

Progressive Education Society's
Modern College of Arts, Science and Commerce (Autonomous), Shivajinagar, Pune 5

(An Autonomous College Affiliated to Savitribai Phule Pune University)

Framework of Syllabus
For
B. B. A. (Computer Application)
(Artificial Intelligence and Data Science)

Choice Based Credit System (CBCS) Syllabus Under National Education Policy (NEP)
To be implemented from Academic Year 2026-2027

Level 4.5 (First Year) Semester I

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|--|--------------------------------|--|-----------|-----------|----------------------------|-----------|------------------------------------|-----|------------|
| | | | TH | PR | TH | PR | CE | ESE | Total |
| Subject 1 T(2) + (T/P)(2) or T(4) | 26BaBbcU1101 | Procedure Oriented Programming Using C Language | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU1102 | Lab Course on 26BaBbcU1101 | | 2 | | 4 | 20 | 30 | 50 |
| Subject 2 T(2) + (T/P) (2) or T(4) | 26BaBbcU1201 | Database Management System | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU1202 | Lab Course on 26BaBbcU1201 | | 2 | | 4 | 20 | 30 | 50 |
| Subject 3 T(2) + (T/P) (2) or T(4) | 26BaBbcU1301 | Computer Technology - I (Web Design I) | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU1302 | Lab Course on 26BaBbcU1301 | | 2 | | 4 | 20 | 30 | 50 |
| IKS T(2) | 26CpCopU1901 | Generic IKS | 2 | | 2 | | 20 | 30 | 50 |
| GE/OE (T/P) (2) | 26BaBbcU1401 | Office Administration I (Microsoft Word) | 2 | | 2 | | 20 | 30 | 50 |
| SEC (T) (2) | 26BaBbcU1601 | Business Mathematics | 2 | | 2 | | 20 | 30 | 50 |
| AEC T(2) | 26CpCopU1701 / 26CpCopU1702 | MIL-I (Hindi) / MIL-I (Marathi) | 2 | | 2 | | 20 | 30 | 50 |
| VEC T(2) | 26CpCopU1801 | EVS-I | 2 | | 2 | | 20 | 30 | 50 |
| Total | | | 16 | 06 | 16 | 12 | | | 550 |

Level 4.5 (First Year) Semester II

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|---------------------------------------|--|--|-----------|-----------|----------------------------|-----------|------------------------------------|-----|------------|
| | | | TH | PR | TH | PR | CE | ESE | Total |
| Subject 1 T(2) + T/P(2) or T(4) | 26BaBbcU2101 | Advanced 'C Programming | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU2102 | Lab Course on 26BaBbcU2101 | | 2 | | 4 | 20 | 30 | 50 |
| Subject 2 T(2) + T/P(2) or T(4) | 26BaBbcU2201 | Python Programming | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU2202 | Lab Course on 26BaBbcU2201 | | 2 | | 4 | 20 | 30 | 50 |
| Subject 3 T(2) + T/P(2) or T(4) | 26BaBbcU2301 | Computer Technology - II (Web Design II) | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU2302 | Lab Course on 26BaBbcU2301 | | 2 | | 4 | 20 | 30 | 50 |
| GE/OE (T/P)(2) | 26BaBbcU2401 | Office Administration II (MS Power Point) | 2 | | 2 | | 20 | 30 | 50 |
| SEC T(2) | 26BaCopU2601 | Discrete Mathematics and Graph Theory | 2 | | 2 | | 20 | 30 | 50 |
| AEC T(2) | 26CpCopU2703 | English Communication Skills I | 2 | | 2 | | 20 | 30 | 50 |
| VEC T(2) | 26CpCopU2801 | Democracy, Election and Governance | 2 | | 2 | | 20 | 30 | 50 |
| CC(2) | 26CpCopU2001/26CpCopU2011 /26CpCopU2021 /26CpCopU2031 /26CpCopU2041 /26CpCopU2051 /26CpCopU2061 /26CpCopU2071 | Physical Education / Cultural Activities / NSS /NCC /Fine Arts / Applied Arts /Visual Arts / Performing Arts | 2 | | 2 | | 20 | 30 | 50 |
| Total | | | 16 | 06 | 16 | 12 | | | 550 |

Level 5.0 (Second Year) Semester III

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|--|--------------|---|-----------|-----------|----------------------------|-----------|------------------------------------|----|------------|
| | | | TH | PR | TH | PR | CE | EE | Total |
| Major Core T(2+2 or 4), (T/P)(2) | 26BaBbcU3101 | Advanced Python | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU3102 | Relational Database Management System | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU3103 | Lab Course on 26BaBbcU3101 &26BaBbcU3102 | | 2 | | 4 | 20 | 30 | 50 |
| VSC T(2) | 26BaCopU3501 | Fundamentals of AI | 2 | | 2 | | 20 | 30 | 50 |
| IKS (T/P)(2) | 26BaBbcU3901 | Vedic Mathematics | 2 | | 2 | | 20 | 30 | 50 |
| FP P(2) | 26BaBbcU3002 | Field Project I | | 2 | | 4 | 20 | 30 | 50 |
| Minor (T/P) (2+2 or 4) | 26BaCopU3301 | Computer Technology - III (Computational Statistics) | 4 | | 4 | | 40 | 60 | 100 |
| GE/OE (T/P) (2) | 26BaBbcU3401 | Office Administration III (Basics Of MS Excel) | 2 | | 2 | | 20 | 30 | 50 |
| AEC T(2) | 26CpCopU3703 | English Communication Skills II | 2 | | 2 | | 20 | 30 | 50 |
| CC T(2) | 26CpCopU3001 | Online Course on Yoga | 2 | | 2 | | 20 | 30 | 50 |
| Total | | | 18 | 04 | 18 | 08 | | | 550 |

