(1) Parametric point estimation: sampling, statistics, estimators, sample mean, sample variance, method of moments, maximum likelihood. (2) Properties of point estimators: mean square error, loss and risk functions, unbiased estimators, lower bound for variance (Rao-Cramer inequality), efficient estimators. (3) Sufficient statistics: factorization criterion, sufficiency and completeness, exponential families of distributions, finding of minimal variance unbiased estimators. (4) Parametric interval estimation: confidence interval, sampling from normal distribution, confidence intervals for mean and variance, large sample confidence intervals. (5) Test of hypotheses: simple hypothesis versus simple alternative, most powerful test, composite hypotheses, uniformly most powerful test, sampling from normal distribution, tests for mean and variance. (6) Comparison of two populations: confidence interval for differences of two means, test on two means, tests concerning variances, goodness of fit tests, tests on independence.