

2. PROGRAM EDUCATION OBJECTIVES (PEOs)

The overall objective of the learning outcome-based curriculum framework (LOCF) for B.Sc. Radiotherapy Technology Program are as follows:

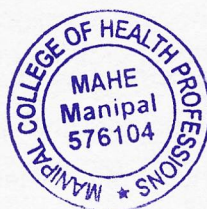
| PEO No. | Education Objective |
|---------|--|
| PEO 1 | Students will be able to use their fundamental knowledge and technical competence in Radiotherapy treatment as and when required to achieve professional excellence. |
| PEO 2 | Students will demonstrate strong and well defined practical skills in Radiotherapy treatment. |
| PEO 3 | Students will be able to practice the profession with highly professional and ethical attitude, strong communication skills, and effective professional skills to work in a inter-disciplinary team. |
| PEO 4 | Students will be able to use interpersonal and collaborative skills to identify, assess and formulate problems and execute the solution Radiotherapy treatment. |
| PEO 5 | Students will be able to imbibe the culture of research, innovation, entrepreneurship and incubation. |
| PEO 6 | Students will be able to participate in lifelong learning process for a highly productive career and will be able to relate the concepts of different modalities of Radiotherapy treatment towards serving the cause of the society. |



5. PROGRAM OUTCOMES (POs):

After successful completion of Bachelor / BSc Radiotherapy Technology program, students will be able to:

| PO No. | Attribute | Competency |
|--------|---|---|
| PO 1 | Professional knowledge | Possess and acquire scientific knowledge to work as a health care professional |
| PO 2 | Clinical/ Technical skills | Demonstrate and possess clinical skills to provide quality health care services |
| PO 3 | Team work | Demonstrate team work skills to support shared goals with the interdisciplinary health care team to improve societal health |
| PO 4 | Ethical value & professionalism | Possess and demonstrate ethical values and professionalism within the legal framework of the society |
| PO 5 | Communication | Communicate effectively and appropriately with the interdisciplinary health care team and the society |
| PO 6 | Evidence based practice | Demonstrate high quality evidence based practice that leads to excellence in professional practice |
| PO 7 | Life-long learning | Enhance knowledge and skills with the use of advancing technology for the continual improvement of professional practice |
| PO 8 | Entrepreneurship, leadership and mentorship | Display entrepreneurship, leadership and mentorship skills to practice independently as well as in collaboration with the interdisciplinary health care team |



6. COURSE STRUCTURE, COURSE WISE LEARNING OBJECTIVE, COURSE OUTCOMES (COs)

SCHEME OF CURRICULUM

SEMESTER - I

| Course Code | Course Title | Credits Distribution L,T,P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|---|--|----------|----------|----------|-----------|--------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| ANA1103 | Anatomy | 3 | - | - | - | 3 | 30 | 70 | 100 |
| PHY1101 | Physiology - I | 2 | - | - | - | 2 | 30 | 70 | 100 |
| CSK1001 | Communication Skills | 2 | - | - | - | 2 | 100 | - | 100 |
| EIC1001 | Environmental science and Indian constitution | 2 | - | - | - | 2 | 100 | - | 100 |
| RTT1101 | Basic Physics | 2 | 1 | - | - | 3 | 50 | 50 | 100 |
| RTT1102 | Basic and Applied Mathematics | 3 | 1 | - | - | 4 | 100 | - | 100 |
| RTT1121 | Fundamentals of Computers and Computer Applications | 2 | - | 4 | - | 4 | 100 | - | 100 |
| Total | | 16 | 2 | 4 | - | 20 | 510 | 190 | 700 |

Note:
ESE for ANA1103, PHY1101 will be conducted out of 50 and normalized to 70
ESE for RTT1101 will be conducted out of 100 and normalized to 50

SEMESTER - II

| Course Code | Course Title | Credits Distribution L,T,P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|------------------------------------|--|----------|----------|----------|-----------|--------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| PHY1201 | Physiology - II | 2 | - | - | - | 2 | 30 | 70 | 100 |
| GPY2204 | General Psychology | 2 | - | - | - | 2 | 100 | - | 100 |
| RTT1201 | Radiation Physics | 3 | 1 | - | - | 4 | 50 | 50 | 100 |
| RTT1202 | Radiation Quantities and Detection | 2 | 1 | - | - | 3 | 50 | 50 | 100 |
| RTT1203 | Radiobiology | 3 | 1 | - | - | 4 | 50 | 50 | 100 |
| RTT1204 | Bioethics | 2 | 1 | - | - | 3 | 100 | - | 100 |
| RTT1205 | Hospital Practice and Patient Care | 2 | - | - | - | 2 | 50 | 50 | 100 |
| Total | | 16 | 4 | - | - | 20 | 430 | 270 | 700 |

