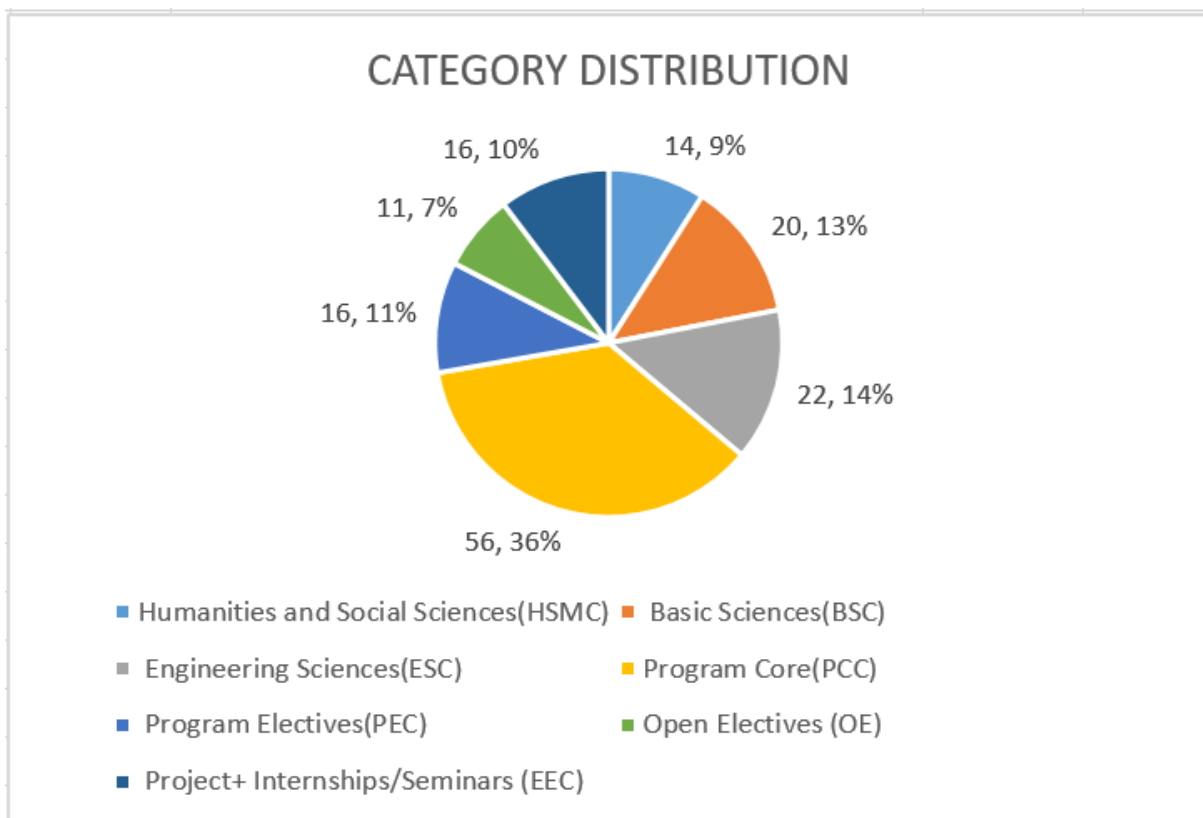


**COURSE CATEGORY-COMPUTER SCIENCE AND ENGINEERING-Data Science**

|                                      |     |
|--------------------------------------|-----|
| Humanities and Social Sciences(HSMC) | 14  |
| Basic Sciences(BSC)                  | 20  |
| Engineering Sciences(ESC)            | 22  |
| Program Core(PCC)                    | 56  |
| Program Electives(PEC)               | 16  |
| Open Electives (OE)                  | 11  |
| Project+ Internships/Seminars (EEC)  | 16  |
|                                      | 155 |



