

**INDIAN NURSING COUNCIL  
NOTIFICATION**

New Delhi, the 18th August, 2021

**F.No. 11-1/2019-INC:**—In exercise of the powers conferred by sub-section (1) of Section 16 of Indian Nursing Council Act, 1947 (XLVIII of 1947), as amended from time to time, the Indian Nursing Council hereby makes the following regulations, namely:—

**1. Short Title and Commencement**

- i. These Regulations may be called **Indian Nursing Council (Orthopaedic & Rehabilitation Specialty Nursing Residency Program), Regulations 2020**.
- ii. These Regulations shall come into force on the date of notification of the same in the Official Gazette of India.

**2. Definitions**

In these Regulations, unless the context otherwise requires,

- i. 'the Act' means the Indian Nursing Council Act, 1947 (XLVIII of 1947) as amended from time to time;
- ii. 'the Council' means the Indian Nursing Council constituted under the Act;
- iii. 'SNRC' means the State Nurse and Midwives Registration Council, by whichever name constituted, by the respective State Governments;
- iv. 'RN & RM' means a Registered Nurse and Registered Midwife (RN & RM) and denotes a nurse who has completed successfully, recognised Bachelor of Nursing (B.Sc. Nursing) or Diploma in General Nursing and Midwifery (GNM) course, as prescribed by the Council and is registered in a SNRC as Registered Nurse and Registered Midwife;
- v. 'Nurses Registration & Tracking System (NRTS)' means a system developed by Indian Nursing Council and software developed in association with National Informatics Centre (NIC), Government of India, and hosted by NIC for the purpose of maintenance and operation of the Indian Nurses Register. It has standardised forms for collection of the data of Registered Nurse and Registered Midwife (RN&RM)/Registered Auxiliary Nurse Midwife (RANM)/Registered Lady Health Visitor (RLHV) upon Aadhar based biometric authentication;
- vi. 'NUID' is the Nurses Unique Identification Number given to the registrants in the NRTS system;
- vii. 'General Nursing and Midwifery (GNM)' means Diploma in General Nursing and Midwifery qualification recognized by the Council under Section 10 of the Act and included in Part-I of the Schedule of the Act.

**POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING RESIDENCY PROGRAM**

**I. INTRODUCTION**

The National Health Policy document (NHP, 2017) emphasizes the need to expand tertiary care services, prepare specialist nurses and standardization of clinical training for nurses. Responding to this, the Council planned to redesign the existing specialty nursing programs making it as a one-year post basic diploma residency programs utilizing competency based training approach. The existing one-year post basic diploma in Orthopaedic & Rehabilitation Nursing of the Council is being reframed as a residency program using revised guidelines that aim to prepare specialist nurses who can provide competent care to patients with orthopaedic & rehabilitation needs whose diagnostic, treatment and care needs are complex.

Orthopaedic & Rehabilitation Nursing encompasses both primary disorders of the bone as well as how other diseases affect the bone. Primary orthopaedic diseases can be congenital or acquired. Injuries, infective, degenerative and metabolic conditions in various stages require medical treatment as well as complex surgeries. These conditions can lead to severe disability and rehabilitation issues.

Orthopaedic & Rehabilitation Nursing practice is characterized by dynamic and highly complex care. The area of expertise of the orthopaedic & rehabilitation specialist nurses includes knowledge of all orthopaedic conditions. The Orthopaedic & Rehabilitation Nursing practice encompasses preventive, promotive, curative and palliative care for the patients. The nature of some of the conditions are challenging that requires long term rehabilitation to live a near real life as possible, which affect not only the patients but also the family members significantly. Specialist nurses play a great role in the effective management of patients with all types of orthopaedic conditions.

**II. PHILOSOPHY**

The Council believes that registered nurses need to be further trained as specialist nurses to function in various emerging speciality areas of practice and the training should be competency based. One such area that demands

specialist nurses is Orthopaedic & Rehabilitation Nursing. Expanding roles of nurses and advances in orthopaedics and rehabilitation necessitates additional training to prepare nurses with specialized skills and knowledge to deliver competent, intelligent and appropriate care to patients with orthopaedic medical and surgical conditions, managed in Orthopaedic & Rehabilitation centres.

### III. CURRICULAR FRAMEWORK

The Post Basic Diploma in Orthopaedic & Rehabilitation Specialty Nursing education is a one-year residency program and its curriculum is conceptualized encompassing foundational short courses and major specialty courses for specialty nursing practice.

The foundations to Orthopaedic & Rehabilitation Nursing practice such as Professionalism, Communication & patient education, Clinical leadership & resource management, and Evidence based & applied research are short courses that aim to provide the students with the knowledge, attitude and competencies essential to function as accountable, committed, safe and competent specialist nurses. The major specialty courses are organized under Orthopaedic & Rehabilitation Specialty Nursing-I and Orthopaedic & Rehabilitation Specialty Nursing-II.

Orthopaedic & Rehabilitation Specialty Nursing-I includes Context/Introduction to Orthopaedic & Rehabilitation Nursing, and Basic Sciences applied to Orthopaedic & Rehabilitation Nursing (application of basic science knowledge in the diagnosis, treatment and care of clinical conditions under Orthopaedic & Rehabilitation Specialty Nursing). Specialty Nursing-II includes nursing management of specific orthopaedic conditions comprising assessment, diagnosis, treatment and specialized interventions and patient safety & quality including illness specific considerations. The curricular framework for the Orthopaedic & Rehabilitation Specialty Nursing Residency Program is illustrated in the following figure-1.

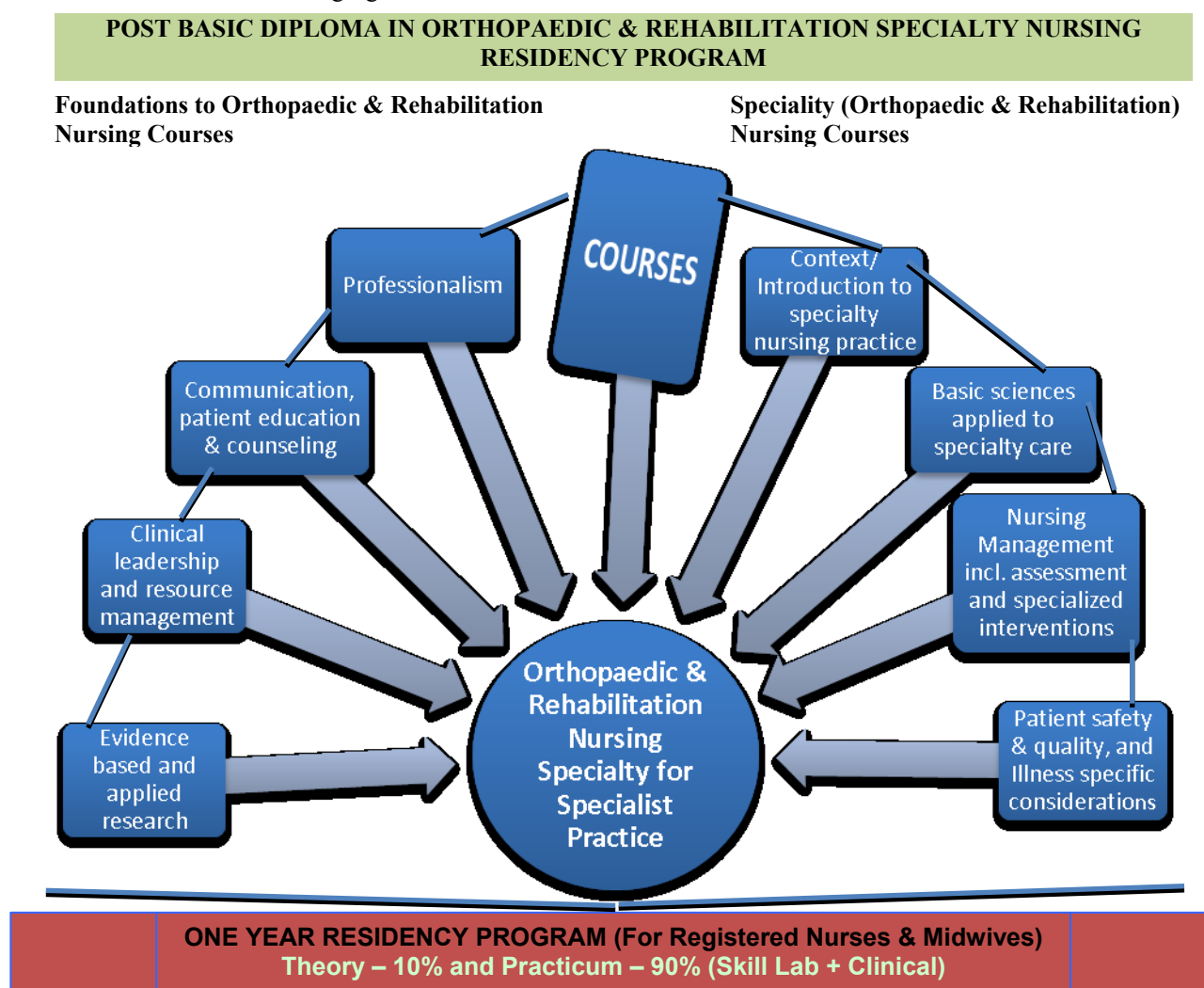


Figure-1. Curricular Framework: Orthopaedic & Rehabilitation Specialty Nursing Residency Program

#### IV. AIM/PURPOSE & COMPETENCIES

##### AIM

The program is designed to prepare nurses with specialized skills, knowledge and attitude in providing quality care to patients with orthopaedic disorders. It further aims to prepare technically qualified and trained specialist nurses who will function effectively and optimally at Orthopaedic & Rehabilitation Centres of Tertiary/ Quaternary hospitals providing high standards of care.

