

## Medical Statistics

1. Definition, Scope and Importance of Medical Statistics.
2. Common Statistical Terms
3. Population
4. Sample
5. Data
6. Variable
7. Normal distribution
8. Collection and Presentation of Data
9. Tabular
10. Graphical
11. Diagrammatical
12. Measures of location
13. Average
14. Percentile

### **Measures of Central Tendency**

1. Arithmetic Mean
2. Median
3. Mode
4. Variability and its measurement
5. Range
6. Standard deviation  $-(z \text{ Score})$
7. Standard error
8. Introduction of Probability and test of significance
9. Parametric and Non Parametric tests
10. Introduction to commonly used statistical software such as Epi – Info, Gaphpad, SPSS  
etc.

## Research Methodology and Medical Statistics

1. Research in Ayurved and evidence of Researches in Ayurvedic classics.
2. Research in Ayurveda Kriya Sharir
  - Scope
  - Need
  - Importance
  - Utility
3. Types of Research
  - a. Applied
  - b. Qualitative, Quantitative and Others
4. Research Process (each steps in brief)
5. Selection of topic
6. Review of literature
7. Hypothesis
8. Aims and Objective
9. Materials and Methods
10. Observations and Results
11. Method of Communication Research and Research tools
12. The concepts and Importance of ethics in Research
13. Concept of Evidence Based Scientific writing
14. Importance of IT in data Mining and important Research data portals concerned with Kriya sharir and contemporary Medical Science portal (Pubmed, Ayush Research, Bioinformatics, Center Research Management Informatics system, different Software recognized by Ayush System, etc).

## Research ethics and Scientific writing (Paper/Project) and communication

1. Bio ethical considerations in Research, ethical principles, Guidelines to plan the experimental, clinical, fundamental and Survey work.

scientific communication

- Original Research
- Meta analyses
- Reviews
- Systematic Reviews
- Case Report, Case series, Clinical trials in vitro and In vivo studies etc.
- Research paper writing
- Reference styles, management of Reference styles, software use of reference such as – Mendeley.
- Copywriting rights and Steps to avoid Plagiarism

## Essentials of Computer Application, Literature and Data Management

- General Practical knowledge of Computer
- MS Word, MS Power Point, MS Excel and other basic computer application which are usefull in Thesis and Scientific paper writing and presenting the paper.
- Method of Literature and data management
- Google scholar, Pubmed, Scopus, Dhara, Ayush Research portal, Science direct web of Science and other helpful in Research.

## Fundamental Concept of Ayurvedic kriya Sharir

Introduction of Basic principles of kriya sharir and their significance.

- **Panchmahabuts**-various theories regarding the creation
- **Dosha**-General description of tridosha, Inter relationship between Ritu, Dosha, Rasa, Guna.
- Biological rhythms of Tridosha on the basis of day, night, age, season and food intake
- Etiological factor responsible for dosha Vridhi, Dosha Kshaya and their manifestation
- concept of Kriya kala and prakriti, Sarta Physiology of Respiratory system Digestive system, Urinary system, Reproductive system, Endocrinology System, Nervous System.
- Development of toots the assess of Physiological parameter in Ayurvedic Kriya Sharir-
  - Satva, Sara, Prakriti, Agni, Bala, Oja, Kostha, Praman, Samshamana
  - Educational methods and plan.
  - Systemic Physiology
  - Standardization of methods and techniques relevant to the research topic.
  - Preparation and Presentation of Research plan.
  - Recent advance in research related to Kriya Sharir.
    - Nadi Pariksha
    - Ayurvgenomics
    - Systems biology
    - Pranayam and yogic physiology
    - Excercise physiology
    - Techniques of tools, Models and working models.
    - Role of stem cell biology
    - Therapeutic Intervention of Kriya Sharir and their efficts.
    - Role of Chronobiology in understanding the dosha biorhythms.
    - Applied Physiology in understanding the Pathogenesis and treatment aspects in different Systemic Disorders.
    - Classical and Contemporary Biochemistry, Hematological, Seriological, Histopathological, Biophysical Examination to understand and interpretate Ayurveda Physiology.

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