WELCOME NAAC PEER TEAM

DEPARTMENT OF MATHEMATICS

MAHAMAYEE MAHILA MAHAVIDYALAYA

BERHAMPUR

DT: 06.11.2024

ABOUT THE DEPARTMENT

- The Department of Mathematics of Mahamayee Mahila Mahavidyalaya, Berhampur is one of the important discipline having started functioning in 2016 with 08 honours seats under Berhampur university.The faculty members of this department promised to strengthen the corporeal entity mathematics and to add academic achievement of the institution.

VISION & MISSION

- The vision of Department of Mathematics is to create a culture of mathematical learning in which the department endorse outstanding teaching and deep understanding in mathematics for all girl students who explore to learn.
- The mathematics department offers a broad and challenging academic programme that support the mission of Mahamayee Mahila Mahavidyalaya, Berhampur.

The mission of the Department of Mathematics is :

- To develop innovative educational activities to increase the quality of education in the field of mathematics.
- The mathematics department provides course and curriculum relevant to under graduate students enrolled in science and arts stream.
- To enhance student learning outcomes and success.

IMPORTANCE AND OBJECTIVES

The Department of Mathematics is provides both tangible and intangible benefits to the society as a whole. The idea, technique of mathematics are essential to many other disciplines.

Physics and Engineering:

(Velocity, acceleration, work done, current)

Economics:

(Model market behaviour, inflation)

Biology:

(Study of population growth, disease spread and epidemiology)

Computer science:

(Algorithms, artificial intelligence)

OBJECTIVE OF THE DEPARTMENT

- To teach students in the education of mathematics at all levels.
- To offer a set of CBCS model syllabus as well as NEP syllabus in mathematics aimed at developing the students creative ability and habit of independent study.
- To provide the opportunity for the students to participate in summer programme, seminars, Madhaba Mathematics Competition etc.

FACULTY PROFILE

- **Name**-SOUMYARANJAN RAY
- **DESIGNATION** -LECTURER
- **DISCIPLINE** -MATHEMATICS
- **QUALIFICATION**-M.SC,M.PHIL, JRF IN MATH.

- **Name**-SURAVI SAHU
- **DESIGNATION** -LECTURER
- **DISCIPLINE** -MATHEMATICS
- **QUALIFICATION**-M.SC IN MATH

SWOC

STRENGTH	WEAKNESS
1. Well-structured curriculum with diverse course offering. 2. Math Quiz and seminars.	1. Limited departmental budget and resources. 2. Limited industry partnership and internship opportunities.
OPPORTUNITIES	CHALLENGES
1.Development of online platforms and online course for broader reach. 2. Community outreach and engagement through math competitions and events.	1. Addressing math anxiety and phobia among students. 2. Managing faculty workload.

CURRICULUM UNDER CBCS MODEL SYLLABUS

Core course	Course Name
Core-I	Calculus
Core -II	Discrete Mathematics
Core -III	Real Analysis-I
Core -IV	Differential Equation
Core -V	Real Analysis-II
Core -VI	Group Theory-I
Core -VII	Partial Differential Equation
Core -VIII	Numerical Methods
Core -IX	Topology of Metric Space
Core -X	Ring Theory
Core -XI	Multivariable Calculus
Core -XII	Linear Algebra
Core -XIII	Complex Analysis
Core -XIV	Group Theory-II
Disciplinary Specific Elective (DSE)	
DSE-I	Linear Programming Problem
DSE-II	Probability & Statistics
DSE-III	Differential Geometry
DSE-IV	Dissertation/ project

PROGRAMME OUTCOME

Graduate of B.Sc./B.A. mathematics honours has ample amount of opportunities in areas like : Teaching, engineering, finance, accounting, technology(B.SC/B.A honours mathematics is a 3 year undergraduate programme that offers a vast range of career choice).This reason provides a high-in-demand job profile after graduating with mathematics for the betterment of students future.

