



**JSPM UNIVERSITY PUNE**

Recognized by UGC u/s 2 (f) of UGC Act 1956 and enacted by the  
State Government of Maharashtra - JSPM University Act, 2022 (Mah.IV of 2023)

**JSPM University Pune**  
**Faculty of Science and Technology**  
**School of Basic and Applied Sciences**



**NEP aligned Curriculum Structure**

**for**

**B.Sc (CS)**

**(Effective from AY: 2025-26)**



# JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF BASICS AND APPLIED SCIENCES

COURSE STRUCTURE  
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

FIRST YEAR BACHELOR SCIENCE IN COMPUTER SCIENCE

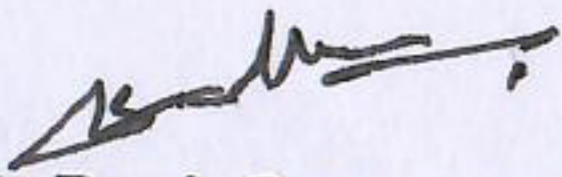
REVISION NO.

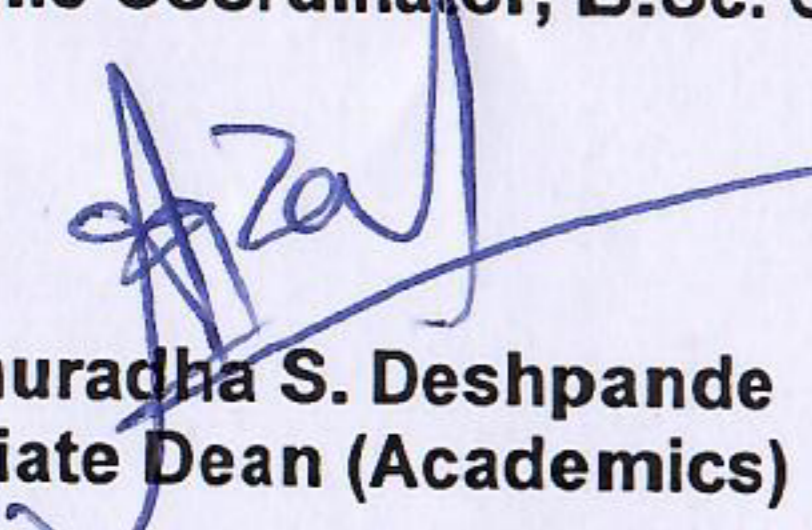
1.0 (NEP)


## SEMESTER I (LEVEL 4.5)

| COURSE       |              | TEACHING SCHEME                                  | EXAMINATION SCHEME AND MARKS |          |          |          |   |                  |                            |  |  |  |  |  | C<br>R<br>E<br>D<br>I<br>T<br>S |                       |
|--------------|--------------|--|------------------------------|----------|----------|----------|---|------------------|----------------------------|--|--|--|--|--|---------------------------------|-----------------------|
| TYPE         | CODE         | COURSE NAME                                      | Hours / Week                 |          |          |          | THEORY<br>(Equal Weightage for CIE and ESE)     |                  |                            |  | PRACTICAL<br>(Equal Weightage for CIE and ESE) |  | ORAL<br>(Equal Weightage for CIE and ESE)      |  |                                 | T<br>O<br>T<br>A<br>L |
|              |              |  | L                            | T        | P        | EL       | CONTINUOUS INSEMESTER EVALUATION<br>(100 Marks) |                  |                            | END SEMESTER EXAMINATION<br>(100 / 50 Marks) | CONTINUOUS INSEMESTER EVALUATION<br>(50 Marks) | END SEMESTER EXAMINATION<br>(50 Marks) | CONTINUOUS INSEMESTER EVALUATION<br>(50 Marks) | END SEMESTER EXAMINATION<br>(50 Marks) |                                 |                       |
|              |              |  |                              |          |          |          | T1<br>(30 Marks)                                | T2<br>(30 Marks) | Assign-ments<br>(40 Marks) |  |  |  |  |  |                                 |                       |
| BSC          | 230GMAB02_01 | Discrete Mathematics                             | 2                            | 1        | -        | -        | 30  | 30               | 40                         | 100  | -  | -                                      | -  | -                                      | 100                             | 3                     |
| PCC          | 231GSCB02_01 | Database Management Systems                      | 2                            | -        | -        | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -  | -                                      | 50                              | 2                     |
| IOC          | --           | Interdisciplinary Open Course                    | 2                            | -        | -        | -        | 30  | 30               | 40                         | 100  | -  | -                                      | -  | -                                      | 100                             | 2                     |
| SEC          | 240GSCB01_01 | Problem Solving using C Programming              | 2                            | -        | 2        | -        | -   | -                | -                          | -  | 50   | 50                                     | 50   | 50                                     | 100                             | 3                     |
| VSC          | 230IDCB01_01 | Design Thinking and Creativity                   | 1                            | -        | -        | 2        | -   | -                | -                          | -  | -  | -                                      | 50   | 50                                     | 50                              | 1.5                   |
| AEC          | 230UENB01_01 | Effective Communication Skills                   | 1                            | -        | 2        | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -  | -                                      | 50                              | 2                     |
| IKS          | 250UIKB02_01 | Wisdom through Ancient Indian History            | 2                            | -        | -        | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -  | -                                      | 50                              | 2                     |
| VEC          | 231GCEB02_01 | Environment and Sustainability                   | 2                            | -        | -        | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -  | -                                      | 50                              | 2                     |
| LC           | 230GSCB04_01 | Database Management Systems Lab                  | -                            | -        | 2        | -        | -   | -                | -                          | -  | 50   | 50                                     | -  | -                                      | 50                              | 1                     |
|              | 240GDIB01_01 | Data Manipulation and Representation using Excel | 1                            | -        | 2        | -        | -   | -                | -                          | -  | 50   | 50                                     | -  | -                                      | 50                              | 2                     |
| LLC          | 231UPYB02_01 | Mindfulness and Well-being                       | 1                            | -        | -        | 2        | -   | -                | -                          | -  | -  | -                                      | 50   | -                                      | 50                              | 1.5                   |
| <b>TOTAL</b> |              |  | <b>16</b>                    | <b>1</b> | <b>8</b> | <b>4</b> |   |                  |                            |  |  |  |  |  | <b>50</b>                       | <b>1.5</b>            |
|              |              |  |                              |          |          |          |   |                  |                            |  |  |  |  |  | <b>700</b>                      | <b>22</b>             |

