



**IUT**  
de **nîmes**

**MATERIALS SCIENCE  
AND ENGINEERING**



**BEng MSE  
[BUT SGM]**

**IUT-NIMES.FR**

## THE DEGREE

- Integrated 3-year course
- 2 specialisations to be chosen at the end of the 1<sup>st</sup> year
- Skills-based approach : 4 core professional skills developed throughout the course and a further specific skill related to the chosen specialisation
- Training structured around immersion in professional situations

## TRAINING OBJECTIVES

The MSE BEng programme trains intermediate-level professionals specializing in metallic materials, polymers, glass, ceramics, composites and agro-materials.

Graduates will be equipped to contribute to the competitiveness of companies at all stages of a product's life cycle, integrate eco-design and innovation approaches, and work across various industrial sectors.

They will be able to adapt and propose innovative alternatives to meet the expectations of industry and society in terms of sustainable development and resource management.

## ORGANISATION

- Start date : september
- Duration : 3 years
- Total course hours : 2,000 hours
- Supervised project hours : 600 hours
- Internship : minimum of 22 weeks over 3 years
- Work-study option : available from the 2<sup>nd</sup> year
- Assessment method : continuous assessment



# CORE CURRICULUM // *From the first to the third year*

## KEYS SKILLS :

- Material development
- Eco-Design : from raw material to product
- Shaping materials
- Characterisation of materials and products

## MAIN SUBJECTS :

- Materials : metals, glass, ceramics, polymers, composites
- Chemistry, physics, mechanics, mathematics
- Material strength and characterisation
- Design
- Communication & English
- Knowledge of the professional environment : projects, teamwork, autonomy

**International option (minimum 50% of teaching in english) available from the second year for all students.**

## 2 SPECIALISATION OPTIONS // *Second and third years*

### **Careers in Recycling and Material Recovery, characterisation option**

Repurposing materials from products : contribute to the development of specific recycling and material recovery approaches, based on an analysis of the structure and properties of materials.

### **Careers in Materials and Product Engineering**

Development of a product from design to production : contribute to setting up a process that includes material selection, design, and product realisation in a context of sustainable development.

## CAREER OPPORTUNITIES

### PROFESSIONS

- Laboratory technician
- Design office technician
- Methods or production office technician
- Quality control technician
- Customer relations specialist
- Research & development technician
- Technical sales representative

### SECTORS

- Aeronautics
- Marine industry
- Leisure & recreation
- Construction & building
- Automotive industry
- Energy sector
- Packaging industry

## FURTHER STUDIES

Students wishing to specialise or broaden their training can apply to :

- Engineering schools
- Master's degree courses



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