##### COMPETENCIES

On completion of the program, the orthopaedic & rehabilitation specialist nurse will be able to:—

1. Demonstrate professional accountability for the delivery of nursing care as per the Council standards that is consistent with moral, altruistic, legal, ethical, regulatory and humanistic principles in orthopaedic & rehabilitation practice.
2. Communicate effectively with patients, families and professional colleagues fostering mutual respect and shared decision making to enhance health outcomes.
3. Educate and counsel patients and families to participate effectively in treatment and care and enhance their coping abilities through the challenges of crisis.
4. Demonstrate understanding of clinical leadership and resource management strategies and use them in orthopaedic & rehabilitation care and settings promoting collaborative and effective teamwork.
5. Identify, evaluate and use the best current evidence in orthopaedic & rehabilitation care and treatment coupled with clinical expertise and consideration of patient's preferences, experience and values to make practical decisions in orthopaedic & rehabilitation nursing practice.
6. Participate in research studies that contribute to evidence-based orthopaedic & rehabilitation nursing care interventions with basic understanding of research process.
7. Apply basic sciences in the assessment, diagnosis and treatment of the physiological, physical, psychological, social and spiritual problems of patients and their families with orthopaedic disorders and rehabilitation needs.
8. Apply nursing process in caring for patients with orthopaedic disorders and rehabilitation needs.
9. Describe the principles of physiotherapy, occupational therapy, speech therapy, counselling, community reintegration in treatment of patients with orthopaedic disorders and rehabilitation needs.
10. Demonstrate specialized practice competencies/skills relevant in providing care to patients under different treatment regimes.
11. Demonstrate skill in managing patients undergoing long term rehabilitation.
12. Identify treatment related adverse effects and emergencies and manage them effectively.
13. Maintain and effectively use special orthopaedic equipment, devices, and aids with clear understanding of functioning.
14. Demonstrate safe delivery of various therapies to patients and protect them from occupational harm.
15. Conduct clinical audit and participate in quality assurance activities in orthopaedic & rehabilitation units/centres.
16. Participate as member of healthcare team in effective rehabilitation of patients with disability and long term rehabilitation needs in rehabilitation centres/community.

#### V. PROGRAM DESCRIPTION & SCOPE OF PRACTICE

The Post Basic Diploma in Orthopaedic & Rehabilitation specialty nursing program is a one-year residency program with a main focus on competency-based training. Theory includes foundational courses and specialty courses besides practicum. The theory component comprises 10% and practicum 90% (Clinical & Lab).

On completion of the program and certification, and registration as additional qualification with respective SNRC, the orthopaedic & rehabilitation specialist nurses should be employed only in the orthopaedic & rehabilitation specialty centre/hospital/department/unit as orthopaedic & rehabilitation specialist nurses. They will be able to practice as per the competencies trained during the program particularly the specialized procedural competencies/clinical skills as per the Log Book of the Council syllabus. The specialist nurses can be privileged to practice those specialized procedural competencies by the respective institution as per institution protocols. Specialist

nurse cadres/positions should be created at government/public/private sectors. The diploma will be awarded by respective Examination Board/SNRC/University approved by the Council.

## VI. MINIMUM REQUIREMENTS/GUIDELINES FOR STARTING THE POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING RESIDENCY PROGRAM

### The program may be offered at

1. College of Nursing offering degree programs in nursing attached to parent speciality hospital/tertiary hospital having minimum of 200 beds with advanced diagnostic, therapeutic and state of the art orthopaedic & rehabilitation units with facilities of physiotherapy, occupational therapy, speech therapy, counselling units for supportive care and specialized nursing care facilities.

OR

Hospitals offering DNB/Fellowship programs in Orthopaedics and Rehabilitation having minimum of 200 beds with advanced diagnostic, therapeutic and state of the art orthopaedic & rehabilitation units with facilities of physiotherapy, occupational therapy, speech therapy, counselling units for supportive care and specialized nursing care facilities.

2. The above eligible institution shall get recognition from the concerned SNRC for Post Basic Diploma in Orthopaedic & Rehabilitation Specialty Nursing for the particular academic year, which is a mandatory requirement.
3. The Council shall after receipt of the above documents/proposal would then conduct statutory inspection of the recognized training nursing institution under Section 13 of the Act in order to assess suitability with regard to availability of teaching faculty, clinical and infrastructural facilities in conformity with Regulations framed under the provision of the Act.

### 1. Nursing Teaching Faculty:

- a. Full time teaching faculty in the ratio of 1 : 10.
- b. Minimum number of faculty should be two.
- c. *Qualification and Number:*
  - i. M.Sc. Nursing with Medical Surgical Nursing/Orthopaedic & Rehabilitation Specialty Nursing – 1 (Orthopaedic & Rehabilitation Specialty Nursing preferred)
  - ii. Post Basic Diploma in Orthopaedic & Rehabilitation Speciality Nursing with Basic B.Sc. (Nursing)/P.B.B.Sc. (Nursing) – 1
- d. *Experience:* Minimum three years of experience in Orthopaedic & Rehabilitation Specialty Nursing.
- e. *Guest Faculty:* Multi-disciplinary in related specialities.
- f. *Preceptors:*
  - *Nursing Preceptor:* Full time qualified GNM with 6 years of experience in orthopaedic & rehabilitation specialty nursing or B.Sc. (Nursing) with 2 years' experience in respective specialty nursing or M.Sc. (Nursing) with one-year respective specialty nursing experience working in the specialty care unit.
  - *Medical Preceptor:* Specialist (Orthopaedics Specialist) doctor with PG qualification (with 3 years post PG experience/faculty level/consultant level preferable)
  - *Preceptor Student Ratio:* **Nursing** 1 : 10, **Medical** 1 : 10 (Every student must have a medical and nursing preceptor)

### 2. Budget:

There should be budgetary provision for staff salary, honorariums for guest faculty, and part time teachers, clerical assistance, library and contingency expenditure for the program in the overall budget of the institution.

### 3. Physical and Learning Resources at Hospital/College:

- a. One classroom/conference room at the clinical area.
- b. Skill lab for simulated learning at hospital/college. **Skill Lab Requirements are listed in Appendix-1.**
- c. Library and computer facilities with access to online journals:

- i. College library having current books, journals and periodicals related to Orthopaedic & Rehabilitation Specialty Nursing, Nursing Administration, Nursing Education, Nursing Research and Statistics.

OR

Permission to use medical/hospital library having current books, journals and periodicals related to Orthopaedic & Rehabilitation Specialty Nursing, Nursing Administration, Nursing Education, Nursing Research and Statistics.

- ii. Computer with internet facility.
- d. E-Learning facilities:
- e. Teaching Aids – Facilities for use of:
- i. Overhead Projectors,
  - ii. Video viewing facility,
  - iii. LCD Projector,
  - iv. CDs, DVDs and DVD players,
  - v. Appropriate equipment, manikins and simulators for skill learning.
- f. Office facilities:
- i. Services of typist, peon, Safai Karamchari.
  - ii. Facilities for office, equipment and supplies such as
    - Stationery,
    - Computer with printer,
    - Xerox machine,
    - Telephone and Fax.

#### 4. Clinical Facilities:

- a. Parent speciality hospital/tertiary hospital having minimum of 200 beds with advanced diagnostic, therapeutic and state of the art orthopaedic & rehabilitation units with facilities of physiotherapy, occupational therapy, speech therapy, counselling units for supportive care and specialized nursing care facilities.
- b. Regional Orthopaedic and Rehabilitation/Orthopaedic Specialty Hospitals having minimum of 200 beds with advanced diagnostic, therapeutic and state of the art orthopaedic & rehabilitation units with facilities of physiotherapy, occupational therapy, speech therapy, counselling units for supportive care and specialized nursing care facilities.
- c. Hospital must have a minimum of 30 specialty beds with advanced diagnostic, treatment and care facilities.
- d. Nurse staffing of units as per the Council norms.
- e. *Student patient ratio: 1 : 3*

#### 5. Admission Terms and Conditions/Entry Requirements:

The student seeking admission to this program should:

- a. Be a registered nurse (RN&RM) or equivalent with any SNRC having NUID number.
- b. Possess a minimum of one year clinical experience as a staff nurse preferably in the orthopaedic & rehabilitation unit prior to enrolment.
- c. Be physically fit.
- d. Selection must be based on the merit obtained in an entrance examination and interview held by the competent authority.
- e. Nurses from other countries must obtain an equivalence certificate from the Council before admission.

#### 6. Number of Seats:

For hospital having 200 beds and 30 specialty beds, number of seats = 10,

For hospital having 500 beds or more and with 60 specialty beds, the number of seats = 20.

#### 7. Number of Candidates:

1 candidate for 3 specialty beds.

**8. Salary:**

- a. In-service candidates will get regular salary.
- b. Stipend/Salary for the other candidates will be given as per the salary structure of the hospital where the program is conducted.

