COURSE NAME	Mathematics					
Code	PMMN01	Year of study	1st undergraduate study			
Course teacher	Anka Golemac	Credits (ECTS)	5			
Associate teachers		Type of instruction (number of hours)	L	S	E	
			30		30	
Status of the course	Compulsory course	Percentage of application of e-learning	35%			

COURSE DESCRIPTION	
Course objectives	The aim of the course is to introduce students to the basic topics of mathematics, designed for undergraduate students in biology, chemistry and biotechnology. Students will adopt the knowledge and skills in differential and integral calculus and learn how to relate these to practical applications.
Course enrolment requirements and entry competences required for the course	Prerequisites: none Entry competences: Knowledge of secondary school mathematics
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Students will be able to: • understand the concepts of limits, continuity, derivatives; • compute the limits and the derivatives of various types of functions; • use the derivative of a function to determine the properties of the graph of the function; • write the equations of the tangent line and the normal line to the curve at a given point; • compute the integrals using basic integration formulas; • solve problems in a range of mathematical applications using the integrals.
Course content broken down in detail by weekly class schedule (syllabus)	Mathematical notation, the sets of numbers. (2) Real functions, some properties. (3) Review of the basic elementary functions. (2) Sequences and series of real numbers (convergence, limits calculus). (2) The limit and continuity of a real function. (3) Differential calculus (differentiability, derivatives of elementary functions, derivatives of higher orders, the basic theorems of differential calculus). (8) Integral calculus (concept and basic properties of definite and indefinite integrals, the integration of certain classes of functions, the basic theorems of integral calculus, applications of definite integrals, improper integrals). (10)
Format of instruction	Lectures and tutorial sessions.
Student responsibilities	Class attendance. Students are expected to be present at least 70% of classes.
Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*	Class attendance: 2 ECTS. Partial exams/Written exam: 2 ECTS Final exam: 1 ECTS.

Grading and evaluating student work in class and at the final exam	There are 2 partial written exams during the semester and the final exam. Passing both partial exams or the final written exam allows students to take the oral exam. Successfully passing the oral exam leads to a successful completion of the course.
Required literature (available in the library and via other media)	P. Javor, Uvod u matematičku analizu, Školska knjiga, Zagreb, 1993. Bradić, Pečarić, i ost., Matematika za tehnološke fakultete, Element, Zagreb. 1998. P.P. Demidovič, Zadaci i riješeni primjeri iz više matematike, Zagreb, 1990. T. Vučičić, Matematika (za biologe,…), skripta, PMF, Split
Optional literature (at the time of submission of study programme proposal)	L.D. Hoffmann and G.L. Bradley, Calculus for Business, Economics, and the Social and Life Sciences, The McGraw-Hill Companies, 2000. N. Uglešić, Viša matematika I i II, skripta, www.pmfst.hr/zavodi/matematika/visa_matematika.pdf I. Slapničar, Matematika 1, skripta, FESB (2002), http:// lavica.fesb.hr/mat1/
Quality assurance methods that ensure the acquisition of exit competences	Anonymous student evaluations according to the regulations of the University of Split and summarizing test results.
Other (as the proposer wishes to add)	