Add-on Course on Statistical methods and computer applications in Natural Sciences

Organized by
Department of Geology,
Durgapur Government College



TARGET AUDIENCE

UG and PG students of Geology and UG students of Chemistry, Zoology, and Botany departments of Durgapur Government College

LEARNING OUTCOMES

- Data Analysis and Visualization Skills
 Ability to collect, process, and analyze geological and environmental data using various software tools.
- Modeling and Simulation Competence-Understanding and application of computer models and simulations to study natural processes.
- Critical Thinking and Problem-Solving-Development of critical thinking skills to assess and solve complex problems in different branches of Natural sciences using computer applications.
- Interdisciplinary Integration: Integration of computer applications with other disciplines, fostering a holistic understanding of complex natural systems.
- Communication Skills-Ability to communicate scientific findings effectively through written reports, presentations, and visualizations.

COURSE COORDINATORS

- Dr. Saradee Sengupta, Assistant professor of Geology, Durgapur Government College
- Dr. Proloy Ganguly, Assistant professor of Geology, Durgapur Government College

ABOUT THE COURSE

It is our great pleasure to announce the add-on training course on "Statistical methods and computer applications in Natural Sciences". The program envisions hands on training on statistical techniques and related computer applications in different branches of Natural Sciences, aiming to enhance the ability of the students to resolve the complex natural processes.

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Name of the resource person

Principal
Durgapur Government College
Head of Geology Department
Durgapur Government College

Dr. M. K. Devrajan Senior Mineral Exploration Consultant

Dr. Pritha Goswami Assistant Professor Durgapur Government College

Dr. Dola Chakraborty Assistant Professor Durgapur Government College

Dr. Sanghita Dasgupta Malavya Post Doctoral Fellow Banaras Hindu University

Dr. Suchana Taral Assistant Professor Pondicherry University

Course content

Date & time

Lecture hour(s)

Introduction to the add-on course	07.03.2024	1 hour (online)
Importance of proper collection, organisation, and documentation of data, Sample size, Data analysis, and interpretation, Basic Statistics with hands-on exercises using Excel, Project Work	14.03.2024 to 16.03.2024, 18.03.2024 to 20.03.2024 6 pm to 7 pm	6 classes each of 1 hour (online)
Basics of Statistical analysis and use of software in Palaeontological data analysis	19.03.2024 to 22.03.2024	4 classes each of 2 hours (offline)
Basics of Statistical analysis for sedimentological studies in coastal areas along with basics of uses of theodolite in surveying	21.03.2024 to 23.03.2024 5 pm to 7 pm	3 classes each of 2 hour (offline)
Introduction and hands-on training on Adobe Illustrator	25.03.2024 & 26.03.2024 7 pm to 8 pm	2 classes each of 1 hour (online)
Field data collection and statistical analysis in sedimentology	27.03.2024 & 28.03.2024 7 pm to 8 pm	2 classes each of 1 hour (online)

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Name of the resource person

Dr. Saradee Sengupta Assistant Professor Durgapur Government College

Dr. Sujoy Dasgupta Assistant Professor Jogomaya Devi College

Dr. Rwiti Basu Assistant Professor Asutosh College

Dr. Proloy Ganguly Assistant Professor Durgapur Government College

Dr. Supratim Pal Associate Professor Durgapur Government College

Course content

How to collect data from fossils bones, Introduction and hands-on training on TNT and Mesquite Concept of Stereonet, plotting of lines and

plotting of lines and planes, Introduction and hands-on training on Stereoplot

Introduction and hands-on training on Global Mapper and its Usage

Plotting and interpretation of geochemical and geochronological data by GCD kit and Isoplot,

Phase diagram modeling by Perple_X

Application of data processing for preparing logical and meaningful reports/contents in Geology

Date & time

29.03.2024 & 30.03.2024 7 pm to 8 pm

01.04.2024 to 04.04.2024, 8 pm to 9 pm

05.04.2024 & 06.04.2024, 8 pm to 9 pm

08.04.2024 to 12.04.2024, 5 pm to 6 pm

17.04.2024

&

18.04.2024,

5 pm to 6 pm

Lecture hour(s)

2 classes each of 1 hour (online)

4 classes each of 1 hour (online)

2 classes each of 1 hour (online)

5 classes each of 1 hour (offline)

2 classes each of 1 hour (offline)

Submission of projects/assignments and short group presentations by the participants will be done at the end of the course.