**VII. EXAMINATION REGULATIONS AND CERTIFICATION****EXAMINATION REGULATIONS**

**Examining and Diploma Awarding Authority:** Respective Examination Board/SNRC/University approved by the Council.

**1. Eligibility for Appearing for the Examination:**

- a. *Attendance:* Theory & practical – 80%. However, 100% Clinical attendance have to be completed prior to certification.
- b. Candidate who successfully completes the necessary requirements such as Log Book and clinical requirements is eligible and can appear for final examination.

**2. Practical Examination:**

- a. *OSCE:* Objective Structured Clinical Examination (OSCE) type of examination will be conducted alongside viva (oral examination) both in the internal and final examination. (Detailed guidelines are given in guidebook.)
- b. *Observed Practical/Clinical:* Final internal and external examination will also include assessment of actual clinical performance in real settings including viva and mini clinical evaluation exercise for 3-4 hours (Nursing process application and direct observation of procedural competencies). Minimum period of assessment in the clinical area is 5-6 hours. (Evaluation guidelines are given in guidebook.)
- c. Maximum number of students per day = 10 students.
- d. Practical Examination should be held in clinical area only.
- e. The team of practical examiners will include one internal examiner [(M.Sc. faculty with two years of experience in teaching the respective specialty program/M.Sc. faculty (Medical Surgical Nursing) with 5 years of experience], one external examiner (nursing faculty with the same qualification and experience stated as above) and one medical internal examiner who should be preceptor for specialty program.
- f. The practical examiner and the theory examiner should be the same nursing faculty.

**3. Standard of Passing:**

- a. In order to pass, a candidate should obtain at least 60% marks in aggregate of internal assessment and external examination both together, in each of the theory and practical papers. Less than 60% is considered fail.
- b. Students will be given opportunity of maximum of 3 attempts for passing.
- c. If the student fails in either theory or practical, he/she needs to appear for the exam failed either theory or practical only.

**CERTIFICATION**

- a. TITLE: Post Basic Diploma in Orthopaedic & Rehabilitation Specialty Nursing.
- b. The diploma is awarded by Examination Board/SNRC/University approved by the Council, upon successful completion of the prescribed study program, which will state that
  - i. Candidate has completed all the courses of study under the Post Basic Diploma in Orthopaedic & Rehabilitation Specialty Nursing Residency Program.
  - ii. Candidate has completed 80% theory and 100% clinical requirements.
  - iii. Candidate has passed the prescribed examination.

**VIII. SCHEME OF EXAMINATION**

Courses	Int. Ass. Marks	Ext. Ass. Marks	Total Marks	Exam Hours (External)
<b>Theory (Experiential/Residential Learning)</b>				
Orthopaedic & Rehabilitation Specialty Nursing (Part I & Part II) {Part I – Orthopaedic & Rehabilitation Specialty Nursing I including Foundations, Part II – Orthopaedic & Rehabilitation Specialty Nursing II}	25 (10+15)	75 (35+40)	100	3
<b>Practicum (Orthopaedic &amp; Rehabilitation Specialty Nursing)</b>				
<ul style="list-style-type: none"> <li>OSCE including Viva</li> <li>Observed Practical/Clinical (Direct observation of actual performance at real settings) including viva – mini clinical evaluation exercise for 3-4 hours (Nursing process application and direct observation of procedural competencies)</li> </ul>	75 (25+50) (OSCE – 25 & Observed Practical – 50)	150 (50+100) (OSCE – 50 & Observed Practical – 100)	225	Minimum 5-6 hours in the clinical area
<b>Grand Total</b>	<b>100</b>	<b>225</b>	<b>325</b>	

**IX. PROGRAM ORGANIZATION/STRUCTURE**

1. Courses of Instruction
2. Implementation of Curriculum
3. Clinical Practice (Residency Postings)
4. Teaching Methods
5. Methods of Assessment
6. Log Book and Clinical Requirements.

**1. Courses of Instruction – Delivered through mastery of learning (Skill Lab Practice) and experiential learning (Clinical Practice) approaches**

Unit	Courses	Theory (Hrs)	Lab/Skill Lab (Hrs)	Clinical (Hrs)
I	<b>Foundations to Orthopaedic &amp; Rehabilitation Specialty Nursing Practice</b> 1. Professionalism 2. Communication, patient education and counselling in specialty nursing 3. Clinical leadership and resource management in the specialty care setting 4. Evidence based and applied research in specialty nursing	40		
II	<b>Orthopaedic &amp; Rehabilitation Specialty Nursing Courses</b> <b>Orthopaedic &amp; Rehabilitation Specialty Nursing I</b> 1. Context/Introduction to specialty nursing 2. Basic sciences applied to specialty care – diagnosis and treatment of clinical conditions (Anatomy & Physiology, Microbiology, Pharmacology & Pathophysiology)	50	10	
	<b>Orthopaedic &amp; Rehabilitation Specialty Nursing II</b> 3. Nursing management of clinical conditions including assessment, diagnosis, treatment and specialized interventions 4. Patient safety and quality 5. Specialty/Illness specific considerations (Supportive care/palliative care/rehabilitation, Impact of illness on individual, family and community)	110	30	1730
	<b>TOTAL= 1970 hours</b>	<b>200 (5 wks)</b>	<b>40 (1 wk)</b>	<b>1730 (38 wks)</b>

**Total weeks available in a year: 52 weeks** (Theory – 10% and Skill Lab + Clinical – 90%)

- Annual Leave + Casual Leave + Sick Leave + Public Holidays = 6 weeks
- Exam preparation and Exam = 2 weeks
- Theory and Practical = 44 weeks

## 2. Implementation of Curriculum

**Block Classes – 2 weeks × 40 hours per week = 80 hours**

**Residency – 42 weeks × 45 hours per week = 1890 hours**

**Total = 1970 hours**

- Block Classes: Theory and Skill Lab Experience = 2 weeks × 40 hours per week (80 hours)  
(Theory = 74 hours, Skill Lab = 6 hours, Total = 80 hours)
- Clinical Practice including Theory and Skill Lab = 42 weeks × 45 hours per week (1890 hours)  
(Theory = 126 hours, Skill Lab = 34 hours, Clinical = 1730 hours, Total = 1890 hours)

Theory = 200 (74+126) hours, Skill Lab = 40 (6+34) hours, Clinical = 1730 hours.

**126 hours of theory and 34 hours of skill lab learning can be integrated during clinical experience. Mastery learning and experiential learning approaches are used in training the students throughout the program. Skill lab requirements are listed in *Appendix 1*.**

## 3. Clinical Practice (Residency Postings)

**Clinical Residency Experience:** A minimum of 45 hours per week is prescribed, however, it is flexible with different shifts and OFF followed by on call duty every week or fortnight.

**Clinical Placements:** The students will be posted to the under mentioned clinical area during their training period:

S.No.	Clinical Area	Week(s)
1.	<b>Orthopaedic Wards</b> • Adult Medical & Surgical • Paediatric • Operation Theatre	<b>16 (10+4+2)</b> 10 04 02
2.	Neurology wards	04
3.	Emergency services	08
4.	OPD	02
5.	Rehabilitation Centre	08
6.	Physiotherapy, Occupational therapy, Speech therapy, Play therapy units	03
7.	Field Trip	01
	<b>TOTAL</b>	<b>42</b>

The residency students will follow the same duty schedule as staff nurses/nursing officers with different shift duties. In addition to that, for 40 weeks, 4 hours every week is dedicated for their learning that can be offered for theory and skill lab practice (For example: faculty lecture – 1 hour, nursing & interdisciplinary rounds – 1 hour, clinical presentations, case study report, clinical assignments – 1 hour and skill lab practice – 1 hour) to cover a total of 126 hours of theory and 34 hours of skill lab practice. A small group research project can be conducted during clinical posting applying the steps of research process and written report to be submitted.

## 4. Teaching Methods

Theoretical, Skill Lab and Clinical teaching can be done in the following methods and integrated during clinical posting:-

- Case/Clinical presentation and case study report



- Drug study and presentation
- Bedside clinic/Nursing rounds/Interdisciplinary rounds
- Journal clubs/Clinical seminar
- Faculty lecture and Discussion in the clinical area
- Demonstration and skill training in skill lab and at bedside
- Directed reading/Self-study
- Role play
- Symposium/Group presentation
- Group research project
- Clinical assignments
- Patient engagement exercise (engaging patients in care decisions to improve health outcomes using information technology) for example discharge planning and follow up.
- Educational visits to national/regional centres and observe community reintegration of patients after rehabilitation in the rehabilitation centres.

## 5. Methods of Assessment

- Written test (Case/scenario based)
- Practical examination – OSCE and Observed Practical (Direct observation of actual clinical performance at real settings)
- Written assignments
- Project
- Case studies/care plans/clinical presentation/drug study
- Clinical performance evaluation
- Completion of clinical procedural competencies and clinical requirements.

*For assessment guidelines refer Appendix-2.*

## 6. Log Book and Clinical Requirements

At the end of each clinical posting, Clinical Log Book (Specific Procedural Competencies/Clinical Skills) (*Appendix 3*), Clinical Requirements (*Appendix 4*) and Clinical Experience Details (*Appendix 5*) have to be signed by the concerned clinical faculty/preceptor.

