

## Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
MAT101	Single Variable Analysis I	1	3	2	0	5	8

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	To build, with appropriate rigour, the foundations of calculus and along the way to develop the skills to enable us to continue studying mathematics
Content	Course syllabus : Real Numbers, Sequences, Topology of $\mathbb{R}$ , Continuity, Limits
References	<ul style="list-style-type: none"><li>- Analyse 1re année : Cours et exercices avec solution Liret, François, Dominique Martinais</li><li>- Maths en pratique - 1re édition - A l'usage des étudiants Liret, Française</li><li>- First Course in Real Analysis, Sterling K.Berberian, Springer</li><li>- Mathématiques : tout-en-un : 1re année : cours et exercices corrigés : MPSI-PCSI Mathématiques : tout-en-un : 1re année : cours et exercices corrigés : MPSI-PCSI</li></ul>

## Theory Topics

Week	Weekly Contents
1	Set, maps and the language
2	Real Numbers
3	Real Numbers
4	Midterm 1
5	Sequences
6	Sequences
7	Limits and Continuity
8	Limits and Continuity
9	Limits and Continuity
10	Midterm 2
11	Derivation
12	Derivation
13	Parametric Curves
14	Parametric Curves