

**REGULATIONS AND SYLLABUS
FOR**

**MASTER OF PHYSIOTHERAPY [M.P.T.]
IN OBSTETRIC & GYNAECOLOGY
PHYSIOTHERAPY**

[FOR THE YEAR **2020-21** ONWARDS]



PONDICHERRY UNIVERSITY
PUDUCHERRY - 605 014

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	# [Obstetric & Gynaecology Physiotherapy]	
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AIMS & OBJECTIVES OF THE COURSE

Master of Physiotherapy [M.P.T.] in Obstetric & Gynaecology Physiotherapy

Aims:

The course aims to prepare the candidate towards professional excellence in specialised skills in the respective field of Physiotherapy. The course is conducted with the prime intention to acquaint the candidate with research methods, concept of quality care, to promote the standards of Physiotherapy education and to induce appropriate professional relationships in multidisciplinary hospitals & rehabilitation practice. It also aims to inculcate competent standards in clinical practice and research.

Objectives:

The candidate undergoing this course shall:

1. acquire a sound knowledge of the specialised skills of the physiotherapeutic interventions with special emphasis on the respective areas of specialisation.
2. have an updated evidence based practice, which includes evaluation, clinical reasoning, diagnosis and treatment methods.
3. practice within the professional code of ethics and conduct, and the standards of practice within legal boundaries.
4. gain experience in clinical teaching methods and undergraduate tutorials.
5. conduct research activities and utilise findings for professional development.

REGULATIONS

ELIGIBILITY FOR ADMISSION

1. Every candidate for admission to the course for the degree of Master of Physiotherapy [M.P.T.] must have been qualified with the degree of Bachelor of Physiotherapy [B.P.T.] of Pondicherry University or the degree of any other University recognised as equivalent thereto by the Pondicherry University; such candidates should submit a migration certificate to the Pondicherry University.

2. ELIGIBILITY FOR ADMISSION

Candidates should have completed the bachelor degree course with a minimum of 55% of aggregate marks. The minimum duration of the course shall be three years of full time study and six months of compulsory rotatory internship

The maximum age of the candidate shall be limited to 40 years on the date of admission to the course.

3. Every candidate before admission to this course shall submit to the Head of the Institution a Medical Fitness Certificate, from the Government Headquarters Hospital that the candidate is physically fit to undergo M.P.T. course and does not suffer from any contagious disease. Differently abled (disabled) students should submit a certificate for the same.
4. Selection of the candidates should be based on the merit list drawn by the competent authority.

REGISTRATION

A candidate admitted in the Master of Physiotherapy course shall register with the University by duly filling the application, which will be forwarded to the University through the Head of the Institution within the prescribed date.

DURATION OF THE COURSE

The course of study and training for the degree of Master of Physiotherapy (M.P.T.) course shall be full-time and its duration shall be of two academic years; an academic year shall consist of not less than 240 working days.

MEDIUM OF INSTRUCTION

The medium of instruction for all the subjects of study and for the examinations of the course shall be English.

CURRICULUM

The curriculum and the syllabi for the course are as presented and are subject to modifications based upon the recommendations of the Postgraduate Board of Studies in Physiotherapy duly approved by the Academic Council of the Pondicherry University.

REQUIREMENTS FOR ADMISSION TO EXAMINATIONS

A candidate is required to put up a minimum of 80% of total attendance in each subject separately and in clinical before admission to the University examinations for the degree of Master of Physiotherapy. There shall be no condonation of attendance for this course.

INTERNAL ASSESSMENT

The following procedure shall be used for the assessment of Internal Marks.

INTERNAL ASSESSMENT MARKS DISTRIBUTION:

(a) Students' log book (containing specific skills, procedures acquired)	- 15 marks
(b) Internal Examination (Theory) (Average of 2 best marks acquired out of 3 exams)	- 10 marks
(c) Clinical case presentation	- 10 marks
(d) Seminars, symposia, conferences	- 5 marks
(e) Journal articles review	- 10 marks
Total	-50 marks

MAINTENANCE OF LOG BOOK

Every candidate shall maintain a log book, consisting of the details of skills acquired during the clinical training period, participation in seminars, workshops & conferences, undergraduate teaching practice, journal article reviews, group discussions, assignments and such other academic activities which will be evaluated periodically. At the end of the course the candidate should submit the log book, duly certified by the concerned Head of the Department, and countersigned by the Principal.

