

Syllabus

PAD 210 – Inferential Statistics (Credit Units: 3)

Department of Public Administration,
Faculty of Management and Social Sciences,
University of Delta, Agbor, Nigeria.

Lecturer: Ebomah, Ernest Monday, PhD
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Office Hours: Monday, Tuesday, Wednesday & Friday 10:00am-2:00pm, Thursday 10:00pm-4:00pm

There are numerous ways to reach me. It can be through face-to-face meeting during my office hours where we can discuss and share ideas. This approach results in enhanced understanding. Also, we can have discussion and share ideas on matters related to the course via email, phone calls and whatsapp. Questions during class and immediately after class are welcomed.

Meeting Time and Place:

Monday 9:00-11:00am, Wednesday 19:00am-1:00pm, FMSS Office Block

Method of Instruction:

This syllabus contains an overview of what will be covered in class. Teaching and cooperative learning approaches will be adopted for effective learning. Assignment will be given to the students and will be submitted during lecturing/ teaching period. Class attendance will be taken to encourage high turn up.

Overview:

Inferential statistics is a branch of statistics that uses analytical tools to draw inference and make prediction. The course provides an overview of how to draw inferences using analytical tests and tools. The students need the knowledge of the course to be able to use a particular case or observation to generalize.

Objectives:

The objectives of this course are to expose the students to the knowledge, uses and application of (i) inferential statistics (ii) parameter estimation (iii) hypothesis (iv) elementary sample theory (v) chi-square distribution (vi) test of goodness of fit (vii) analysis of variance (xiii) linear regression and correlation (ix) time series.

Learning Outcomes:

Upon completion of this course, the students should be able to (i) explain what statistics/inferential statistics means (ii) make parameter estimation (iii) carry out hypothesis testing (iv) generate data from a given population (v) calculate chi-square (vi) conduct a test of goodness of fit (vii) analyze variance (viii) solve linear regression problems (ix) discuss time series.

Course Contents

Statistics/inferential statistics defined. Parameter estimation. Hypothesis. Sampling theory. Chi-square. Test of goodness of fit. Analyze variance. Linear regression. Time series

Lecture Schedules

| Week | Contents | Lecturer Notes/Slides |
|-------|--|-----------------------|
| 1. | Statistics/Inferential statistics defined. | |
| 2. | Parameter estimation | |
| 3-4. | Hypothesis | |
| 5. | Sampling theory | |
| 5-6. | Chi-square | |
| 7. | Mid-semester break | |
| 8. | Test of goodness of fit | |
| 9-10. | Analysis of variance | |
| 11. | Test | |
| 12. | Linear regression | |
| 13. | Time series | |
| 14. | Revision | |
| 15. | Final exam | |

Examination Schedule

- Attendance/class participation
- Home work
- Class test
- End of semester exam

Grading

- Attendance/class participation
- Home work
- Class test
- End of semester exam

Text and References

David, M. L., David, S., Mikki, H., Rudy, G., Dan, O. & Heidi, Z. (2023). Introduction to Statistics (on-line edition).

Kushwaha, K. S. (2020). *Inferential Statistics*. Indian: New India Publishing Agency.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behaviour conducive to a positive learning environment. The code of student conduct is described in detail in the student handbook or University website.

Academic Honesty

It is the policy of the University that no form of plagiarism or cheating will be tolerated. Plagiarism is defined as the deliberate use of another's work and claiming it as one's own. This means ideas as well as text or code, whether paraphrased or presented verbatim (word-for-word). Cheating is defined as obtaining unauthorized assistance on any assignment. Proper citation of sources must always be utilized thoroughly and accurately. If you are caught sharing or using other people's work in this class, you will receive a zero (0) grade and a warning on the first instance. A subsequent instance will result in receiving an F grade for the course and possible disciplinary proceedings. If you are unclear about what constitutes academic dishonesty, ask.

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