PROBABILITY AND STATISTICS [IT2110]

By SLIIT Mathematics Unit

Faculty of Humanities and Sciences

COURSE

- Course Delivery
  - ✓ *2 Hour Lecture*
  - ✓ *1 Hour Tutorial*
  - ✓ *2 Hour Lab Session (R)*
- Course Web Enrollment Key
  - ✓ IT2110
- Module Outline
  - ✓ Refer course web

COURSE EVALUATION

- *Continuous Assessments – 50 Marks*
  - ➤ *Mid Term Examination – 30%*
  - ➤ *Online R Assignment (Practical) – 20%*

- *Final Examination – 50 Marks*

CONTACT INFORMATION

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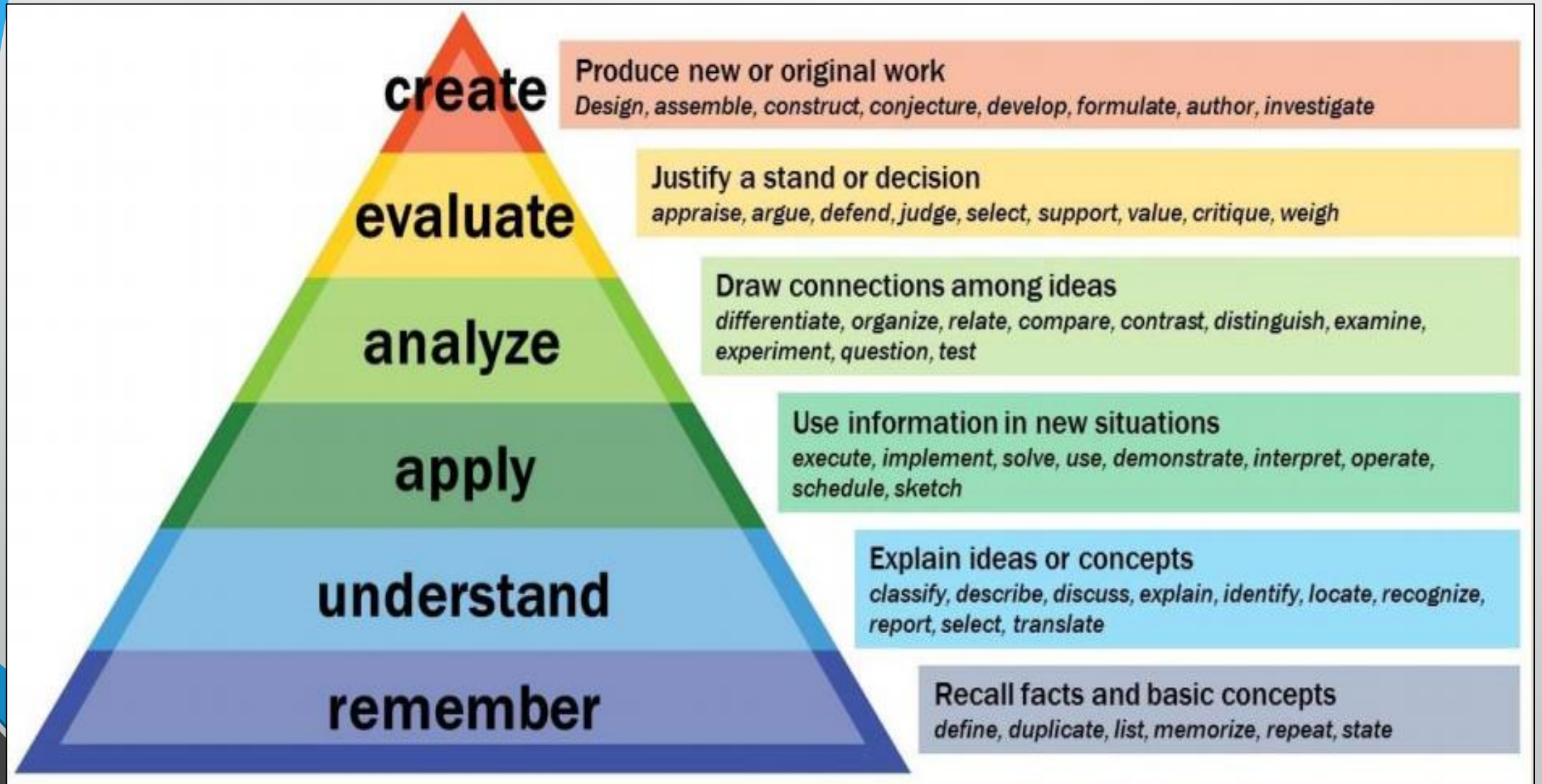
COURSE CONTENT

- Introduction to Statistics

- Sampling Methods

- Descriptive Statistics

- Probability

- Random variables & Probability Distributions

  - Discrete Probability Distributions

    - *Binomial Distribution*

    - *Poisson Distribution*

- Continuous Probability Distributions

  - *Exponential Distribution*

  - *Normal Distribution*

- Sampling Distributions
  - *Sampling Distribution of the Means*
  - *Central Limit Theorem*
- Statistical Inference
  - *Parameter Estimation*
  - *Hypothesis Testing*
- Chi squared Tests
  - *Goodness of Fit Test*
  - *Independence Test*
- Regression Analysis
  - *Scatter Plot*
  - *Correlation*
  - *Simple Linear Regression Model*

Introduction to Time Series

BLOOM'S TAXONOMY

REFERENCES

- Probability and Statistics for Engineers and Scientists (9th Edition)
  - *Authors: Ronald E. Walpole, Raymond H. Myers, Sharon L. Myers & K. Ye*
  - *Publisher: Prentice Hall*
- Schaum's Outlines of Statistics (6th Edition)
  - *Author: M. R. Spiegel & L.J. Stephens*
  - *Publisher: McGraw-Hill Education*