## 19. STAKE HOLDERS FEEDBACK

| Category | Total Number of Requests | Total Number of Responses | Excellent | Good | Satisfactory | Average | Need to Improve |
|----------|--------------------------|---------------------------|-----------|------|--------------|---------|-----------------|
| Alumni   | 20                       | 20                        | 11        | 9    | 0            | 0       | 0               |
| Student  | 250                      | 203                       | 58        | 82   | 52           | 9       | 2               |
| Industry | 20                       | 21                        | 11        | 10   | 0            | 0       | 0               |
| Parent   | 20                       | 19                        | 16        | 3    | 0            | 0       | 0               |
| Teachers | 45                       | 42                        | 40        | 2    | 0            | 0       | 0               |

## 20. COURSE STRUCTURE

| COURSE STRUCTURE - CSE( Batch 2020-24) |             |             |                                               |           |          |           |             |           |          |          |               |                 |
|----------------------------------------|-------------|-------------|-----------------------------------------------|-----------|----------|-----------|-------------|-----------|----------|----------|---------------|-----------------|
| I SEMESTER - CHEMISTRY CYCLE           |             |             |                                               |           |          |           |             |           |          |          |               |                 |
| Sl. NO.                                | Course Code | Course Type | Course Name                                   | Hours     |          |           | Total Marks | Credits   |          |          | Total Credits | Honours Credits |
|                                        |             |             |                                               | L         | T        | P         |             | L         | T        | P        |               |                 |
| 1                                      | MA131       | BSC         | Mathematics - I                               | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 2                                      | CH132P      | BSC         | Chemistry                                     | 3         | 0        | 2         | 100         | 3         | 0        | 1        | 4             |                 |
| 3                                      | EC133P      | ESC         | Basic Electronics                             | 3         | 0        | 2         | 100         | 3         | 0        | 1        | 4             |                 |
| 4                                      | CS134P      | ESC         | C o m p u t e r Programming                   | 3         | 0        | 2         | 100         | 3         | 0        | 1        | 4             |                 |
| 5                                      | ME135       | ESC         | Basic Mechanical Engineering and Nano science | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 6                                      | TE136P      | HSMC        | Technical English                             | 1         | 0        | 2         | 50          | 1         | 0        | 1        | 2             |                 |
| 7                                      | ME 151      | BSC         | Workshop Practice Lab                         | 0         | 0        | 2         | 50          | 0         | 0        | 1        | 1             |                 |
| 8                                      | HE171       |             | Holistic Education-I                          | 1         | 0        | 0         | ---         | 1         | 0        | 0        | 1             |                 |
|                                        |             |             | <b>Total</b>                                  | <b>17</b> | <b>0</b> | <b>10</b> | <b>600</b>  | <b>17</b> | <b>0</b> | <b>5</b> | <b>22</b>     | <b>0</b>        |

| I SEMESTER - PHYSICS CYCLE |             |             |                                                     |           |          |          |             |           |          |          |               |                 |
|----------------------------|-------------|-------------|-----------------------------------------------------|-----------|----------|----------|-------------|-----------|----------|----------|---------------|-----------------|
| Sl. NO.                    | Course Code | Course Type | Course Name                                         | Hours     |          |          | Total Marks | Credits   |          |          | Total Credits | Honours Credits |
|                            |             |             |                                                     | L         | T        | P        |             | L         | T        | P        |               |                 |
| 1                          | MA131       | BSC         | Mathematics - I                                     | 3         | 0        | 0        | 100         | 3         | 0        | 0        | 3             |                 |
| 2                          | PH132P      | BSC         | Physics                                             | 3         | 0        | 2        | 100         | 3         | 0        | 1        | 4             |                 |
| 3                          | EE133P      | ESC         | Basic Electrical Engineering                        | 3         | 0        | 2        | 100         | 3         | 0        | 1        | 4             |                 |
| 4                          | CE134P      | ESC         | Basics of Civil Engineering & Engineering Mechanics | 3         | 0        | 2        | 100         | 3         | 0        | 1        | 4             |                 |
| 5                          | EG135P      | ESC         | Engineering Graphics                                | 2         | 0        | 2        | 100         | 2         | 0        | 1        | 3             |                 |
| 6                          | BS136       | BSC         | Bio Science                                         | 2         | 0        | 0        | 50          | 2         | 0        | 0        | 2             |                 |
| 7                          | HE171       |             | Holistic Education-I                                | 1         | 0        | 0        | ---         | 1         | 0        | 0        | 1             |                 |
|                            |             |             | <b>Total</b>                                        | <b>17</b> | <b>0</b> | <b>8</b> | <b>550</b>  | <b>17</b> | <b>0</b> | <b>4</b> | <b>21</b>     | <b>0</b>        |