DISSERTATION

Every candidate appearing for the examination in the first instance shall submit four copies of a dissertation, consisting of the candidates' study carried out under the guidance of a recognised post graduate teacher and duly certified by the guide & Principal of the College, three months before the end of the course/beginning of the examination.

A post graduate teacher in the respective speciality not exceeding 62 years of age, with 8 years of teaching experience after acquiring Post-graduate degree in Physiotherapy working on full time position in a recognized physiotherapy institution shall be the recognized guide for the dissertation and examiner.

In order to qualify for the degree, the dissertation has to be approved by the external evaluator. No marks will be allotted for dissertation and it shall be mentioned either as "Approved", or "Not Approved" with written valid reasons, by the concerned dissertation evaluator. A candidate whose dissertation is not approved will have to resubmit it after effecting the modifications suggested by the evaluator. This has to be done at least three months before the subsequent examination. A candidate whose dissertation has been accepted by the examiners will not be required to submit a fresh dissertation if he/she has to reappear for the examination in the same branch.

EXAMINATIONS

The University examinations for the degree of Master of Physiotherapy shall be held as detailed in the scheme of examinations. The practical examinations will be conducted by one external examiner and one internal examiner.

NUMBER OF APPEARANCES

The candidate will not be permitted to appear for more than five attempts in the examinations and shall be discharged from the course if he/she fails to pass the examinations in the said number of attempts, or four years (double the duration of the course) from the date of admission to the course, whichever is earlier.

PROCEDURE FOR PASSING

A candidate must obtain minimum 50% of the maximum marks in internal assessment and in theory separately and in practical & viva-voce together. The dissertation has to be "Approved" by the internal and external evaluators. No grace marks shall be awarded for the post graduate course. The dissertation has to be "Approved" by the external evaluator.

COURSE OF STUDY

FIRST YEAR		
Sl. No.	Subjects	Total hours
1.	Applied Anatomy & Kinesiology	80
2.	Exercise Physiology	80
3.	Research Methodology & Biostatistics	100
4.	Education Technology	60
5.	Management	30
6.	Physiotherapeutics	160
7.	Yoga	30
8.	Physiotherapy Ethics	20
9.	Clinical training	500
10.	Community Physiotherapy Training	200
11.	Co-curricular activities*	180
Total		1440 hours

SECOND YEAR		
Sl. No.	Subjects	Total hours
1.	Specialty part - I: # Physical Assessment	180
2.	Specialty part - II: # Physiotherapy Interventions	180
3.	Clinical training & Dissertation work	900
4.	Co-curricular activities* (Participation in Seminars, Workshops & Conferences, inclusive of observational visits.)	180
Total		1440 hours

CLINICAL AREA OF TRAINING	HOURS
General Gynaecology – OPD	75
Antenatal clinic	75
Postnatal clinic	75
Obstetric Ward (Antenatal, Postnatal,ICU)	75
Gynaecology ward	75
Paediatrics	35
Geriatric	40
Oncology	75
Urology	75
Dissertation	225
TOTAL	900

EXAMINATIONS

Year	Paper	Title of the paper	THEORY		PRACTICAL		INTERNAL ASSESSMENT		TOTAL	
			Max. marks	Passing Min.	Max. marks	Passing Min.	Max. marks	Passing Min.	Max. marks	Passing Min.
I	I	Basic Sciences	100	50	***	***	50	25	150	75
	II	Allied Sciences	100	50	***	***	50	25	150	75
	III	Physiotherapeutics	100	50	200	100	50	25	350	175
II	IV	Specialty (Part- I): Physical Assessment	100	50	200	100	50	25	350	175
	V	Specialty (Part- II): Physiotherapy Interventions	100	50	200	100	50	25	350	175
	Dissertation			[Approved / Not Approved]						

SCHEME OF EXAMINATIONS

THEORY EXAMINATIONS: [Marks distribution for subjects]

