STA-2014 STATISTICS (3 Theory)
COURSE DESCRIPTION**:** This course provides an introduction to the summarizing, tabulating, and analyzing of data using various statistical techniques.

EDUCATIONAL OBJECTIVES

1. Identify the population and the sample in a given data set.
2. Identify different sampling techniques.
3. Construct and graph frequency distribution (histogram).
4. Graph the frequency polygon and cumulative frequency polygon.
5. Construct the relative frequency chart.
6. Calculate the central tendency measurement.
7. Calculate the dispersion measures
8. Apply the empirical rule to calculate probabilities.
9. Calculate the problem in single events.
10. Apply the addition rule to find the probability of compound events.
11. Apply the multiplication rule to find the probability in events occurring in sequence.
12. Use the discrete probabilities (binomial, geometric, and poison).
13. Find the mean, the variance and the standard deviation of discrete probabilities.
14. Characteristics of the standard normal distribution.
15. Find probabilities from the normal distribution.
16. Find values from a normal distribution.
17. Calculate point and interval estimates.
18. Calculate the minimum samples size.
19. Determine the confidence intervals using the normal distribution.
20. Determine the confidence intervals using the t- distribution.

TEXTBOOK: Elementary Statistics: Picturing the World (3rd edition)
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