| II SEMESTER - CHEMISTRY CYCLE |                |                |                                                              |           |          |          |                    |           |          |          |                  |                    |
|-------------------------------|----------------|----------------|--------------------------------------------------------------|-----------|----------|----------|--------------------|-----------|----------|----------|------------------|--------------------|
| Sl.N<br>O.                    | Course<br>Code | Course<br>Type | Course Name                                                  | Hours     |          |          | Total<br>Mar<br>ks | Credits   |          |          | Total<br>Credits | Honours<br>Credits |
|                               |                |                |                                                              | L         | T        | P        |                    | L         | T        | P        |                  |                    |
| 1                             | MA231          | BSC            | Mathematics – II                                             | 3         | 0        | 0        | 100                | 3         | 0        | 0        | 3                |                    |
| 2                             | CH232P         | BSC            | Chemistry                                                    | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 3                             | EC233P         | ESC            | Basic Electronics                                            | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 4                             | CS234P         | ESC            | C o m p u t e r<br>Programming                               | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 5                             | ME235          | ESC            | Basic Mechanical<br>Engineering and<br>Nano science          | 3         | 0        | 0        | 100                | 3         | 0        | 0        | 3                |                    |
| 6                             | TE236P         | HSMC           | Technical English                                            | 2         | 0        | 0        | 50                 | 2         | 0        | 0        | 2                |                    |
| 7                             | ME 251         | BSC            | Workshop Practice<br>Lab                                     | 0         | 0        | 2        | 50                 | 0         | 0        | 1        | 1                |                    |
| 8                             | HE171          |                | Holistic Education-I                                         | 1         | 0        | 0        | ---                | 1         | 0        | 0        | 1                |                    |
|                               |                |                | <b>Total</b>                                                 | <b>18</b> | <b>0</b> | <b>8</b> | <b>600</b>         | <b>18</b> | <b>0</b> | <b>4</b> | <b>22</b>        | <b>0</b>           |
|                               |                |                |                                                              |           |          |          |                    |           |          |          |                  |                    |
| II SEMESTER - PHYSICS CYCLE   |                |                |                                                              |           |          |          |                    |           |          |          |                  |                    |
| Sl.N<br>O.                    | Course<br>Code | Course<br>Type | Course Name                                                  | Hours     |          |          | Total<br>Mar<br>ks | Credits   |          |          | Total<br>Credits | Honours<br>Credits |
|                               |                |                |                                                              | L         | T        | P        |                    | L         | T        | P        |                  |                    |
| 1                             | MA231          | BSC            | Mathematics – II                                             | 3         | 0        | 0        | 100                | 3         | 0        | 0        | 3                |                    |
| 2                             | PH232P         | BSC            | Physics                                                      | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 3                             | EE233P         | ESC            | Basic Electrical<br>Engineering                              | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 4                             | CE234P         | ESC            | Basics of Civil<br>Engineering &<br>Engineering<br>Mechanics | 3         | 0        | 2        | 100                | 3         | 0        | 1        | 4                |                    |
| 5                             | EG235P         | ESC            | E n g i n e e r i n g<br>Graphics                            | 2         | 0        | 2        | 100                | 2         | 0        | 1        | 3                |                    |
| 6                             | BS 236         | BSC            | Bio Science                                                  | 2         | 0        | 0        | 50                 | 2         | 0        | 0        | 2                |                    |
| 7                             | HE271          |                | Holistic Education-<br>II                                    | 1         | 0        | 0        | ---                | 1         | 0        | 0        | 1                |                    |

