MUGBERIA GANGADHAR MAHAVIDYALAYA

P.O.-BHUPATINAGAR, Dist.-PURBA MEDINIPUR, PIN.-721425, WEST BENGAL, INDIA
NAAC Re-Accredited B+ Level Govt. aided College
CPE (Under UGC XII Plan) & NCTE Approved Institutions
DBT Star College Scheme Award Recipient

E-Mail: mugberia_college@rediffmail.com // www.mugberiagangadharmahavidyalaya.ac.in/

Programme outcomes and Course outcomes

Department of Physics

Faculties and students of our department are aware of the stated Programme and course outcomes offered by the Institution.

PROGRAMME OUTCOMES: B. Sc. PHYSICS

After successful completion of three year degree (6 SEMETER) program in physics a student should be able to:	
Programme Outcomes	PO1: Attain a deep understanding of the subject matter and enhance the capacity to operate effectively across various interdisciplinary fields. PO2: Explore personal, organizational, and societal values and comprehend the influence of diverse cultural perspectives, as well as the effects of technological progress, innovations, and their applications. PO3: Proficiency in collaborative teamwork, leadership, and effective management techniques to steer the organization towards achieving its Vision and Mission. PO4: Demonstrate proficiency in research methodology, data analysis, and effective communication of research findings in a clear and concise manner. PO5: Acquire a comprehensive understanding of ethical principles and uphold professional ethics through a dedicated commitment. PO6: Enhancement of communication skills, proficiency in teamwork, and the ability to lead effectively PO7: Utilize modern methods, high-quality equipment, and diverse software applications

Programme Specific Outcomes	PSO1: Comprehend and implement the principles of different courses offered under the CBCS curriculum. POS2: Ensure that individuals are properly trained and equipped to safely operate and effectively handle sophisticated instruments. POS3: Comprehend and adhere to established laboratory safety protocols and best practices for maintaining a safe and efficient laboratory environment. POS4: Acquire and improve computer skills. POS5: Drive to pursue advanced education (PG, PhD)

Course Outcome

Course Code	Course Name	Course Outcome
CC-1	Mathematical Physics-I (Theory)	1. Study of Calculus brings about a clear understanding and estimation of infinitesimal dynamical variations in Space and Time domain. 2. Knowledge of Vector Calculus refers to direction specific variations in 1D, 2D and 3D Space with time dependent coordinate system. 3. Introduction to Probability basically reflects on the Statistical behaviour for very large Data base systems. 4. From this course, students gets enriched in specific Mathematical tools to probe and understand any Physical, Chemical and Biological issues along with Theoretical concepts.
	Mathematical Physics-I (Practical)	1. Understand the basics of programming in Python, which is a universally accepted open source programming language. 2. Know about the open source advanced operating system Linux 3. Operate the Gnuplot for graph plotting which must helps the students to analyze different problems graphically. 4. Apply different computational techniques in any branch of theoretical and experimental physics.

CC-2	Mechanics (Theory) Mechanics (Practical)	1. Learn about Gravitation and its impact on the dynamic Universe. 2. Learn about elastic properties of matter and its application I construction field, bending of beam and how to measure different types of elastic constant. 3. Learn first that motion and rest are completely relative phenomenon. Speed of light is the highest speed in this universe. 4. Learn how fluid moves and what conservation theorem work. 5. To expose the students to the hands-on experience of classical mechanical domain that they have learnt theoretically. 1. Understand different techniques for measuring different physical properties like (i) flexure method (ii) Searle's method (iii) Poiseuille's method etc 2. 2. Know the uses of different apparatus like (i) Ttorsional Pendulum (ii) Sextant (iii) Bar Pendulum (iv) Kater's Pendulum 3. Know how to make systematic experimental observation, , recording of data and other basiclaboratory practices in this course and also know the technique of plotting the graphs and determine different parameters from the graph. 4. Measure the errors in experimental data.
CC-3	Electricity and Magnetism (Theory)	After successful revision of this course, students will acquire knowledge of the following: 1. Electrostatics, Gauss Law and Concepts of Capacitance along with application to Capacitors. 2. Dielectric Properties of Materials and concept of Polarization in various media along with their applications. 3. Existence and generation of Magnetic Field and Force, Concepts of Magnetic Dipole formation, Amperes Circuital Law and its applications. 4. Magnetic properties of matter, Magnetization, Magnetic susceptibility and permeability. Ferromagnetism and development of Hysteresis phenomenon. 5. Electromagnetic Induction, Lenz's Law, Reciprocity theorem.