## X. COURSE SYLLABUS

### **FOUNDATIONS TO ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING PRACTICE:**

### **PROFESSIONALISM, COMMUNICATION, PATIENT EDUCATION & COUNSELING, CLINICAL LEADERSHIP & RESOURCE MANAGEMENT AND EVIDENCE BASED AND APPLIED RESEARCH IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING PRACTICE**

#### **Total Theory: 40 hours**

**Course description:** This course is designed to develop an understanding of professionalism, communication, patient education and counselling, clinical leadership and resource management and evidence based and applied research in Orthopaedic & Rehabilitation Nursing practice.

## COURSE CONTENT

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
I	6	Demonstrate understanding of professionalism and exhibit professionalism in the practice of orthopaedic & rehabilitation nursing  Describe medico-legal aspects of orthopaedic & rehabilitation nursing	<b>Professionalism</b> <ul style="list-style-type: none"> <li>• Meaning and elements – accountability, knowledgeable, visibility and ethical in orthopaedic &amp; rehabilitation specialty nursing practice</li> <li>• Professional values and professional behaviour</li> <li>• INC code of ethics, code of professional conduct and practice standards</li> <li>• Ethical issues related to orthopaedic &amp; rehabilitation nursing practice</li> <li>• Expanding role of Nurse – Nurse Practitioner</li> <li>• Professional organizations</li> <li>• Continuing nursing education</li> </ul> <b>Medico-Legal Issues</b> <ul style="list-style-type: none"> <li>• Legislations and regulations related to orthopaedics &amp; rehabilitation nursing</li> <li>• Consumer protection act</li> <li>• Negligence and malpractice</li> <li>• Medico-legal aspects</li> <li>• Records and reports</li> <li>• Legal responsibilities of orthopaedics &amp; rehabilitation specialist nurses</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Write about code of ethics related to orthopaedic &amp; rehabilitation nursing</li> <li>• Maintain record of patients</li> </ul>
II	12	Communicate effectively with orthopaedic & rehabilitation patients, families and professional colleagues fostering mutual respect and shared decision making to enhance health outcomes  Educate and counsel patients and families to participate effectively in treatment and care	<b>Communication</b> <ul style="list-style-type: none"> <li>• Channels and techniques of communication</li> <li>• Breaking bad news to patients with orthopaedic conditions with poor prognosis</li> <li>• Culturally sensitive communication</li> <li>• Development of nursing care plans and records</li> <li>• Information technology tools in support of communication</li> <li>• Team communication</li> </ul> <b>Patient &amp; Family Education</b> <ul style="list-style-type: none"> <li>• Principles of teaching and learning</li> <li>• Principles of health education</li> <li>• Assessment of informational needs and patient education</li> <li>• Developing patient education materials</li> </ul> <b>Counselling</b> <ul style="list-style-type: none"> <li>• Counselling techniques</li> <li>• Patient and family counselling during breaking bad news, intensive treatment, crisis intervention and end of life stage</li> </ul>	<ul style="list-style-type: none"> <li>• Module: Communication</li> <li>• Lecture</li> <li>• Breaking bad news – Role play</li> <li>• Peer teaching</li> <li>• Counselling sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Digital records</li> <li>• Conduct a group health education program for the patients with orthopaedic disorders</li> <li>• Prepare patient education materials on relevant topic</li> </ul>
III	12	Demonstrate understanding of clinical leadership and management strategies and use	<b>Clinical Leadership &amp; Resource Management</b> <ul style="list-style-type: none"> <li>• Leadership and management</li> <li>• Elements of management of orthopaedic &amp; rehabilitation nursing care – planning,</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Plan a duty roster for the junior nursing officers/staff nurses working</li> </ul>

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
		<p>them in orthopaedic &amp; rehabilitation care and settings promoting collaborative and effective teamwork</p> <p>Conduct clinical audit and participate in quality assurance activities in orthopaedic &amp; rehabilitation units or centres</p>	<p>organizing, staffing, reporting, recording and budgeting</p> <ul style="list-style-type: none"> <li>• Clinical leadership and its challenges</li> <li>• Delegation</li> <li>• Managing human resources in orthopaedic &amp; rehabilitation units</li> <li>• Material management</li> <li>• Designing of an ideal orthopaedic ward and rehabilitation centre/unit</li> <li>• Emotional intelligence and self-management skills</li> <li>• Working as interdisciplinary team member</li> <li>• Participation in making policies relevant to care of orthopaedic &amp; rehabilitation patients</li> </ul> <p><b>Quality Assurance Program in Orthopaedic &amp; Rehabilitation Unit</b></p> <ul style="list-style-type: none"> <li>• Nursing audit</li> <li>• Nursing standards</li> <li>• Quality assurance</li> </ul>	<ul style="list-style-type: none"> <li>• Module: Accreditation and Practice Standards</li> </ul>	<p>in the orthopaedics/ neurology/ rehabilitation department/ unit</p> <ul style="list-style-type: none"> <li>• Plan an ideal lay out of an orthopaedic ward/ rehabilitation centre</li> <li>• Develop SOPs for orthopaedic wards/ rehabilitation centre</li> </ul>
IV	10	<p>Describe research process and perform basic statistical tests</p> <p>Conduct research project using principles and steps of research</p> <p>Apply evidence based/best practices in professional practice</p>	<p><b>Evidence Based and Application of Research</b></p> <ul style="list-style-type: none"> <li>• Introduction to nursing research and research process</li> <li>• Data presentation, basic statistical tests and its application</li> <li>• Research priorities in orthopaedic &amp; rehabilitation nursing</li> <li>• Formulation of problem/question that are relevant to orthopaedic &amp; rehabilitation nursing practice</li> <li>• Review of literature to identify evidence based/best practices in orthopaedic &amp; rehabilitation nursing practice</li> <li>• Implementation of evidence based interventions in daily professional practice</li> <li>• Ethics in research</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Module: Writing of scientific paper</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of statistical data of orthopaedic department for last five years</li> <li>• Conduct literature review on orthopaedic &amp; rehabilitation nursing interventions/ Group research project</li> </ul>

### ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING – I

#### CONTEXT/INTRODUCTION TO ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING & BASIC SCIENCES APPLIED TO ORTHOPAEDIC & REHABILITATION NURSING PRACTICE (Applied Psychology, Sociology, Microbiology, Pathology, Anatomy, Physiology & Pharmacology)

**Theory: 50 hours and Lab: 10 hours**

**Course description:** This course is designed to help students to develop understanding and in-depth knowledge regarding the context of orthopaedic & rehabilitation care provision and application of basic sciences in the diagnosis, treatment and care of patients suffering from orthopaedic & rehabilitation needs.

## COURSE CONTENT

Unit	Time (Hrs)	Learning outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
I	T-3	Describe epidemiology of common orthopaedic disorders, risk identification and reduction strategies	<b>Epidemiology of Orthopaedic Disorders</b> <ul style="list-style-type: none"> <li>• Epidemiology of orthopaedic disorders – Prevalence and statistics</li> <li>• Risk factors and identification</li> <li>• Risk reduction strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture and Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation of statistics</li> </ul>
II	T-3	Explain principles of orthopaedic & rehabilitation nursing  Discuss the role of orthopaedic & rehabilitation specialist nurses	<b>Roles and Responsibilities of Orthopaedic &amp; Rehabilitation Specialist Nurses</b> <ul style="list-style-type: none"> <li>• Concepts and Principles of orthopaedic &amp; rehabilitation nursing</li> <li>• Rehabilitation health team</li> <li>• Role of orthopaedic &amp; rehabilitation specialist nurses</li> <li>• Scope of orthopaedic &amp; rehabilitation specialist nurses</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture and Discussion</li> </ul>	
III	T-2	Describe the related National policies and programs	<b>National Policies &amp; Programmes</b> <ul style="list-style-type: none"> <li>• National policies &amp; programs for rehabilitation of persons with disabilities</li> <li>• Rehabilitation Council of India</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture/Self study</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Assignment:</b> Report on various rehabilitation acts</li> </ul>
IV	T-10	Explain psychosocial aspects in orthopaedic & rehabilitation nursing care	<b>Psychosocial Aspects in Orthopaedic &amp; Rehabilitation Nursing Care</b> <ul style="list-style-type: none"> <li>• Human behaviour and coping with orthopaedic disorders, treatment &amp; rehabilitation needs</li> <li>• Factors influencing psychological responses – Illness, personal &amp; environment related characteristics.</li> <li>• Psychological responses to illness</li> <li>• Management of psychosocial problems</li> <li>• Guidance &amp; Counselling</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Steps of counselling: Review</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct Counselling Session</li> </ul>
V	T-8 L-2	Explain medical surgical asepsis and infection control in orthopaedic & rehabilitation setup	<b>Applied Microbiology: Infection Control Practices</b> <ul style="list-style-type: none"> <li>• Principles of asepsis, sterilization &amp; disinfection</li> <li>• Standard safety measures/precautionary measures for health care workers</li> <li>• Biomedical waste management</li> <li>• Barrier Nursing &amp; infection control practices</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Identify/ Prepare SOP for infection control in joint arthroplasty theatre/patient care unit</li> <li>• Written Assignment: Infection control practices in joint</li> </ul>