|  |  |  |              |           |          |          |            |           |          |          |           |          |
|--|--|--|--------------|-----------|----------|----------|------------|-----------|----------|----------|-----------|----------|
|  |  |  | <b>Total</b> | <b>17</b> | <b>0</b> | <b>8</b> | <b>550</b> | <b>17</b> | <b>0</b> | <b>4</b> | <b>21</b> | <b>0</b> |
|--|--|--|--------------|-----------|----------|----------|------------|-----------|----------|----------|-----------|----------|

| III SEMESTER |             |             |                                       |       |   |   |             |         |   |   |               |                 |
|--------------|-------------|-------------|---------------------------------------|-------|---|---|-------------|---------|---|---|---------------|-----------------|
| Sl. NO.      | Course Code | Course Type | Course Name                           | Hours |   |   | Total Marks | Credits |   |   | Total Credits | Honours Credits |
|              |             |             |                                       | L     | T | P |             | L       | T | P |               |                 |
| 1            | CS331P      | PCC         | D a t a b a s e Management Systems    | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
| 2            | CS332P      | PCC         | Data Structures and Algorithms        | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
| 3            | DA331P      | PCC         | Statistical Foundation for Big Data   | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
| 4            | DA332P      | PCC         | Data Acquisition & Data Visualization | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
| 5            | MA334       | BSC         | D i s c r e t e Mathematics           | 3     | 0 | 0 | 100         | 3       | 0 | 0 | 3             |                 |
| 6            | MC321       | MC          | Cyber Security                        | 2     | 0 | 0 | 50          | 0       | 0 | 0 | 0             |                 |
| 7            | HS311       | HSMC        | Technical Writing                     | 2     | 0 | 0 | 50          | 2       | 0 | 0 | 2             |                 |
| 8            | HOL312      |             | Holistic Education-III                | 1     | 0 | 0 | ---         | 1       | 0 | 0 | 1             |                 |
|              |             |             | Total                                 | 20    | 0 | 4 | 600         | 18      | 0 | 2 | 22            | 0               |

| IV SEMESTER |             |             |                                      |       |   |   |             |         |   |   |               |                 |
|-------------|-------------|-------------|--------------------------------------|-------|---|---|-------------|---------|---|---|---------------|-----------------|
| Sl. NO.     | Course Code | Course Type | Course Name                          | Hours |   |   | Total Marks | Credits |   |   | Total Credits | Honours Credits |
|             |             |             |                                      | L     | T | P |             | L       | T | P |               |                 |
| 1           | CS431       | PCC         | Probability and Queuing Theory       | 3     | 0 | 0 | 100         | 3       | 0 | 0 | 3             |                 |
| 2           | CS432P      | PCC         | Operating Systems                    | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
| 3           | CS433P      | PCC         | Programming Paradigm                 | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |
|             | AIML451     | PCC         | Python Programming                   | 0     | 0 | 2 | 100         | 0       | 0 | 1 | 1             |                 |
| 5           | CS435P      | PCC         | Computer Organization & Architecture | 3     | 0 | 2 | 100         | 3       | 0 | 1 | 4             |                 |

