# DEPARTMENT OF BOTANY
## Teaching Plan 2020 (Sem V)
## Dr. Pawan Kumar
### B.Sc. (Hons) Botany, Sem V (Theory)

| Name of Paper & Code<br>DSE 2 : Biostatistics | Allocation of Lectures | Month wise schedule |
|---|---|---|
| **Unit 1:** Biostatistics - definition - statistical methods - basic principles. | 4 | August |
| **Unit 1:** Variables - measurements, functions. | 4 | August |
| **Unit 1:** Limitations and uses of statistics. | 4 | August |
| **Unit 2:** Collection of data primary and secondary. | 4 | August |
| **Unit 2:** Types and methods of data collection procedures - merits and demerits. | 4 | August |
| **Unit 2:** Classification - tabulation and presentation of data - sampling methods. | 4 | September |
| **Unit 3:** Measures of central tendency - mean, median, mode, geometric mean - merits & demerits. | 4 | September |
| **Revision** | 2 | September |
| **Unit 3:** Measures of dispersion - range, standard deviation, mean deviation, | 5 | September |
| **Unit 3:** Quartile deviation -merits and demerits; Co- efficient of variations. | 4 | September |
| **Unit 4:** Correlation - types and methods of correlation<br>. | 4 | October |
| **Unit 4:** Regression, simple regression equation, | 4 | October |
| **Unit 4:** Fitting prediction, similarities and dissimilarities of correlation and regression | 4 | October |

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| **Unit 5:**Statistical inference - hypothesis - simple hypothesis | 5 | October |
| **Unit 5:** Student 't' test - chi square test. | 5 | November |
| **Revision** | 4 | November |

## Paper: DSE-II: Biostatistics
## B.Sc. (Hons) Botany, Sem V (Practicals)

| Experiments | Allocation of lectures | Month wise schedule |
|---|---|---|
| 1. Calculation of arithmetic means | 4 | August |
| 2. Calculation of geometric mean | 4 | September |
| 3. Calculation of mode | 4 | September |
| 4. Calculation of median | 4 | September |
| 5. Calculation of standard deviation and standard error | 4 | September |
| 6. Independent Student t-test | 4 | October |
| 7. Paired Student t-test | 4 | October |
| 8. Calculation of correlation coefficient values and finding out the probability using Karl's Pearson method. | 4 | October |
| 9. Calculation of correlation coefficient values and finding out the probability using Spearman Rank method. | 4 | October |
| 10. Revision-1 | 4 | November |
| 11. Revision-2 | 4 | November |
| 12. Revision-3 | 4 | November |
| 13.(Mock Exam) | 3 hours | November |

**Suggested Readings**


1. Rastogi, V. B. (2015). Measures of central tendencies in Biostatistics. New Delhi, India: Scientific International Pvt Ltd.
2. Khan, I. A., and Khanum, A. (2018). Measures of central tendency in 'Fundamentals of biostatistics'. Hyderabad, India: Ukaaz Publications.
3. Zar, J. H. (2014). Measures of central tendencies in 'Biostatistical analysis. UK: Pearson Education Ltd.