Note:
ESE for PHY1201 will be conducted out of 50 and normalized to 70
ESE for RTT1201, RTT1202, RTT1203, will be conducted out of 100 and normalized to 50
ESE for RTT1205 will be conducted out of 50

SEMESTER - III

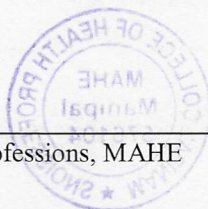
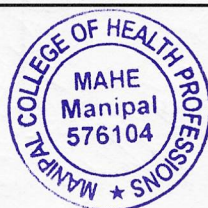
| Course Code | Course Title | Credits Distribution L, T, P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|---|---|----------|----------|-----------|-----------|--------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| PAT2102 | Pathology | 2 | - | - | - | 2 | 100 | - | 100 |
| RTT2101 | Radiotherapy Equipments | 3 | 1 | - | - | 4 | 50 | 50 | 100 |
| RTT2102 | Principles and Practice of Radiology Part I | 2 | 1 | - | - | 3 | 50 | 50 | 100 |
| RTT2103 | Patient Positioning and Immobilization/ Mould Room Techniques | 2 | - | - | - | 2 | 50 | 50 | 100 |
| RTT2131 | Clinical practice- Radiotherapy Equipment's | - | - | - | 18 | 6 | 100 | - | 100 |
| *** **** | Open Elective - I | - | - | - | - | 3 | S/NS | | |
| Total | | 9 | 2 | - | 18 | 20 | 350 | 150 | 500 |

Note:
ESE for RTT2101, RTT2102 will be conducted out of 100 and normalized to 50
ESE for RTT2103 will be conducted out of 50

SEMESTER IV

| Course Code | Course Title | Credits Distribution L, T, P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|--|---|----------|----------|-----------|-----------|--------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| RTT2201 | Physics of External Beam Radiotherapy | 3 | - | - | - | 3 | 50 | 50 | 100 |
| RTT2202 | Principles and Practice of Radiology Part II | 2 | 1 | - | - | 3 | 50 | 50 | 100 |
| RTT2231 | Clinical Practice- Radiation Beam therapy | - | - | - | 33 | 11 | 100 | - | 100 |
| RTT **** | Program Elective - I | 3 | - | - | - | 3 | 50 | 50 | 100 |
| Total | | 8 | 1 | - | 33 | 20 | 250 | 150 | 400 |

Note:
ESE for RTT2201, RTT2202 will be conducted out of 100 and normalized to 50



SEMESTER - V

| Course Code | Course Title | Credits Distribution L,T,P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|---|---|----------|----------|-----------|-----------|-----------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| RTT3101 | Principles and Practice of Radiotherapy Part I | 3 | - | - | - | 3 | 50 | 50 | 100 |
| RTT3102 | Record Keeping | 2 | - | - | - | 2 | 50 | 50 | 100 |
| RTT3103 | Radiation Protection, Standards and Regulations | 3 | - | - | - | 3 | 50 | 50 | 100 |
| RTT3111 | Practical and Viva -I Radiotherapy Practice | - | - | 4 | - | 2 | 100 | - | 100 |
| RTT3131 | Clinical practice- External Beam Radiotherapy | - | - | - | 21 | 7 | 100 | - | 100 |
| *** ** | Open Elective - II | - | - | - | - | 3 | S/NS | | |
| Total | | 8 | - | 4 | 21 | 20 | 350 | 150 | 500 |

Note:
ESE for RTT3102 will be conducted out of 50
ESE for RTT3101, RTT3103 will be conducted out of 100 and normalized to 50

SEMESTER - VI

| Course Code | Course Title | Credits Distribution L,T,P, CL are Hours/week | | | | | Marks Distribution | | |
|--------------|--|---|----------|----------|-----------|-----------|-----------------------|------------|------------|
| | | L | T | P | CL | C | IAC | ESE | Total |
| BST3201 | Biostatistics & Research Methodology | 3 | - | - | - | 3 | 30 | 70 | 100 |
| RTT3201 | Principles and Practice of Radiotherapy Part II | 3 | - | - | - | 3 | 50 | 50 | 100 |
| RTT3211 | Practical and Viva II Radiotherapy Practice | - | - | 4 | - | 2 | 50 | 50 | 100 |
| RTT3231 | Clinical Practice-Advances in Radiation Beam Therapy | - | - | - | 27 | 9 | 100 | - | 100 |
| RTT **** | Program Elective - II | 3 | - | - | - | 3 | 50 | 50 | 100 |
| TOTAL | | 9 | - | 4 | 27 | 20 | 280 | 220 | 500 |

Note:
ESE for BST3201 will be conducted out of 100 and normalized to 70
ESE for RTT3201, RTT3211 will be conducted out of 100 and normalized to 50