COURSE OUTCOME

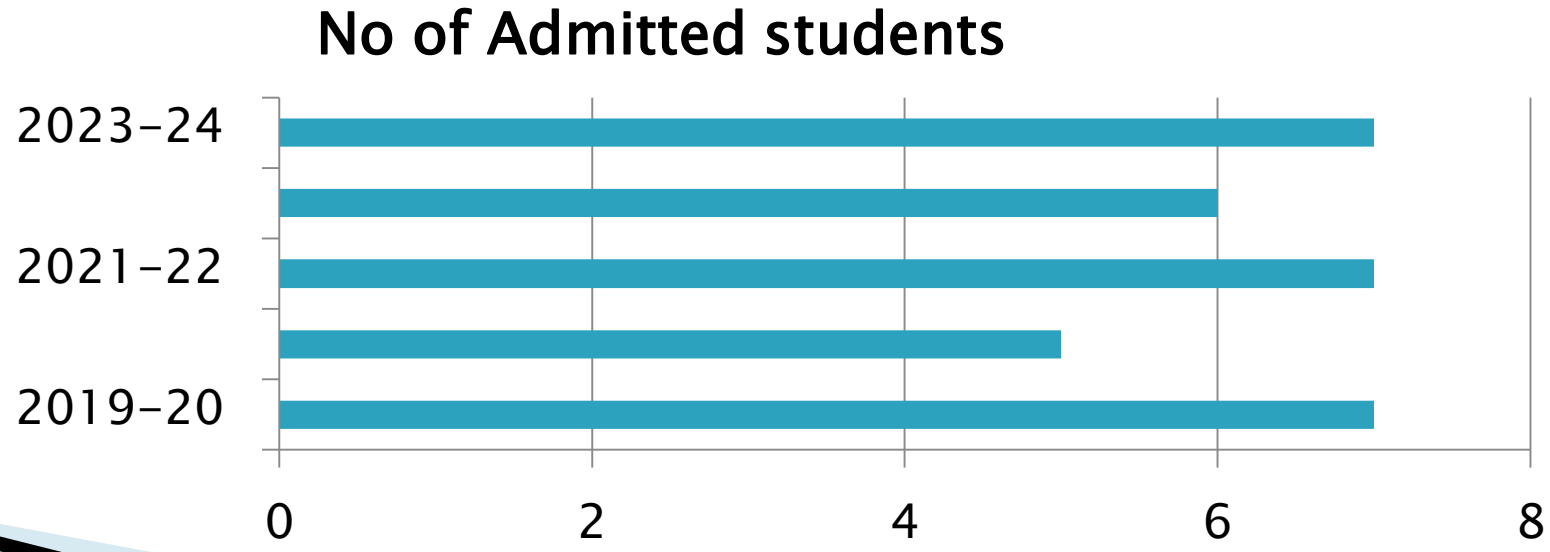
Course Name	Outcome
CALCULUS	The main emphasis of this course is to equip the student with necessary analytic and technical skills to handle problems of mathematical nature as well as practical problems.
DISCRETE MATHEMATICS	The acquired knowledge will help students in simple mathematical modelling.
REAL ANALYSIS-I	The objective of the course is to have the knowledge on basic properties of the field of real numbers, studying Bolzano-Weirstrass Theorem , sequences and convergence of sequences, series of real numbers and its convergence.
DIFFERENTIAL EQUATION	A student completing the course is able to solve differential equations and is able to model problems in nature using Ordinary Differential Equations. This is also prerequisite for studying the course in Partial Differential Equations and models dealing with Partial Differential Equations.
REAL ANALYSIS-II	The objective of the course is to have knowledge on limit theorems on functions, limits of functions, continuity of functions and its properties, uniform continuity, differentiability of functions, algebra of functions and Taylor's theorem and its applications.

GROUP THEORY-I	Objective of this course is to introduce students to basic concepts of group theory and examples of groups and their properties.
PDE & SYSTEM OF ODE	The objective of this course is to understand basic methods for solving Partial Differential Equations of first order and second order. In the process, students will be exposed to Charpit's Method, Jacobi Method and solve wave equation, heat equation, Laplace Equation etc
NUMERIAL METHODS	Calculation of error and approximation is a necessity in all real life, industrial and scientific computing
TOPOLOGY OF METRIC SPACE	The objective of this course is to impart knowledge on open sets, closed sets, continuous functions, connectedness and compactness in metric spaces
RING THEORY	Some basics of ring theory like rings, subrings, ideals, ring homomorphisms and their properties .
MULTIVARIABLE CALCULUS	The objective of this course to introduce functions of several variable to a student after he has taken a course in one variable calculus
PROBABILITY & STATISTICS	The objective of the course is to expertise the student to the extensive role of statistics in everyday life and computation, which has made this course a core course in all branches of mathematical and engineering sciences

COMPLEX ANALYSIS	The objective of the course is aimed to provide an introduction to the theories for functions of a complex variable
DIFFERENTIAL GEOMETRY	After learning methods on curve tracing and Analytic Geometry, the objective of this course is to teach Differential geometry of curves and surfaces which trains a student using tools in calculus to derive intrinsic properties of plain curves and space curves
LINEAR PROGRAMMING PROBLEM	The objective of this course is to familiarize industrial problems to students with various methods of solving Linear Programming Problems, Transportation Problems, Assignment Problems and their applications.
GROUP THEORY-II	The course introduces results on automorphism , commutator subgroup, group action Sylow theorems.