Level 5.0 (Second Year) Semester IV

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|--|--------------------------------|---|-----------|-----------|----------------------------|-----------|------------------------------------|----|------------|
| | | | TH | PR | TH | PR | CE | EE | Total |
| Major Core T(2+2 or 4), (T/P)(2) | 26BaBbcU4101 | Object Oriented Programming concepts using Java | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU4102 | Data Structure | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaBbcU4103 | Lab Course on 26BaBbcU4101 & 26BaBbcU4102 | | 2 | | 4 | 20 | 30 | 50 |
| VSC T(2) | 26BaAidU4501 | Fundamentals of Data Science | 2 | | 2 | | 20 | 30 | 50 |
| CEP P(2) | 26CpCopU4003 | Community Engagement Project | | 2 | | 4 | 20 | 30 | 50 |
| Minor (T/P)(2+2 or 4) | 26BaCopU4301 | Computer Technology - IV (Lab Course on R Programming) | | 2 | | 4 | 20 | 30 | 50 |
| | 26BaCopU4302 | Computer Technology - V (Lab Course on Power BI) | | 2 | | 4 | 20 | 30 | 50 |
| GE/OE (T/P) (2) | 26BaBbcU4401 | Office Administration IV (Advanced Excel) | 2 | | 2 | | 20 | 30 | 50 |
| SEC T(2) | 26BaBbcU4601 | Basics of Management | 2 | | 2 | | 20 | 30 | 50 |
| AEC T(2) | 26CpCopU4701 / 26CpCopU4702 | MIL-II (Hindi) / MIL-II (Marathi) | 2 | | 2 | | 20 | 30 | 50 |
| CC T(2) | 26CpCopU4001 | Health and Wellness | 2 | | 2 | | 20 | 30 | 50 |
| Total | | | 14 | 08 | 14 | 16 | | | 550 |

Level 5.5 (Third Year) Semester V

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|--|--------------|---|-----------|-----------|----------------------------|-----------|---------------------------------------|----|------------|
| | | | TH | PR | TH | PR | CE | EE | Total |
| Major Core T(2+2+2+2 or 4 + 2+2 or 4 + 4) P(2+2 or 4) | 26BaAidU5101 | Optimization Techniques | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaAidU5102 | Foundations of Machine Learning | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaAidU5103 | Lab Course on 26BaAidU5102 | | 2 | | 4 | 20 | 30 | 50 |
| | 26BaAidU5104 | AI in Data Science | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaAidU5105 | Lab Course on 26BaAidU5104 | | 2 | | 4 | 20 | 30 | 50 |
| | 26BaCopU5106 | Data Visualization and Modeling | 2 | | 2 | | 20 | 30 | 50 |
| Major Elective (T/P) (2+2 or 4) | 26BaBbcU5201 | Operating System Concepts OR | 4 | | 4 | | 40 | 60 | 100 |
| | 26BaBbcU5202 | Information Security Systems OR | 4 | | 4 | | 40 | 60 | 100 |
| | 26BaCopU5203 | Data Analytics | 4 | | 4 | | 40 | 60 | 100 |
| VSC T(2) | 26BaCopU5501 | AI for Developers (NLP) | 2 | | 2 | | 20 | 30 | 50 |
| FP (2) | 26BaBbcU5001 | Field Project II | | 2 | | 4 | 20 | 30 | 50 |
| Minor (T/P) (2) | 26BaBbcU5301 | Computer Technology - VI (Cloud Computing) | 2 | | 2 | | 20 | 30 | 50 |
| Total | | | 16 | 06 | 16 | 12 | | | 550 |

Level 5.5 (Third Year) Semester VI

| Course Type | Course Code | Course Title | Credits | | Teaching Scheme Hr/Week | | Evaluation Scheme and Max Marks | | |
|--|--------------|---|-----------|-----------|----------------------------|-----------|------------------------------------|----|------------|
| | | | TH | PR | TH | PR | CE | EE | Total |
| Major Core T(2+2+2+2 or 4+2+2 or 4+4) P(2+2 or 4) | 26BaAidU6101 | NOSQL Database | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaAidU6102 | Lab Course on 26BaAidU6101 | | 2 | | 4 | 20 | 30 | 50 |
| | 26BaAidU6103 | Deep Learning | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaAidU6104 | Lab Course on 26BaAidU6103 | | 2 | | 4 | 20 | 30 | 50 |
| | 26BaCopU6105 | Data Security & Privacy | 2 | | 2 | | 20 | 30 | 50 |
| | 26BaCopU6106 | AI Ethics & responsible AI | 2 | | 2 | | 20 | 30 | 50 |
| Major Elective (T/P) (2+2 or 4) | 26BaBbcU6201 | Recent Trends in Information Technology | 4 | | 4 | | 40 | 60 | 100 |
| | 26BaBbcU6202 | Or Software Project Management | 4 | | 4 | | 40 | 60 | 100 |
| | 26BaCopU6203 | Or Big Data | 4 | | 4 | | 40 | 60 | 100 |
| VSC T(2) | 26BaCopU6501 | AI for Developers (LLM) | 2 | | 2 | | 20 | 30 | 50 |
| OJT (2) | 26BaBbcU6004 | On Job Training | | 4 | | 8 | 40 | 60 | 100 |
| Total | | | 14 | 08 | 14 | 16 | | | 550 |