

**COURSE STRUCTURE**  
**I Year – I Semester**

| S. No        | Course Code | Course Name                                  | Category | Contact Periods per Week |          |          |           | Credits   | Scheme of Examination Max. Marks |            |             |
|--------------|-------------|----------------------------------------------|----------|--------------------------|----------|----------|-----------|-----------|----------------------------------|------------|-------------|
|              |             |                                              |          | L                        | T        | P        | Total     |           | Int. Marks                       | Ext. Marks | Total Marks |
| 1            | MA24FBS101  | Mathematical Foundations of Computer Science | BS       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 2            | CA24FPC101  | C and Data Structures                        | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 3            | CA24FPC102  | Computer Organization and Architecture       | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 4            | CA24FPC103  | Database Management Systems                  | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 5            | CA24FPC104  | Software Engineering                         | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 6            | CA24FPC105  | Data Structures using C Laboratory           | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 7            | CA24FPC106  | Database Management Systems Laboratory       | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 8            | CA24FPC107  | Software Engineering Laboratory              | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 9            | EC24DRM101  | Research Methodology and IPR                 | RM       | 2                        | -        | -        | 2         | 2         | 40                               | 60         | 100         |
| <b>Total</b> |             |                                              |          | <b>22</b>                | <b>3</b> | <b>6</b> | <b>31</b> | <b>28</b> | <b>360</b>                       | <b>540</b> | <b>900</b>  |



**I Year – II Semester**

| S. No                                                                                                             | Course Code | Course Name                                                             | Category | Contact Periods per Week |          |           |           | Credits   | Scheme of Examination Max. Marks |            |             |
|-------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------|----------|--------------------------|----------|-----------|-----------|-----------|----------------------------------|------------|-------------|
|                                                                                                                   |             |                                                                         |          | L                        | T        | P         | Total     |           | Int. Marks                       | Ext. Marks | Total Marks |
| 1                                                                                                                 | CA24FPC201  | Computer Networks                                                       | PC       | 4                        | -        | -         | 4         | 4         | 40                               | 60         | 100         |
| 2                                                                                                                 | CA24FPC202  | Data Science with Python                                                | PC       | 4                        | -        | -         | 4         | 4         | 40                               | 60         | 100         |
| 3                                                                                                                 | CA24FPC203  | Operating Systems                                                       | PC       | 4                        | -        | -         | 4         | 4         | 40                               | 60         | 100         |
| 4                                                                                                                 | CA24FPE201  | <b>Professional Elective-I</b><br>Data Mining and Business Intelligence | PE       |                          |          |           |           |           |                                  |            |             |
|                                                                                                                   | BA24FPE201  | Managerial Economics and Financial Accountancy                          |          | 3                        | -        | -         | 3         | 3         | 40                               | 60         | 100         |
|                                                                                                                   | CA24FPE202  | Software Testing Methodologies                                          |          |                          |          |           |           |           |                                  |            |             |
| 5                                                                                                                 | CA24FOE201  | <b>Open Elective-I</b><br>Cloud Computing                               | OE       | 3                        | -        | -         | 3         | 3         | 40                               | 60         | 100         |
|                                                                                                                   | BA24FOE201  | Digital Marketing                                                       |          |                          |          |           |           |           |                                  |            |             |
|                                                                                                                   | MA24FOE201  | Operations Research                                                     |          |                          |          |           |           |           |                                  |            |             |
| 6                                                                                                                 | CA24FPC204  | Computer Networks Laboratory                                            | PC       | -                        | 1        | 2         | 3         | 2         | 40                               | 60         | 100         |
| 7                                                                                                                 | CA24FPC205  | Data Science with Python Laboratory                                     | PC       | -                        | 1        | 2         | 3         | 2         | 40                               | 60         | 100         |
| 8                                                                                                                 | CA24FPC206  | Operating Systems Laboratory                                            | PC       | -                        | 1        | 2         | 3         | 2         | 40                               | 60         | 100         |
| 9                                                                                                                 | CA24FSC201  | OOPS Through Java                                                       | SC       | -                        | 1        | 2         | 3         | 2         | 40                               | 60         | 100         |
| 10                                                                                                                | CA24FTS201  | Seminar                                                                 | TS       | -                        | -        | 4         | 4         | 2         | 100                              | --         | 100         |
| <b>Total</b>                                                                                                      |             |                                                                         |          | <b>18</b>                | <b>4</b> | <b>12</b> | <b>34</b> | <b>28</b> | <b>460</b>                       | <b>540</b> | <b>1000</b> |
| <b>Mandatory Summer Internship/ Industry Oriented Mini Project of 6 Weeks<br/>Duration during Summer Vacation</b> |             |                                                                         |          |                          |          |           |           |           |                                  |            |             |



