

PROCEEDING OF BOARD OF STUDIES 2024-2025, SCHOOL OF MATHEMATICS
HELD ON 26th September 2024 at 3.30pm.

MEMBERS PRESENT:

1. Prof. Jayaprakash Panda, External Member, Professor, Dept. of Mathematics, VSSUT Burla
2. Prof. B. L. Panigrahi, Chair-Person, Professor, School of Math., G. M. University
3. Dr. A. Patra, Member, Asst. Professor, School of Math., G. M. University
4. Dr. Y. Jamudulia, Member, Asst. Professor, School of Math., G. M. University
5. Mr. Gourishankar Guru, Student Representative

BUISNESS CONDUCTED:

The Board of Studies meeting of School of Mathematics, GMU was held on 26-09-2024 in the Office of School of Mathematics in physical mode at 3.30 pm. The meeting continues up to 5.00pm with successful discussions.

1. It has been resolved that, the School of Mathematics, GMU implemented the NEP 2020 syllabus for UG students from the academic year 2024-2025. The structure and syllabus have been discussed and finalized.
2. The question pattern approved in last Academic Council for PG has been discussed and chooses Pattern 2 and Pattern 3.
3. The Moderator, Examiner and Paper Setter for UG, PG have been placed.

J. Panda
26.9.24
(J. Panda)

B. L. Panigrahi
26/9/2024
(B. L. Panigrahi)

A. Patra
26.09.24
(A. Patra)

Y. Jamudulia
26/9/24
(Y. Jamudulia)

Gourishankar Guru
26/9/24
(G. Guru)

MODEL CURRICULUM FOR THREE YEAR DEGREE COURSE

(WITH MULTIPLE ENTRY/EXIT OPTION)

Based on N.E.P.-2020



MATHEMATICS

2024-2025

Amrta
26.09.24

Preparatory *Jah* 26.9.24
26.9.24 (Prof J. R. PANDA)

Samrta
26/09/2024

SCHOOL OF MATHEMATICS, AMRUTA VIHAR
SAMBALPUR, ODISHA, INDIA-768004

<https://www.gmuniversity.ac.in>

VISION

To take the leadership in setting the standard of Mathematics Education in terms of Teaching and Research in the State and in the Country that will have a transformative impact on society through continual innovation in education, research and creativity.

MISSION

M-1-To excel in providing high quality Mathematical skills to undergraduate

M-2-To attend the mathematical needs of the institute and the community.

M-3-To provide students (UG/PG) with a wide spectrum of valuable courses with rigorous training/tutorials that enables them to pursue their future.

M-4-To encourage both research scholars and faculty members of the department to be the exposures of different research environments in India and abroad.

PROGRAMME OUTCOMES (PO's)

The programme outcomes and attributes are attained by the graduate students of Gangadhar Meher University through learning acquired on completion of a programme of study. Individual programmes of study have a defined programme specific learning outcomes which needs to be attained for the award of a specific degree. The programme learning outcomes of Gangadhar Meher University focus on various aspects of knowledge and skills that prepare students for further study, employment, and citizenship. Therefore, the UG programme of the Gangadhar Meher University has been designed with the objective to develop in-depth knowledge of students in frontier areas of concerned subject and seeks to achieve the following:

- **PO-1: Disciplinary Knowledge:** Undergraduate students will demonstrate knowledge and understanding of one or more discipline knowledge.
- **PO-2: Critical Thinking:** Apply their analytical thoughts to evaluate evidences, claims, theories and arguments of the discipline; formulate coherent arguments, evaluate practices and policies in the academic field
- **PO-3: Problem Solving:** Solve the non-familiar problems based upon his/her knowledge and understanding about the discipline knowledge, including real life problems
- **PO-4: Communication Skills:** Ability to express thoughts and ideas effectively verbally and written. Develops the capacity to listen patiently, express himself or herself.
- **PO-5: Research Related Skills:** A sense of Enquiry, and capacity for asking relevant/appropriate questions. Ability to recognize cause-effect relationship, define problem, formulate hypothesis, analyze, interpret and draw conclusions; generate and test hypothesis; conduct experiment and draw conclusion from findings scientifically.
- **PO-6: Co-Operative/Team Work:** Ability to work effectively and respectfully with diverse team; facilitate or co-ordinate efforts within group activities; work together within a team
- **PO-7: Multicultural Competencies:** Possess knowledge of the values and beliefs of multiple culture and a global perspective; capacity to work effectively in multiple socio-cultural contexts and interact respectfully with diverse social groups
- **PO-8: Digital Literacy:** Capacity to use ICT in a variety of learning situations; demonstrate ability to access, evaluate and use variety of relevant information sources; use appropriate software for data analysis.

