## The Islamia University of Bahawalpur

## University College of veterinary and Animal Sciences

**B.S in Applied Microbiology 1st Semester (Spring 2020-2024)**

**Course Title: Calculus and Analytical geometry**

**Couse Code: SASC-02105**

**Course Instructor: Syeda Seenam Fatima**

**Objectives:** Enable the students to apply the algebraic concepts and techniques in their respective disciplines.

**Assessment Criteria**

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| **Exam/Assessment** |
| Mid Term |
| Final Term |
| Assignments, Quiz, Presentations |
| Class Participation & Attendance |
| **Total** |

**Course Description / Outlines**

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| **Sr. No.** | **Title** | **Description** |
| 1 | Limits and Continuity | Applications of Limits |
| 2 | Derivative of a function | Application of Derivatives |
| 3 | Optimization Problem | Mean value theorem,  Taylors theorem  Infinite Taylor series theorem with applications |
| 4 | Anti derivatives | Integral  Definite integral and applications |
| 5 | Techniques of integration | Different types of integration |
| 6 | Parametric equations and polar coordinates | Sequence and series  Power series representation |

**Recommended Books**

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| **Sr. No.** | **Name of Author** | **Name of Book** |
| 1 | H,Antan 1997,John Valley | Calculus, a new horizon |
| 2 | G.B thomas and A R Finney(1995) | Calculus and Analytical Geometry ,(9th edition) ,Addision wilsey ,Reading,Ma,USA |