Year	Paper	Title of the paper	Contents	Marks	Total Marks
I	I	Basic Sciences	Applied Anatomy & Kinesiology	50	100
			Exercise Physiology	50	
	II	Allied Sciences	Research Methodology & Biostatistics	50	100
			Education Technology & Management	50	
	III	Physiotherapeutics	Exercise Therapy	50	100
Electrotherapy			50		
II	IV	Specialty (Part- I): Physical Assessment			100
	V	Specialty (Part- II): Physiotherapy Interventions			100

PRACTICAL EXAMINATIONS:

1. Long Case - 100 marks
2. Short Case/Task - 50 marks
3. Viva-voce - 50 marks

Total marks: 200 marks

PATTERN OF QUESTION PAPER

Maximum Marks: 100

Duration: 3 hours

1. Brief Answers (10 x 2marks) = 20 marks
2. Short Answers (10 x 5marks) = 50 marks
3. Long Answers (3 x 10marks) = 30 marks

MODEL QUESTION PAPERS

SPECIALITY Part – I (PHYSICAL ASSESSMENT)

Maximum Marks: 100

Duration: 3 hours

Answer all questions

I. Long answers (3 x 10 = 30)

- 1.a. Functions of pelvic floor muscles (5 marks)
- b. Pelvic floor Muscle Strength in Pelvic organ prolapse. (5 marks)
- 2.a. Physical changes during pregnancy (5 marks)
- b. Physiological changes during pregnancy (5 marks)

II Short answers (10 x 5 = 50)

1. Suspensory ligaments.
2. Gestational Diabetes Mellitus.
3. Effect of labour on the pelvic floor and perineum.
4. State the criteria for diagnosing Bulimia Nervosa. Write about the sub types of Bulimia Nervosa.
5. Explain the degrees of Uterine prolapse.
6. Explain the abnormal emotional and psychological changes in the postnatal period.
7. Menopausal systemic changes.
8. Guidelines for physiotherapy documentation.
9. Explain the circumferential measurement procedure for lymphoedema.
10. Explain at least 5 side effects and complications of epidural anesthesia.

III Brief answers (2 x 10 = 20)

1. Influence of fetal weight on posture.
2. Faecal incontinence
3. Diet for adolescence.
4. Coping styles.
5. Breast engorgement
6. Psychosexual problems of menopause.
7. Hormone replacement therapy.
8. Prevention of osteoporosis.
9. Anismus.
10. Breast feeding.

SPECIALITY Part – II (PHYSIOTHERAPY INTERVENTIONS)

Maximum Marks: 100

Duration: 3 hours

Answer all questions

I. Long answers (3 x 10 = 30)

1. a) What is Diastasis recti abdominis? (2 marks)

b) Explain the Physiotherapy management for a 25-year-old primiparous woman with diastasis recti abdominis of 6 centimeters width at the level of umbilicus following 3 months postpartum period. (3+5)

2. a) What are post-natal exercises? (2 marks)

b) Why are they important? (3marks)

c) What is your role in the postpartum period? (5 marks)

3. Justify the techniques and use of TENS in pregnancy, labour and postnatal period. (3+4+3)

II. Short answers (10×5=50)

1. Advanced manual therapy for the pelvic floor

2. Explain the cardiovascular changes during pregnancy.

3. Body mechanics guidelines for post cesarean patients.

4. Pre menstrual syndrome and its Physiotherapy management.

5. Role of pelvic floor muscles in the female.

6. Explain Round ligament pain and its Physiotherapy management.

7. Postoperative Physiotherapy management for Vaginal Hysterectomy.

8. Manual lymphatic drainage.

9. Defecation retraining.

10. Prevention and treatment of Postvoid Residual Urine.

III. Brief answers (2×10=20)

1. Carpal tunnel syndrome

2. Levator ani

3. Vaginal cones

4. The educator

5. Perineometer

6. Stress incontinence

7. Vulvodynia

8. Mastitis

9. Postnatal depression

10. Bidets

SYLLABUS

A detailed syllabus of the subjects to be covered during the M.P.T. programme is given below. However, this is not exhaustive and a candidate is advised to use this as a guideline to further update his/her knowledge and skills in the field of Physiotherapy.

