of jobs linked to the bio-engineering and nanotechnologies fields. The different thematics will be presented in the form of seminars and conferences by researchers and professionals in these fields. Visits of industrial sites (STMicroelectronic, Sanofi-Pasteur, Becton-Dickinson) and research centers (CEA-LETI, CEA-INES, Synchrotron ESRF) will be also organized.

Keywords : Bio-engineering, nanotechnologies, jobs, conferences, visits.

Programme

- Challenges of medical imaging techniques
- Damage to prostheses
- Big-data and genomics
- Large-scale data processing
- The AURA industrial fabric in bioengineering and nanotechnologies
- Clinical trials in silico

Learning outcomes

- Identify/analyze the needs and social-economics constraints linked to health and nanotechnologies.
- Take into account the international dimension of research in bio- and nanotechnologies.
- Adopt a global vision and apprehend the field into its complexity.
- Enlarge scientific and technical knowledge.

Independent study

Objectifs : This activity is not concerned with framed autonomy activities outside personal work.

Méthodes : This activity is not concerned with framed autonomy activities outside personal work.

Core texts

Assessment

100% for participation.



PROJET OPTION BIO-INGÉNIERIE ET NANOTECHNOLOGIES

PROJECT OPTION BIO-ENGINEERING AND NANOTECHNOLOGY

Lecturers: Emmanuelle LAURENCEAU, Virginie MONNIER-VILLAUME

| Lecturers : 0.0 | TC : 0.0 | PW : 50 | Autonomy : 0.0 | Study : 0 | Project : 0.0 | Language : FR

Objectives

Through (transdisciplinary or not) projects proposed by industrial partners or by research labs, students will identify technological hurdles, propose solutions and set up experiments. They will also learn how to present their results (in a written and oral report).

Keywords : Projects, industrial, research.

Programme

Learning outcomes

- Elaborate and apprehend a scientific and technical project.
- Identify the technological hurdles and set up the technological solutions.
- Achieve a synthesis of informations and a presentation of the results.

Independent study

Objectifs :

Méthodes :

Core texts

Assessment

35% (written report), 35% (oral), participation (30%)