

## Introduction to Ecoconception

ECTS	Course (h)
3	15

<b>Mention du master transmettant la fiche UE :</b>	<b>Chimie et Sciences des Matériaux</b>
<b>Composante de gestion de l'UE :</b>	<b>Faculté des Sciences – Département de Chimie</b>
<b>Responsable de l'UE :</b>	<b>G. SUDRE</b>
<b>Statut du responsable :</b>	<b>MCF</b>

### **PRE REQUIS**

Applied to materials sciences, basic concepts (sourcing, preparation, end of life) concerning the various types of materials (metals, glasses and ceramics, polymers) will facilitate the understanding and assimilation of the elements developed during the course.

### **PROGRAMM**

This course provides students with the necessary background to understand the environmental impacts associated with the choice of a material solution. Without aiming to be exhaustive, general background of environmental impacts and challenges are presented, before describing the methods and tools adapted to performing R&D with an ecological approach. Here is a list of associated skills:

- define the basic notions associated with ecodesign, sustainability and circular economy
- anticipate the environmental pros and cons associated with various material solutions (compartment and stages of the strongest impacts)
- select the most appropriate method and tool to practice ecodesign depending on the activity
- perform a pertinent preparation of a (comparative) life cycle analysis
- analyze the results obtained from a life cycle analysis and comment them

### **SPECIFIC SKILLS**

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