



# Chhattisgarh Swami Vivekanand Technical University, Bhilai (C.G.)

## Scheme of Teaching and Examination

### B.Tech Honors Computer Science and Engineering (Data Science) First Semester (3128) (NEP)

| 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/semester |     |
|---------|-----------------------------------|------------------------------------------------------|--------------|-----------------|-----------------|----|---|-----------------------|-----|-----|-------------|---------|--------------------------------------|-------------------------|-----|
|         |                                   |                                                      |              |                 | L               | T  | P | Theory/Lab            |     |     |             |         |                                      |                         |     |
|         |                                   |                                                      |              |                 |                 |    |   | ESE                   | CT  | TA  |             |         |                                      |                         |     |
| 1.      | Applied Mathematics               | Engineering Mathematics-I                            | 3127A01AT014 | BFC – BSC       | 3               | 1  | - | 100                   | 20  | 20  | 140         | 4       | 2                                    | 60                      |     |
| 2.      | Computer Sciences Engineering     | Fundamentals of Computer                             | 3127A02CT022 | SBS – ESC       | 3               | -  | - | 100                   | 20  | 20  | 140         | 3       | 2                                    | 45                      |     |
| 3.      | Civil Engineering                 | Environmental Science                                | 3127A03AT020 | BFC – ESC       | 3               | -  | - | 100                   | 20  | 20  | 140         | 3       | 1                                    | 45                      |     |
| 4.      | Computer Sciences Engineering     | Learning Programming with C Language                 | 3127A04CT022 | SBS – PCC       | 3               | -  | - | 100                   | 20  | 20  | 140         | 3       | 1                                    | 45                      |     |
| 5.      | Electronics and Telecommunication | Basic Electronics Engineering                        | 3127A05AT028 | BFC – ESC       | 3               | -  | - | 100                   | 20  | 20  | 140         | 3       | 1                                    | 45                      |     |
| 6.      | Humanities                        | Professional Communication Skills                    | 3127A06DT046 | AEC             | 2               | -  | - | 50                    | 10  | 10  | 70          | 2       | 1                                    | 30                      |     |
| 7.      | Humanities                        | Foundation course on Ancient Indian Knowledge System | 3127A07ET046 | IKS             | 2               | -  | - | 50                    | 10  | 10  | 70          | 2       | 1                                    | 30                      |     |
| 8.      | Computer Sciences Engineering     | Learning Programming with C (Lab)                    | 3127A01CL022 | SBS – PCC       | -               | -  | 4 | 40                    | -   | 20  | 60          | 2       | -                                    | 60                      |     |
| 9.      | Electronics and Telecommunication | Basic Electronics Engineering Lab                    | 3127A02AL028 | BFC – ESC       | -               | -  | 2 | 40                    | -   | 20  | 60          | 1       | -                                    | 30                      |     |
| 10.     | Humanities                        | Value Education                                      | 3127A03FL046 | VAC MNC AU      | -               | -  | 2 | -                     | -   | 20  | 20          | -       | -                                    | 30                      |     |
| 11.     | Humanities                        | Sports & Yoga /Social Service/Community Services     | 3127A04FL046 | VAC MNC AU      | -               | -  | 2 | -                     | -   | 20  | 20          | -       | -                                    | 30                      |     |
| 12.     | -                                 | Library                                              | -            | -               | -               | 1  | - | -                     | -   | -   | -           | -       | -                                    | 15                      |     |
|         |                                   | Total                                                |              |                 |                 | 19 | 2 | 10                    | 680 | 120 | 200         | 1000    | 23                                   | 135                     | 465 |
|         |                                   | Total Learning Hours/Semester                        |              |                 |                 |    |   |                       |     |     |             |         | 600                                  |                         |     |