|   |        |      |                        |           |          |          |            |           |          |          |           |          |
|---|--------|------|------------------------|-----------|----------|----------|------------|-----------|----------|----------|-----------|----------|
| 6 | BS451  | BSC  | Bio Science Laboratory | 0         | 0        | 2        | 50         | 0         | 0        | 1        | 1         |          |
| 7 | HS436  | HSMC | Professional Ethics    | 2         | 0        | 0        | 50         | 2         | 0        | 0        | 2         |          |
| 8 | MC422  | MC   | Environmental Science  | 2         | 0        | 0        | 50         | 0         | 0        | 0        | 0         |          |
| 9 | HOL411 |      | Holistic Education-IV  | 1         | 0        | 0        | -          | 1         | 0        | 0        | 1         |          |
|   |        |      | <b>Total</b>           | <b>21</b> | <b>0</b> | <b>6</b> | <b>650</b> | <b>19</b> | <b>0</b> | <b>3</b> | <b>22</b> | <b>0</b> |

| V SEMESTER |             |             |                                   |           |          |          |             |           |          |          |               |                 |
|------------|-------------|-------------|-----------------------------------|-----------|----------|----------|-------------|-----------|----------|----------|---------------|-----------------|
| Sl. NO.    | Course Code | Course Type | Course Name                       | Hours     |          |          | Total Marks | Credits   |          |          | Total Credits | Honours Credits |
|            |             |             |                                   | L         | T        | P        |             | L         | T        | P        |               |                 |
| 1          | CS531P      | PCC         | Computer Networks                 | 3         | 0        | 2        | 100         | 3         | 0        | 1        | 4             |                 |
| 2          | DA533       | PCC         | Data Warehousing                  | 3         | 0        | 0        | 100         | 3         | 0        | 0        | 3             |                 |
| 3          | CS533P      | PCC         | Design and Analysis of Algorithms | 3         | 0        | 2        | 100         | 3         | 0        | 1        | 4             |                 |
| 4          | CS541       | PEC         | Program Elective - 1              | 3         | 0        | 0        | 100         | 3         | 0        | 0        | 3             |                 |
| 5          | CS561       | OE          | Open Elective - 1-(Global)        | 2         | 0        | 0        | 50          | 2         | 0        | 0        | 2             |                 |
| 6          | CS512       | HSMC        | Project Management & Finance      | 3         | 0        | 0        | 100         | 3         | 0        | 0        | 3             |                 |
| 7          | CS581       | PROJ        | Internship - 1                    | 0         | 0        | 2        | 50          | 0         | 0        | 1        | 1             |                 |
| 8          | HOXX541     | HONS        | Honours Elective - I              | 3         | 0        | 2        | -           | 3         | 0        | 1        | -             | 4               |
|            |             |             | <b>Total</b>                      | <b>17</b> | <b>0</b> | <b>6</b> | <b>600</b>  | <b>17</b> | <b>0</b> | <b>3</b> | <b>20</b>     | <b>4</b>        |

| VI SEMESTER |             |             |             |       |  |  |             |         |  |  |               |                 |
|-------------|-------------|-------------|-------------|-------|--|--|-------------|---------|--|--|---------------|-----------------|
| Sl. NO.     | Course Code | Course Type | Course Name | Hours |  |  | Total Marks | Credits |  |  | Total Credits | Honours Credits |

| Sl. NO. | Course Code | Course Type | Course Name                       | L         | T        | P         | Marks      | L         | T        | P        | Total Credits | Honours Credits |
|---------|-------------|-------------|-----------------------------------|-----------|----------|-----------|------------|-----------|----------|----------|---------------|-----------------|
| 1       | DA634P      | PCC         | B u s i n e s s Intelligence      | 3         | 0        | 2         | 100        | 3         | 0        | 1        | 4             |                 |
| 2       | DA635P      | PCC         | Intro to Data Mining              | 3         | 0        | 2         | 100        | 3         | 0        | 1        | 4             |                 |
| 3       | DA636P      | PCC         | Big Data Analytics                | 3         | 0        | 2         | 100        | 3         | 0        | 1        | 4             |                 |
| 4       | CS662       | OE          | Open Elective -2(Global Elective) | 3         | 0        | 0         | 100        | 3         | 0        | 0        | 3             |                 |
| 6       | CS642       | PEC         | Program Elective - 2              | 3         | 0        | 0         | 100        | 3         | 0        | 0        | 3             |                 |
| 7       | HOXX641     | HONS        | Honours Elective - II             | 3         | 0        | 2         | -          | 3         | 0        | 1        | -             | 4               |
| 8       | HOXX642     | HONS        | Honours Elective - III            | 3         | 0        | 2         | -          | 3         | 0        | 1        | -             | 4               |
|         |             |             | <b>Total</b>                      | <b>18</b> | <b>0</b> | <b>10</b> | <b>500</b> | <b>15</b> | <b>0</b> | <b>3</b> | <b>18</b>     | <b>8</b>        |