	Electricity and Magnetism (Practical)	1. Electrical circuits - Their types and applications. Development of Network theorem and their uses. This course helps to develop insights for motors, dynamos, etc. and their design along with fabrication of large and small scale electro-magnetic units. 2. Know about various electrical components, power supply, multimeter and various other measuring instruments like (i) Potentiometer (ii) Carey Foster's Bridge (iii) Anderson's bridge (iv) Galvanometer etc 3. Perform experiments on various topics of electricity and magnetism associated with the course 4. Know about precautions to be taken during performing an experiment and will be able to identify different sources of error.
CC-4	Waves and Optics (Theory)	After successful revision of this course, students will acquire knowledge of the following: 1. Huygen's wave theory based Interference and Diffraction phenomena (except most of Fresnel's theory) were of topics in squeezed course. 2. Idea about superposition of co-liner and perpendicular liner harmonic oscillators. 3. Details about interference, diffraction and Holography. 4. Knowledge of wave motion and velocity of wave.
	Waves and Optics (Practical)	1. Know about different instruments/parts like (i) Spectrometer (ii) EDF Prism (iii) Sodium source and Sodium Vapour Lamp, Mercury Vapour Lamp (iv) Diffraction Grating (v)wedge-shaped Film etc 2. Understand about different experimental setup like (i) Fresnel Biprism (ii) Newton's Rings (iii) Michelson's interferometer
CC- 5	Mathematical Physics-II (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics : 1. To understand Fourier series and Fourier transform and apply to analyze various periodic and non periodic functions.

		2. Know about the application of Fourier series and Fourier Transform i.e Summing of Infinite series. 3. To understand the technique of series solution of 2^{nd} order linear differential equations. 4. Solve partial differential equations by method of separation of variable. 5. Understand special mathematical functions and orthogonal polynomials. 6. Knowledge about the basic ideas of variational calculus. 7. Knowledge about partial differential equations with some physical problems.
	Mathematical Physics-II (Practical)	1 Improve ability to write computer program to solve physical problems (first order differential equations) using Numpy code. 2 Basic knowledge about Curve Fitting using GNUPLOT code.
CC-6	Thermal Physics (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Understand and apply the laws of thermodynamics 2. Knowledge about the interrelationship among thermodynamic functions and improve ability to use these relationships to solve physical problems 3. Understand the postulates of kinetic theory of gas. 4. Knowledge how to express macroscopic parameters from Maxwell velocity distribution law. 5. Understand the basic ideas of transport phenomenon and extraction of some physical parameters. 6. Knowledge how real gas behaves and find out critical constants.
	Thermal Physics (Practical)	1. Improve ability to perform experiments based on thermal physics. 2. Experiments mainly focus on thermal properties of material like thermal conductivity, temperature coefficient of resistance , Mechanical equivalent of heat.
CC-7	Digital Systems and Applications (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics: 1. Understand Boolean logic and its connection to

		digital electronics. 2. Knowledge about the number system and their arithmetic operations. 3. Knowledge about some Boolean function and simplification of Boolean expression. 4. Understand the operation of sequential and combinational circuits. 5. Knowledge about some basics of computer.
	Digital Systems and Applications (Practical)	1. Improve skill to handle electronic equipments. 2. Improve ability to perform experiments mainly focus on combinational and sequential circuit analysis using ICs.
GE-3	Solid State Physics(Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Knowledge about the concept of crystal structure and basic ideas to analyze crystal structure of unknown sample. 2. Knowledge about normal modes of vibration. 3. Understand the basic properties of solid. 4. Knowledge about the differences of metal, semiconductor and insulator on the basis of band formation. 5. Development of elementary ideas about Superconductor and their properties.
	Solid State Physics(Practical)	Enhancement of ability to perform experiments based on the macroscopic properties of Solid.
SEC 1	Electrical Circuits and Network Skills	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Understand the elementary ideas about ohm's law and their application. 2. Knowledge about basic of electric circuits and their symbols. 3. Elementary ideas about generators, transformers and motors. 4. Elementary ideas and block diagram about electrical wiring.
CC-8	Mathematical Physics-III(Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Brief understanding of complex variables to solve physical problems.

