Form (H)
Short course description

Course title: **Differential and integral calculus.**	Course number and code: MATH 200
Previous course requirement:	Language of the course: English
Course level: **Level 4**	Effective hours: 3 (3,2, 0)

Course description **وصف المقرر :**

Calculus is the subject that studies real functions, integrals and series. In the case of functions, we study the limit, continuity and the differentiability. It is also an aim of this course to teach the student how to decide whether a sequence (resp. series) is convergent.	

Course objectives **أهداف المقرر**

Introducing the notion of a function of several variables and the concept of partial differentiation.	
Introducing the concepts of multiple integrals and their applications	
Introducing the concepts of numerical sequences and series and their tests of convergence	

Learning outcomes (understanding, knowledge, and intellectual and scientific skills)
After studying this course, the student is expected to be able to:

Recognize the concept of the domain of a function of several variables and, in some cases, graph it.	
Evaluate the limit of a real function at a point and Verify the continuity of a function at a point.	

Compute the partial derivatives of different orders and compute the extreme values of a function.	
Evaluate double and triple integrals. Then using double and triple integrals in computing the areas and volume	
Testing the convergence of numerical sequences and series and compute the interval of convergence of a power series	

Textbooks adopted and supporting references

Title of the book	Author's name	Publisher's name	Date of publication
Differential and integral calculus for multivalued functions (Arabic)	T. Gazal, M. Damlakhi, S. Brahim,	Alkhriji	1424 H