| Semester   | Code     | Module Title                  | Credits | C/E/O          | GPA/NGPA |
|------------|----------|-------------------------------|---------|----------------|----------|
| 3,4,5      | MA3014   | Applied Statistics            | 2       | Е              | GPA      |
| Hours/Week |          | Pre-requisites/Co-requisites  |         | Evaluation (%) |          |
| Lecture    | Tute/Lab | The requisites, co requisites |         | CA             | WE       |
| 2          | 0        | MA1024                        |         | 30             | 70       |

## **Learning Outcomes**

After the successful completion of this course students should be able to

- Calculate a range of statistics and summarize the properties of statistical distributions related to the analysis of data
- Analyze data and interpret results to derive conclusions by choosing appropriate statistical tests
- Evaluate the real-world problems using probability, statistics and statistical modelling

## **Syllabus Outline**

- Discrete distributions (Negative Binomial, Geometric, Hypergeometric)
- Continuous distributions (Exponential, Gamma, Chi-Square, Fisher's F-distribution)
- Confidence intervals for means, proportion(s) and variance(s)
- Hypothesis testing on means, proportions and variances
- Contingency tables, Chi-square test of association and Goodness-of-fit test of distributions.
- Simple linear regression
- Introduction to sampling techniques