Unit	Time (Hrs)	Learning outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
					arthroplasty theatre/patient care unit
VI	T-12 L-4	Review related anatomy & physiology  Describe structure & function of bones and joints  Describe structure & function of muscles  Describe structure & function of brain	<b>Review of Anatomy and Physiology:</b> <b>Structure &amp; function of bones &amp; joints</b> • Bone tissue • Types of bone tissue • Functions of bone & contained marrow • Development & growth of bones • Classification of joints • Movement and range of motion in joints <b>Structure &amp; function of muscles</b> • Muscle tissue • Muscle activity • Motor & sensory innervation of skeletal muscles • Voluntary movement – Pyramidal & extra-pyramidal tracts • Reflexes <b>Structure &amp; function of brain: Review</b> • Neurone, nerve impulses and neuroglia • <b>Central nervous system:</b> Brain- Cerebrum, cerebellum, brain stem • <b>Spinal cord:</b> Nerves & tracts • <b>Peripheral nervous system:</b> Cranial & spinal nerves • <b>Autonomic nervous system:</b> Parasympathetic & sympathetic nervous system	• Lecture  • Self-Study   • Module: Anatomy & physiology of musculo-skeletal system  • Lecture/ Discussion  • Module: Anatomy & physiology of brain	
VII	T-2	Understand musculoskeletal system and its genetic basis	<b>Brief overview of genetics</b> • Chromosomal disorders • Genetic counselling • Nurses role in genetic counselling	• Lecture	• Write a report on Mendelian laws
VIII	T-10 L-4	Explain pharmacotherapy for different orthopaedic disorders	<b>Applied pharmacology for orthopaedic disorders</b> • Analgesics • Antispasmodics • Anticonvulsants • Antidepressants • Muscle relaxants	• Drug presentations  • Demonstration of IV Methyl prednisolone	• Drug study & drug book maintenance

**ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING – II****NURSING MANAGEMENT OF CLINICAL CONDITIONS INCLUDING ASSESSMENT, DIAGNOSIS, TREATMENT AND SPECIALIZED INTERVENTIONS, PATIENT SAFETY AND QUALITY AND SPECIALTY/ILLNESS SPECIFIC CONSIDERATIONS  
(SUPPORTIVE CARE/PALLIATIVE CARE/REHABILITATION)****Theory: 110 hours and Lab: 30 hours****Course description:** This course is designed to help students to develop knowledge and competencies required for assessment, diagnosis, treatment, nursing management, and supportive/palliative care to patients with various orthopaedic & rehabilitation disorders**COURSE CONTENT**

<b>Unit</b>	<b>Time (Hrs)</b>	<b>Learning Outcomes</b>	<b>Content</b>	<b>Teaching/ Learning Activities</b>	<b>Assignments/ Assessment Methods</b>
I	T-8 L-6	Explain and demonstrate skill in assessment of patients (adult including elderly) with Orthopaedic disorders & rehabilitation needs  Explain and demonstrate skill in assessment of paediatric patients with orthopaedic disorders & rehabilitation needs  Explain and demonstrate skill in assessment of patients with neurological disorders and rehabilitation needs	<b>Assessment of adults and children with orthopaedic disorders</b> <i>Adults &amp; elderly</i> <ul style="list-style-type: none"> <li>Assessment of patients with Orthopaedic disorders</li> <li>History taking, physical examination &amp; diagnostic tests</li> </ul> <i>Paediatric patients</i> <ul style="list-style-type: none"> <li>Assessment of children with orthopaedic disorders</li> </ul> <ul style="list-style-type: none"> <li>Assessment of patients with neurological disorders</li> </ul>	<ul style="list-style-type: none"> <li>Discussion &amp; Demonstration</li> </ul>	<ul style="list-style-type: none"> <li>Perform assessment of adult, and Paediatric patients in OPD and write assessment report</li> <li>Perform assessment of neurological patients and write assessment report</li> </ul>
II	T-4 L-2	Prepare/assist in diagnostic tests	<b>Diagnostic tests for Orthopaedic disorders</b> <ul style="list-style-type: none"> <li>Bone scan, CT Scan, MRI Scan, nuclear studies, electromyography, electroencephalography</li> </ul>	<ul style="list-style-type: none"> <li>Lecture and Demonstration</li> <li>Visit to respective lab/ department</li> </ul>	<ul style="list-style-type: none"> <li>Prepare patients for various orthopaedic related diagnostic tests</li> </ul>
III	T-5 L-5	Demonstrate understanding and use of equipment used in orthopaedic units	<b>Therapeutic equipment used in Orthopaedic unit:</b> <b>Nurses' responsibilities</b> <ul style="list-style-type: none"> <li>Skin and skeletal traction kit</li> <li>Cast kit</li> <li>POP cutter</li> <li>Immobilising devices</li> <li>Orthotics &amp; Prosthetics</li> <li>CPM machine</li> </ul>	<ul style="list-style-type: none"> <li>Lecture &amp; demonstration</li> <li>Visit to Prosthetic &amp; Orthotic workshop</li> </ul>	<ul style="list-style-type: none"> <li>Report on visit – Prosthetics &amp; Orthotics</li> </ul>
IV	T-5 L-5	Develop skill in assisting and performing procedures in	<b>Care of patients undergoing orthopaedic specialized procedures</b> <ul style="list-style-type: none"> <li>Care of patients undergoing various orthopaedic procedures</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration</li> </ul>	

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
		Orthopaedic unit/Operation Theatre (OT) for adult and paediatric patients	<ul style="list-style-type: none"> <li>Assisting in application of skin traction</li> <li>Pin site care</li> <li>Assisting in arthroscopic procedure</li> </ul>	<ul style="list-style-type: none"> <li>Visit to theatre to assist with skeletal traction &amp; arthroscopy</li> </ul>	
V	T-5	Explain nutritional care of adult and paediatric patients with orthopaedic disorders and rehabilitation needs	<b>Nutritional management of patients with orthopaedic disorders and rehabilitation needs</b> <ul style="list-style-type: none"> <li>Nutritional problems for adult and paediatric patients suffering with orthopaedic disorders and rehabilitation needs</li> <li>Nutritional management and care</li> </ul>	<ul style="list-style-type: none"> <li>Self-study</li> </ul>	<ul style="list-style-type: none"> <li>Term paper on nutritional management for patients with orthopaedic disorders</li> </ul>
VI	T-5	Explain principles of pain management in orthopaedic disorders & rehabilitation needs	<b>Pain management</b> <ul style="list-style-type: none"> <li>Pain – types, pathophysiology</li> <li>General pain management strategies – pharmacological &amp; non-pharmacological</li> <li>Neuropathic pain management</li> </ul>	<ul style="list-style-type: none"> <li>Discussion</li> </ul>	
VII	T-2	Discuss management of fever and septicaemia in orthopaedic disorders	<b>Nursing management of patients with fever and septicaemia</b> <ul style="list-style-type: none"> <li>Fever and septicaemia in orthopaedic disorders</li> <li>Febrile convulsions</li> <li>Management</li> </ul>	<ul style="list-style-type: none"> <li>Lecture &amp; discussion</li> <li>Demonstration on barrier nursing</li> </ul>	<ul style="list-style-type: none"> <li>Assignment</li> </ul>
VIII	T-5	Describe etiology, pathophysiology, clinical manifestations, diagnostic tests, and management of patients with infections of bones & joints	<b>Management of patients with infections of bones and joints</b> <ul style="list-style-type: none"> <li>Tuberculosis</li> <li>Osteomyelitis</li> <li>Arthritis</li> <li>Care of patients with biohazards</li> <li>Leprosy</li> </ul>	<ul style="list-style-type: none"> <li>Lecture &amp; discussion</li> </ul>	<ul style="list-style-type: none"> <li>Nursing Clinic/rounds</li> </ul>
IX	T-4	Describe etiology, pathophysiology, clinical manifestations, diagnosis and management of patients with chronic diseases of joints and autoimmune disorders	<b>Management of patients with chronic diseases of joints and autoimmune disorders</b> <ul style="list-style-type: none"> <li>Osteoarthritis</li> <li>Rheumatoid arthritis</li> <li>Ankylosing spondylitis</li> <li>System lupus erythematosus</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Seminar</li> </ul>	<ul style="list-style-type: none"> <li>Write recent evidences in treating systemic lupus erythematosus</li> </ul>
X	T-5	Describe etiology, pathophysiology, clinical manifestations, diagnosis and management of patients with Neuromuscular disorders	<b>Management of patients with Neuromuscular disorders</b> <ul style="list-style-type: none"> <li>Poliomyelitis</li> <li>Cerebral palsy</li> <li>Myasthenia Gravis</li> <li>Paraplegia, Hemiplegia, Quadriplegia</li> <li>Muscular dystrophy</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Self-study</li> </ul>	<ul style="list-style-type: none"> <li>Nursing rounds</li> </ul>
XI	T-10	Describe etiology, pathophysiology, clinical manifestations,	<b>Management of patients with deformities &amp; disorders of spine</b> <ul style="list-style-type: none"> <li>Scoliosis</li> <li>Kyphosis</li> </ul>	<ul style="list-style-type: none"> <li>Lecture</li> <li>Seminar</li> </ul>	<ul style="list-style-type: none"> <li>Case presentation</li> </ul>