		2. Detailed understanding of physical problems with integral transformation. 3. Knowledge about matrix algebra and their application to find out ordinary differential equation.
	Mathematical Physics-III (Practical)	Gain knowledge on the solution differential equation and different kind of function like Gaussian function, Dirac Delta function etc using Python.
CC-9	Elements Of Modern Physics(Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Understand the inadequacies of classical mechanics and appreciate the historical development of quantum mechanics and its applicability. 2. Knowledge of Schrodinger equation and its application. 3. Understand of basic nuclear structure. 4. Knowledge of radio activity, fission fusion etc.
	Elements Of Modern Physics (Practical)	Development of ability on experiment mainly focus on Quantum effect of some Physical phenomenon.
CC-10	Analog System and Application (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Understand of basic ideas of Semiconductor and its formation. 2. Basic knowledge on some semiconducting devices. 3. Detailed understanding of transistor action and its application. 4. Understand of Op-Amp application. 5. Knowledge of few kind of oscillator circuit and its application.
	Analog System and Application(Practical)	Enhancement of ability to perform experiments based on electronic devices like transistor, Zener diode, etc.
SEC-2	Basic Instrumentation Skills (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics

	Basic Instrumentation Skills (Practical)	1. Knowledge of basic measurements and their errors. 2. Knowledge of working principle of Voltmeter, CRO Q-meters ,Digital multimeter etc. Understand and development skills of basic instruments like CROs, Digital Multimeters etc.
GE-4	Electricity and Magnetism(Theory) Electricity and Magnetism(Practical)	After completion of this course, the students are expected to gain knowledge/skill about the following topics 1. Remember identities of vector differentiation and integration. 2. Understand the basic laws of electrodynamics and apply to physical problems. 3. Knowledge about technique of calculate field and potential for various charge and current distribution. 4. Knowledge how to simplify a complicated network circuits. 1. Development of basic skills how to use Multimeter. 2. Gain ability to perform experiment for measurement of some electrical parameters.
CC-11	Quantum Mechanics and Applications (Theory)	After completion of this course, the students are expected to gain knowledge/skill about the following topics : 1. Basic terms in Quantum Mechanics and association with classical physics. 2. Time independent Schrodinger equation-Hamiltonian and its application. 3. General discussion of bound states in an arbitrary potential and uncertainty principal. 4. Quantum mechanical solution of Hydrogen atom 5. Idea about the Atoms in Electric & Magnetic Fields (Stern-Gerlach Experiment , Zeeman Effect, Anomalous Zeeman Effect) 6. Familiarize with Spin-orbit coupling in atoms - L-S and J-J couplings. Hund'sRule. Term symbols. Spectra of Hydrogen and Alkali Atoms

	Quantum Mechanics and Applications (Practical)	1. Solve different Quantum Mechanics problem using Python and scilab. 2. Development skill in numerical method.
CC-12	Solid State Physics (Theory)	1. Understand basic crystal structure and compare various crystal systems 2. State and prove Bragg's law and Explain X-ray diffraction and various methods to obtain diffraction pattern 3. Idea about Lattice Vibrations and Phonons. 4. Understand basic properties of semiconductors and band structure of solids 5. Familiarize with magnetic properties of matter and its classification. 6. Idea about Elementary band theory. 7. Introduction to superconductivity and its properties.
	Solid State Physics (Theory)	1. Students gain insight into understanding of physics of magnetic properties of matter, hall effect and measured it experimentally. 2. Run sophisticated instrument
DSE-1	Classical Dynamics	Student will accrue knowledge in the following topic after successfully completing the course : 1. Review of Newtonian Mechanics and introduction of Lagrangian and Hamiltonian. 2. Application of Lagrangian and Hamiltonian in different system. 3. Familiarizations and its application of Small System. 4. Ideas on Special Theory of Relativity and will be able to solve the problem using four-momentum. 5. Drive and application of Poiseuille's equation, Navier-Stokes equation, qualitative description of turbulence and Reynolds number.
DSE-2	Nuclear and Particle Physics	After completion of this course students will able to 1. Explain the nuclear structure, different nuclear Models . Predict the spin parity of nucleus. 2. Ideation about the radioactive decay process. 3. Analyze the types of nuclear reactions, familiarization with detectors and accelerators. 4. Know different types of elementary particles, associated quantum number and their interaction.