Signature
26/07/24

Prerna Singh

PROGRAMME OBJECTIVES

(Set by School of Mathematics)

- Create deep interest in learning mathematics;
- To develop broad and balanced knowledge, and understanding of definitions, concepts, principles and theorems;
- To familiarize the students with suitable tools of mathematical analysis to handle issues and problems in mathematics and related sciences;
- To enhance the ability of learners to apply the knowledge and skills acquired by them during the programme to solve specific theoretical and applied problems in mathematics;
- To provide students sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas on multiple disciplines concerned with mathematics;
- To encourage the students to develop a range of generic skills helpful in employment, internships and social activities.

PROGRAMME SPECIFIC OUTCOMES(PSO's)

(Set by School of Mathematics)

- PSO-1: A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology.
- PSO-2: A student should get adequate exposure to global and local concerns that explore them many aspects of mathematical sciences.
- PSO-3: Student is equipped with mathematical modeling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- PSO-4: Student should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.
- PSO-5: Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

MATCHING

Matching Percentage	Level Indicator
> 70%	3
= 60 %	2
< 50%	1

MISSION TO PO MAPPING

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8
M1	3	3	3	3	3	3	3	3
M2	3	2	3	3	3	2	2	3
M3	3	2	2	3	2	2	3	2
M4	1	2	1	3	1	1	1	2

PSO TO PO MAPPING

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8
PSO1	3	3	2	3	3	3	3	2
PSO2	1	3	3	2	3	3	2	3
PSO3	3	2	2	2	2	3	3	3
PSO4	1	2	3	3	3	2	1	3
PSO5	2	3	3	2	3	2	2	2

5/9/2024
26/07/24

Dr. Paigrahi J. R.

THREE YEAR DEGREE COURSE WITH SINGLE MAJOR AND TWO MINOR

COURSE STRUCTURE OF UG MATHEMATICS HONOURS UNDER N.E.P.-2020

Semester	Course Code	Course Name	Credit
I	Paper-1	Calculus & Analytic Geometry	4
	Paper-2	Introduction to Algebra & Number Theory	4
	Core-II (Minor)	Calculus & Analytic Geometry	4
	Multidisciplinary Course (MDC-I)	Discrete Mathematics	3
	Ability Enhancement Course (AEC-I)	Odia	4
	Value Added Course (VAC-I)	Environmental Studies and Disaster Management	3
	Total		22
II	Paper-3	Real Analysis-I	4
	Paper-4	Algebra-I	4
	Core-III (Minor)	Introduction to Algebra & Number Theory	4
	Multidisciplinary Course (MDC-II)	Linear Programming Problem	3
	Ability Enhancement Course (AEC-II)	English	4
	Skill Enhancement Course (SEC-I)	Programming with Mathematics	3
	Total		22
III	Paper-5	Probability	4
	Paper-6	Differential Equations-I	4
	Paper-7	Linear Algebra	4
	Core-Ii (Minor)	Real Analysis-I	4
	Multidisciplinary Course (MDC-III)	Introduction Programming with MATLAB	3
	Value Added Course (VAC-II)	Mathematica	3
	Total		22

Sandip
26/07/24

Supaigrahi *Jah*

COURSE STRUCTURE OF UG MATHEMATICS HONOURS UNDER NEP-2020

Semester	Course Code	Course Name	Credit
IV	Paper-8	Real Analysis-II	4
	Paper-9	Complex Analysis-I	4
	Paper-10	Algebra-II	4
	Core-III (MINOR)	Linear Algebra	4
	Community Engagement& Services/Fieldwork/ Internship	Internship	4
	Total		20
V	Paper-11	Real Analysis-III	4
	Paper-12	Differential Equations-II	4
	Paper-13	Numerical Analysis & Scientific Computing	4
	Core-II (MINOR)	Differential Equations-I	4
	Skill Enhancement Course (SEC-II)	Introduction to Python	3
	Value Added Course (VAC-III)	Operations Research	3
	Total		22
VI	Paper-14	Multivariable Calculus	4
	Paper-15	Differential Geometry	4
	Core-III (Minor)	Numerical Analysis & Scientific Computing	4
	Skill Enhancement Course (SEC-III)	Typesetting in Latex	3
	Value Added Course (VAC-IV)	Research Methodology	3
	Total		18


 Sandeep
 26/07/24

 Trishu