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
		diagnosis, and management of patients with deformities & disorders of spine	<ul style="list-style-type: none"> <li>• Lordosis</li> <li>• Intervertebral disc prolapse</li> <li>• Low back disorder – Low back pain, PND, spinal stenosis, spondylosis, spondylolisthesis</li> </ul>		
XII	T-4	Describe etiology, pathophysiology, clinical manifestations, diagnosis, and management of patients with orthopaedic congenital disorders	<b>Management of patients with orthopaedic congenital disorders</b> <ul style="list-style-type: none"> <li>• CDH, Dislocation of patella, knee</li> <li>• Varus and valgus deformities</li> <li>• Deformities of the digits</li> <li>• Congenital torticollis</li> <li>• Meningocele, Meningomyelocele</li> <li>• Spina bifida</li> <li>• Chromosomal disorders</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Case series preparation</li> </ul>
XIII	T-4	Describe etiology, pathophysiology, clinical manifestations, diagnosis, and management of patients with metabolic & endocrine disorders related to orthopaedic disorders	<b>Management of patients with metabolic &amp; endocrine disorders</b> <ul style="list-style-type: none"> <li>• Osteomalacia, Rickets</li> <li>• Osteoporosis</li> <li>• Scurvy</li> <li>• Pagets's diseases</li> <li>• Gout</li> <li>• Gigantism, Dwarfism, Acromegaly</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Case discussion</li> </ul>
XIV	T-5	Describe etiology, pathophysiology, clinical manifestations, diagnosis, and management of neurological disorders associated with orthopaedic conditions	<b>Management of patients with neurological disorders</b> <ul style="list-style-type: none"> <li>• CVA</li> <li>• Hypoxic ischemic encephalopathy</li> <li>• Seizures</li> <li>• Traumatic brain injury</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Nursing rounds</li> </ul>
XV	T-6	Describe major orthopaedic surgeries and principles of management  Discuss the nursing management of patients undergoing orthopaedic surgeries	<b>Management of patients undergoing orthopaedic surgeries</b> <ul style="list-style-type: none"> <li>• Replacement Surgery (Hip, Knee, shoulder)</li> <li>• Spine surgery</li> <li>• Amputations</li> <li>• Grafts and flaps surgery</li> <li>• Deformity corrections</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Symposium/ group presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Report of symposium</li> </ul>
XVI	T-4 L-2	Explain about respiratory dysfunction & pulmonary rehabilitation	<b>Respiratory dysfunction &amp; pulmonary rehabilitation</b> <ul style="list-style-type: none"> <li>• Nursing assessment</li> <li>• Diagnostic measures</li> <li>• Pharmacologic therapy</li> <li>• Nursing interventions for patients with intact airways</li> <li>• Nursing interventions for patients with</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Write a case study</li> </ul>



Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
			tracheostomies • Nursing interventions for patients with impaired gas exchange • Methods of pulmonary rehabilitation		
XVII	T-4 L-2	Explain about independent function: Movement and disability	<b>Independent function : Movement and disability</b> • Nursing assessment of movement • Nursing diagnosis for mobility • Goals • Rehabilitation nursing interventions ➤ Positioning aids ➤ Basic position ➤ Therapeutic exercises ➤ Gait training – sitting, standing, passive standing balance ➤ Wheelchair mobility, modification & criteria for purchase ➤ Transfers • Prevention of complications associated with immobilization	• Lecture • Demonstration	• SOP for prevention of falls on mobility aids • Conduct health education session on prevention of falls
XVIII	T-4 L-2	Describe self-care and activities of daily living	<b>Self-care and activities of daily living</b> • Conditions altering ability to perform personal hygiene & grooming activities • Nursing assessment • Nursing diagnosis of self-care • Goals • Rehabilitation nursing interventions – Specific techniques for personal care	• Lecture • Demonstration • Visit to the occupational therapy unit	• Report of the modified self-care equipment used for personal care
XIX	T-4	Explain in detail on eating & swallowing	<b>Rehabilitation of patients with eating and swallowing difficulties</b> • Physiological basis – Oral preparatory phase, oral phase, pharyngeal phase and esophageal phase • Neurological impairment • Anatomical impairment • Nursing assessment – History, physical assessment, diagnostic tests • Swallowing techniques • Rehabilitation nursing interventions	• Lecture • Self-study	
XX	T-3 L-2	Explain in detail on sleep and rest rehabilitation	<b>Sleep and rest rehabilitation</b> • Classification of sleep disorders, factors affecting sleep • Sleep assessment • Nursing interventions for sleep disturbance – pain, interrupted sleep, impaired mobility • Management of sleep – Pharmacological & non-pharmacological	• Lecture • Visit to sleep lab and write a report	• Prepare sleep assessment on a patient with sleep disorder • Write report on visit to sleep lab
XXI	T-6 L-2	Discuss impairment of bowel and bladder & its rehabilitation	<b>Impairment of bladder &amp; bowel and its rehabilitation</b> • Types of incontinence – transient, established and neurogenic • Classification of neurogenic bladder • Nursing assessment – history, physical assessment and diagnostic tests • Management of incontinence –	• Lecture • Demonstration	• Health teaching on bladder & bowel training

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assignments/ Assessment Methods
		Explain on impairment of bowel & its rehabilitation	behavioural and exercises <ul style="list-style-type: none"> <li>• Management of autonomic dysreflexia</li> <li>• Impaired bowel elimination</li> <li>• Nursing assessment</li> <li>• Rehabilitation nursing interventions</li> </ul>		
XXII	T-4 L-2	Explain the impairment of skin integrity & its rehabilitation	<b>Impairment of skin integrity &amp; its rehabilitation</b> <ul style="list-style-type: none"> <li>• Factors altering skin function</li> <li>• Factors influencing wound healing</li> <li>• Pathogenesis of pressure ulcers</li> <li>• Nursing assessment and use of tools</li> <li>• Rehabilitation nursing interventions</li> </ul>		<ul style="list-style-type: none"> <li>• Health teaching on prevention of pressure ulcers</li> </ul>
XXIII	T-4	Explain concept of quality and patient safety in orthopaedic & rehabilitation unit	<b>Quality and patient safety in orthopaedic &amp; rehabilitation unit</b> <ul style="list-style-type: none"> <li>• Patient safety indicators in orthopaedic &amp; rehabilitation unit</li> <li>• Quality control in orthopaedic &amp; rehabilitation unit</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting unit audit</li> </ul>

**POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING  
PRACTICUM (Skill Lab & Clinical)**

Total Hours: 1770 hours (40 + 1730)

(Skill Lab – 40 hours and Clinical – 1730 hours)

**Practice Competencies:**

At the end of the program, students will be able to:

1. Assess and provide nursing care to patients with orthopaedic disorders and those with various rehabilitation needs
2. Assist and perform special procedures in orthopaedic & rehabilitation settings
3. Prepare and care for patients undergoing various orthopaedic surgeries
4. Assess and manage pain using different methods
5. Administer drugs via various routes
6. Insert, assist and provide care with vascular access devices
7. Follow infection control practices in orthopaedic wards, ICU and operation theatre
8. Assess and care for patients with various types of immobilising devices
9. Assess and care for patients with various assistive devices
10. Assess and manage special groups of patients requiring rehabilitation
11. Promote bowel and bladder rehabilitation in patients requiring assistance
12. Prepare patients for discharge and home care
13. Provide health education concerning home care, rehabilitation and follow up
14. Documents findings, abnormalities and nursing care.

## CLINICAL POSTINGS

Clinical Areas	Duration (weeks)	Clinical Learning Outcomes	Skills/Procedural Competencies	Assignments	Assessment Methods
Orthopaedic wards – 16 weeks {Adult medical & surgical – 10 (6 + 4) Paed – 4 Operation Theatre (OT) – 2} Adult (medical)	6 weeks	Provide nursing care for adult & paediatric patients with various orthopaedic disorders  Prepare and assist patients with various immobilising devices  Assist with pain relief	<ul style="list-style-type: none"> <li>History taking</li> <li>Physical examination</li> <li>Perform dietary assessment</li> <li>Assisting in diagnostic tests</li> <li>Assisting with various splints application</li> <li>Assisting with skin traction application</li> <li>Performing log rolling</li> <li>Collar care</li> <li>Assisting with use of wedge pillow</li> <li>Assisting with application of compression devices</li> <li>Pain assessment &amp; management</li> </ul>	<ul style="list-style-type: none"> <li>Health assessment</li> <li>Dietary assessment</li> <li>Case study</li> <li>Pain assessment</li> </ul>	<ul style="list-style-type: none"> <li>Clinical evaluation</li> <li>Health assessment report</li> <li>Case study report</li> <li>Prosthetics and orthotics unit visit report</li> <li>Pain assessment report</li> </ul>
Adult (surgical)	4 weeks	Perform pre- and post-operative care for patients undergoing orthopaedic surgeries  Perform counselling to patients and their relatives Observe & maintain infection control in joint arthroplasty unit	<ul style="list-style-type: none"> <li>Preparation of patients for surgery</li> <li>Post-operative care</li> <li>Support during all phases of disease process</li> <li>Counselling of patients and the relatives</li> <li>Monitoring and ensuring cleaning &amp; preparation of sterile articles for patients after joint arthroplasty</li> </ul>	<ul style="list-style-type: none"> <li>Case study</li> <li>Counselling session</li> </ul>	<ul style="list-style-type: none"> <li>Clinical evaluation</li> <li>Report of SOP for infection control in joint arthroplasty</li> </ul>
Paediatric ward	4 weeks	Provide nursing care for children suffering from orthopaedic disorders	<ul style="list-style-type: none"> <li>Physical assessment of children</li> <li>Infection control practices &amp; barrier nursing</li> <li>Administration of Inj. Pamidronate</li> <li>Diet planning</li> <li>Counselling for parents</li> </ul>	<ul style="list-style-type: none"> <li>Health assessment</li> <li>Case study</li> <li>Drug study</li> <li>Health talk</li> <li>Counselling session</li> </ul>	<ul style="list-style-type: none"> <li>Clinical evaluation</li> <li>Health assessment report</li> <li>Case study report</li> <li>Report on drug study &amp; health talk</li> </ul>
Operation theatre (OT)	2 weeks	Assist with various orthopaedic surgeries	<ul style="list-style-type: none"> <li>Preparation &amp; assisting with orthopaedic surgeries</li> <li>Assisting with disinfection practices</li> <li>Assisting with fumigation</li> </ul>	<ul style="list-style-type: none"> <li>SOP for infection control in OT</li> </ul>	<ul style="list-style-type: none"> <li>Clinical evaluation</li> <li>Report on SOP of infection control in OT</li> </ul>
Neurology wards	4 weeks	Prepare patients for neurological procedures & surgeries	<ul style="list-style-type: none"> <li>Care, preparation of patients with neurological disorders and monitoring of patients</li> <li>Health education to patients with neurological disorders</li> </ul>	<ul style="list-style-type: none"> <li>Case study</li> <li>Health Talk</li> </ul>	<ul style="list-style-type: none"> <li>Clinical Evaluation</li> <li>Case study report</li> <li>Report on health talk</li> </ul>

