

# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Scheme of Teaching and Examination

### M. Tech. (Data Science)

#### 1<sup>st</sup> Semester

| S.N.         | Board of Study      | Sub Code    | Subject                              | Periods Per Week |          |          | Scheme of Examination |            |            | Total Marks | Credit L+(T+P)/2 |
|--------------|---------------------|-------------|--------------------------------------|------------------|----------|----------|-----------------------|------------|------------|-------------|------------------|
|              |                     |             |                                      |                  |          |          | Theory/Practical      |            |            |             |                  |
|              |                     |             |                                      | L                | T        | P        | ESE                   | CT         | TA         |             |                  |
| 1            | Computer Sc. &Engg. | 506111(22)  | Big Data Analytics                   | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 2            | Computer Sc. &Engg  | 506112(22)  | Statistical Computing                | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 3            | Computer Sc. &Engg  | 506113 (22) | Next Generation Databases            | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 4            | Computer Sc. &Engg  | 506114 (22) | Predictive Analytics                 | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 5            | Refer Table-I       |             | Elective-I                           | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 6            | Computer Sc. &Engg  | 506121(22)  | Big Data Analytics Laboratory        | -                | -        | 3        | 75                    | -          | 75         | 150         | 2                |
| 7            | Computer Sc. &Engg  | 506122 (22) | Next Generation Databases Laboratory | -                | -        | 3        | 75                    | -          | 75         | 150         | 2                |
| <b>Total</b> |                     |             |                                      | <b>15</b>        | <b>5</b> | <b>6</b> | <b>650</b>            | <b>100</b> | <b>250</b> | <b>1000</b> | <b>24</b>        |

L-Lecture, T- Tutorial, P- Practical, ESE- End Semester Examination, CT- Class Test, TA-Teacher's Assessment

| Elective - I |                      |            |                                    |
|--------------|----------------------|------------|------------------------------------|
| S. N.        | Board of Study       | Sub Code   | Subject Name                       |
| 1            | Computer Sc. & Engg. | 506131(22) | Data Mining and Warehousing        |
| 2            | Computer Sc. & Engg  | 506132(22) | Cloud Computing and Virtualization |
| 3            | Computer Sc. & Engg  | 506133(22) | Optimization Methods               |
| 4            | Computer Sc. & Engg  | 506134(22) | Probabilistic Graphical Models     |
| 5            | Computer Sc. & Engg  | 584135(22) | Mobile Computing                   |

**Note 1:** Choice of elective once made for an examination cannot be changed in future examinations.

**Note 2:** Examination Duration of all Theory papers will be of THREE hours.

**Note 3:** Tutorials to be conducted in the lab to teach the applications of the subject.

# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Scheme of Teaching and Examination

M. Tech. (Data Science)

2<sup>nd</sup> Semester

| S. N.        | Board of Study       | Sub Code   | Subject                       | Periods Per Week |          |          | Scheme of Examination |            |            | Total Marks | Credit L+(T+P)/2 |
|--------------|----------------------|------------|-------------------------------|------------------|----------|----------|-----------------------|------------|------------|-------------|------------------|
|              |                      |            |                               | L                | T        | P        | Theory /Practical     |            |            |             |                  |
|              |                      |            |                               |                  |          |          | ESE                   | CT         | TA         |             |                  |
| 1            | Computer Sc. & Engg. | 506211(22) | High Performance Computing    | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 2            | Computer Sc. & Engg  | 506212(22) | Applied Multivariate Analysis | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 3            | Computer Sc. & Engg  | 506213(22) | Machine Learning              | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 4            | Computer Sc. & Engg  | 506214(22) | Internet of Things            | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 5            | Refer Table-II       |            | Elective-II                   | 3                | 1        | -        | 100                   | 20         | 20         | 140         | 4                |
| 6            | Computer Sc. & Engg  | 506221(22) | Machine Learning Lab          | -                | -        | 3        | 75                    | -          | 75         | 150         | 2                |
| 7            | Computer Sc. & Engg  | 506222(22) | OT Laboratory                 | -                | -        | 3        | 75                    | -          | 75         | 150         | 2                |
| <b>Total</b> |                      |            |                               | <b>15</b>        | <b>5</b> | <b>6</b> | <b>650</b>            | <b>100</b> | <b>250</b> | <b>1000</b> | <b>24</b>        |