The instructional courses are intended as a revision and updating of the topics essential for physical therapy practice. A brief outline of the topics to be covered in these subjects is as follows.

APPLIED ANATOMY & KINESIOLOGY

80 Hours

1. Arthrokinematics and Osteokinematics of musculoskeletal system.
2. Biomechanics of articular cartilages, tendons and ligaments.
3. Biomechanics & Kinesiology of shoulder girdle, shoulder joint, elbow joint, forearm, wrist and hand.
4. Biomechanics & Kinesiology of Temporomandibular joint.
5. Biomechanics & Kinesiology of neck and trunk.
6. Biomechanics & Kinesiology of pelvic girdle, hip, knee complex, ankle & foot.
7. Functional Anatomy of Upper Extremity, Lower Extremity & Trunk.
8. Biomechanics & Kinesiology of posture and gait.
9. Ergonomics & application in work environment.

Suggested references:

- Lippert LS; Clinical Kinesiology and Anatomy; Jaypee brothers, New Delhi.
- Levangie PK, Norkin CC; Joint Structure & Function- A Comprehensive Analysis; Jaypee brothers, New Delhi.
- Kapandji IA; The Physiology of Joints; Churchill Livingstone, Edinburgh.
- Smith LK *et al*; Brunnstrom's Clinical Kinesiology; Jaypee brothers, New Delhi.

EXERCISE PHYSIOLOGY

80 Hours

1. *Nutrition-The Base for Human Performance*: Carbohydrates, Lipids, Proteins, Vitamins, Minerals and Water; Optimal Nutrition for exercise.
2. *Energy for Physical Activity*: Energy value of food; Energy transfer in the body and in exercise; Measurement of Human Energy Expenditure at rest, physical activities like Walking, Jogging, Running and Swimming.
3. *Systems of Energy Delivery and Utilisation*: Pulmonary, Cardiovascular, Muscular, Neural and Endocrine systems.
4. *Enhancement of Energy Capacity*: Training for anaerobic and aerobic power; Muscular strength training; Special aids to exercise training and performance.
5. *Exercise Performance and Environmental Stress*: Exercise at Altitudes; Exercise and Thermal stress.
6. *Body composition, Energy balance and Weight Control*: Body composition assessment; Physique, performance and physical activity; Obesity and weight control.
7. *Exercise, Aging and Disease Prevention*: Physical activity, health and aging; Clinical exercise physiology for cancer, cardiovascular and pulmonary rehabilitation.

Suggested reference:

- McArdle DW, Katch FI & Katch VL; Exercise Physiology, Energy, Nutrition & Human Performance; Lippincott W&W, Philadelphia, 2007.

RESEARCH METHODOLOGY: (60 hours)

1. Research Methodology: An Introduction
2. Defining the Research Problem
3. Literature: Search & Review
4. Research Design
5. Sampling Design
6. Measurement and Scaling Techniques
7. Methods of Data Collection
8. Processing and Analysis of Data
9. Sampling Fundamentals
10. Testing of Hypotheses-I (Parametric or Standard Tests of Hypotheses)
11. Analysis of Variance and Covariance
12. Testing of Hypotheses-II (Nonparametric or Distribution-free Tests)
13. Multivariate Analysis Techniques
14. Interpretation and Report Writing
15. The Computer: Its Role in Research

BIOSTATISTICS: (40 hours)

1. Definition and meaning of statistics & biostatistics.
2. Population, Samples, Sampling Procedures, Sampling techniques
3. Classification of data – Construction of frequency distribution table.
4. Presentation of data - diagrammatic and graphical presentations.
5. Measure of central tendency
6. Measures of dispersion
7. Correlation
8. Regression
9. Laws of statistical regularity, errors in sampling. Sampling distribution – parameters and tests.
10. Probability - applied, conditional; Probability distribution.

