General Information	
Academic subject	Mathematics (I.C. Mathematics and Statistics)
Degree course	Bachelor programme: Food Science and Technology
ECTS credits	6 ECTS
Compulsory attendance	No
Teaching language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Samuela L' Abbate	samuela.labbate@uniba.it	MAT/05

ECTS credits details		
Basic teaching activities	4 ECTS Lectures	2 ECTS Laboratory classes

Class schedule	
Period	I semester
Course year	First
Type of class	Lecture

Time management	
Hours	150
In-class study hours	60
Out-of-class study hours	90

Academic calendar	
Class begins	October 12th, 2020
Class ends	January 22th,2021

Syllabus	
Prerequisites/requirements	
Expected learning outcomes	*Knowledge and understanding* ○ Understanding the concept of function and the basics of differential calculus and integral calculation for real functions of a real variable. *Applying knowledge and understanding* ○ Competence in function analysis and in the basic properties of differential and integral calculus. *Making informed judgements and choices* ○ Choosing and using the most appropriate analytical techniques to solve specific problems in food processes. *Communicating knowledge and understanding* ○ Ability to describe the qualitative and quantitative trends of specific quantities in the food process. *Capacities to continue learning* ○ Ability to deepen the knowledge of specific mathematical functions useful in describing or analyzing food production processes. The expected learning outcomes, in terms of both knowledge and skills, are provided in Annex A of the Academic Regulations of the Degree in Food Science and Technology (expressed through the European Descriptors of the qualification)
Contents	• Sets and numbers. • Algebraic Equations and Inequalities. • Elements of analytic geometry. • Real functions of one real variable. • Limits.

	• Continuous functions and classification of discontinuity points. • Derivable functions and derivation rules.
Course program	
Reference books	• A. BRANNAN, A First Course in Mathematical Analysis. The Open University, Milton Keynes. • P. MARCELLINI - C. SBORDONE, Analisi Matematica uno, Editore Liguori, Napoli. • P. MARCELLINI - C. SBORDONE, Esercitazioni di Matematica, vol. I (parte I^ e II^), Editore Liguori, Napoli.
Notes	
Teaching methods	Lectures Lecture notes and educational supplies will be provided by means of online platforms (i.e.: Edmodo, Google Drive…)
Evaluation methods	The exam consists of both written exercises and oral dissertation on the topics developed during the theoretical and theoretical-practical lectures in the classroom, as reported in the Academic Regulations for the Bachelor Degree in Food Science and Technology (article 9) and in the study plan (Annex A). Students attending at the lectures may have a middle-term preliminary exam, consisting of a written test, relative to the first part of the program, which will concur to the final evaluation and will be considered valid for a year. The evaluation of the preparation of the student occurs on the basis of established criteria, as detailed in Annex B of the Academic Regulations for the Bachelor Degree in Food Science and Technology. Non-Italian students may be examined in English language, according to the aforesaid procedures.
Evaluation criteria	*Knowledge and understanding* ○ To be able to describe the qualitative behavior of mathematical functions. ○ To know and to be able to apply basics of differential calculus for real functions of real variables. *Applying knowledge and understanding* ○ To be able to adequately apply basic formulas of calculus. *Making informed judgements and choices* ○ To be able to apply the most appropriate analytical techniques to solve specific problems in food processes. *Communicating knowledge and understanding* ○ To be able to describe the qualitative and quantitative trends of specific quantities in the food process. *Capacities to continue learning* ○ To be able to deepen the knowledge of specific mathematical functions useful in describing or analyzing food production processes.
Receiving times	All afternoons by previous agreement by e-mail