Code : 06272



University Department of Mathematics

MITHILA UNIVERSITY

P.O. KAMESHWARANAGAR, DARBHANGA-846004.

Ref. No. Matt - 247/29

Dated 14:03,2022

सेवा में

IRAC 'Diretor' L.N.M.U. DBG.

1944: - course out come 2517 & 2119 cer 4/

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प्राचित करना है कि अगपक विभागीय प्रशंक सं०-I GAC/2151-2175/22 के आलोक में विभाग में Course out come की पात अगापक आदिशान्मा(भेगी जा रही है।

> Univ. Deptt. of Mathematics L.N.M.U. K. Nagar, Darbhanga

LEARNING OUTCOMES Two year Masters Programme in MATHEMATICS (M.A./M.Sc.)

Learning Objectives:

- * Knowledge of the recent development in the field of research of Mathematics based on the own experience and apply it in industry or higher study.
- > Apply different software for different type of problems in real life applications.
- Inclusion of recent methods of facilitating learning such as projects, group work and participative learning.
- To prepare themselves for the challenging problems in future and solve through the subject matter as far as possible.
- To establish a medium to connect different or allied subject area such as Financial Mathematics, Statistics, Machine learning, Big data systems etc.
- ➤ Encourage for the collaborative learning through different activities as seminar and conference.
- ➤ Encourage to visit the industry and apply the knowledge of Operation Research in the industry through inventory, queing systems etc.
- > To learn mathematics for development the society.

Knowledge:

The students study different subjects of Mathematics in this Program. Some of them are Abstract Algebra, Real Analysis, Complex analysis, Operation resarch, Linear algebra and others.

- This provides the information for the ongoing research in India and abroad.
- This provides a base information and strengthen the capacity building in higher study.
- This provides base for some job oriented courses like machine learning, big data system and Data mining etc.
- > operation reserch opens the gate for financial and industrial mathematics and they may use their skill owed thhrough this course.
- This provides solid experience in using mathematical language.
- Modern algebra provides the information of subject matter which also offers a platform for opportunity in its application such as coding through and cryptography.

Skills:

The students have generated different types of skills having owe this course.

They may engage in complex mathematical problems, clarify issues and find suitable solution methods.

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- In the work of the master's project, they have gained training in incorporating relevant academic literature and using it in an active and critical manner in relation to their own project.
- They are able to formulate a theoretical or practical problem in a mathematical language, and ability to work towards a solution of the problem within a formally correct framework.
- ➤ Whether the master's project originates in a mathematical problem or in a more used problem, they have skill to find solutions that are logically correct, based on the axiomatic basis in question.
- They are also able to have some experience of changing this basis, so as to work out a theory that will be better suited to understanding the current issue.

Learning Outcomes:

- This provides the importance of mathematics and its techniques to solve different types ofreal lifeapplications and provide the limitations of such techniques and the validity of the results.
- This provides a way to propose new mathematical and statical questions and suggest possiblesoftware packages and/or computer programming such as Mathematica, Matlab, C, C⁺⁺ etc. to find the solutions to these questions.
- This also provide a platform for acquiring career in higher studies for mathematical and statistical knowledge.
- This generates the skills for the appropriate professional activities and demonstrate highest standards of ethical issues in mathematics.
- The students may able to use computer calculations as a tool to carry out scientific investigations and develop new variants of the acquired methods, if required by the problem at hand.

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