UCLouvain

lbir1110

2021

Introduction to analysis

6.00 credits	30.0 h + 30.0 h	Q1

Teacher(s)	Hanert Emmanuel ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	The assessment will be based on the quizzes proposed during the semester, on a written test during the SMART week and on the final exam. • The quizzes will be evaluated and will yield a bonus of maximum 10% of the final mark that will be added to it. • The mid-semester written test will cover the material presented during the weeks preceding the SMART week. It will seek to verify the assimilation of basic concepts (theory) as well as calculation methods (exercises). It will count for 10% of the final mark. • The final exam will be written. It will cover all of the material (including the material taught before the SMART week) and will seek to assess the assimilation of basic concepts (theory), calculation methods (exercises) and their application to real situations. The exam will count for 90% of the final mark.
Teaching methods	All the course material is presented during lectures that consist of one session of two hours each week. Practical sessions complete the course and allow you to familiarize yourself with the objects, tools, techniques and methods of computation presented during the lectures. There will be one practical session each week. You are advised to consult your schedule each week to avoid missing any session. During the semester, quiz will be offered on the online platform Moodle to allow you to continue the work done during lectures and practicals. These quizzes will be evaluated and will be yield a bonus that will be added to your final mark. Tutorials will also be proposed each week to give you an opportunity to ask questions to the teachers (professior and assistants) responsible for this module Home working is essential to consolidate your learning, including making links between different concepts and techniques, solving exercises and writing rigorous reasonings. The reference book used for this course contains many solved exercises that will allow you to practice at home.
Content	The goal of this course is to introduce the basic tools of analysis, in order to apply them in the field of bioengineering. This will allow you to understand the basic concepts required to develop models, but also to acquire some calculation skills. The practicals will give you the opportunity to do different types of exercises (calculations, reasoning, applications). Particular attention will be given to illustrations and applications with direct reference to bioengineering. The exercises also help you to apply the most theoretical concepts based on concrete problems that bioengineers will face throughout their training and professional life.
Inline resources	Moodle course site Reference book
Bibliography	Ouvrages de référence et outils de travail : Ce cours se base uniquement le premier volume du livre de référence « Analyse, concepts et contextes : Fonctions d'une variable » de James Steward, 3ème édition, de boeck. Ce livre est disponible à la DUC. Une version électronique est également disponible sur le site suivant (après identification) : http://accesnoto.deboecksuperieur.com/notobib. Des documents complémentaires seront également mis à disposition sur le site Moodle du cours.
Other infos	The course does not use any particular support which would have to be paid and deemed obligatory. Any paid books that may be recommended are optional.
Faculty or entity in charge	AGRO

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Bioengineering	BIR1BA	6		🔍