

## Extract from Syllabus

### PART III QUANTITATIVE METHODS

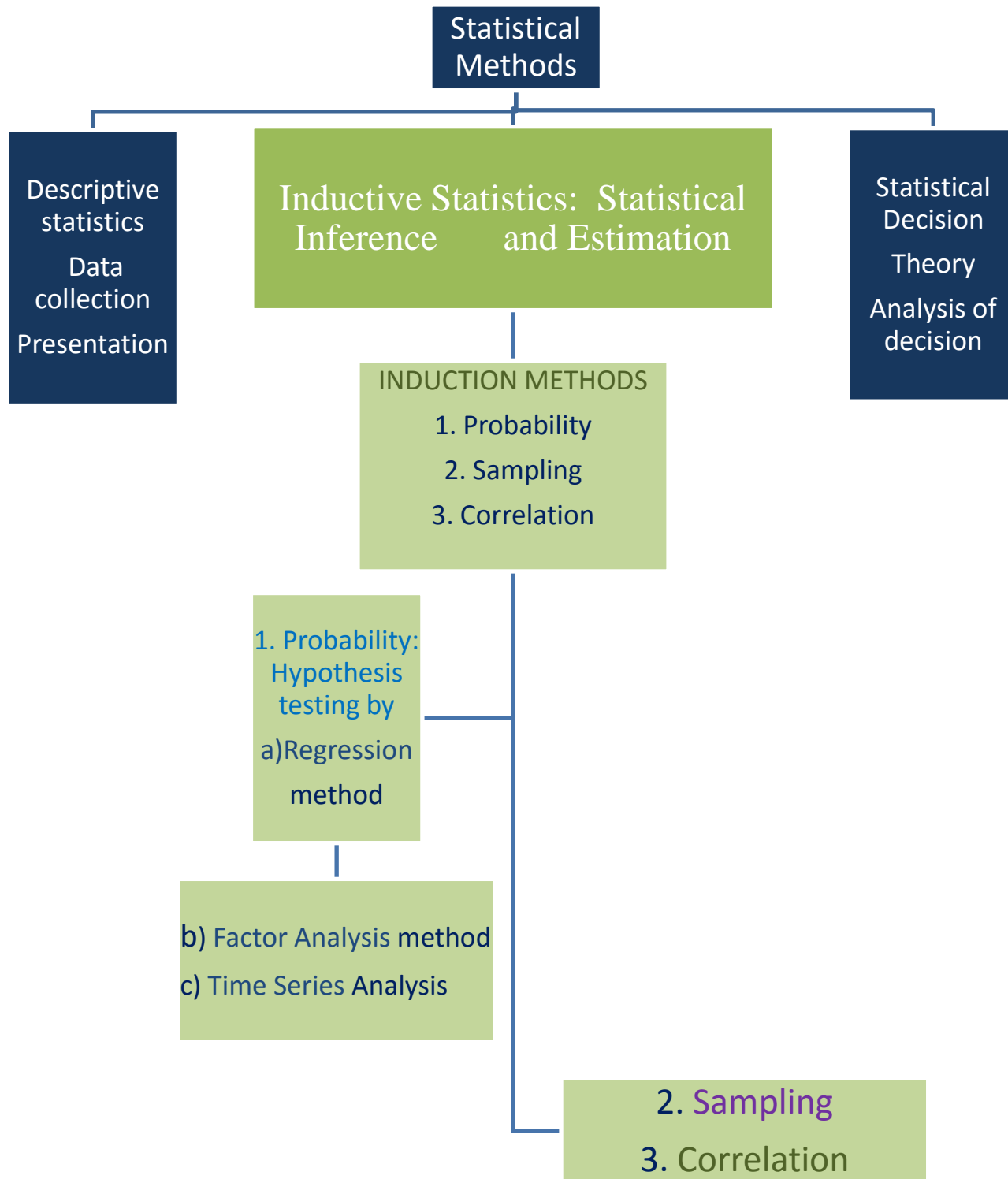
1. Overview, Understanding Data, Measurement.
2. Basic Probability, Probability Distribution, Statistical Inference, and Hypothesis Testing
3. Sampling Strategies including Survey Design
4. Controlling for "Other" Variables.

### DATA PROCESSING

The various aspects of Data Processing include

1. **Editing**: can be field editing and central editing. It involves examining raw data to detect errors and omissions, so as to correct them if possible, so as to ensure completeness, consistency, accuracy, and homogeneity.
2. **Coding** is necessary for efficient analysis as it simplifies computer tabulation of data for further analysis. It is the process of assigning alphabetical or numerical symbols for recording of data into a limited number of homogenous classes or categories on basis of some common characteristic that is useful for comparison or drawing conclusions.
3. **Classification** as per attributes means on basis of descriptive characteristics such as age, education, sex, employment status, marital status, resident status, service or own business. These descriptive characteristics refer to qualitative phenomenon which cannot be measured in quantitative terms but only their presence or absence in an individual can be observed. These dichotomy based qualitative attributes should be clear and without any ambiguity.
4. **Tabulation**

CLASSIFICATION OF STATISTICAL METHODS



Books and Articles

1. Fairley, W.B. 1977. 'Accidents on Route 2: Two-Way Structures for Data' in W. Fairley and Mosteller. Eds. *Statistics and Public Policy*. Reading: Addison Wesley.\*
2. Moore, David. S. and George P. McCabe. 2002. *Introduction to the Practice of Statistics*. New York.: W.H. Freeman and C. (4th edition)
3. Paulos, J.A, 2001 'Correlation and Causation' in *Innumeracy: Mathematical Illiteracy and its consequences*. New York. Hill and Wang.\*
4. Singleton, R.A. and Bruce. C. Stratits. 1993. "Sampling" in *Approaches to Social Research*. Oxford: OUP.\*
5. Stokey, E. and R. Zeckhauser. 1978. *A Primer for Policy Analysis*. New York: W.H. Freeman and Co.
6. Wackerly, D., kW. Mendenhall and R. Scheaffer. 2002 *Mathematical Statistics with Applications*. Pacific Grove: Duxbury Press ( 6th edition)