**II Year – I Semester**

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|--------------|-------------|--------------------------------------------------------------|----------|--------------------------|----------|----------|-----------|-----------|----------------------------------|------------|-------------|
|              |             |                                                              |          | L                        | T        | P        | Total     |           | Int. Marks                       | Ext. Marks | Total Marks |
| 1            | CA24FPC301  | Big Data Technologies                                        | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 2            | CA24FPC302  | DevOps and Agile Programming                                 | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 3            | CA24FPC303  | Web Technologies                                             | PC       | 4                        | -        | -        | 4         | 4         | 40                               | 60         | 100         |
| 4            | CA24FPE301  | <b>Professional Elective-II</b><br>Machine Learning          | PE       | 3                        | -        | -        | 3         | 3         | 40                               | 60         | 100         |
|              | CA24FPE302  | Network Security                                             |          |                          |          |          |           |           |                                  |            |             |
|              | CA24FPE303  | Software Architecture and Design Patterns                    |          |                          |          |          |           |           |                                  |            |             |
| 5            | CA24FPE304  | <b>Professional Elective-III</b><br>Block Chain Technologies | PE       | 3                        | -        | -        | 3         | 3         | 40                               | 60         | 100         |
|              | CA24FPE305  | Internet of Things                                           |          |                          |          |          |           |           |                                  |            |             |
|              | CA24FPE306  | Mobile Application Development                               |          |                          |          |          |           |           |                                  |            |             |
| 6            | CA24FPC304  | Big Data Technologies Laboratory                             | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 7            | CA24FPC305  | DevOps and Agile Programming Laboratory                      | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 8            | CA24FPC306  | Web Technologies Laboratory                                  | PC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| 9            | CA24FIP301  | Summer Internship/<br>Industry Oriented Mini Project         | IP       | -                        | -        | -        | -         | 2         | --                               | 100        | 100         |
| 10           | CA24FSC301  | MEAN Stack Development                                       | SC       | -                        | 1        | 2        | 3         | 2         | 40                               | 60         | 100         |
| <b>Total</b> |             |                                                              |          | <b>18</b>                | <b>4</b> | <b>8</b> | <b>30</b> | <b>28</b> | <b>360</b>                       | <b>640</b> | <b>1000</b> |



**II Year – II Semester**

| S. No        | Course Code | Course Name                                          | Category | Contact Periods per Week |          |           |           | Credits   | Scheme of Examination Max. Marks |            |             |
|--------------|-------------|------------------------------------------------------|----------|--------------------------|----------|-----------|-----------|-----------|----------------------------------|------------|-------------|
|              |             |                                                      |          | L                        | T        | P         | Total     |           | Int. Marks                       | Ext. Marks | Total Marks |
| 1            | CA24FPE401  | <b>Professional Elective-IV</b><br>Deep Learning     | PE       |                          |          |           |           |           |                                  |            |             |
|              | CA24FPE402  | Multimedia Systems and Tools                         |          | 3                        | -        | -         | 3         | 3         | 40                               | 60         | 100         |
|              | CA24FPE403  | Social Media Analysis                                |          |                          |          |           |           |           |                                  |            |             |
| 2            | CA24FOE401  | <b>Open Elective-II</b><br>Cyber Laws                | OE       |                          |          |           |           |           |                                  |            |             |
|              | BA24FOE401  | Foundations of Entrepreneurship and Venture Creation |          | 3                        | -        | -         | 3         | 3         | 40                               | 60         | 100         |
|              | CA24FOE402  | NoSQL Databases                                      |          |                          |          |           |           |           |                                  |            |             |
| 3            | CA24FPW401  | Project Work                                         | PW       | -                        | -        | 20        | 20        | 10        | 100                              | 100        | 200         |
| 4            | CA24FCV401  | Comprehensive Viva Voce                              | CV       | -                        | -        | -         | -         | 2         | --                               | 100        | 100         |
| <b>Total</b> |             |                                                      |          | <b>6</b>                 | <b>-</b> | <b>20</b> | <b>26</b> | <b>18</b> | <b>180</b>                       | <b>320</b> | <b>500</b>  |