## STATISTICAL PROGRAMMING WITH R

## Benard Charles Ndege

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## Course Content.

- 1. R Introduction.
  - (a) What is R?
  - (b) What is R used for?
  - (c) Why use R?
- 2. Download and Install R and R-Studio.
- 3. R Basics.
  - (a) R Session.
  - (b) Variable assignment.
  - (c) Functions.
  - (d) Comments.
  - (e) Extension Package.
  - (f) Getting Help.
- 4. Basic data types.
  - (a) Numeric.
  - (b) Integer.
  - (c) Complex.
  - (d) Logical.
  - (e) Character.
- 5. Vectors.
  - (a) Combining Vectors.
  - (b) Vector Arithmetic.
  - (c) Named Vectors.
- 6. Matrices.
- 7. Lists.
  - (a) List Slicing.
  - (b) Member Reference.

- (c) Named List Members.
- 8. Data Frames.
  - (a) Built-in Data frame.
  - (b) Data Frame Column Vector.
  - (c) Data Frame Column Slicing.
  - (d) Data Frame Row Slicing.
  - (e) Data import.
- 9. Elementary Statistics With R
  - (a) Qualitative Data.
  - (b) Quantitative Data.
  - (c) Numerical Measures.
  - (d) Probability Distributions.

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