

Shetkari Shikshan Prasarak Mandal's  
**KRISHNA MAHAVIDYALAYA, RETHARE BK**  
**DEPARTMENT OF COMMERCE**  
**COMMERCE OBE PROCESS**  
**Academic Year 2018-2019**

1. Course- Program outcome Matrix: The Program Outcomes are developed through the curriculum (curricular/co-curricular extra-curricular activities). The program outcomes are attained through course implementation. As an educator, one must know, **“to which POs his/her course is contributing?”** So that one can design the learning experiences, select teaching methods and design the tool for assessment. Hence, establishing the Course-PO matrix is an essential step in the OBE. The course-program outcomes matrix indicates the correlation between the courses and program outcomes. The CO-PO matrix is the map of the list of **courses contributing to the development of respective Pos.**

The Template is provided in the table below

| Sr. No | Course Title                  | A | B | C | D | E | F | G |
|--------|-------------------------------|---|---|---|---|---|---|---|
| 1.     | Business Environment          | √ |   | √ | √ | √ |   |   |
| 2.     | Business Regulatory Framework | √ | √ | √ | √ | √ | √ | √ |
| 3.     | Modern Management Practices   | √ |   | √ | √ | √ |   | √ |
| 4.     | Co-operative Development      | √ |   |   | √ | √ |   |   |
| 5.     | Advanced Accountancy I        | √ | √ |   | √ |   | √ |   |
| 6.     | Advanced Accountancy II       | √ | √ |   | √ |   | √ | √ |
| 7.     | Business Environment          | √ |   | √ | √ | √ |   |   |
| 8.     | Business Regulatory Framework | √ | √ | √ | √ | √ | √ | √ |
| 9.     | Modern Management Practices   | √ |   | √ | √ | √ |   | √ |
| 10.    | Co-operative Development      | √ |   |   | √ | √ |   |   |
| 11.    | Advanced Accountancy III      | √ | √ |   | √ |   | √ |   |
| 12.    | Advanced Accountancy IV       | √ | √ |   | √ |   | √ | √ |

## 2. Course Outcomes (for all courses):

The course outcomes are the statement that describes the knowledge & abilities developed in the student by the end of course (subject) teaching. The focus is on development of abilities rather than mere content. There can be 5 to 7 course outcomes of any course. These are to be written in the specific terms and not in general. The list of Course Outcomes is the part of **Annexure-C** attached herewith.

## 3. Set Target levels for Attainment of Course Outcomes:

The course outcome attainment is assessed in order to track the graduates' performance w.r.t target level of performance. The CO-PO attainment is the tool used for continuous improvement in the graduates' abilities through appropriate learning & teaching strategies. In order to assess students' performance with respect to abilities (at the end of course teaching/by the end of program) the course outcome attainment are measured/calculated. In order to calculate the program outcome attainment, the course outcome attainment is calculated. Prior to that, the course-program outcome mapping is done.

## 4. Set Target level for Attainment of Program Outcomes:

The program outcome attainment is assessed in order to track the graduates' performance w.r.t target level of performance. The CO-PO attainment is the tool used for continuous improvement in the graduates' abilities through appropriate learning & teaching strategies. In order to assess student's performance with respect to abilities (at the end of course teaching/by the end of program) the course outcome attainment and program outcome attainment is measured/calculated. The program outcome attainment is governed by curricular, co-curricular and extra-curricular activities including the stakeholders' participation. The direct method and indirect method is adopted to calculate the PO attainment. **The direct method implies the attainment by course outcomes contributing to respective program outcomes. And indirect method is the satisfaction/feed-back survey of stakeholders.** In order to calculate the program outcome attainment, the course outcome attainment is calculated. Prior to that, the course-program outcome mapping is done. The set target level is the set benchmark to ensure continuous improvements in the learners/ graduates' performance.

## 5. Course Attainment Levels:

- a) CO attainment is defined/set at three levels;
- b) The CO attainment is based on end term examination assessment and internal assessment;
- c) The Co attainment is defined at three levels in ascending order

i. e.g. For end term and internal examination;

| Sr. No    | Level           | CO Attainments                                    |
|-----------|-----------------|---|
| 1.        | Level-1:        | 30% students scored more than class average       |
| <b>2.</b> | <b>Level-2:</b> | <b>40% students score more than class average</b> |
| 3.        | Level-3         | 50% students score more than class average        |

The target level is set (e.g. Level-2). It indicates that, **the current target is level-2; 40% of students score more than class average.** The CO attainment is measured and the results are obtained. Based on the results of attainment, the corrective measures/remedial action are taken.

e.g. CO Attainment= 80% (Attainment level in end term examination) + 20% (Attainment level in internal examination)