| VII SEMESTER |             |             |                       |           |          |           |             |           |          |          |               |                 |
|--------------|-------------|-------------|-----------------------|-----------|----------|-----------|-------------|-----------|----------|----------|---------------|-----------------|
| Sl. NO       | Course Code | Course Type | Course Name           | Hours     |          |           | Total Marks | Credits   |          |          | Total Credits | Honours Credits |
|              |             |             |                       | L         | T        | P         |             | L         | T        | P        |               |                 |
| 1            | DA737       | PCC         | Web Analytics         | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 2            | CS744       | PEC         | Program Elective - 4  | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 3            | CS763       | PEC         | Open Elective - 3     | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 5            | CS764       | OE          | Open Elective - 4     | 3         | 0        | 0         | 100         | 3         | 0        | 0        | 3             |                 |
| 6            | CS781       | PROJ        | Internship - 2        | 0         | 0        | 2         | 50          | 0         | 0        | 1        | 1             |                 |
| 7            | CS782       | PROJ        | Service Learning      | 0         | 0        | 4         | 50          | 0         | 0        | 2        | 2             |                 |
| 8            | CS783       | PROJ        | Project Phase-I       | 0         | 0        | 6         | 100         | 0         | 0        | 3        | 3             |                 |
| 9            | HOXX741     | HONS        | Honours Elective - IV | 3         | 0        | 2         | -           | 3         | 0        | 1        | -             | 4               |
| 10           | HOXX742     | HONS        | Honours Elective - V  | 3         | 0        | 2         | -           | 3         | 0        | 1        | -             | 4               |
|              |             |             | <b>Total</b>          | <b>12</b> | <b>0</b> | <b>12</b> | <b>600</b>  | <b>12</b> | <b>0</b> | <b>6</b> | <b>18</b>     | <b>8</b>        |

| VIII SEMESTER |             |             |                       |          |          |           |             |          |          |          |               |                 |
|---------------|-------------|-------------|-----------------------|----------|----------|-----------|-------------|----------|----------|----------|---------------|-----------------|
| Sl. NO        | Course Code | Course Type | Course Name           | Hours    |          |           | Total Marks | Credits  |          |          | Total Credits | Honours Credits |
|               |             |             |                       | L        | T        | P         |             | L        | T        | P        |               |                 |
| 1             | CS845       | PEC         | Program Elective - 5  | 3        | 0        | 0         | 100         | 3        | 0        | 0        | 3             |                 |
| 2             | CS846       | PEC         | Program Elective - 6  | 3        | 0        | 0         | 100         | 3        | 0        | 0        | 3             |                 |
| 3             | CS881       | PROJ        | Project Phase-II      | 0        | 0        | 18        | 300         | 0        | 0        | 9        | 9             |                 |
| 4             | MC823       | MC          | Constitution of India | 2        | 0        | 0         | 100         | 0        | 0        | 0        | 0             |                 |
|               |             |             | <b>Total</b>          | <b>8</b> | <b>0</b> | <b>18</b> | <b>600</b>  | <b>6</b> | <b>0</b> | <b>9</b> | <b>15</b>     | <b>0</b>        |