ENG302 Engineering Statistics

- Probability and Statistics: Probability space, theorems.
- Conditional probability and independence. random variables, discrete and continuous distributions, mean and variance.
- Bernoulli, Binomial, Poisson, hyper-geometric, exponential, normal distributions and their characteristics.
- Examples of experimental measurement and reliability. Elementary sampling theory for normal population.
- Central limit theorem. Statistical inference (point and interval estimation and hypothesis testing) on means, proportions and variances.
- Power and operating characteristics of tests. Chi-squares test of goodness of fit. Simple linear regressions.
- Elements statistics: Distribution and experiments: Law of large number; Numerical iteration procedures, Revision of FORTRAN and BASIC in Engineering. Application programme in computer aided design of Electrical and Electronic systems.