#### 6. Program attainment Level:

a. PO attainment is defined at five levels in ascending order;

b. **The PO attainment is based on the average attainment level of corresponding courses (Direct Method) and feed-back survey (Indirect method);**

c. The PO attainment levels are defined/set as stated below;

| Sr. No | Level          | PO Attainments   |
|--------|----------------|--|
| 1.     | Level-1:       | Poor: Greater than 0.5 and less than 1.0 ( $0.5 > 1$ ) |
| 2.     | Level-2:       | Average: 1.0 to 1.5                                    |
| 3.     | <b>Level-3</b> | <b>Good: 3: 1.5 to 2.0</b>                             |
| 4.     | Level-4        | Very Good: 2.0 to 2.5                                  |
| 5.     | Level-5        | Excellent: 2.5 to 3.0                                  |

d. The PO attainment target level is set/defined (say, Level-4). It implies that, the department is aiming at minimum level-4 (very good) in the performance of abilities by the graduates. Based upon the results of attainment, the remedial measures are taken;

e. PO Attainment= 80% (Average attainment level by direct method) + 20% (Average attainment level by indirect method).

**7. The Results of CO Attainment: The Results of CO Attainment is provided in Annexure-B**

FOR EXAMPLE COURSE CODE/TITLE: **Business Environment**

E.g. For end-term and internal examination;

- i. Level-1: 30% students scored more than class average
- ii. Level-2: 40% students score more than class average;
- iii. Level-3: 50% students score more than class average

| <b>Business Environment</b>            |                   |          |
|--|-------------------|----------|
| Average Marks in External examination: | 23                |          |
| % Students score more than 23 is =20   | 62.5              | Level: 3 |
| Average Marks in Internal examination  | 8                 |          |
| % Students score more than 8 is =26    | 81.25             | Level: 3 |
|  | = 80% (3) +20 (3) |          |
|  | = 2.4+0.6         |          |
|  | = 3               |          |

| <b>Business Regulatory Framework</b>   |                   |          |
|--|-------------------|----------|
| Average Marks in External examination: | 16                |          |
| % Students score more than 16 is =23   | 71.87             | Level: 3 |
| Average Marks in Internal examination  | 7                 |          |
| % Students score more than 7 is =33    | 100               | Level: 3 |
|  | = 80% (3) +20 (3) |          |
|  | = 2.4+0.6         |          |
|  | = 3               |          |

| <b>Modern Management Practices</b>     |                   |          |
|--|-------------------|----------|
| Average Marks in External examination: | 22                |          |
| % Students score more than 22 is =20   | 62.5              | Level: 3 |
| Average Marks in Internal examination  | 7                 |          |
| % Students score more than 7 is = 33   | 100               | Level: 3 |
|  | = 80% (3) +20 (3) |          |
|  | = 2.4+0.6         |          |
|  | = 3               |          |

| <b>Co-operative Development</b>        |                   |          |
|--|-------------------|----------|
| Average Marks in External examination: | 23                |          |
| % Students score more than 23 is = 19  | 59.375            | Level: 3 |
| Average Marks in Internal examination  | 8                 |          |
| % Students score more than 8 is =27    | 84.375            | Level: 3 |
|  | = 80% (3) +20 (3) |          |

|  |   |         |
|--|---|---------|
|  | = | 2.4+0.6 |
|  | = | 3       |

| <b>Advanced Accountancy I</b>                 |               |                        |
|---|---------------|------------------------|
| <b>Average Marks in External examination:</b> | <b>18</b>     |                        |
| <b>% Students score more than 18 is = 17</b>  | <b>53.125</b> | <b>Level: 3</b>        |
| <b>Average Marks in Internal examination</b>  | <b>7</b>      |                        |
| <b>% Students score more than 7 is = 33</b>   | <b>100</b>    | <b>Level: 3</b>        |
|   | =             | <b>80% (3) +20 (3)</b> |
|   | =             | <b>2.4+0.6</b>         |
|   | =             | <b>3</b>               |

| <b>Advanced Accountancy II</b>                |               |                        |
|---|---------------|------------------------|
| <b>Average Marks in External examination:</b> | <b>18</b>     |                        |
| <b>% Students score more than 18 is =23</b>   | <b>71.875</b> | <b>Level: 3</b>        |
| <b>Average Marks in Internal examination</b>  | <b>7</b>      |                        |
| <b>% Students score more than 7 is =33</b>    | <b>100</b>    | <b>Level: 3</b>        |
|   | =             | <b>80% (3) +20 (3)</b> |
|   | =             | <b>2.4+0.6</b>         |
|   | =             | <b>3</b>               |