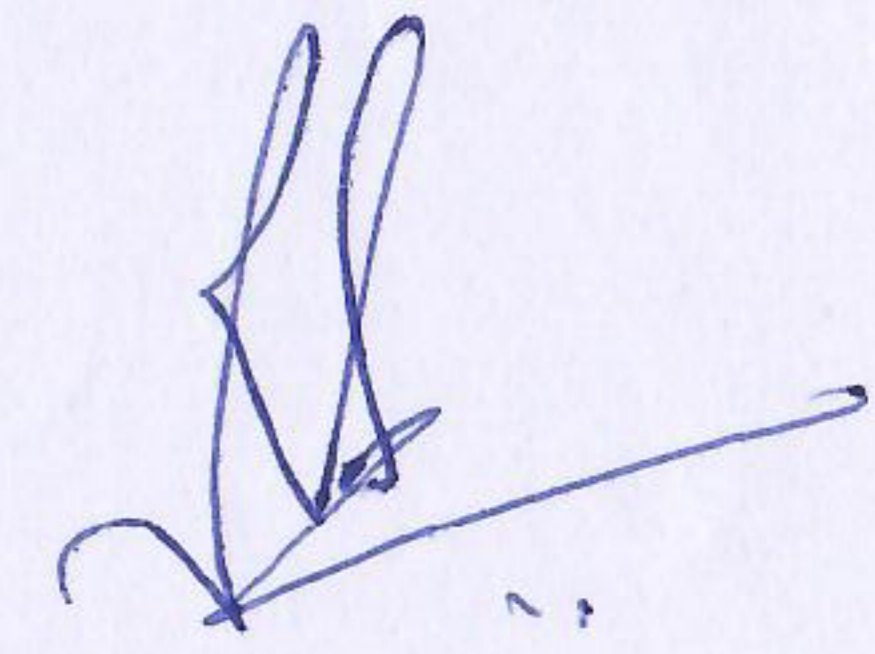
| Interdisciplinary Open Course (IOC) |                                   |
|-------------------------------------|-----------------------------------|
| Course Code                         | 240GPHB03_02                      |
| Course Name                         | Semiconductor Physics             |
| Course Code                         | 240VBBB06_03                      |
| Course Name                         | Introduction to Digital Marketing |
| Course Code                         | 230VBCB14_06                      |
| Course Name                         | E-Commerce                        |


  
**Asst. Prof. Sangram Kakade**  
Programme Coordinator, B.Sc. CS

  
**Dr. Anuradha S. Deshpande**  
Associate Dean (Academics)

  
**Dr. G. A. Patil**  
Director, School of Computational Sciences



  
**Dr. R. S. Deshpande**  
Dean, Faculty of Science and Technology

  
**Prof. B.B. Ahuja**  
Vice Chancellor, JSPM University Pune



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## SEMESTER II (LEVEL 4.5)

