

B Objectives

1. Summary of the main learning outcomes for students enrolled in the course.
<ul style="list-style-type: none"> The aim of this course is to get the student acquainted to inference methods of data from undisclosed populations.
2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

1 Topics to be Covered		
Topic	No of Weeks	Contact hours
The binomial test and the confidence interval for a probability.	1	4
The quantile test and the confidence interval for a quantile.	1	4
Tolerance limits with some applications.	1	4
The sign test with some applications.	1	4
McNemar test.	1	4
Test for trend.	1	4
The 2x2 contingency tables.	1/2	2
The rxc contingency tables.	1/2	2
Chi-square test for dependence and probabilities.	1	4
Chi-square goodness of fit test.	1/2	1
The median test.	1	4
Cochran test for related observations.	1/2	2
Mann-Whitney test.	1	4
Kruskal-Wallis test.	1	4
Test of dispersion.	1/2	2
Spearman rank test for correlation.	1/2	2
The Kolmogorov goodness of fit test and alike.	1	4

2 Course components (total contact hours per semester):

Lecture: 56	Tutorial:	Practical/Fieldwork/Internship: 14	Other:
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3. Additional private study/learning hours expected for students per week. (This should be an average for the semester not a specific requirement in each week) **42**

<p>4. Development of Learning Outcomes in Domains of Learning</p> <p>For each of the domains of learning shown below indicate:</p> <ul style="list-style-type: none"> • A brief summary of the knowledge or skill the course is intended to develop; • A description of the teaching strategies to be used in the course to develop that knowledge or skill; • The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.
a. Knowledge
<p>(i) Description of the knowledge to be acquired</p> <ul style="list-style-type: none"> • Practical nonparametric statistics.
<p>(ii) Teaching strategies to be used to develop that knowledge</p> <ul style="list-style-type: none"> • Lectures of the application aspects of the nonparametric statistics along with examples. • Homework assignments.
<p>(iii) Methods of assessment of knowledge acquired</p> <ul style="list-style-type: none"> • Two mid-term tests, and one final examination.
b. Cognitive Skills
<p>(i) Cognitive skills to be developed</p> <ul style="list-style-type: none"> • Demonstrate capability of choosing the appropriate statistical test for a particular application. • Formulate significant research questions, use statistical tests, and interpret the

<p>results.</p> <ul style="list-style-type: none"> • Read, evaluate, and interpret numerical, statistical and general scientific information. • Search and use the statistical literature in both printed and electronic formats.
<p>(ii) Teaching strategies to be used to develop these cognitive skills</p> <ul style="list-style-type: none"> • Examples, and Solved Problems. • Homework assignments.
<p>(iii) Methods of assessment of students cognitive skills</p> <ul style="list-style-type: none"> • In-class quizzes. • Mid-term and final exams.
<p>c. Interpersonal Skills and Responsibility</p>
<p>(i) Description of the interpersonal skills and capacity to carry responsibility to be developed</p> <ul style="list-style-type: none"> • Working homework jointly and individually.
<p>(ii) Teaching strategies to be used to develop these skills and abilities</p> <ul style="list-style-type: none"> • Homework assignments.
<p>(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility</p> <ul style="list-style-type: none"> • Mid-term and final exams.
<p>d. Communication, Information Technology and Numerical Skills</p>
<p>(i) Description of the skills to be developed in this domain.</p> <ul style="list-style-type: none"> • Acquire a working knowledge of basic research methodologies, data analysis and interpreting results. • The ability to use computers for statistical tests, computations, and database construction and usage. • The ability to search and use the statistical literature in both printed and electronic formats.
<p>(ii) Teaching strategies to be used to develop these skills</p> <ul style="list-style-type: none"> • Homework assignments.
<p>(iii) Methods of assessment of students numerical and communication skills</p> <ul style="list-style-type: none"> • Mid-term and final exams.

Assessment	Assessment task (eg. essay, test, group project, examination etc.)	Week due	Proportion of Final Assessment
1	First mid-term test	6/7	20%
2	Second mid-term test	11/12	20%
3	Homework	Continuously	10%
4	Final exam	16	50%

D. Student Support

1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)

- **Office hours 4 hr/ week**

E Learning Resources

1. Required Text(s) • Practical Nonparametric Statistics by W. J. Conover.
2. Essential References
3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)
4- Electronic Materials, Web Sites etc
5- Other learning material such as computer-based programs/CD, professional standards/regulations