| <b>Business Environment</b>                   |              |                        |
|---|--------------|------------------------|
| <b>Average Marks in External examination:</b> | <b>22</b>    |                        |
| <b>% Students score more than 22 is = 22</b>  | <b>61.29</b> | <b>Level: 3</b>        |
| <b>Average Marks in Internal examination</b>  | <b>8</b>     |                        |
| <b>% Students score more than 8 is = 33</b>   | <b>100</b>   | <b>Level: 3</b>        |
|   | =            | <b>80% (3) +20 (3)</b> |
|   | =            | <b>2.4+0.6</b>         |
|   | =            | <b>3</b>               |

| <b>Business Regulatory Framework</b>          |               |                        |
|---|---------------|------------------------|
| <b>Average Marks in External examination:</b> | <b>19</b>     |                        |
| <b>% Students score more than 19 is = 23</b>  | <b>74.194</b> | <b>Level: 3</b>        |
| <b>Average Marks in Internal examination</b>  | <b>9</b>      |                        |
| <b>% Students score more than 9 is = 33</b>   | <b>100</b>    | <b>Level: 3</b>        |
|   | =             | <b>80% (3) +20 (3)</b> |
|   | =             | <b>2.4+0.6</b>         |
|   | =             | <b>3</b>               |

| <b>Modern Management Practices</b>            |                          |                 |
|---|--------------------------|-----------------|
| <b>Average Marks in External examination:</b> | <b>19</b>                |                 |
| <b>% Students score more than 19 is = 22</b>  | <b>70.97</b>             | <b>Level: 3</b> |
| <b>Average Marks in Internal examination</b>  | <b>10</b>                |                 |
| <b>% Students score more than 10 is = 33</b>  | <b>100</b>               | <b>Level: 3</b> |
|   | <b>= 80% (3) +20 (3)</b> |                 |
|   | <b>= 2.4+0.6</b>         |                 |
|   | <b>= 3</b>               |                 |

| <b>Co-operative Development</b>               |                          |                 |
|---|--------------------------|-----------------|
| <b>Average Marks in External examination:</b> | <b>23</b>                |                 |
| <b>% Students score more than 23 is =22</b>   | <b>70.97</b>             | <b>Level: 3</b> |
| <b>Average Marks in Internal examination</b>  | <b>8</b>                 |                 |
| <b>% Students score more than 8 is =33</b>    | <b>100</b>               | <b>Level: 3</b> |
|   | <b>= 80% (3) +20 (3)</b> |                 |
|   | <b>= 2.4+0.6</b>         |                 |
|   | <b>= 3</b>               |                 |

| <b>Advanced Accountancy III</b>               |                          |                 |
|---|--------------------------|-----------------|
| <b>Average Marks in External examination:</b> | <b>18</b>                |                 |
| <b>% Students score more than 18 is = 22</b>  | <b>70.96</b>             | <b>Level: 3</b> |
| <b>Average Marks in Internal examination</b>  | <b>9</b>                 |                 |
| <b>% Students score more than 9 is = 33</b>   | <b>100</b>               | <b>Level: 3</b> |
|   | <b>= 80% (3) +20 (3)</b> |                 |
|   | <b>= 2.4+0.6</b>         |                 |
|   | <b>= 3</b>               |                 |

| <b>Advanced Accountancy IV</b>                |                          |                 |
|---|--------------------------|-----------------|
| <b>Average Marks in External examination:</b> | <b>16</b>                |                 |
| <b>% Students score more than 16 is = 23</b>  | <b>74.19</b>             | <b>Level: 3</b> |
| <b>Average Marks in Internal examination</b>  | <b>9</b>                 |                 |
| <b>% Students score more than 9 is = 21</b>   | <b>30.30</b>             | <b>Level: 3</b> |
|   | <b>= 80% (3) +20 (3)</b> |                 |
|   | <b>= 2.4+0.6</b>         |                 |
|   | <b>= 3</b>               |                 |

**Hence,** the attainment level is Level-3 and the set target level is Level-2 and therefore the CO is Fully attained.

**Table No. 1.0: CO Attainment Level**

| Course Title                         | Course Attainment Value | Target Attainment Level | Fully Attained/ Not Attained | Remedial Measures |
|--------------------------------------|-------------------------|-------------------------|------------------------------|-------------------|
| <b>Business Environment</b>          | 3                       | 2                       | Fully Attained               |                   |
| <b>Business Regulatory Framework</b> | 3                       | 2                       | Fully Attained               |                   |
| <b>Modern Management Practices</b>   | 3                       | 2                       | Fully Attained               |                   |
| <b>Co-operative Development</b>      | 3                       | 2                       | Fully Attained               |                   |
| <b>Advanced Accountancy I</b>        | 3                       | 2                       | Fully Attained               |                   |
| <b>Advanced Accountancy II</b>       | 3                       | 2                       | Fully Attained               |                   |
| <b>Business Environment</b>          | 3                       | 2                       | Fully Attained               |                   |
| <b>Business Regulatory Framework</b> | 3                       | 2                       | Fully Attained               |                   |
| <b>Modern Management Practices</b>   | 3                       | 2                       | Fully Attained               |                   |
| <b>Co-operative Development</b>      | 3                       | 2                       | Fully Attained               |                   |
| <b>Advanced Accountancy III</b>      | 3                       | 2                       | Fully Attained               |                   |
| <b>Advanced Accountancy IV</b>       | 3                       | 2                       | Fully Attained               |                   |

**8. The Results of PO Attainment:**

The Results of PO attainment are provided in Annexure-B

FOR EXAMPLE: PO NO.: a (Note: Refer to point No. 11 above which describes the attainment level and set target attainment level).