| COURSE        |              | TEACHING SCHEME   | EXAMINATION SCHEME AND MARKS |          |           |          |   |                  |                            |  |  |  |   |  |                       | C<br>R<br>E<br>D<br>I<br>T<br>S |   |
|---------------|--------------|---|------------------------------|----------|-----------|----------|---|------------------|----------------------------|--|--|--|---|--|-----------------------|---------------------------------|---|
| TYPE          | CODE         | COURSE NAME   | Hours / Week                 |          |           |          | THEORY<br>(Equal Weightage for CIE and ESE)     |                  |                            |  | PRACTICAL<br>(Equal Weightage for CIE and ESE) |  | ORAL<br>(Equal Weightage for CIE and ESE)     |  | T<br>O<br>T<br>A<br>L |                                 |   |
|               |              |   | L                            | T        | P         | EL       | CONTINUOUS INSEMESTER EVALUATION<br>(100 Marks) |                  |                            | END SEMESTER EXAMINATION<br>(100 / 50 marks) | CONTINUOUS INSEMESTER EVALUATION<br>(50marks)  | END SEMESTER EXAMINATION<br>(50 marks) | CONTINUOUS INSEMESTER EVALUATION<br>(50marks) | END SEMESTER EXAMINATION<br>(50 marks) |                       |                                 |   |
|               |              |   |                              |          |           |          | T1<br>(30 Marks)                                | T2<br>(30 Marks) | Assign-ments<br>(40 Marks) |  |  |  |   |  |                       |                                 |   |
| BSC           | 230GMAB03_02 | Linear Algebra  | 2                            | 1        | -         | -        | 30  | 30               | 40                         | 100  | -  | -                                      | -   | -                                      | 100                   | 3                               |   |
| PCC           | 231GSCB06_02 | Relational Database Management Systems                      | 2                            | -        | -         | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -   | -                                      | 50                    | 2                               |   |
|               | 230GSCB13_02 | Data Communication Networks                                 | 2                            | -        | -         | 2        | 30  | 30               | 40                         | 100  | -  | -                                      | -   | -                                      | 100                   | 2.5                             |   |
| MDM           | ---          | Multi-Disciplinary Minor                                    | 2                            | -        | -         | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -   | -                                      | 50                    | 2                               |   |
| SEC           | 240GSCB02_02 | Programming using Python                                    | 2                            | -        | 2         | -        | -   | -                | -                          | -  | 50   | 50                                     | 50  | 50                                     | 100                   | 3                               |   |
| AEC           | 230UENB02_02 | Communicative Proficiency Skills                            | 1                            | -        | 2         | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -   | -                                      | 50                    | 2                               |   |
| VEC           | 230UPYB03_02 | Ethics and Moral Values                                     | 2                            | -        | -         | -        | 30  | 30               | 40                         | 50   | -  | -                                      | -   | -                                      | 50                    | 2                               |   |
| LC            | 230GSCB07_02 | Relational Database Management Lab                          | -                            | -        | 2         | -        | -   | -                | -                          | -  | 50   | 50                                     | -   | -                                      | 50                    | 1                               |   |
|               | ---          | Multi-Disciplinary Minor Lab                                | -                            | -        | 2         | -        | -   | -                | -                          | -  | 50   | 50                                     | -   | -                                      | 50                    | 1                               |   |
| LLC           | 231UPYB01_02 | Yoga and Fitness  | -                            | -        | 2         | 2        | -   | -                | -                          | -  | -  | -                                      | 50  | -                                      | 50                    | 1.5                             |   |
| IITP/ FP/ CEP | 230GSCB08_02 | Internship / Field Project / Community Engagement Programme | 4 to 6 weeks                 |          |           |          | -   | -                | -                          | -  | -  | -                                      | -   | 50                                     | 50                    | 50                              | 2 |
| <b>TOTAL</b>  |              |   | <b>13</b>                    | <b>1</b> | <b>10</b> | <b>4</b> |   |                  |                            |  |  |  |   |  | <b>700</b>            | <b>22</b>                       |   |

Note: A Certificate will be awarded if a student exits after first year.

For "Exit" at the end of First Year the student must complete a total of 8 additional credits.

a) An internship / OJT of 8 - 10 weeks (4 credits) over and above semester 2 internship of minimum 4 weeks.

b) Additional one Course of 4 credits (Course offered will be Vocational Skill Course (VSC) or Skill Enhancement Course (SEC) or a mini project).

