



## Course Description



Statistical knowledge helps an individual use the proper methods to collect the data, employ the correct analyses, and effectively present the results. Statistics is a crucial process behind how we make discoveries in science & social science, make decisions based on data, and make predictions. This allows us to understand a subject much more deeply. This course has been designed for professional development and competency enhancement of working professionals associated with field work, research, and impact and feedback studies in various fields of social sciences. The course is also intended for Undergraduate/Post Graduate students for their dissertation/ project work and Ph.D. scholars. This course is designed to help participants to understand the important concepts of statistical analysis and statistical inference to enable them to better interpret the results of their research and contribute to the field of research and development effectively, meaningfully and productively with a forward-looking approach for further development. Implementation of the course offers flexibility with options for learning the content. You will learn from reading e-text, videos, participation in discussions forum, preparation and submission of assignments/ activities, and short quizzes. Certification is available with certain specific criteria based on extent of participation, involvement, interaction and performance in each module of the course.

## Learning Outcomes:



On completion of the course, you will have developed useful insights into the significance and various implications of statistical analysis and inferences. Besides, you will be able to:

- Define the concept of statistical analysis and distinguish between statistical analysis and statistical inferences.
- Use various statistical measures and their use in analysis and interpretation in their research.
- Develop essential skills to understand concept of the level of confidence interval and their use in making analysis and interpretation in research.
- Use the statistics effectively and efficiently for verification of hypothesis of their research study meaningfully.
- Develop analytical ability and critical thinking in selection of statistics and their use in making interpretation meaningful and productive.

## Who should Participate?



This course is designed for anyone interested in understanding and developing insights to use statistical techniques. However, Teachers, Students and Research Scholars from various disciplines of higher education and teacher education including school teachers, educational leaders would benefit from this course. Working professionals (early-career and mid-career) of Government and Non-Government organisations working with various projects of social development (education, health & family welfare, rural development, panchayatiraj, agriculture and animal husbandry, urban development etc.), would benefit from this Massive Open Online Course.

➤ Length of the Course	: Four Weeks
➤ Schedule	: 25 Nov, 2021 to 23 Dec, 2021
➤ Workload	: 4 to 6 hours per week
➤ Level	: Introductory
➤ Language	: English
➤ Prerequisites	: None

## Course Details



Course comprised of four different modules such as:

### Week I:

**Module I:** Introduction to Statistical Inference

### Week II:

**Module II:** Significance of Mean

### Week III:

**Module III:** Testing the Hypothesis

### Week IV:

**Module IV:** Difference between two Means

## Certification



Two levels of certification are available based on your level of participation and completion of the tasks/ activities:

- **Certificate of Participation:** requires a minimum score of 50% on all quizzes and participation in at least 3 discussion forums including completion of required readings of e-texts and watching videos.