CC-13	Electromagnetic Theory (Theory)	Students will have achieved the ability to: 1. Application of Maxwell equations in analyzing the nature of electromagnetic field due to time varying charge and current distribution. Knowledge of Poynting Theorem and Poynting Vector. 2. Knowledge of Maxwell equations and apply it in numerous problems 3. Idea about EM Wave Propagation in Unbounded and bound medium. Knowledge of Polarization of Electromagnetic Waves 4. How the Wave guide work and basic of Optical Fibres.
	Electromagnetic Theory (Practical)	1. Development of knowledge and skill of modern physics experiment such as verification of Malus law, specific rotation of solution, study Polarization of light, refractive index of liquid etc. 2. Ability of handling the optical instrument.
CC-14	Statistical Mechanics (Theory)	After successfully completing the course, student will be able to: 1. Find the connection between the statistics and the thermodynamics 2. Knowledge of different types of ensamble and use of these to drive thermodynamic variables. 3. Familiarizations with Maxwell-Boltzmann, Bose-Einstein and Fermi- Dirac statistics and their application. 4. Develop the concept of negative temperature, classical and quantum theory of radiation.
	Statistical Mechanics (Practical)	1. Visualization of different thermodynamics problem with python. 2. Ploting of Maxwell-Boltzmann, Bose-Einstein and Fermi- Dirac statistics with python.
DSE-3	Communication Electronics (Theory)	After successfully completing the course, student will be able to: 1. Get a complete review of digital electronics 2. Idea of electronic communication system . 3. Brief idea of frequency allocation for radio communication system in India (TRAI) 4. Knowledge of Analog and Digital Pulse Modulation. 5. Idea about Communication and Navigation

		systems.
	Communication Electronics (Practical)	1. Design the simple program based on different microprocessor. 2. Design Transmitter and Receiver device 3. Study of amplitude, widths and pulse modulation.
DSE-4	Experimental Techniques (Theory)	After successfully completing the course, student will be able to: 1. Explain the accuracy, precision, types of error , different statistical distribution . 2. Idea about Signals and Systems, Method of safety grounding, Shielding. 3. Knowledge of Digital Multimeter, Impedance Bridges , Vacuum Systems.
	Experimental Techniques (Practical)	1. Idea about temperature sensor and its application 2. Design and analyze the Clippers and Clampers circuits using junction diode 3. study the characteristics of a Thermostat and determine its parameters

Mapping of COs with POs and PSO
3: High, 2: Medium, 1: Low

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
CC-1	3	2	2	2	1	2	3	3	1	1	3	2
CC-2	3	1	2	1	2	3	3	3	3	3	2	2
CC-3	3	2	3	1	2	3	3	3	3	3	2	2
CC-4	3	2	2	2	2	3	3	2	3	3	3	2
CC-5	3	2	3	3	2	3	2	2	2	1	3	2
CC-6	3	2	3	1	3	3	3	3	3	3	2	2
CC-7	3	2	2	2	2	3	3	3	2	3	3	2
CC-8	3	2	3	2	2	2	2	2	2	2	3	3
CC-9	3	2	3	3	3	3	3	2	3	3	3	2
CC-10	3	2	3	3	3	2	3	3	3	2	2	2
CC-11	3	3	3	3	1	3	1	3	1	2	3	3
CC-12	3	3	3	3	1	3	1	3	1	2	3	3
CC-13	3	3	2	3	2	2	3	2	3	3	1	2
CC-14	3	3	2	3	3	2	2	3	3	3	1	2
DSE-1	3	3	3	3	2	3	3	3	3	2	1	3
DSE-2	3	3	3	3	2	3	2	3	3	2	2	3
DSE-3	3	3	2	3	3	3	2	3	3	2	2	2
DSE-4	3	2	3	3	3	2	3	3	3	3	1	1
SEC-1	2	2	3	2	2	2	3	2	3	3	1	1
SEC-2	2	2	3	2	2	2	3	2	3	3	1	1
GE-3	3	1	2	3	3	2	3	3	2	3	2	3
GE-4	3	2	3	3	3	3	2	3	3	2	3	3