L-Lecture

Format No.: JSPMUni/ACAD/001

T-Tutorial

Rev. No.:1.0

P-Practical Session (Laboratory)


Rev. Date:01/07/2025

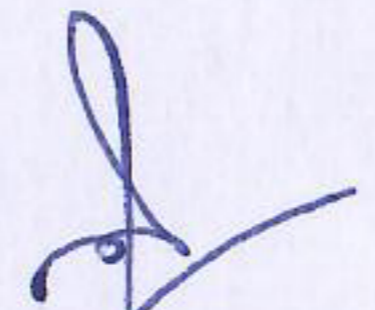
EL-Experiential Learning

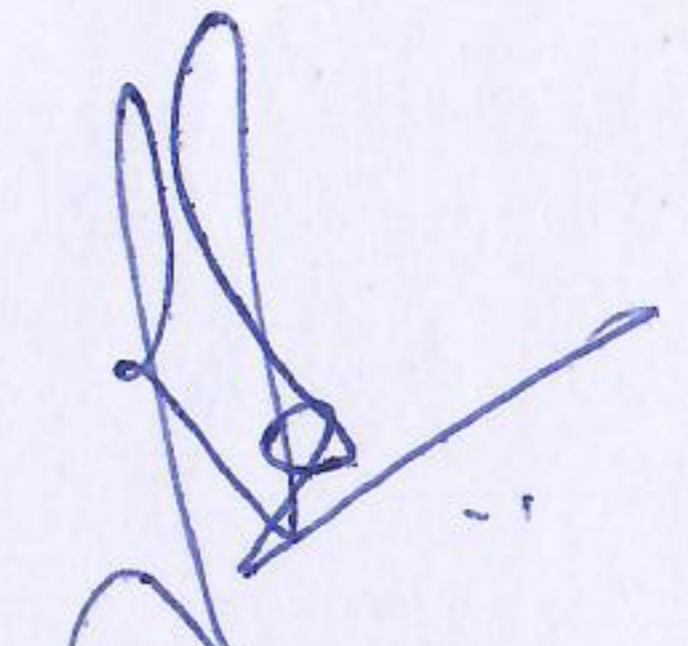
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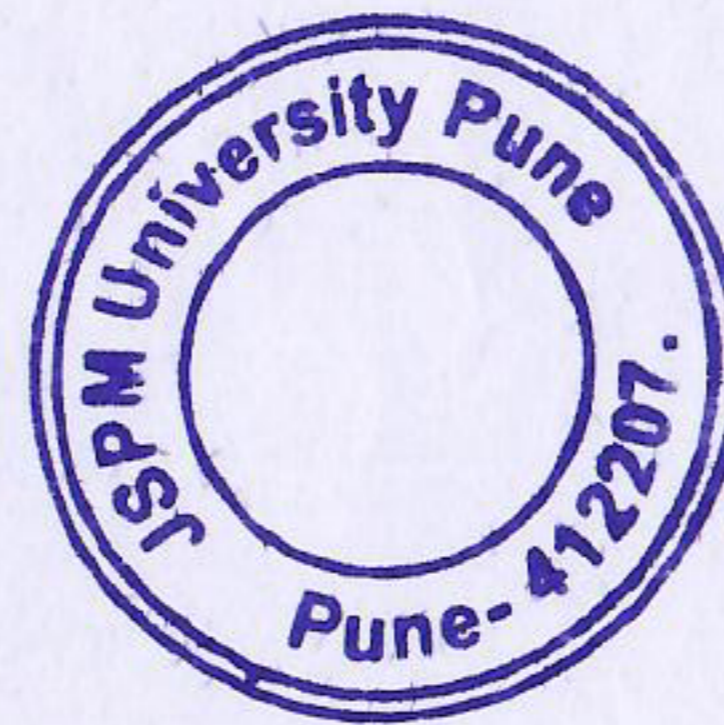
| Sem. | Multi-Disciplinary Minor (MDM) |                                   |
|------|--------------------------------|-----------------------------------|
|      | Specialization                 | IoT and Application               |
| II   | Course Code                    | 230GETB103_02                     |
|      | Course Name                    | Introduction to Electronics       |
|      | Course Code                    | 230GETB104_02                     |
|      | Course Name                    | Introduction to Electronics Lab   |
| III  | Course Code                    | 230GETB58_03                      |
|      | Course Name                    | Sensors and Interfacing           |
|      | Course Code                    | 230GETB59_03                      |
|      | Course Name                    | Sensors and Interfacing Lab       |
| IV   | Course Code                    | 230GETB60_04                      |
|      | Course Name                    | Foundations of IoT                |
|      | Course Code                    | 230GETB61_04                      |
|      | Course Name                    | Foundations of IoT Lab            |
| V    | Course Code                    | 230GETB62_05                      |
|      | Course Name                    | Wireless Technologies for IoT     |
|      | Course Code                    | 230GETB63_05                      |
|      | Course Name                    | Wireless Technologies for IoT Lab |
| VI   | Course Code                    | 230GETB64_06                      |
|      | Course Name                    | Industrial Internet of Things     |

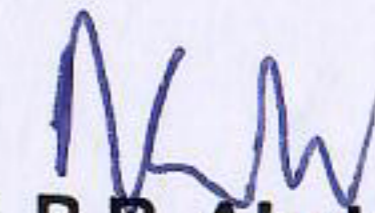
  
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