



## Chhattisgarh Swami Vivekanand Technical University, Bhilai (CG)

### Scheme for B. Tech. First Semester (Data Science 3110)

| S.No.                         | Board of Studies (BOS)       | Courses (Subject)                                    | Subject Code | Course Category | Period per Week |   |    | Scheme of Examination |     |     | Total Marks | Credits | Assessment/ assignment hours per week | Teaching Hours/sem |
|-------------------------------|------------------------------|------------------------------------------------------|--------------|-----------------|-----------------|---|----|-----------------------|-----|-----|-------------|---------|---------------------------------------|--------------------|
|                               |                              |                                                      |              |                 | L               | T | P  | Theory/Lab            |     |     |             |         |                                       |                    |
|                               |                              |                                                      |              |                 |                 |   |    | ESE                   | CT  | TA  |             |         |                                       |                    |
| 1.                            | Applied Mathematics          | Engineering Mathematics-1                            | 3000A02AT014 | BFC-BSC         | 3               | 1 |    | 100                   | 20  | 20  | 140         | 4       | 1                                     | 60                 |
| 2.                            | Applied Physics              | Engineering Physics (Circuit)                        | 3000A03AT015 | BFC-BSC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                                     | 45                 |
| 3.                            | Electrical Engineering       | Basic Electrical Engineering                         | 3000A05AT024 | BFC-ESC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                                     | 45                 |
| 4.                            | Computer Science Engineering | Python for Problem Solving & Logic Building          | 3022A01CT022 | SBS-PCC         | 3               | 1 | -  | 100                   | 20  | 20  | 140         | 4       | 1                                     | 60                 |
| 5.                            | Humanities                   | Professional Communication Skills                    | 3000A05DT046 | AEC-HSM C       | 2               |   | -  | 50                    | 10  | 10  | 70          | 2       | 1                                     | 30                 |
| 6.                            | Humanities                   | Foundation course on Ancient Indian Knowledge System | 3000A06ET046 | IKS             | 2               | - | -  | 50                    | 10  | 10  | 70          | 2       | 1                                     | 30                 |
| 7.                            | Computer Science Engineering | Fundamentals of Computer & IT Lab                    | 3000A02CL022 | SBS-ESC         | -               | - | 4  | 40                    | -   | 20  | 60          | 2       | 1                                     | 60                 |
| 8.                            | Computer Science Engineering | Python for Problem Solving & Logic Building (Lab)    | 3022A01CL022 | SBS-PCC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                     | 30                 |
| 9.                            | Applied Physics              | Engineering Physics Lab (Circuit)                    | 3000A03AL015 | BFC-BSC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                     | 30                 |
| 10.                           | Electrical Engineering       | Basic Electrical Engineering Lab                     | 3000A04AL024 | BFC-ESC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                     | 30                 |
| 11.                           | Humanities                   | Sports & Yoga                                        | 3000A06FL046 | VAC-MNC AU      | -               | - | 2  | -                     | -   | 30  | 30          | -       | -                                     | 30                 |
| 12.                           | Humanities                   | Social Service/Community Services                    | 3000A07FL046 | VAC-MNC AU      |                 |   | 2  | -                     | -   | 30  | 30          | -       | -                                     | 30                 |
| 13.                           |                              | Library                                              |              |                 |                 | 1 |    |                       |     |     |             |         |                                       | 15                 |
| Total                         |                              |                                                      |              |                 | 16              | 3 | 14 | 660                   | 100 | 240 | 1000        | 23      | 105                                   | 495                |
| Total Learning Hours/Semester |                              |                                                      |              |                 |                 |   |    |                       |     |     |             |         | 600                                   |                    |

L-Lecture, P-Practical, ESE-End semester Exam, CT-Class Test, TA-Teacher's Assessment