Based on the score put on every column and row, we have evaluated the marks of each CO, PO and PSO (Shown in next page). Each score fall under medium to high range

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	Average of CO
CC-1	3	2	2	2	1	2	3	3	1	1	3	2	2.083
CC-2	3	1	2	1	2	3	3	3	3	3	1	2	2.25
CC-3	3	2	3	1	2	3	3	3	3	3	2	2	2.5
CC-4	3	2	2	2	2	3	3	2	3	3	3	2	2.5
CC-5	3	2	3	3	2	3	2	2	2	1	3	2	2.333
CC-6	3	2	3	1	3	3	3	3	3	3	2	2	2.583
CC-7	3	2	2	2	2	3	3	3	2	3	3	2	2.5
CC-8	3	2	3	2	2	2	2	2	2	2	3	3	2.333
CC-9	3	2	3	3	3	3	3	2	3	3	3	2	2.75
CC-10	3	2	3	3	3	2	3	3	3	2	2	2	2.583
CC-11	3	3	3	3	1	3	1	3	1	2	3	3	2.416
CC-12	3	3	3	3	1	3	1	3	1	2	3	3	2.416
CC-13	3	3	2	3	2	2	3	2	3	3	1	2	2.416
CC-14	3	3	2	3	3	2	2	3	3	3	3	2	2.666
DSE-1	3	3	3	3	2	3	3	3	3	2	1	3	2.666
DSE-2	3	3	3	3	2	3	2	3	3	2	2	3	2.666
DSE-3	3	3	2	3	3	3	2	3	3	2	2	2	2.583
DSE-4	3	2	3	3	3	2	3	3	3	3	1	1	2.5
SEC-1	2	2	3	2	2	2	3	2	3	3	1	1	2.166
SEC-2	2	2	3	2	2	2	3	2	3	3	1	1	2.166
GE-3	3	1	2	3	3	2	3	3	2	3	1	2	2.333
GE-4	3	2	3	3	3	3	2	3	3	2	1	2	2.5
Average of PO and PSO	2.9	2.227	2.63	2.45	2.22	2.59	2.54	2.68	2.54	2.45	2.04	2.09	

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Department of Physics

Attainment of Course & Programme Outcomes

Assessment in Outcome Based Education (OBE) involves one or more processes implemented by the department to gather data and evaluate students' attainment of COs and POs. These assessment methods are classified into two types: direct methods and indirect methods.

1. Direct Methods: Direct methods focus on assessing students' knowledge and skills through their performance in various activities. These methods provide tangible evidence of student learning. Some commonly used direct assessment methods include:

- Internal Assessment Tests
- Assignments
- Surprise test
- Seminars/Presentation
- Laboratory Assignments/Practical.
- Mini Projects
- Class Attendance
- Semester Examinations

Direct assessment methods provide concrete evidence of students' knowledge, skills, and application abilities, offering a comprehensive understanding of their learning outcomes.

2. Indirect Methods: Indirect methods are used to gather feedback and opinions about students' learning experiences and the effectiveness of the educational process. Although they do not directly measure knowledge and skills, these methods provide valuable insights into students' perceptions and satisfaction. Two commonly used indirect assessment methods are:

- Course Exit Survey
- Examiner Feedback

Indirect assessment methods help capture students' opinions, thoughts, and reflections on their learning journey, providing valuable insights for curriculum development and teaching improvement.