Clinical Areas	Duration (weeks)	Clinical Learning Outcomes	Skills/Procedural Competencies	Assignments	Assessment Methods
Emergency wards	8 weeks	Assist in examination of patients with poly-trauma	<ul style="list-style-type: none"> <li>• History taking</li> <li>• Physical examination</li> <li>• Assisting with diagnostic tests</li> <li>• Performing/assisting with basic life support &amp; advanced life support</li> <li>• Assisting with application of immobilising devices</li> <li>• Emergency care to patients with orthopaedic disorders including trauma</li> </ul>		<ul style="list-style-type: none"> <li>• Clinical evaluation</li> </ul>
OPD	2 weeks	Assist in examination of the patients with orthopaedic disorders  Assist in diagnostic procedures	<ul style="list-style-type: none"> <li>• History taking</li> <li>• Physical examination</li> <li>• Health education</li> <li>• Assisting in cast application &amp; removal</li> </ul>	<ul style="list-style-type: none"> <li>• Health assessment report</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical evaluation</li> </ul>
Rehabilitation unit/centre	8 weeks	Provide care for patients with rehabilitation challenges	<ul style="list-style-type: none"> <li>• History taking</li> <li>• Physical examination</li> <li>• Tube feeding</li> <li>• Administration of drugs</li> <li>• Suctioning &amp; tracheostomy care</li> <li>• Dietary assessment</li> <li>• Sleep assessment &amp; maintenance of sleep log</li> <li>• Fall risk assessment</li> <li>• Bladder assessment &amp; maintenance of bladder diary</li> <li>• Performing bladder training</li> <li>• Catheterising the patient</li> <li>• Intermittent clean catheterisation</li> <li>• Performing bowel assessment &amp; maintenance of bowel diary</li> <li>• Bowel training</li> <li>• Performing Digital stimulation &amp; digital evacuation</li> <li>• Assisting with swallowing assessment performed by speech therapists</li> <li>• Tube feeding</li> <li>• Bedsore care</li> <li>• Position changes every 2 hours</li> <li>• Assisting with psychological assessment performed by psychologist</li> <li>• Working with rehabilitation team</li> <li>• Observation of fitting of prosthetics &amp; orthotics</li> <li>• Preparation and assisting patients for urodynamic</li> </ul>	<ul style="list-style-type: none"> <li>• Health assessment report</li> <li>• Case study report</li> <li>• Drug study</li> <li>• Bladder &amp; bowel training</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical evaluation</li> <li>• Case study drug report</li> <li>• Report of sleep lab</li> <li>• SOP on fall prevention</li> <li>• Report on bladder &amp; bowel training</li> </ul>

Clinical Areas	Duration (weeks)	Clinical Learning Outcomes	Skills/Procedural Competencies	Assignments	Assessment Methods
			<ul style="list-style-type: none"> <li>studies</li> <li>• Preparing &amp; assisting patients for gait analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Visit to urodynamic studies lab</li> <li>• Visit to gait lab</li> </ul>	<ul style="list-style-type: none"> <li>• Report on urodynamic studies</li> <li>• Report on gait lab</li> </ul>
Therapy units	3 weeks	Assist patients with orthopaedic disorders & rehabilitation needs in performing therapies	<ul style="list-style-type: none"> <li>• Assisting with various therapies provided</li> <li>• Observation of use of modified self-care equipment in meeting daily needs</li> <li>• Preparation, assisting &amp; monitoring patients with TENS</li> </ul>		<ul style="list-style-type: none"> <li>• Report of modified self-care equipment</li> </ul>
Field trip	1 week				

## APPENDIX – 1

**POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING  
SKILL LAB REQUIREMENTS**

**Note:** In addition to the basic skill lab requirement of College of Nursing, the following are necessary.

S.No.	SKILL LAB REQUIREMENT	Number	Skill
1	Dressing cups	2	Urinary Catheterisation
2	Cotton pack	2	
3	Gauze pack	2	
4	Artery clamp	2	
5	Thumb forceps	2	
6	K-basin (small)	1	
7	K-basin (Large)	1	
8	Surgical towel	1	
9	Window towel	1	
10	Syringe 10 cc	1	
11	Water for injection	1	
12	Xylocaine jelly	1	
13	Sterile gloves	1 pair	
14	Mask	1	
15	Antiseptic solution (Zephran & Betadine)	1 bottle each	
16	Foleys catheter (14–20 sizes)	1 each	
17	Urosac	1	
18	Adhesive tape	1 roll	
19	Foleys catheter (14–20 sizes)	1 each	Intermittent clean catheterisation
20	Bowl (Small & big)	1 each	
21	Mug	1	
22	Foleys catheter bag	1	
23	Bucket	1	
24	Mackintosh	1	Digital Stimulation & evacuation
25	Xylocaine jelly	1	

S.No.	SKILL LAB REQUIREMENT	Number	Skill
26	Rag pieces	1 roll/adequate	
27	K-basin (Big)	1	
28	Mug	1	
29	Gloves/Mask/Apron	1 each	
30	K-Basin	1	Bedsore dressing
31	Dressing cups	2	
32	Thumb forceps	1	
33	Artery clamps	2	
34	Sterile cotton & gauze packs	2	
35	Sterile dressing pads pack	2	
36	Sterile gloves	1 pair	
37	Adhesive tape roll	1	
38	Antiseptic solution (Saline/Betadine/Dakins/Hydrogen peroxide)	1 bottle each	Tracheostomy care
39	K-basin	1	
40	Dressing cups	2	
41	Artery clamp	2	
42	Thumb forceps	1	
43	Sterile cotton and gauze packs	2	
44	Sterile gloves	1 pair	
45	Clean apron and mask	1	
46	Antiseptic solutions (Betadine, hydrogen peroxide and saline)	1 bottle each	Suctioning
47	Sterile suction tray	1	
48	Antiseptic solutions (Saline)	1 bottle	
49	Suction catheters (sizes 10, 12, 14)	1 each	
50	Dressing cups	1	
51	Sterile gauze pack/mask/cotton	1	
52	Suction apparatus	1	Skin traction
53	Skin traction kit	1	
54	Out trigger with pulley	1	
55	Sand bags or weights (5/10 kgs)	1	
56	Roller bandage	1 roll	
57	Clips/Adhesive	5/1	Types of splints
58	Cricketer pad splint	1	
59	Bohler Braun splint	1	
60	Crammer wire	1	
61	Thomas splint	1	
62	Ankle foot orthoses (AFO)	1	
63	Knee ankle foot orthoses (KAFO)	1	
64	Cock up splint	1	
65	Philadelphia collar	1	
66	Bandage	1 roll	
67	Adhesive	1 roll	

## APPENDIX – 2

**POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING  
ASSESSMENT GUIDELINES (THEORY & PRACTICUM)****I. THEORY****A. INTERNAL ASSESSMENT**

**ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING (Part I – Orthopaedic & Rehabilitation Nursing I including Foundations & Part II – Orthopaedic & Rehabilitation Nursing II)  
– TOTAL: 25 marks**

- Test Papers & Quiz – 10 marks
- Written Assignments – 10 marks (Code of ethics relevant to Orthopaedic & Rehabilitation Nursing practice, literature review on EBP in Orthopaedic & Rehabilitation Nursing/Infection control practices, Nutritional care of patients)
- Group project: 5 marks

**B. EXTERNAL/FINAL EXAMS**

**ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING (Part I – Orthopaedic & Rehabilitation Nursing I including Foundations & Part II – Orthopaedics & Rehabilitation Nursing II)  
– TOTAL: 75 marks**

**Part I** – 35 marks (Essay type  $1 \times 15 = 15$  marks, Short answers  $4 \times 4 = 16$  marks, Very short answers  $2 \times 2 = 4$  marks) and **Part II** – 40 marks (Essay  $1 \times 15 = 15$  marks, Short answers  $5 \times 4 = 20$  marks, Very short answers  $5 \times 1 = 5$  marks)

**II. PRACTICUM****A. INTERNAL ASSESSMENT – 75 marks**

- OSCE – 25 marks (End of posting OSCE – 10 marks + Internal end of year OSCE – 15 marks)
- Other Practical: 50 marks
  - a) Practical assignments – 20 marks (Clinical presentation & Case study report – 5 marks, Counselling report/visit report – 5 marks, – 5 marks, and Health talk – 5 marks)
  - b) Completion of procedural competencies and clinical requirements – 5 marks
  - c) Continuous clinical evaluation of clinical performance – 5 marks
  - d) Final Observed Practical Exam (Actual performance in clinicals) – 20 marks

**B. EXTERNAL/FINAL EXAM – 150 marks**

OSCE – 50 marks, Observed practical – 100 marks

Detailed guidelines are given in guidebook.

