

5 credits

30.0 h + 22.5 h

Q2

Teacher(s)	Willem Michel ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	Metric spaces, Lebesgue integral, normed spaces, Hilbert spaces.
Aims	<p>1 AA 1.1, 1.2, 1.3, 3.1, 6.1.</p> <p>----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods	Written examination : theory, exercises and partly original problems.
Teaching methods	Lectures with dialogue, exercises. The main points are critical understanding of the theory and active problem solving.
Content	<ul style="list-style-type: none"> • Metric spaces, continuity, convergence. • Cauchy integral, Lebesgue integral, multiple integrals, change of variables. • Normed spaces, continuous linear mappings, Hilbert space, elementary spectral theorem
Inline resources	https://moodleucl.uclouvain.be/course/view.php?id=10812
Bibliography	Livre de référence : Michel Willem, « Functional Analysis. Fundamentals and Applications », Birkhauser, 2013. Disponible en ligne et en librairie.
Other infos	
Faculty or entity in charge	MAP