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| Elective -II |                      |            |                              |
|--------------|----------------------|------------|------------------------------|
| S. N.        | Board of Study       | Sub Code   | Subject                      |
| 1            | Computer Sc. & Engg. | 506231(22) | Artificial Intelligence      |
| 2            | Computer Sc. & Engg  | 506232(22) | Information Retrieval        |
| 3            | Computer Sc. & Engg  | 506233(22) | Image and Video analytics    |
| 4            | Computer Sc. & Engg  | 506234(22) | E-Technologies               |
| 5            | Computer Sc. & Engg  | 506235(22) | Social Networking and Mining |

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# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Scheme of Teaching and Examination

M. Tech. (Data Science)

3<sup>rd</sup> Semester

| S. N.        | Board of Study              | Sub Code   | Subject                          | Periods Per Week |          |           | Scheme of Examination |           |            | Total Marks | Credit L+(T+P)/2 |
|--------------|-----------------------------|------------|----------------------------------|------------------|----------|-----------|-----------------------|-----------|------------|-------------|------------------|
|              |                             |            |                                  | L                | T        | P         | Theory /Practical     |           |            |             |                  |
|              |                             |            |                                  |                  |          |           | ESE                   | CT        | TA         |             |                  |
| 1            | Computer Sc. & Engg.        | 506311(22) | Data Security                    | 3                | 1        | -         | 100                   | 20        | 20         | 140         | 4                |
| 2            | Refer Table- 3 Elective-III |            |                                  | 3                | 1        | -         | 100                   | 20        | 20         | 140         | 4                |
| 3            | Computer Sc. & Engg.        | 506321(22) | Preliminary Work on Dissertation | -                | -        | 28        | 100                   | -         | 100        | 200         | 14               |
| 4            | Computer Sc. & Engg.        | 506322(22) | Technical Seminar                | -                | -        | 3         | -                     | -         | 20         | 20          | 2                |
| <b>Total</b> |                             |            |                                  | <b>6</b>         | <b>2</b> | <b>31</b> | <b>300</b>            | <b>40</b> | <b>160</b> | <b>500</b>  | <b>24</b>        |

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| Refer Table- 3 (Elective -III) |                      |            |                            |
|--------------------------------|----------------------|------------|----------------------------|
| S. N.                          | Board of Study       | Sub Code   | Subject                    |
| 1                              | Computer Sc. & Engg. | 506331(22) | Natural Language Computing |
| 2                              | Computer Sc. & Engg  | 506332(22) | Web Intelligence           |
| 3                              | Computer Sc. & Engg  | 506333(22) | Bioinformatics             |
| 4                              | Computer Sc. & Engg  | 506334(22) | Social Media Analytics     |
| 5                              | Computer Sc. & Engg  | 506335(22) | Deep Learning              |

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# Chhattisgarh Swami Vivekanand Technical University, Bilai

## Scheme of Teaching and Examination

M. Tech. (Data Science)

4<sup>th</sup> Semester

| S. N. | Board of Study      | Sub Code   | Subject                               | Periods  |   |    | Scheme of Examination |    |     | Total Marks | Credit<br>L+(T+P)/2 |
|-------|---------------------|------------|---------------------------------------|----------|---|----|-----------------------|----|-----|-------------|---------------------|
|       |                     |            |                                       | Per Week |   |    | Theory /Practical     |    |     |             |                     |
|       |                     |            |                                       | L        | T | P  | ESE                   | CT | TA  |             |                     |
| 1     | Computer Sc. & Engg | 506421(22) | Dissertation +<br>Seminar + Viva Voce | 6        | - | 34 | 300                   | -  | 200 | 500         | 23                  |
| Total |                     |            |                                       | 6        | - | 34 | 300                   | -  | 200 | 500         | 23                  |

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