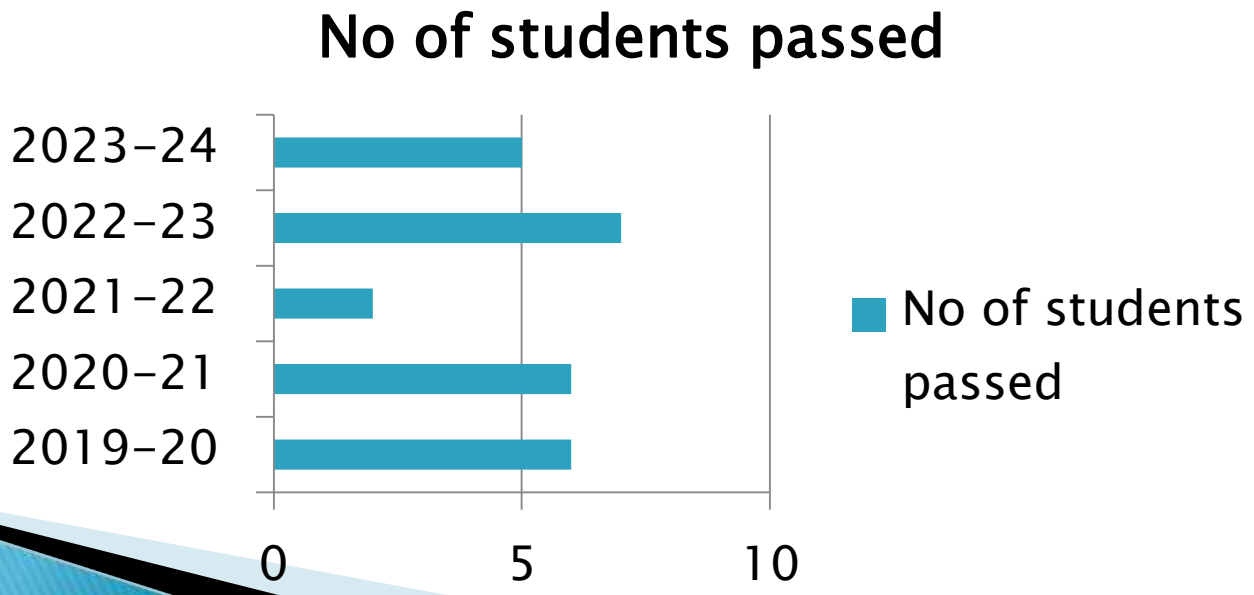
ADMISSION REPORT

YEAR	SANCTIONED STRENGTH	NO OF ADMITED STUDENTS
2019-20	08	07
2020-21	08	05
2021-22	08	07
2022-23	08	06
2023-24	08	07



RESULT ANALYSIS

YEAR	FINAL SEMESTER EXAM APPEARED	NO OF STUDENTS PASSED
2019-20	06	06
2020-21	08	06
2021-22	03	02
2022-23	07	07
2023-24	05	05



ACTIVITIES AND PHOTOS


REDMI NOTE 7 PRO
AI DUAL CAMERA


BERHAMPUR
REDMI NOTE 7 PRO
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NEP-2020 IMPLEMENTATION

- NEP-2020 has implemented in the year 2024-25 session.

Key Recommendation of NEP for MATH :

1.Emphasis on conceptual understanding.

2. Focus on problem solving and critical thinking.

3. Shift from rote learning to conceptual understanding.

4.Mathematical modeling.

5. Integration with real life applications.

Three-Year Degree Course with a single major with two minors

Semester	CORE-1	CORE-II	CORE-III	Multidisciplinary	AEC	SEC	VAC	Community Services/ Fieldwork/ Internship	Total Minimum Credits
I	PAPER-I, II	Paper-I	-	One from MCB-1	Odia	-	Environmental Studies and Disaster Management	-	22
II	PAPER-III, IV	-	Paper-I	Indian Knowledge System	English	One from SECB-1	-	-	22
III	PAPER-V, VI, VII	Paper-II	-	One from MCB-2	-	-	Ethics and Values	-	22
IV	PAPER-VIII, IX, X	-	Paper-II	-	-	-	-	4 credit course (Compulsory)	20
V	PAPER-XI, XII, XIII	Paper-III	-	-	-	One from SECB-2	One from VACB-1	-	22
VI	PAPER-XIV, XV	-	Paper-III	-	-	One from SECB-3	One from VACB-2	-	18
Total	15x4=60	3x4=12	3x4=12	3x3=9	2x4=8	3x3=9	4x3=12	1x4=4	**126**

FUTURE PLAN OF THE DEPARTMENT

1. To enhance the number of seats from 08 to 32.
2. Formation of computer lab for the department.
3. A smart class room and digital library for the department.


Thank you!