PO Attainment= 80% (Average attainment level by direct method) + 20% (Average attainment level by indirect method).

(PSOs-A) = 80% (3+3+3+3+3+3+3+3+3+3+3+3)/12 + 20% (3+3+3+3+3+3+3+3+3+3+3+3)/12 = 80% (3) + 20% (3) = 3i.e. Level-5. The Target Level is Level-

Hence the course level is attained

(PSOs-B) = 80% (3+3+3+3+3+3)/06 + 20% (3+3+3+3+3+3)/06 = 80% (3) + 20% (3) = 3i.e. Level-5. The Target Level is Level-3. Hence the course level is attained

(PSOs-C) =  $80\% (3+3+3+3+3+3)/06 + 20\% (3+3+3+3+3+3)/06 = 80\% (3) + 20\% (3) = 3$  i.e. Level-5. The Target Level is Level-3.

Hence the course level is attained

(PSOs-D) =  $80\% (3+3+3+3+3+3+3+3+3+3+3+3)/12 + 20\% (3+3+3+3+3+3+3+3+3+3+3+3)/12 = 80\% (3) + 20\% (3) = 3$  i.e. Level-5. The Target Level is Level-3.

Hence the course level is attained

(PSOs-E) =  $80\% (3+3+3+3+3+3+3+3)/08 + 20\% (3+3+3+3+3+3+3+3)/08 = 80\% (3) + 20\% (3) = 3$  i.e. Level-5. The Target Level is Level-3

Hence the course level is attained.

(PSOs-F) =  $80\% (3+3+3+3+3+3)/06 + 20\% (3+3+3+3+3+3)/06 = 80\% (3) + 20\% (3) = 3$  i.e. Level-5. The Target Level is Level-3.

Hence the course level is attained

(PSOs-G) =  $80\% (3+3+3+3+3+3)/06 + 20\% (3+3+3+3+3+3)/06 = 80\% (3) + 20\% (3) = 3$  i.e. Level-5. The Target Level is Level-3.

Hence the course level is attained

Table No. 2.0 PSO Attainment Level

| PO/PSO Number | PO/PSOs Attainment Value | Target Attainment |       | Fully Attained/ Not Attained | Remedial Measures |
|---------------|--------------------------|-------------------|-------|------------------------------|-------------------|
|               |                          | Level             | Value |                              |                   |
| POs-A         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-B         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-C         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-D         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-E         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-F         | 3                        | 5                 | 3     | Fully Attained               |                   |
| POs-G         | 3                        | 5                 | 3     | Fully Attained               |                   |

### 9. Planned Actions for Course Attainment:

The courses for which the level attained is less than Level-2, the remedial measures will be taken in plan way that includes, tutorial, assignments, field work and remedial coaching.



### 10. Planned Actions for Program Outcome Attainment:

Not Applicable.

#### ANNEXURE-B RESULTS OF CO-PO ATTAINMENT

| Sr. No  | Course Title                  | PSO-A | PSO-B | PSO-C | PSO-D | PSO-E | PSO-F | PSO-G |
|---------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|
| 1.      | Business Environment          | 3     |       | 3     | 3     | 3     |       |       |
| 2.      | Business Regulatory Framework | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
| 3.      | Modern Management Practices   | 3     |       | 3     | 3     | 3     |       | 3     |
| 4.      | Co-operative Development      | 3     |       |       | 3     | 3     |       |       |
| 5.      | Advanced Accountancy I        | 3     | 3     |       | 3     |       | 3     |       |
| 6.      | Advanced Accountancy II       | 3     | 3     |       | 3     |       | 3     | 3     |
| 7.      | Business Environment          | 3     |       | 3     | 3     | 3     |       |       |
| 8.      | Business Regulatory Framework | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
| 9.      | Modern Management Practices   | 3     |       | 3     | 3     | 3     |       | 3     |
| 10.     | Co-operative Development      | 3     |       |       | 3     | 3     |       |       |
| 11.     | Advanced Accountancy III      | 3     | 3     |       | 3     |       | 3     |       |
| 12.     | Advanced Accountancy IV       | 3     | 3     |       | 3     |       | 3     | 3     |
| Average |                               | 3     | 3     | 3     | 3     | 3     | 3     | 3     |

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