INTEGRATED MASTER DEGREE PROGRAMME IN MATHEMATICS

Programme Outcomes

The Integrated Master degree programme aims at holistic development of the students through the innovative and comprehensive educational ideology of Tripura University. The programme exposes the students to core disciplines of Mathematics, Economics, English, History, Hindi, Bengali, Philosophy, Political Science and Rural studies, as well as in the disciplines of Statistics, Sociology, Education and foundation courses. The necessary competencies in the respective areas will be developed for which all essential theoretical, practical and field based skills will be provided. On completion of the Programme, students will be able to:

- gain in depth knowledge of all core disciplinary courses,
- develop independent learning abilities and analytical thinking through problem-based assignments, practical exercises and projects,
- understand a scientific problem, logically analyse it and systematically find its solution,
- become an responsible citizen with a strong value base and ethics,
- apply knowledge and understanding in order to initiate and carry out a work or project for societal benefit,
- develop communication skills and ability to work in a team,
- train the students for attainment of technical skills, intellectual capability with exposure to modern technologies to serve as an individual or as a team leader in industries,
- learn and handle various analytical techniques and appreciate its importance,
- raise sensitivity to professional ethical codes of conduct, social values and respect for all,
- create awareness among students about need for conservation of environment and sustainable development,
- integrate different aspects of physical, practical, aesthetic, moral and intellectual dimensions of educations to develop a holistic personality of each student.

Programme Specific Outcomes

PO1: Knowledge: Obtain in depth knowledge on various topics in pure and applied mathematics, which will enable them to pursue higher degrees and research at reputed academic institutions. Get the knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific and engineering domains. It also enriches their analytical, critical, creative faculties.

PO2: Planning ability: Demonstrate effective planning abilities including time management, resource management and organizational skills. Ability to develop and implement plans and organize work to meet deadlines.

PO3: Problem analysis and solving: Inculcate mathematical reasoning, logical thinking skills and creativity; be equipped with skills to analyze problems, find solutions of them, formulate a hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.

PO4: Modern tool usage: Learn computer programming and computational tools like C, MS-Excel, MATLAB, etc. with an understanding of their potential uses as well as their limitations.

PO5: Leadership skills: Develop potential among students to excel as leaders in academics, entrepreneurship, industry and management.

PO6: Ethics: Develop scientific ethics, including confidentiality and accountability. Apply ethical principles and commit to professional ethics, responsibilities, and norms of science practices.

PO7: Communication: Ability to express effectively, write effective reports, design documentation, make effective presentations, give and receive clear instructions and effectively communicate with others.

PO8: Environment and sustainability: Create awareness about environment protection and conservation of resources and the need for sustainable development for long time betterment of the living beings on earth.

PO9: Life-long learning: Develop the ability to read and learn mathematical and statistical tools on their own that encourage independent exploration in the area of Mathematics and enable them to continue acquiring mathematical and statistical knowledge and skills appropriate to professional activities in the fast changing world.