Note: Abbreviations of Course category

**BFC-** Basics Foundation Course

**SBS-** Skilled Based Subject (Branch Specific)

**IKS-** Indian Knowledge System

**AEC-** Ability Enhancement Course

**VAC-** Value Added Course

**BSC-** Basic Science Courses

**ESC-** Engineering Science Courses

**PCC-** Professional Core Courses

**HSMC-** Humanities, Social Sciences & Management Courses

**MNC AU-** Mandatory Non Credit Courses – Audit Course



## Chhattisgarh Swami Vivekanand Technical University, Bhilai (CG)

### Scheme for B. Tech. Second Semester (Data Science 3110)

| Sl. No.                       | Board of Studies (BOS)       | Courses (Subject)                                 | Subject Code | Course Category | Period per Week |   |    | Scheme of Examination |     |     | Total Marks | Credits | Assessment/assignment hours per week | Teaching Hours |
|-------------------------------|------------------------------|---------------------------------------------------|--------------|-----------------|-----------------|---|----|-----------------------|-----|-----|-------------|---------|--------------------------------------|----------------|
|                               |                              |                                                   |              |                 | L               | T | P  | Theory/Lab            |     |     |             |         |                                      |                |
|                               |                              |                                                   |              |                 |                 |   |    | ESE                   | CT  | TA  |             |         |                                      |                |
| 1.                            | Applied Mathematics          | Engineering Mathematics-II                        | 3000B02AT014 | BFC-BSC         | 3               | 1 | -  | 100                   | 20  | 20  | 140         | 4       | 2                                    | 60             |
| 2.                            | CSE                          | Computer Networking & Security Surveillance       | 3022B01CT022 | SBS-PCC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 2                                    | 45             |
| 3.                            | Applied Chemistry            | Environmental Chemistry                           | 3000B03AT011 | BFC-BSC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 2                                    | 45             |
| 4.                            | Computer Science Engineering | Concepts of Programming Language                  | 3000B04AT022 | BFC-ESC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                                    | 45             |
| 5.                            | Humanities                   | Indian Culture and Constitution                   | 3000B05ET046 | IKS             | 2               | - | -  | 50                    | 10  | 10  | 70          | 2       | 1                                    | 30             |
| 6.                            | Management                   | Cyber Law and Ethics                              | 3000B06FT076 | VAC             | 1               | - | -  | 50                    | 10  | 10  | 70          | 1       | 1                                    | 15             |
| 7.                            | Computer Science Engineering | Concepts of Programming Language (Lab)            | 3000B02AL022 | BFC-ESC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | 1                                    | 30             |
| 8.                            | Mechanical Engineering       | Engineering Graphics (Lab)                        | 3000B03AL037 | BFC-BSC         | -               | - | 4  | 40                    | -   | 20  | 60          | 2       | 1                                    | 60             |
| 9.                            | Applied Chemistry            | Environmental Chemistry (Lab)                     | 3000B04AL011 | BFC-BSC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                    | 30             |
| 10.                           | CSE                          | Computer Networking & Security Surveillance (Lab) | 3022B01CL022 | SBS-PCC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                    | 30             |
| 11.                           | Humanities                   | Value Education                                   | 3000B07FT046 | VAC-MNCAU       | 1               | - | -  | -                     | -   | 30  | 30          | -       | -                                    | 15             |
| 12.                           | Civil Engineering            | Civil Engg-Societal and Global Impact             | 3000B08FT020 | VAC-MNCAU       | 1               | - | -  | -                     | -   | 30  | 30          | -       | -                                    | 15             |
| 13.                           |                              | Library                                           |              |                 |                 | 1 |    |                       |     |     |             |         |                                      | 15             |
| Total                         |                              |                                                   |              |                 | 17              | 2 | 10 | 660                   | 100 | 240 | 1000        | 21      | 165                                  | 435            |
| Total Learning Hours/semester |                              |                                                   |              |                 |                 |   |    |                       |     |     |             |         | 600                                  |                |

