

## Faculty of Sciences



## MAT1223 Differential equations

[30h+15h exercises] 5 credits

This course is taught in the 2nd semester

**Teacher(s):** Denis Bonheure  
**Language:** French  
**Level:** First cycle

**Aims**

The theory of differential equations is an important topic in both pure and applied mathematics. In this introductory course, we mainly focus on the study of the Cauchy problem. We also introduce some basic notions of stability as well as some elementary aspects of boundary value problems.

**Main themes**

- The Cauchy problem
- Linear systems
- Stability
- Boundary value problems.

**Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)**

Analyse mathématique 1 et 2, Algèbre linéaire. Some notions introduced in the course Analyse mathématique 3.

**Other credits in programs**

<b>FSA12BA</b>	Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(5 credits)	
<b>MAP22</b>	Deuxième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(5 credits)	
<b>MAP23</b>	Troisième année du programme conduisant au grade d'ingénieur civil en mathématiques appliquées	(5 credits)	
<b>MATH12BA</b>	Deuxième année de bachelier en sciences mathématiques	(5 credits)	Mandatory
<b>MATH21/G</b>	Première licence en sciences mathématiques (Général)	(5 credits)	