Details description can be found following Table:

Direct Assessment tool used for CO attainment			
Sr. No.	**Name of Assessment Method**	**Frequency**	**Description**
1	Internal Assessment Test	2 per semester	Assessments conducted within the semester to gauge students' progress and mastery of course material. Generally, assessments are conducted at the end of the 6^{th} and 11^{th} weeks of each semester. It is a metric utilized for continuous assessment of the attainment of course outcomes with respect to course objectives. The Internal Assessment Marks for the relevant course is calculated as the average marks of two tests
2	Assignments	2 per semester	Usually, assignments are given to students before the internal assessment to showcase their understanding, critical thinking, and problem-solving abilities in relation to the course content.
3	Surprise test	2-4 per semester	A surprise MCQ (Multiple-Choice Question) test is conducted to assess the ongoing performance of students in a specific topic related to the course.
4	Seminars/Presentation	Frequently	The department organizes seminars and invites resource persons to enrich students' knowledge in various research areas. Additionally, student seminars are organized where students take on the role of speakers and deliver lectures on relevant topics from their courses. These seminars serve as a means to assess students' communication and presentation skills, as well as their depth of subject knowledge.
5	Laboratory Assignments/Practical	2 per weeks	Practical exercises performed in laboratory settings to assess students' practical skills, experimental techniques, and data analysis abilities.
6	Mini Projects	1 per semester	Small-scale projects assigned to students to apply their learning and showcase their ability to execute tasks.
7	Class Attendance	As per University	Marks awarded as per College guideline.

		Guideline	
8	Semester Examinations	1 per semester	Comprehensive exams conducted at the end of the semester to assess students' overall knowledge and skills acquired throughout the course.
Indirect Assessment tool used for PO/PSO attainment			
Sr. No.	**Name of Assessment Method**	**Frequency**	**Description**
1	Course Exit Survey/Students feedback	1 per semester	A survey administered to students towards the end of the course to gather feedback on the overall learning experience, teaching methods, curriculum, and suggestions for improvement.
2	Examiner Feedback	1 per semester	Feedback collected from external (internal) examiners or experts to evaluate students' performance and provide an external perspective on the attainment of POs.

The attainment of Course Outcomes (COs) and Programme Outcomes (POs) is evaluated based on the aforementioned tools, and therefore, the evolution of marks in a particular course is relevant here. Details can be found below:

Marks Distribution

CC/DSE/GE (Total 75)

Attendance (A): 5
Internal Assessment (I): 10 (Mentioned in Table)
Theory Examination (T): 40 (University Examination, mentioned in Table)
Practical (P): 20

Attendance:

05 if 95% and above
04 if 90-95%
03 if 85-90%
02 if 80-85%
01 if 75-80%

Practical Examination:

Centre: Department

Examiners: One internal examiner to be nominated by the college and one external examiner to be nominated by VU, both the examiners is to be appointed by the Controller of Examinations.

Distribution of marks: Lab Note Book - 2 Viva-voce – 3 Experiment – 15

Attainment of COs based on Direct Method

ATTAINMENT LEVELS FOR COs

Target Level	Total (A+I+T+P) % of marks obtained in reverent Course
1	<40
2	40-49
3	>=50

$$\textbf{Score} = \frac{\sum \%\ \boldsymbol{marks\ all\ student\ in\ a\ particular\ course}}{\sum \boldsymbol{no\ of\ students}}$$

