



## 2.6.1

### Attainment of COs and POs in B.Sc. Hons. Microbiology Programme

Programme Code: MIB

Batch: 2020-23

#### 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 – B.Sc. MIB

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 B.Sc. MIB programme is shown in table 1.

**Table 1: Course Outcome Attainment Indicator 1 - B.Sc. MIB**

Attainment Levels		Attainment Status
Level 2	26	Attained
Level 1	0	Not Attained

**Total number of courses: 26**

### Interpretation:

- Level 2: Average score of 50% and above in course outcomes of a particular course
- Level 1: Average score of less than 50% in course outcomes of a particular course.

Table 1 indicates that out of the 26 courses of the B.Sc. MIB 2020-23 Programme, all courses have achieved the COs at Level 2. It is inferred that all the 26 courses have attained CO benchmark of 50%.

Course Outcome Attainment Indicator 2 of B.Sc. MIB programme is shown in table 2.

**Table 2: Course Outcome Attainment Indicator 2 - B.Sc. MIB**

Attainment Levels		Attainment Status
Level A	26	Attained
Level B	0	Not Applicable
Level C	0	Not Applicable
Level D	0	Not Applicable
Level E	0	Not Applicable
Level F	0	Not Attained

**Total number of courses: 26**





## 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 26 courses, the CO attainment of all 26 courses is at Level A in terms of the number of students attaining the COs. It is observed that CO benchmark is attained in 26 courses out of 26 courses.

### 3. PO Attainment - B.Sc. MIB

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 PSO. The attainment of programme outcomes is indicated at two levels. B.Sc. MIB 2020-23 has seven programme outcomes. 26 courses of B.Sc. MIB programme are mapped to the seven PSOs. Table 3 depicts the various levels of PSO attainment in B.Sc. MIB programme.

**Table 3: Levels of PO Attainment of B.Sc. MIB**

PO Attainment		Attainment Level	Attainment Status
PO1	77.43	Level 2	Attained
PO2	78.26	Level 2	Attained
PO3	80.09	Level 2	Attained
PO4	79.25	Level 2	Attained
PO5	79.44	Level 2	Attained
PO6	76.71	Level 2	Attained
PO7	79.35	Level 2	Attained



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## Interpretation:

- Level 2: Average score of 60% and above in courses mapped to a particular PSO.
  - Level 1: Average score of less than 60% in courses mapped to a particular PSO.
- Table 3 indicates that all seven PSOs of B.Sc. MIB 2020-23 is attained at level 2.

## 4. Conclusion

- i. CO attainment indicator 1: All 26 courses have attained CO benchmark of 50%.
- ii. CO attainment indicator 2: CO benchmark is attained in 26 courses.
- iii. PO attainment: All seven PSOs of B.Sc. MIB 2020-23 have been attained.



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