**L-Lecture, P-Practical, ESE-End semester Exam, CT-Class Test, TA-Teacher's Assessment**

**Note: Abbreviations of Course category**

**BFC- Basics Foundation Course**

**SBS- Skilled Based Subject (Branch Specific)**

**IKS- Indian Knowledge System**

**AEC- Ability Enhancement Course**

**VAC- Value Added Course**

**BSC- Basic Science Courses**

**ESC- Engineering Science Courses**

**PCC- Professional Core Courses**

**HSMC- Humanities, Social Sciences & Management Courses**

**MNC AU-Mandatory Non Credit Courses – Audit Course**



## CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI (C.G.)

### Scheme of Teaching and Examination

#### Scheme for B.Tech Third Semester (Computer Science and Engineering (Data Sciences)-3110)

| Sl. No.                       | Board of Studies (BOS)       | Courses (Subject)                         | Subject Code | Course Category | Period per Week |   |    | Scheme of Examination |     |     | Total Marks | Credits | Teaching Hours/sem | Assessment hours/sem (Assignment/ Practical file) |
|-------------------------------|------------------------------|-------------------------------------------|--------------|-----------------|-----------------|---|----|-----------------------|-----|-----|-------------|---------|--------------------|---------------------------------------------------|
|                               |                              |                                           |              |                 | L               | T | P  | Theory/Lab            |     |     |             |         |                    |                                                   |
|                               |                              |                                           |              |                 |                 |   |    | ESE                   | CT  | TA  |             |         |                    |                                                   |
| 1                             | Applied Mathematics          | Discrete Mathematics                      | 3022C01AT014 | BFS-BSC         | 2               | 1 | -  | 100                   | 20  | 20  | 140         | 3       | 45                 | 15                                                |
| 2                             | Computer Science Engineering | Operating System                          | 3022C02BT022 | PCC             | 2               | 1 | -  | 100                   | 20  | 20  | 140         | 3       | 45                 | 15                                                |
| 3                             | Computer Science Engineering | Digital Electronics and Logic Design      | 3022C03BT022 | PCC             | 2               | 1 | -  | 100                   | 20  | 20  | 140         | 3       | 45                 | 15                                                |
| 4                             | Computer Science Engineering | Object oriented Programming with Java     | 3109C04CT022 | SBS-PCC         | 2               | 1 | -  | 100                   | 20  | 20  | 140         | 3       | 45                 | 15                                                |
| 5                             | Computer Science Engineering | Web Development                           | 3022C05CT022 | SBS-PCC         | 2               | 1 | -  | 100                   | 20  | 20  | 140         | 3       | 45                 | 15                                                |
| 6                             | Humanities                   | Life Concept by Bhagwat Gita              | 3000C06ET046 | IKS             | 2               | - | -  | 100                   | 20  | 20  | 140         | 2       | 30                 | 15                                                |
| 7                             | Computer Science Engineering | Operating System Lab                      | 3110C01BL022 | PCC             | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | 30                 | 15                                                |
| 8                             | Computer Science Engineering | Object oriented Programming with Java lab | 3110C02BL022 | PCC             | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | 30                 | 15                                                |
| 9                             | Computer Science Engineering | Web Development lab                       | 3110C03CL022 | SBS-PCC         | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | 30                 | 15                                                |
| 10                            | Computer Science Engineering | Idea Innovation Lab                       | 3110C04FL022 | VAC             |                 | - | 2  | -                     | -   | 40  | 40          | 1       | 30                 | 15                                                |
| 11                            | Management                   | Personality Development                   | 3000C07DT076 | AEC-MNC AU      | 1               |   | 2  |                       |     | 40  | 40          | -       | 45                 | 15                                                |
| 12                            |                              | Library                                   |              |                 |                 | 1 |    | -                     | -   | -   | -           | -       | 15                 | -                                                 |
| Total                         |                              |                                           |              |                 | 13              | 6 | 10 | 720                   | 120 | 260 | 1100        | 21      | 435                | 165                                               |
| Total Learning Hours/Semester |                              |                                           |              |                 |                 |   |    |                       |     |     |             |         | 600                |                                                   |

L- Lecture, P- Practical, ESE- End Semester Exam, CT- Class Test, TA- Teacher Assessment

Note: Abbreviations of Course category

BFS Basics Foundation Subject

BSC Basic Science Courses

PCC Professional Core Courses

VAC Value Added Course

SBS Skilled Based Subject (Branch Specific)

IKS Indian Knowledge System

AEC Ability Enhancement Course

MNC AU Mandatory Non Credit Courses – Audit Course