

*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. Sc.**

**(Medical Imaging Technology)**

Choice Based Credit System (CBCS) Syllabus  
Under National Education Policy (NEP)

**To be Implemented from Academic Year 2025-26**

**Level:- 4.5 (First Year) Sem: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<br>T(2)+(T/P)<br>(2)orT(4) | 24ScMitU1101                  | Anatomy & Physiology               | 4       |    | 4                       |    | 40                              | 60  | 100   |
| Subject 2<br>T(2)+(T/P)<br>(2)orT(4) | 24ScMitU1201                  | Fundamentals of Hospital Practices | 4       |    | 4                       |    | 40                              | 60  | 100   |
| Subject 3<br>T(2)+(T/P)<br>(2)orT(4) | 24ScMitU1301                  | Microbiology                       | 4       |    | 4                       |    | 40                              | 60  | 100   |
| IKST(2)                              | 24CpCopU1901                  | Generic IKS                        | 2       |    | 2                       |    | 20                              | 30  | 50    |
| GE/OE<br>(T/P) (2)                   | 24ScMctU1401                  | OE to be included based on MIT     | 2       |    | 2                       |    | 20                              | 30  | 50    |
| SEC<br>(P)(2)                        | 24ScMctU1601                  | Surface Anatomy                    |         | 2  |                         | 2  | 20                              | 30  | 50    |
| AECT(2)                              | 24CpCopU1701/<br>24CpCopU1702 | MIL-I(Hindi)/MIL-I(Marathi)        | 2       |    | 2                       |    | 20                              | 30  | 50    |
| VECT(2)                              | 24CpCopU1801                  | Environmental Science              | 2       |    | 2                       |    | 20                              | 30  | 50    |
| <b>Total</b>                         |                               |                                    | 20      | 02 | 20                      | 4  |                                 |     | 550   |

**Level:- 4.5 (First Year) Sem: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<br>T(2)+T/P(2)<br>or T(4) | 24ScMitU2101  | X-Ray Technology                   | 4       |    | 4                       |    | 40                              | 60  | 100   |
| Subject 2<br>T(2)+P(2)              | 24ScMitU2202  | X-Ray Positioning                  | 2       |    | 2                       |    | 20                              | 30  | 50    |
|                                     | 24ScMitU2203  | Lab Course on 24ScMitU2202         |         | 2  |                         | 4  | 20                              | 30  | 50    |
| Subject 3<br>T(2)+P(2)              | 24ScMitU2301  | Biochemistry                       | 4       |    | 4                       |    | 40                              | 60  | 100   |
| GE/OE<br>(T/P)(2)                   | 24ScMctU2401  | OE to be included based on MIT     | 2       |    | 2                       |    | 20                              | 30  | 50    |
| SECT(2)                             | 24ScMctU2601  | Cross Section Anatomy              | 2       |    | 2                       |    | 20                              | 30  | 50    |
| AECT(2)                             | 24CpCopU2703  | English Communication Skills I     | 2       |    | 2                       |    | 20                              | 30  | 50    |
| VECT(2)                             | 24CpCopU2801  | Democracy, Election and Governance | 2       |    | 2                       |    | 20                              | 30  | 50    |
| CC(2)                               | 24CpCopU2001/ | Physical Education/                | 2       |    | 2                       |    | 20                              | 30  | 50    |

|              |                                                                                                                    |                                                                                                            |    |    |    |    |  |  |     |
|--------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----|----|----|----|--|--|-----|
|              | 24CpCopU2011/<br>24CpCopU2021/<br>24CpCopU2031/<br>24CpCopU2041/<br>24CpCopU2051/<br>24CpCopU2061/<br>24CpCopU2071 | Cultural Activities/<br>NSS /<br>NCC/<br>Fine Arts /<br>Applied Arts /<br>Visual Arts /<br>Performing Arts |    |    |    |    |  |  |     |
| <b>Total</b> |                                                                                                                    |                                                                                                            | 20 | 02 | 20 | 04 |  |  | 550 |

**Level:- 5.0 (Second Year) Sem: 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+2or4), (T/P)(2) | 24ScMitU3101 | CT - Basic                               | 4       |    | 4                       |    | 40                              | 60 | 100   |
|                                | 24ScMitU3102 | Lab Course on 24ScMitU3101               |         | 2  |                         | 4  | 20                              | 30 | 50    |
| VSCP(2)                        | 24ScMctU3501 | Hospital Management- 1                   |         | 2  |                         | 4  | 20                              | 30 | 50    |
| IKS(T/P)(2)                    | 24ScMitU3901 | Evolution of Imaging Technology in India | 2       |    | 2                       |    | 20                              | 30 | 50    |
| FPP(2)                         | 24ScMitU3002 | Field Project I (Survey)                 |         | 2  |                         | 4  | 20                              | 30 | 50    |
| Minor (T/P)(2+2or 4)           | 24ScMitU3301 | CT Patient Positioning-1                 | 2       |    | 2                       |    | 20                              | 30 | 50    |
|                                | 24ScMitU3302 | Lab Course on 24ScMitU3301               |         | 2  |                         | 4  | 20                              | 30 | 50    |
| GE/OE(T/P) (2)                 | 24ScMctU3401 | OE to be included based on MIT           |         | 2  |                         | 4  | 20                              | 30 | 50    |
| AECT(2)                        | 24CpCopU3703 | English Communication Skills II          | 2       |    | 2                       |    | 20                              | 30 | 50    |
| CCT(2)                         | 24CpCopU3001 | Online Course on Yoga                    | 2       |    | 2                       |    | 20                              | 30 | 50    |
| <b>Total</b>                   |              |                                          | 12      | 10 | 12                      | 20 |                                 |    | 550   |