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

Note: Abbreviations of Course category

AEC- Ability Enhancement Course

SBS- Skilled Based Subject

IKS- Indian Knowledge System

VAC- Value Added Course

MNC AU-Mandatory Non Credit Courses – Audit Course

BFC-Basics Foundation Course

BSC-Basic Science Courses

ESC-Engineering Science Courses

PCC- Professional Core Courses

HSMC-Humanities, Social Sciences & Management Courses



# Chhattisgarh Swami Vivekanand Technical University, Bhilai (C.G.)

## Scheme of Teaching and Examination

### B.Tech Honors Computer Science and Engineering (Data Science) **Second Semester (3128) (NEP)**

| S. N. | Board of Studies (BOS)          | Courses (Subject)                             | Subject Code | Course Category | Period per Week |   |    | Scheme of Examination |     |     | Total Marks | Credits | Assessmen/ Assignment hours per week | Teachi ng Hours |
|-------|---------------------------------|-----------------------------------------------|--------------|-----------------|-----------------|---|----|-----------------------|-----|-----|-------------|---------|--------------------------------------|-----------------|
|       |                                 |                                               |              |                 | L               | T | P  | Theory/Lab            |     |     |             |         |                                      |                 |
|       |                                 |                                               |              |                 |                 |   |    | ESE                   | CT  | TA  |             |         |                                      |                 |
| 1.    | Applied Mathematics             | Engineering Mathematics-II                    | 3127B01AT014 | BFC - BSC       | 3               | 1 | -  | 100                   | 20  | 20  | 140         | 4       | 2                                    | 60              |
| 2.    | Computer Sciences Engineering   | Python for Data Science                       | 3127B02CT022 | SBS - PCC       | 3               | 1 | —  | 100                   | 20  | 20  | 140         | 4       | 1                                    | 60              |
| 3.    | Computer Sciences Engineering   | Data Structure Using C                        | 3127B03AT022 | BFC - ESC       | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 2                                    | 45              |
| 4.    | Computer Sciences Engineering   | Object Oriented Programming                   | 3127B04AT022 | BFC- ESC        | 3               |   | -  | 100                   | 20  | 20  | 140         | 3       | 1                                    | 45              |
| 5.    | Electronics & Telecommunication | Digital Logic and Design                      | 3127B05AT028 | BFC-ESC         | 2               | - | -  | 50                    | 10  | 10  | 70          | 2       | 1                                    | 30              |
| 6.    | Humanities                      | Indian Culture and Constitution               | 3127B06ET046 | IKS             | 2               | - | -  | 50                    | 10  | 10  | 70          | 2       | 1                                    | 30              |
| 7.    | Computer Sciences Engineering   | Data Structure Using C (Lab)                  | 3127B01AL022 | BFC - ESC       | -               | - | 4  | 40                    | -   | 20  | 60          | 2       | 1                                    | 60              |
| 8.    | Electronics & Telecommunication | Digital Logic and Design (Lab)                | 3127B02AL028 | BFC-ESC         |                 |   | 2  | 40                    | -   | 20  | 60          | 1       | 1                                    | 30              |
| 9.    | Computer Sciences Engineering   | Object Oriented Programming (Lab)             | 3127B03AL022 | BFC- ESC        | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                    | 30              |
| 10.   | Computer Sciences Engineering   | Python for Data Science (Lab)                 | 3127B04CL022 | SBS - PCC       | -               | - | 2  | 40                    | -   | 20  | 60          | 1       | -                                    | 30              |
| 11.   | Management                      | Cyber Law and Ethics                          | 3127B07FT076 | VAC- MNC AU     | 1               | - | -  | -                     | -   | 30  | 30          | -       | -                                    | 15              |
| 12.   | Civil Engineering               | Civil Engineering- Societal and Global Impact | 3127B08FT020 | VAC- MNC AU     | 1               | - | -  | -                     | -   | 30  | 30          | -       | -                                    | 15              |
| 13.   | -                               | Library                                       | -            | -               | -               | 1 | -  | -                     | -   | -   | -           | -       | -                                    |                 |
| Total |                                 |                                               |              |                 | 18              | 2 | 10 | 660                   | 100 | 240 | 1000        | 23      | 135                                  | 435             |
|       |                                 | Total Learning Hours/semester                 |              |                 |                 |   |    |                       |     |     |             |         | 600                                  |                 |

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

## Scheme of Teaching and Examination

### Scheme for B.Tech Third Semester (Computer Science and Engineering (Data Science -3128))

| 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          | Probability and Statistics                        | 3127C01BT014 | PCC             | 3               | 1 | -  | 100                   | 20  | 20  | 140         | 4       | 1                  | 60                                                |
| 2                             | Computer Science Engineering | Analysis & Design of Algorithm                    | 3127C02BT022 | PCC             | 3               | 1 | -  | 100                   | 20  | 20  | 140         | 4       | 1                  | 45                                                |
| 3                             | Computer Science Engineering | Computer Organization and Architecture            | 3127C03BT022 | PCC             | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                  | 45                                                |
| 4                             | Computer Science Engineering | Database Management System                        | 3127C04CT022 | SBS-PCC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                  | 45                                                |
| 5                             | Computer Science Engineering | Introduction to Java                              | 3127C05CT022 | SBS-PCC         | 3               | - | -  | 100                   | 20  | 20  | 140         | 3       | 1                  | 45                                                |
| 6                             | Humanities                   | Indian Traditional Knowledge: Science & Practices | 3127C06ET046 | IKS             | 2               | - | -  | 50                    | 10  | 10  | 70          | 2       | 1                  | 30                                                |
| 7                             | Computer Science Engineering | Analysis & Design of Algorithms Lab               | 3128C07BL022 | PCC             | -               | - | 2  | 40                    | -   | 20  | 60          | 2       | 1                  | 30                                                |
| 8                             | Computer Science Engineering | Database Management System Lab                    | 3128C01CL022 | SBS-PCC         | -               | - | 4  | 40                    | -   | 20  | 60          | 2       | 1                  | 60                                                |
| 9                             | Computer Science Engineering | Independent Project Lab                           | 3128C02CL022 | SBS-PCC         | -               | - | 2  | 40                    | -   | 20  | 60          | 2       | 1                  | 30                                                |
| 10                            | Computer Science Engineering | Idea Innovation Lab                               | 3128C03FL022 | VAC             | -               | - | 2  | -                     | -   | 30  | 30          | -       | -                  | 30                                                |
| 11                            | Humanities                   | Personality Development                           | 3128C04FL046 | MNC AU          | -               | - | 2  | -                     | -   | 20  | 20          | -       | -                  | 30                                                |
| 12                            |                              | Library                                           |              |                 | -               | 1 | -  | -                     | -   | -   | -           | -       | -                  | 15                                                |
| Total                         |                              |                                                   |              |                 | 13              | 6 | 10 | 720                   | 120 | 260 | 1100        | 21      | 435                | 165                                               |
| Total Learning Hours/Semester |                              |                                                   |              |                 |                 |   |    |                       |     |     |             |         | 600                |                                                   |

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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