Suggested references:

- Hicks CM; Research Methods for Clinical Therapists; Churchill Livingstone, Edinburgh; 2002.
- Raveendran R, Gitanjali B; A Practical Approach to PG Dissertation; Jaypee brothers, New Delhi;1997.
- Rao KV; Biostatistics; Jaypee brothers, New Delhi; 2007.
- Norman GR, Streiner DL; Biostatistics The Bare Essentials; BC Decker Inc., Hamilton; 2000.
- Kothari CR, Grag G; Research Methodology, Methods & Terchniques; New Age International Publishers, New Delhi, 2004.

EDUCATION TECHNOLOGY

60 Hours

1. Education and Philosophies of education.
2. Concepts of teaching and learning – principles, maxims of teaching and techniques of teaching – simulated patient management demonstration
3. Instructional Media – Communication concept, display boards, overhead projector, slide projector, handouts, pamphlets, charts, photographs, models, specimens, tape recorder, video, computers, multimedia and selection of media principles.
4. Curriculum – types of curriculum, course objectives, course placement, time allotment, selection and organization of learning experience, Master plans and individual rotational plan, correlation of theory and practice, Hospital and community areas for clinical instruction, curriculum planning in Physiotherapy.
5. Guidance and Counselling – need for guidance, types of counseling, services for students and faculty.
6. Training to prepare lesson plans and conduct classes, prepare plan for assessment of students of physiotherapy (Proficiency test), practice selected skills through micro teaching, low cost teaching aids, hospital and community areas for instruction.
7. Continuing Education: Faculty development and development of personnel for Physiotherapy services.

Suggested references:

- Educational Technology – Kumar.K.L.
- Philosophy of Education – Krishnamoorthi J
- Textbook of Educational Technology – PanneerSelvam A; Sterling Publishers.

MANAGEMENT

30 Hours

1. Management: Definition, Principles & Functions of management; Classical theory – systems approach, contingency or situational approach.
2. Management process: Planning, Organising, Directing, Controlling, Decision making.
3. Personnel Management: Staffing, recruitment & selection, performance appraisal, collective bargaining, discipline, job satisfaction.
4. Total Quality Management: Basis of quality management – aids for quality control, quality assurance programme in hospitals, medical audit, and international quality systems.
5. Hospital as an organization: Types of hospitals, functions and special roles of hospital, hospital staffing, general, special & technical medical services, non-medical services of hospital.
6. Management in Physiotherapy: Organisational structure & Personnel management for physiotherapy practice.

Suggested references:

- Prasad LM; Principles & Practice of Management; Sultan Chand & Sons, New Delhi; 1989.
- Davies RL, Macaulay HMC; Hospital Planning and Administration; WHO, Geneva/ Jaypee Brothers, New Delhi; 1995.
- Nosse LJ, Friberg DG; Management Principles for Physical Therapists; Williams & Wilkins, Baltimore; 1992.

PHYSIOTHERAPEUTICS

160 hours

EXERCISE THERAPY: (80 hours)

- Applied Science of Exercise and Techniques:
Range of motion, Stretching, Resisted exercise, Principles of aerobic exercise, Exercise for balance & posture, Aquatic exercises, Training with functional devices.
- Joint Mobilisation Techniques
- Soft Tissue Mobilisation Techniques
- Current concepts in therapeutic modalities.

ELECTROTHERAPY: (80 hours)

- Biophysics of therapeutic electrical currents & therapeutic thermal modalities.
- Physiological effects & response to electrical & thermal stimuli.
- Electrophysiological tests.
- Therapeutic effects of electrical and thermal modalities
- Current concepts in therapeutic modalities

Suggested references

- Physical agents in rehabilitation by Cameroon
- Therapeutic Exercise: Foundations and Techniques by Carolyn Kisner and Lynn Allen Colby (W.B. Saunders Company, 2007)
- Therapeutic Exercise, Moving Towards Function by Carrie M. Hall and Lori Thein Brody (Lippincott Williams & Wilkins, 2004)
- Electrotherapy Explained Principles and Practice; John Low and Ann Reed; Butterworth Heinemann.

YOGA

30 hours

1. Introduction to Yoga - explanation of yoga, yoga as an art and science.
2. Branches of Yoga – Jnana yoga, hatha yoga, bhakthi yoga, mantra yoga, karma yoga.
3. The Yogic view of the human body - our five bodies, the nadis and the chakras
4. Stress Management through Yoga Therapy – concepts of stress and anxiety.
5. Ashtanga Yoga – also known as Raja Yoga, the eight limbs of Ashtanga- Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.
6. Yoga & Therapy – Yogic exercises for common ailments of muscles, joints, nervous and respiratory systems.

