# Statistics

**Contents:**

1. Probabilities, random variables, and distributions.
2. Joint distributions, transformations, and expectations.
3. Random samples, sampling distributions, and convergence concepts.
4. Point estimation and properties of estimators.
5. Hypothesis testing.
6. Inferences on the population means.
7. Categorical data analysis.
8. Linear regression analysis.

**Textbook:**

1. Rice, J. A. (2007). Mathematical Statistics and data Analysis, Third Edition. Duxbury.

**References:**

1. Wackerly, D., Scheaffer, R. L., and Mendenhall, W. (2007). Mathematical Statistics With Applications, Seventh Edition. Duxbury.

**Evaluation:**

Homework: 20%.
Report: 10%.
Quiz: 20%.
Midterm: 30%.
Final: 30%.