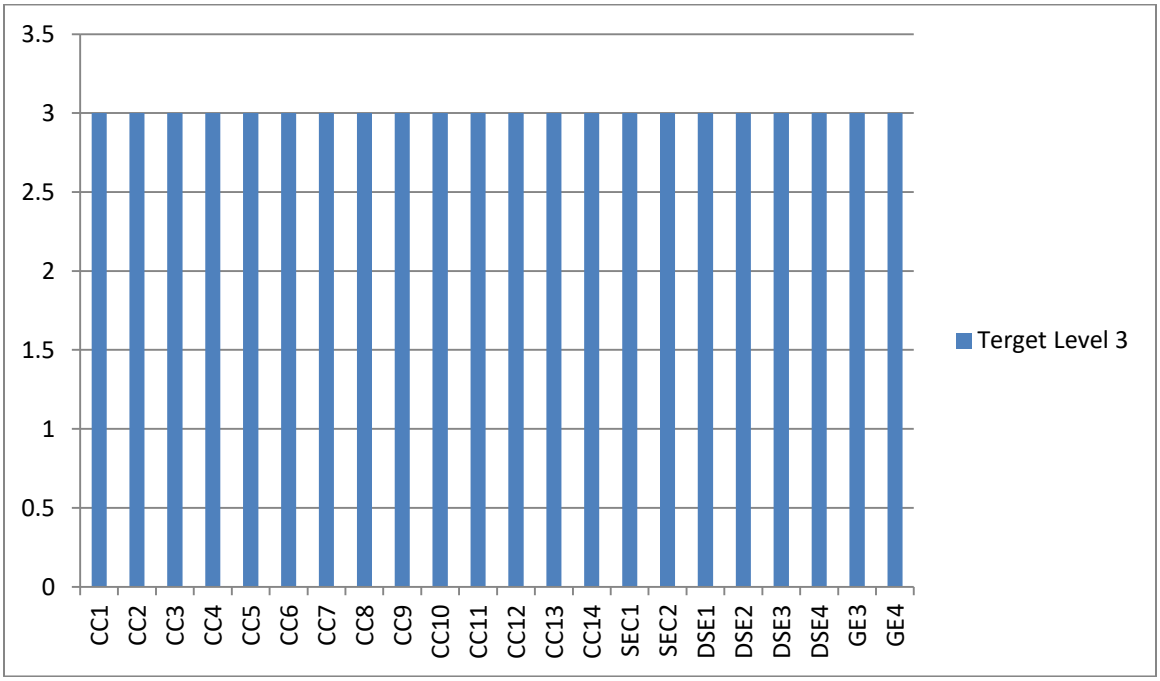


Fig1:Attainment level of UG Physics (Hons) course

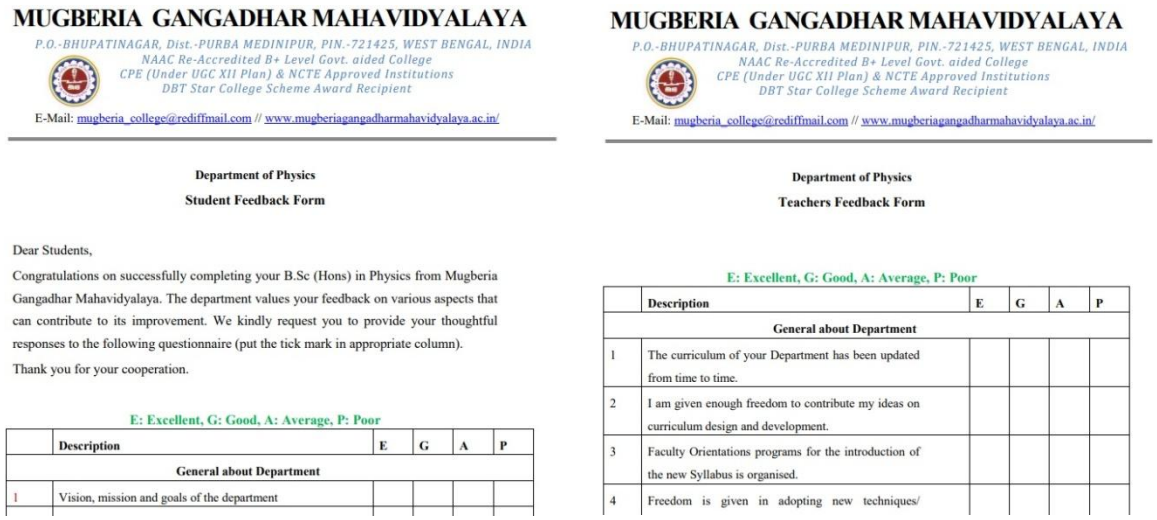
The attainment is based on the marks obtained in that particular course. In the table below, a sample of the results is reported.

Sl No.	Name of Student	Roll No.	Result
1	Sk Abdul Rahim Ali	103	CGPA: 10
2	Sujit Singha	122	CGPA: 10

Result of VI semester 2018-2021 batches

Attainment of POs & PSOs

Attainment of POs and PSOs are based on student feedback, examiner feedback and enrolment in higher education/jobs.



