



2.6.1

Attainment of COs and POs in M.Sc. Physics Programme

Programme Code: MPHY

Batch 2021-23

1. Computation of CO and PO attainment

The skill development and performance of the students are measured and evaluated across the course outcomes periodically by the course teachers and the end semester examination. There are two components of assessment, namely, a formative assessment through Continuous Internal Assessment (CIA) and a summative assessment through an End Semester Examination (ESE). CIA comprises mid-term examination, class activity, assignment, powerpoint presentations, quiz, group discussion, debate, case study and field visit. ESE is the written and practical examination that measures CO attainment by evaluating conceptual knowledge, analytical and problem solving skills.

The attainment is measured at the course and programme levels. The benchmarks for CO attainment and PO attainment are set according to the OBE policy of the College. A standard template was designed for the computation of CO & PO in Microsoft Excel. The attainment is measured for each course outcome, course and PO in Excel worksheets.

2. CO Attainment – M.SC. MPHY

The attainment of course outcomes is measured using two attainment indicators: CO attainment indicator 1 and CO attainment indicator 2.

- i. CO attainment indicator 1 measures the attainment at course level based on the average marks of students of a batch attaining the course outcomes across all the courses of a particular programme.
- ii. CO attainment indicator 2 measures the attainment at course level based on the percentage of students of a batch attaining the course outcomes across all the courses of a particular programme.



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Course Outcome Attainment Indicator 1 of M.SC. MPHY programme is shown in table 1.

Table 1: Course Outcome Attainment Indicator 1 - M.SC. MPHY

Attainment Levels		Attainment Status
Level 2	19	Attained
Level 1	0	Not Attained

Total number of courses: 19

Interpretation:

- Level 2: Average score of 55% and above in course outcomes of a particular course.
- Level 1: Average score of less than 55% in course outcomes of a particular course.

Table 1 indicates that out of the 19 courses of the M.SC. MPHY 2021-23 Programme, all courses have achieved the COs at Level 2. It is inferred that all the 19 courses have attained CO benchmark of 55%.

Course Outcome Attainment Indicator 2 of M.SC. MPHY programme is shown in table 2.

Table 2: Course Outcome Attainment Indicator 2 - M.SC. MPHY

Attainment Levels		Attainment Status
Level A	9	Attained
Level B	6	Attained
Level C	3	Attained
Level D	0	Not Applicable
Level E	1	Attained
Level F	0	Not Attained

Total number of courses: 19





Interpretation:

- Level A - More than 90% of the students have attained the COs of a particular course
- Level B - More than 80% of the students have attained the COs of a particular course
- Level C - More than 70% of the students have attained the COs of a particular course
- Level D - More than 60% of the students have attained the COs of a particular course
- Level E - 50% and above of the students have attained the COs of a particular course
- Level F - COs of a particular course have not been attained

Table 2 indicates that out of 20 courses, the CO attainment is at Level A for 9 courses, Level B for 6 courses, Level C for 3 courses and Level E for 1 course in terms of the number of students attaining the COs. It is observed that CO benchmark is attained in all the 19 courses.

3. PO Attainment -M.SC. MPHY

CO attainment implies PSO attainment. PSO attainment implies PO attainment. PO attainment is measured as the average percentage of marks obtained by all the students across all the courses of the programme that are mapped to a particular PO. The attainment of programme outcomes is indicated at two levels. M.SC. MPHY2021-23 has six programme outcomes. 20 courses of M.SC. MPHY programme are mapped to the six POs. Table 3 depicts the various levels of PSO attainment in M.SC. MPHY programme.

Table 3: Levels of PSO Attainment of M.SC. MPHY

PSO Attainment		Attainment Level	Attainment Status
PSO1	60.00	Level 2	Attained
PSO2	65.00	Level 2	Attained
PSO3	73.00	Level 2	Attained
PSO4	70.00	Level 2	Attained
PSO5	66.00	Level 2	Attained
PSO6	68.00	Level 2	Attained



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Interpretation:

- Level 2: Average score of 60% and above in courses mapped to a particular PO.
 - Level 1: Average score of less than 60% in courses mapped to a particular PO.
- Table 3 indicates that all six POs of M.SC. MPHY 2021-23 is attained at level 2.

4. Conclusion

- i. CO attainment indicator 1: All 19 courses have attained CO benchmark of 55%.
- ii. CO attainment indicator 2: CO benchmark is attained in 19 courses.
- iii. PO attainment: All six POs of M.SC. MPHY 2021-23 have been attained.

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