

Mahakaushal University, Jabalpur, Madhya Pradesh

Scheme For Post-Graduation Programme

Subject – PHYSICS (M.Sc. in physics)

Session 2025-26

Scheme B-1 (For Course with Major Practicum Component)

Year/Semester		Courses level	Core Courses/Dissertation (Course Code)	Practicum Courses	Internship/Apprenticeship/Seminar OR Value Added Course (VAC) (CHM/EESC)	Total Credits
First Year	Sem I	400	MPHY0101-T (6 Credits)	MPHY0101-P (4 Credits)	Internship/Apprenticeship OR Seminar (2 Credits)	22
		400	MPHY0102-T (6 Credits)	MPHY0102-P (4 Credits)		
	Sem II	400	MPHY0201-T (6 Credits)	MPHY0201-P (4 Credits)	VAC (CHM) (2 Credits)	22
		400	MPHY0202-T (6 Credits)	MPHY0202-P (4 Credits)		

Note: Students who exit at the end of 1st year shall be awarded a Postgraduate Diploma

OPTION – 1: Only Course Work						
Year/Semester		Courses level	Core Courses/Dissertation (Course Code)	Practicum Courses	Internship/Apprenticeship/Seminar OR Value Added Course (VAC) (CHM/EESC)	Total Credits
Second Year	Sem III	500	MPHY0301-T (6 Credits)	MPHY0301-P (4 Credits)	Internship/Apprenticeship (2 Credits) OR Seminar/Cyber Security (2/4 Credits)	22/24
		500	MPHY0302-T (6 Credits)	MPHY0302-P (4 Credits)		
	Sem IV	500	MPHY0401-T (6 Credits)	MPHY0401-P (4 Credits)	VAC (EESC) (2 Credits)	22
		500	MPHY0402-T (6 Credits)	MPHY0402-P (4 Credits)		

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OPTION – 2: Only Course Work & Research Work						
Year/Semester		Courses level	Core Courses/Dissertation (Course Code)	Practicum Courses	Seminar/Research thesis/Project/Patent	Total Credits
Second Year	Sem III	500	MPHY0301-T (6 Credits)	MPHY0301-P (4 Credits)	Internship/Apprenticeship (2 Credits) OR Seminar/Cyber Security (2/4 Credits)	22/24
		500	MPHY0302-T (6 Credits)	MPHY0302-P (4 Credits)		
	Sem IV	-	-	-	-	Research thesis/Project/Patent (22 Credits)
OPTION – 3: Only Research Work						
Year/Semester		Courses level	Core Courses/Dissertation (Course Code)	Practicum Courses	Seminar/Research thesis/Project/Patent	Total Credits
Second Year	Sem III		Research thesis/Research Project/Patent (22 Credits)			22
	Sem IV		Research thesis/Research Project/Patent (22 Credits)			22

- Note:**
1. Research Centres have the choice of running all the OPTIONS mentioned above
 2. Students having 4 years Under Graduate Degree (Honours/Honours with Research) are eligible for direct lateral entry in the Semester-III of 2-year PG Programme



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Internal and External Marks Evaluation for PG Programme

Course/ Subject code	Paper Name	Credits	Distribution of Theory Marks		Distribution of Practicum/Tutorial/Assignment/ Internship/Apprenticeship /Seminar		Total Marks
			Internal Evaluation (Through CCE)	External Evaluation (Term End Examination)	Internal Evaluation (Through CCE)	External Evaluation (Term End Examination)	
MPHY0101-T	Mathematical Physics	6	40	60			100
MPHY0102-T	Classical Mechanics	6	40	60			100
MPHY0101-P	Lab-I (Mathematical Physics)	4			40	60	100
MPHY0102-P	Lab-II (Classical Mechanics)	4			40	60	100
MPHY0201-T	Condensed Matter Physics	6	40	60			100
MPHY0202-T	Advanced Quantum Mechanics	6	40	60			100
MPHY0201-P	Lab-I (Condensed Matter Physics)	4			40	60	100
MPHY0202-P	Lab-II (Advanced Quantum Mechanics)	4			40	60	100
MPHY0301-T	Nuclear Atomic & Molecular Physics	6	40	60			100
MPHY0302-T	Material Science	6	40	60			100
MPHY0301-P	Lab-I (Nuclear Atomic & Molecular Physics)	4			40	60	100
MPHY0302-P	Lab-II (Material Science)	4			40	60	100
MPHY0401-T	Laser and fiber optical Communication	6	40	60			100
MPHY0402-T	Digital Electronic and Microprocess	6	40	60			100
MPHY0401-P	Lab-I (Laser and fiber optical Communication)	4			40	60	100
MPHY0402-P	Lab-II (Digital Electronic and Microprocess)	4			40	60	100
Assignment/Seminar		2			100		100
Value Added Courses VAC: CHM/EESC/Cyber Security		2/4		100			100
Research Thesis/Project/Patent		22	40	60			100
Internship/Apprenticeship		<i>Note: Marks (out of 100) to be awarded by the concerned organization</i>					100
Dissertation	<i>Note: (i) Marks (out of 50) to be awarded by External Examiner on the final Dissertation submitted by the student (ii) Marks (out of 50) to be awarded by External Examiner in coordination with the Internal Examiner(s) during Open-Presentation/Viva-Voce</i>						100

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Pattern of Marks Distribution THEORY PAPER for NEP PG courses

Assessment and Evaluation

Recommended Continuous Assessment Methods:- (It may vary for respective course subject but TOTAL marks distribution will remain same)		
Maximum Marks: 100		
Continuous Comprehensive Evaluation (CCE): 40 Marks		
University Examination: 60 Marks		
Internal Assessment: Continuous Comprehensive Evaluation (CCE):	Class Test Assignment/Presentation	20 Marks 20 Marks Total Marks = 40
External Assessment: University Examination: Time: 3 Hours	Section (A) - Five very short answer questions (20 words each) Section (B) - Five short answer questions (200 words each) Section (C) - Two long answer questions (500 words each)	02 Marks x 05 Questions = 10 Marks <i>(All 5 Questions to be attempted)</i> 06 Marks x 05 Questions = 30 Marks <i>(5 Questions to be attempted out of total 8 Questions)</i> 10 Marks x 02 Questions = 20 Marks <i>(2 Questions with each having internal choice)</i> Total Marks = 60

Pattern of Marks Distribution PRACTICAL PAPER for NEP PG courses

Assessment and Evaluation

Suggested Continuous Evaluation Methods: (It may vary for respective course subject but TOTAL marks distribution will remain same)			
Internal Assessment	Marks	External Assessment	Marks
Class Interaction /Quiz	15	Viva Voce on Practical	10
Attendance in the lab	10	Practical Record File	10
Assignments (Charts/ Model Seminar / Rural Service/ Technology Dissemination/ Report of Excursion/ Lab Visits/ Survey / Industrial visit)	15	Table work / Experiments	40
TOTAL	40		60