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Department of Physics

Student Feedback Form

Dear Students,

Congratulations on successfully completing your B.Sc (Hons) in Physics from Mugberia Gangadhar Mahavidyalaya. The department values your feedback on various aspects that can contribute to its improvement. We kindly request you to provide your thoughtful responses to the following questionnaire (put the tick mark in appropriate column).

Thank you for your cooperation.

E: Excellent, G: Good, A: Average, P: Poor

	Description	E	G	A	P
	General about Department				
1	Vision, mission and goals of the department				

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Department of Physics

Teachers Feedback Form

E: Excellent, G: Good, A: Average, P: Poor

	Description	E	G	A	P
	General about Department				
1	The curriculum of your Department has been updated from time to time.				
2	I am given enough freedom to contribute my ideas on curriculum design and development.				
3	Faculty Orientations programs for the introduction of the new Syllabus is organised.				
4	Freedom is given in adopting new techniques/				

Fig2: Sample of Feedback form for Student (left) and Examiner (right)

Scan copy of Feedback Form		
Sl. No.	Description	Link
1	Student feedback form	https://drive.google.com/drive/folders/1dZ1NaEyoDCXjpkubdj16gIRBPEbCqxk8?usp=sharing
2	Examiner feedback form	https://drive.google.com/drive/folders/13HqcGGR9sXZqKwgVrQMfJgryYVo9H1Wz?usp=sharing

For attainment level, we have average over all questionnaire related to POs and PSOs received from students and examiner. Here is the rating level:

Excellent: 4
Good: 3
Average: 2
Poor: 1

ATTAINMENT LEVELS FOR POs and PSOs												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5
level	3.3	3.4	3.2	2.6	3.3	3.4	3	3.2	3.3	3.4	3.5	3.2

Batch 2018-2021												
no.	po1	po2	po3	po4	po5	po6	po7	pso1	pso2	pso3	pso4	pso5
1	3	4	4	1	1	3	3	3	2	2	3	3
2	4	3	2	3	4	3	2	3	4	4	4	4
3	3	3	4	2	4	3	3	3	3	4	3	4
4	3	2	4	3	4	4	3	3	4	4	4	3
5	3	4	2	3	3	4	3	3	4	3	3	4
6	4	4	3	3	4	3	4	3	3	4	3	2
7	3	4	4	3	3	4	3	4	3	4	4	3
8	4	4	3	3	4	3	3	4	3	3	4	3
9	3	3	3	3	3	4	3	3	4	3	4	3
average	3.333333	3.444444	3.222222	2.666667	3.333333	3.444444	3	3.222222	3.333333	3.444444	3.555556	3.222222

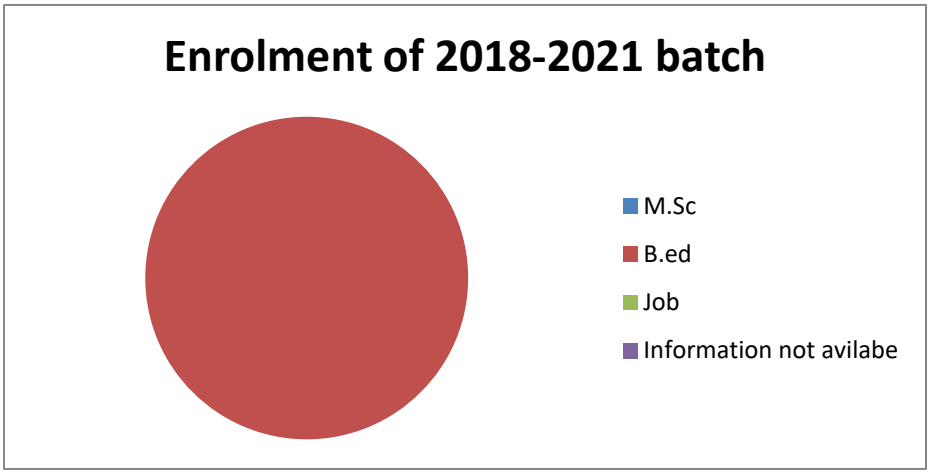

Fig3: Student enrolment in different course