## APPENDIX – 3

## POST BASIC DIPLOMA IN ORTHOPAEDIC &amp; REHABILITATION SPECIALTY NURSING

## CLINICAL LOG BOOK

## (Specific Procedural Competencies/Clinical Skills)

S.No.	Specific Competencies/Skills	Number Performed/ Assisted/Observed (P/A/O)	Date and Signature of the Faculty/Preceptor
<b>I</b>	<b>FOUNDATIONS TO ORTHOPAEDIC &amp; REHABILITATION SPECIALTY NURSING</b>		
1	Preparation of patient education materials	P	
2	Patient education plan for teaching patients with orthopaedic disorders	P	
3	Preparation of duty roster for nursing officers/staff nurses	P	
4	Writing literature review/systematic review (Identify evidence based nursing interventions/practices)	P	
5	Preparation of a manuscript for publication/paper presentation	P	
6	Group research project Topic:	P	
<b>II</b>	<b>ORTHOPAEDIC &amp; REHABILITATION SPECIALTY NURSING</b>		
<b>1</b>	<b>HEALTH ASSESSMENT</b>		
1.1	History taking and physical examination for adult patient with orthopaedic disorder including nutritional assessment	P	
1.2	History taking and physical examination for paediatric patient with orthopaedic disorder including nutritional assessment	P	
1.3	History taking and physical examination for adult/geriatric patient with neurological disorder including nutritional assessment	P	
<b>2</b>	<b>DIAGNOSTIC PROCEDURES</b>		
2.1	Assisting with bone scan	A	
2.2	Application of skin traction	P	
2.3	Assisting with skeletal traction	O	
2.4	Interpretation of X-rays	O	
2.5	Assisting with cast application	A	
2.6	Removal of cast	A	
<b>3</b>	<b>VENOUS ACCESS DEVICES (VAD) CARE</b>		
3.1	<b>Insertion of IV cannula</b> • Central Line • Peripheral line	A P	
3.2	Daily care and maintenance of IV	P	
3.3	Heparin block	P	
3.4	Nerve blocks for pain	P	
3.5	Line removal	A	
<b>4</b>	<b>CARE OF PATIENTS IN ORTHOPAEDIC FACILITY (Spine Surgeries)</b>		
4.1	Preparation of patients for spine surgeries	P	
4.2	Management of traction	P	



S.No.	Specific Competencies/Skills	Number Performed/ Assisted/Observed (P/A/O)	Date and Signature of the Faculty/Preceptor
4.3	Use of spinal brace	P	
4.4	Collar care	P	
4.5	Log rolling	P	
4.6	Application of TED stockings	P	
4.7	Removal of TED stockings	P	
4.8	Use of special mattress (Block/divided/alpha)	P	
4.9	Administration of tube feeds	P	
4.10	Positions (Supine/Prone/Lateral)	P	
4.11	Intermittent clean catheterisation	P	
4.12	Catheterisation	P	
4.13	Bed sore dressing	P	
4.14	Tracheostomy care	P	
4.15	Suctioning	P	
4.16	Nebulisation	P	
4.17	Digital stimulation	P	
4.18	Digital evacuation	P	
<b>5</b>	<b>CARE OF PATIENTS IN ORTHOPAEDIC UNIT/FACILITY (General Orthopaedic Surgeries)</b>		
5.1	Preparation of patients for orthopaedic surgeries	P	
5.2	Preparation of patients for orthopaedic investigations	P	
5.3	Preparation and administration of intravenous drugs	P	
5.4	Monitoring of patients during intravenous drug therapy	P	
5.5	Extravasation management	P	
5.6	Intrathecal pain relief	A	
5.7	Blood transfusion and care	P	
5.8	Management of transfusion reactions	P	
5.9	Cold application for pain relief	P	
5.10	Ambulation (Walker/Crutches)	A	
<b>6</b>	<b>CARE OF ADULT PATIENT IN ORTHOPAEDIC UNIT/FACILITY (Joint Arthroplasty)</b>		
6.1	Maintenance of joint arthroplasty room	P	
6.2	Joint arthroplasty care	P	
6.3	Orthopaedic diet	P	
6.4	Drug infusion through bodyguard	P	
6.5	Monitoring side effects of orthopaedic drugs	P	
6.6	Use of compression devices	P	
6.7	Ambulation	P	
6.8	Use of cricket pad splint	P	
6.9	Use of wedge pillow	P	
6.10	Infection control practices in joint room	P	
6.11	Counselling of patients and relatives on joint arthroplasty	P	
<b>7</b>	<b>CARING FOR PAEDIATRIC PATIENT IN ORTHOPAEDIC UNIT/FACILITY</b>		
7.1	Blood sampling	P	

S.No.	Specific Competencies/Skills	Number Performed/ Assisted/Observed (P/A/O)	Date and Signature of the Faculty/Preceptor
7.2	Paediatric phlebotomy	P	
7.3	Care during blood transfusion	P	
7.4	Care of VADs	P	
7.5	Administration of pamidronate infusions	P	
7.6	Monitoring child on pamidronate infusions	P	
7.7	Diet planning	P	
7.8	Counselling – Child and parents	P	
7.9	Care during c-traction	P	
7.10	Pin site care	P	
7.11	Counselling parents on cast care	P	
<b>8</b>	<b>ORTHOPAEDIC SURGERIES – ASSISTING</b>		
8.1	Fracture fixation	A	
8.2	Reconstructive surgeries	A	
8.3	Spinal surgeries	A	
8.4	Graft surgeries	A	
8.5	Flap surgeries	A	
8.6	Joint arthroplasty	A	
8.7	Arthroscopy	A	
8.8	Arthrodesis	A	
<b>9</b>	<b>QUALITY CONTROL</b>		
9.1	Preparation of SOP for infection control in joint arthroplasty OR	P	
9.2	Preparation of SOP for prevention of falls	P	
9.3	Development of nursing standards for patients undergoing joint arthroplasty	P	
9.4	Conducting unit audit	P	
<b>10</b>	<b>ASEPSIS</b>		
10.1	Sterilization/Disinfection	P	
10.2	Fumigation	P	
<b>11</b>	<b>OTHERS</b>		
11.1	Consent taking	P	
11.2	Guidance & counselling	P	
11.3			
11.4			
11.5			

\*When the student is found competent to perform the skill, the faculty will sign it.

**Students:** Students are expected to perform the listed skills/competencies many times until they reach level 3 competency, after which the faculty signs against each competency.

**Faculty:** Must ensure that the signature is given for each competency only after they reach level 3.

- Level 3 Competency denotes that the student is able to perform that competency without supervision
- Level 2 Competency denotes that the student is able to perform each competency with supervision
- Level 1 Competency denotes that the student is not able to perform that competency/skill even with supervision.

**APPENDIX – 4**  
**POST BASIC DIPLOMA IN ORTHOPAEDIC & REHABILITATION SPECIALTY NURSING**  
**CLINICAL REQUIREMENTS**

S.No.	Clinical Requirement	Date	Signature of the Faculty/Preceptor
<b>1</b>	<b>Health Talk</b>		
1.1	Health talk (Ortho OPD/Emergency Services) Topic:		
1.2	Health talk (Ortho Ward/Neurology Ward) Topic:		
1.3	Health talk (Rehabilitation Ward) Topic:		
<b>2</b>	<b>Counselling Patient, Parents and Relatives</b>		
2.1	Counselling report 1 (Ortho/Neuro – 1)		
2.2	Counselling report 2 (Rehabilitation Ward – 1)		
2.3	Counselling report 3 (Paed – 1)		
<b>3</b>	<b>Health Assessment</b>		
3.1	Health Assessment (Ortho) – History & Physical Examination (Two written reports) 3.1.1 (Adult) 3.1.2 (Child)		
3.2	Health Assessment (Neuro) – History & Physical Examination (1 written report)		
<b>4</b>	<b>Journal Club/Clinical Seminar</b> Topic:		
<b>5</b>	<b>Case Study/Clinical Presentation and Report</b>		
5.1	Name of clinical condition (Adult Ortho)		
5.2	Name of clinical condition (Paed Ortho)		
5.3	Name of clinical condition (Neuro)		
5.4	Name of clinical condition (Rehab)		
<b>6</b>	<b>Drug Study, Presentation and Report</b> (Two written reports for submission)		
6.1	Drug Name:		
6.2			
6.3			
6.4			
<b>7</b>	<b>Designing Orthopaedic Unit/Rehabilitation Unit</b>		
<b>8</b>	<b>Visits – Reports</b>		
8.1	Orthotics & prosthetics		
8.2	Urodynamic lab		
8.3	Sleep lab		
8.4	Gait lab		
8.5	Regional Centre for Orthopaedics/Rehabilitation		

Signature of the Program Coordinator/Faculty

Signature of the HOD/Principal

