Polytechnic Institute of Viseu
School of Technology and Management of Viseu

Course title	Calculus		
Scientific area	Mathematics		
Teaching method	Lectures are expository, and the material is motivated and presented, whenever possible through specific applications, encouraging student participation in discussing the topics. Practical classes aim to consolidate knowledge such that exercises and applications are presented and solved in accordance with each lesson's objectives. Students are required to demonstrate a critical attitude with a view to developing their autonomy.		
Lecturers:	Cristina Costa Lúcia Sousa	Language of instruction	English
ECTS	4	Semester	Spring
Hours per week	1,5	Hours per semester	19,5 TP
Objectives of the course	Encourage logical thinking, calculation and analysis, providing tools to ensure the formulation and problem solving. Acquire skills in the area of real functions of a real variable and integral calculus in R.		
Entry requirements	Does not apply.		
Course contents	Real functions of real variable: Differentiation and applications. Integration in R: definition of primitive; basics techniques of primitives; definition of Riemann integral; properties of integrals; Fundamental Theorem of Calculus; applications of integrals for the areas calculus.		
Assessment methods	Final Exam and practical work evaluated during the semester.		
Recommended readings	Vector Calculus, Jerrod E. Marsden & Anthony J. Tromba, 5th Edition, Freeman and Company, 2003, ISBN 0716749920 Calculus, Frank Ayres & Elliot Mendelson, 6th Edition, McGraw-Hill, 2013, ISBN13 9780071795531 Calculus, Robert T. Smith & Roland Minton, 4th edition , McGraw-Hill, 2012, ISBN13 9780073383118		

Additional information	