MAHATMA GANDHI UNIVERSITY

Kottayam, Kerala, India

School of Mathematics & Statistics

The School of Mathematics and Statistics, established in 2020, is one of the newly evolved schools at Mahatma Gandhi University, Kottayam. The Institute aims to emerge as a leading centre of teaching, learning and interdisciplinary research in mathematics and statistics.

VISION

"To create, disseminate and translate knowledge in Mathematics, Statistics and allied disciplines that will best serve the society."

MISSION

"To pursue excellence in learning, research and innovation by
Enabling a creative and dynamic teaching environment,
Cultivating an attitude & ability to apply mathematical and statistical skills,
Developing sustainable research solutions for the benefit of the nation,
Building bridges between academia, industry and society,
Fostering an evolving entrepreneurial spirit and specific technological skills,
Enhancing mathematical and statistical literacy among the public,
Nurturing leadership qualities with a sense of commitment and accountability,
Inculcating values and ethics in thought, expression and deed."

OVERVIEW

Mathematics and Statistics are fundamental disciplines of knowledge and constitutes most important tools for all programs of study and research as well as science & technology, social sciences, health and welfare, industry, business and management. The curriculum and syllabus for these programs are developed by eminent scholars and industry experts with a view to provide teaching, research and training in emerging areas for meeting the demand from academia and industry. There is wide scope and potential for postgraduate and research level interdisciplinary programs in these disciplines One full semester Project Work and Internship are part of this program and will be carried out in reputed national/ international level research institutes/ universities/ industries etc. giving wide exposure for research and on the job training.

Director

Prof.(Dr) K K Jose

Prof.(Dr). R. Sreekumar

Coordinator (SMS)

Faculty of Mathematics

Faculty of Statistics

Dr. Merin Jose

Mr. Vishnu V V

Dr. Satheesh S

Dr. Ancy Joseph

Ms. Vasanthy V

Ms. Athira Valsan

Ms. Sheen E M

Dr. Ajitha Sasi

Ms. Beteena Kurian

Visiting Faculty:

Prof. Abraham K Samuel
Prof. Dr. A. Vijayakumar
Dr. S. Vivek
Ms. Shafna M Sali
Ms. Sarga Varghese
Ms. Sayooj Aby Jose
Ms. Mariya Thomas
Ms. Anandika Rajeev

Mr. Muhammad Rais

Ms. Lakshmi Rajeev

Administrative Staff:

Mr. T. S. Rajesh (A. O.)
Ms. Ammu Raju (A.A.)

PROGRAMS OFFERED

- MSc Mathematics
- MSc Statistics
- PhD

ELIGIBILITY:

BSc Degree (Core subject as Mathematics/Statistics) with 55% marks
Admission through Common Admission Test (CAT) in May / June

Admission Criteria: Admission will be solely on the basis of a rank list prepared as per the score obtained in the Common Admission Test.

Test Syllabus: Graduate level Mathematics (40%), Statistics (40%), Computational and Numerical Aptitude (20%).

Email: sms@mgu.ac.in
Connect us: www.mgu.ac.in/academics/sms

CORE COURSES OF STATISTICS

- Mathematical Tools for Statistics
- Probability Theory I ,II
- Statistical Distribution Theory
- Statistical Estimation Theory
- Sampling Techniques
- Statistical Computing I Practical(using R)
- Testing of Hypotheses
- Design of Experiments
- Statistical Computing II Practical
- Multivariate Statistical Analysis
- Stochastic Processes Modeling
- Advanced Statistical Computing

ELECTIVE COURSES OF STATISTICS

- Applied Regression Analysis
- Bayesian Inference and Computing
- Data Science & Big Data Analytics
- Data Mining Techniques
- Machine Learning & Predictive Modeling
- Advanced Resampling Techniques
- Time Series Analysis &Forecasting
- Bioinformatics and Computational Biology
- Survival Analysis
- Biostatistics & Epidemiology
- Demography & Population Dynamics
- Categorical & Directional Data Analysis
- Clinical Trials and Bioassays
- Statistical Genetics and Ecology
- Statistical Methods for Micro-Array Analysis
- Operations Research
- Industrial Statistics & Quality Control
- Actuarial Statistics
- Econometric Methods
- Stochastic Finance
- Reliability Modeling and Analysis

CORE COURSES OF MATHEMATICS

- Linear Algebra
- Algebra- I , II
- Topology
- Real Analysis – I , II
- Discrete Mathematics
- Ordinary Differential Equation
- Complex Analysis
- Functional Analysis
- Multivariable Calculus & Geometry
- Analytic Number Theory
- Probability Theory

ELECTIVE COURSES FOR MATHEMATICS

- Partial Differential Equation
- Differential Geometry
- Algebraic Topology
- Advanced Functional Analysis
- Advanced Complex Analysis
- Coding Theory
- Algebraic Number Theory
- Wavelets
- Graphs & Matrices
- Representation Theory
- Linear Programming
- Cryptography
- Operations Research
- Data Science & Data Analytics
- Stochastic Process
- Mathematics for Genetics and Ecology
- Acturial Mathematics
- Numerical Analysis with Python

Open Course: Python for Machine Learning