



MASTER OF AGROECOTEHNOLOGY  
FACULTY OF AGRICULTURE  
UNIVERSITY OF BENGKULU

## COURSE SYLLABUS

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### AGT-501: STATISTICAL ANALYSIS

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Type of course : Preparatory

Credit unit : 0

Semester offered : 1

#### Course description

Discusses data management and use of statistical methods to analyze research data using statistical software.

#### Learning outcome

Able to manage and analyze research data with various statistical methods and interpret analysis results based on the research context.

#### Course content

1. Literacy of statistical software
2. Principles of data analysis and measurement scale
3. Descriptive statistical analysis
  - a. Exploratory data analysis (EDA)
  - b. Graphical presentation of data
4. Statistical analysis of parametric inference:
  - a. Correlation analysis
  - b. Regression analysis
  - c. Comparison of 2 sample groups (independent and dependent).
  - d. Analysis of variance for various experimental designs and test mean
5. Statistical analysis of nonparametric inference:
  - a. Spearman Rank correlation
  - b. Nonparametric regression
  - c. Mann-Whitney and Wilcoxon
  - d. Kruskal Wallis and Friedman Anova

#### References

1. Tukey, JW. 1977. Exploratory data analysis. Addison-Wesley
2. Chambers et al. 1998. Graphical Methods for data analysis. CRC
3. SAS/STAT User's guide