## Department of Mathematics Fazl Ali College, Mokokchung, Nagaland.

**Programme Outcome:** Logical formulation and development of mathematical arguments with conceptual understanding of the subject. The student will be competent enough to identify, locate, evaluate and effectively use that information for handling issues in day-to-day life.

**Programme Specific Outcome:** Critical thinking skills to solve problems that can be modelled mathematically. To read and construct mathematical arguments and proofs and to apply mathematical knowledge to a career related to mathematical sciences thus cultivating a proper attitude for higher learnings in mathematics.

## **Course Outcomes:**

Calculus: This course will enable the students to

- 1. Comprehend the idea of a real variable with geometrical representation and the concept of limits with proofs.
- 2. Examine the continuity of a function and its derivability. Understand the significance of various theorems in differentiation.
- 3. Apply derivative formulas in problems arising in physical sciences, life sciences etc. and to examine the integrability of different functions.

Algebra: This course will enable the students to

- 1. Understand the notion of a function, well ordering property of positive integers, principles of divisibility and Euclidean algorithm and its application.
- Understand the concept of rank of a matrix and its relation to solutions to linear systems of equations. Learning the concept of eigen values and vectors, Cayley- Hamilton theorem, methods on row reduction and echelon forms of matrices.
- 3. Learn various types of matrices and their properties.