**Level:- 5.0 (Second Year) Sem: 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+2or4), (T/P)(2) | 24ScMitU4101 | CT – Advance                 | 4       |    | 4                       |    | 40                              | 60 | 100   |
|                                | 24ScMitU4102 | Lab Course on 24ScMitU4101   |         | 2  |                         | 4  | 20                              | 30 | 50    |
| VSCP(2)                        | 24ScMctU4501 | Hospital Management- 2       |         | 2  |                         | 4  | 20                              | 30 | 50    |
| CEPP(2)                        | 24ScCopU4003 | Community Engagement Project |         | 2  |                         | 4  | 20                              | 30 | 50    |
| Minor (T/P)(2+2or 4)           | 24ScMitU4301 | CT Patient Positioning-2     | 2       |    | 2                       |    | 20                              | 30 | 50    |
|                                | 24ScMitU4302 | Lab Course on 24ScMitU4301   |         | 2  |                         | 4  | 20                              | 30 | 50    |

|                   |                                   |                                |    |    |    |    |    |    |     |
|-------------------|-----------------------------------|--------------------------------|----|----|----|----|----|----|-----|
| GE/OE(T/P)<br>(2) | 24ScMctU4401                      | OE to be included based on MIT | 2  |    | 2  |    | 20 | 30 | 50  |
| SECT(2)           | 24ScMctU4601                      | Bed Side Care                  |    | 2  |    | 4  | 20 | 30 | 50  |
| AECT(2)           | 24CpCopU4701<br>/<br>24CpCopU4702 | MIL-II(Hindi)/MIL-II(Marathi)  | 2  |    | 2  |    | 20 | 30 | 50  |
| CCT(2)            | 24CpCopU4001                      | Health and Wellness            | 2  |    | 2  |    | 20 | 30 | 50  |
| <b>Total</b>      |                                   |                                | 12 | 10 | 12 | 20 |    |    | 550 |

**Level:- 5.5 (Third Year)      Sem:-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                                  | 24ScMitU5101 | Fundamentals of MRI                                    | 4       |    | 4                       |    | 40                              | 60 | 100   |
| T(2+2+2+2<br>or4+2+2or<br>4+4)P(2+2<br>or4) | 24ScMitU5102 | Lab Course on 24ScMitU5101                             |         | 2  |                         | 4  | 20                              | 30 | 50    |
|                                             | 24ScMitU5103 | Instrumentation and Set Up                             | 4       |    | 4                       |    | 40                              | 60 | 100   |
|                                             | 24ScMitU5104 | Lab Course on 24ScMitU5103                             |         | 2  |                         | 4  | 20                              | 30 | 50    |
| Major Elective(T/P)<br>(2+2 or 4)           | 24ScMitU5201 | Contrast Media                                         | 2       |    | 2                       |    |                                 |    |       |
|                                             | 24ScMitU5202 | Lab Course on24ScMitU5201                              |         | 2  |                         | 4  |                                 |    |       |
|                                             | 24ScMitU5203 | One more elective subject to be added                  | 2       |    | 2                       |    | 20                              | 30 | 50    |
|                                             | 24ScMitU5204 | Lab Course on24ScMitU5203                              |         | 2  |                         | 4  | 20                              | 30 | 50    |
| VSCP(2)                                     | 24ScMctU5501 | Skills for Career Enhancement<br>( Name to be changed) |         | 2  |                         | 4  | 20                              | 30 | 50    |
| FP(2)                                       | 24ScMitU5001 | Field Project II                                       |         | 2  |                         | 4  | 20                              | 30 | 50    |
| Minor<br>(T/P) (2)                          | 24ScMitU5302 | MRI Patient Positioning                                | 2       |    | 2                       |    | 20                              | 30 | 50    |
| <b>Total</b>                                |              |                                                        | 12      | 10 | 12                      | 20 |                                 |    | 550   |

**Level:- 5.5 (Third Year)      Sem:-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<br>T(2+2+2+2<br>or4+2+2or<br>4+4)P(2+2<br>or4) | 24ScMitU6101 | MRI Sequencing                        | 4       |    | 4                       |    | 40                              | 60 | 100   |
|                                                           | 24ScMitU6102 | Lab Course on 24ScMitU6101            |         | 2  |                         | 4  | 20                              | 30 | 50    |
|                                                           | 24ScMitU6103 | Special Techniques in MRI             | 4       |    | 4                       |    | 40                              | 60 | 100   |
|                                                           | 24ScMitU6104 | Lab Courseon24ScBioU6103              |         | 2  |                         | 4  | 20                              | 30 | 50    |
| Major Elective(T/P)<br>(2+2 or 4)                         | 24ScMitU6201 | Clinical Applications of MRI          | 2       |    | 2                       |    | 20                              | 30 | 50    |
|                                                           | 24ScMitU6202 | Lab Course on 24ScBioU6201            |         | 2  |                         | 4  | 20                              | 30 | 50    |
|                                                           | 24ScMitU6203 | One more elective subject to be added | 2       |    | 2                       |    | 20                              | 30 | 50    |
|                                                           | 24ScMitU6204 | Lab Course on 24ScBioU6203            |         | 2  |                         | 4  | 20                              | 30 | 50    |

|         |              |                                          |    |    |    |    |    |    |     |
|---------|--------------|------------------------------------------|----|----|----|----|----|----|-----|
| VSCP(2) | 24ScMitU6501 | Career Enhancement ( Name to be changed) |    | 2  |    | 4  | 20 | 30 | 50  |
| OJT (4) | 24ScMitU6004 | On Job Training                          |    | 4  |    | 8  | 40 | 60 | 100 |
| Total   |              |                                          | 10 | 12 | 10 | 24 |    |    | 550 |