Suggested references:

- Ray D; Yogic Exercises; Jaypee Brothers, New Delhi; 1998.
- Patel; Yoga & Rehabilitation; Jaypee Brothers, New Delhi; 2008.

1. Moral and Ethics: Code of ethics, ethical analysis of moral problems, beliefs and orientation of people and community towards health and healthcare.
2. Basis of ethical practice:. Relationship between professions and professional groups, physiotherapist – patient relationship, Types of consent, referrals, over utilization and under utilization of physiotherapy services, Obligation and Responsibilities to patient.
3. Rights of patients, fee for service, confidentiality, information to patients.
4. Quality of professional service, peer review, continuing education, research, community work, social audit, record maintenance, other forms of quality assurance.
5. Practice - Hospital as an organization. Different services of a hospital, clinical and supportive services, community based practice, visits, and strategies of community work.

Suggested references:

- www.wcpt.org
- www.apta.org

Unit	Topic	Hours	Teaching Methods
I	<p>Overview of Anatomy & Physiology</p> <ul style="list-style-type: none"> • Reproductive Anatomy • Reproductive Physiology • Developmental Anatomy and Physiology 	10 10 5	<p>Didactic Lectures</p> <p>Seminar, Video</p> <p>Demonstrations, Self-directed learning</p>
II	<p>ASSESSMENT MODELS -Conceptual frame work for clinical practice:</p> <ul style="list-style-type: none"> • Models of practice-American Physical Therapy Association, American College of Obstetricians and Gynecologists, International continence society, American College of Sports Medicine. • Models of disablement- Negi model, National Center for Medical RehabilitationResearchDisablement Model model, WHO model • International Classification of Functioning , Disability and Health,components,format,Coding • Health belief model • Bio-psychosocial model • Hypothesis-oriented algorithm for clinical practice • Evidence based practice 	10	<p>Didactic Lectures</p> <p>Interactive discussion, Symposia Seminar</p>
III	<p>General Examination and evaluation in obstetrics</p> <ul style="list-style-type: none"> • Pregnancy tests • Diagnosis of pregnancy • High risk pregnancy • Methods of obstetric examination • Types of deliveries • Physical fitness, cardiac efficiency tests and spirometry • Methods of contraception 	15	<p>Didactic Lectures</p> <p>Interactive discussion, Case presentation</p>
IV	<p>Antenatal, labor, postnatal assessment</p> <ul style="list-style-type: none"> • Common musculoskeletal, neurological, vascular, cardiothoracic problems during pregnancy • Diastasis recti. • Posture, balance, gait, Breathing pattern, Pain • Sensory,motor system and functional activities • Joint mobility,tightness, deformity,contractures • Abdominal muscle power • Pelvic floor muscles • Bowel & bladder dysfunction- • Perineum • Anal sphincter • Episiotomy • Pressure and load transfer 	20	<p>Clinical orientation</p> <p>Demonstration</p> <p>Observation</p> <p>Case presentation</p>

V	Gynecological assessment <ul style="list-style-type: none"> • Menstrual irregularities • Diseases of genital tract • Uterine displacement • Genital prolapse • Uterine malformation • Uterine fibroid, ovarian tumors, Breast carcinoma • Pelvic inflammatory diseases, reproductive tract malignancies, • Hysterectomy – vaginal and abdominal • Genital tract injuries-<u>Perineal tear</u>, <u>Vesicovaginal fistula and recto-vaginal fistula</u> • Pelvic organ prolapse • Sexual abuse, rape, trauma, Sexually transmitted diseases 	20	Didactic Lectures Interactive discussion, Problem based learning Demonstration, seminar,symposia
VI	Newborn-Concept, goals, assessment, principles <ul style="list-style-type: none"> • High risk neonate • Low birthweight ,very low birth weight child and preterm infant • Intrauterine Growth Restriction • Birth injuries • Neonatal intensive care unit • Assessment and handling of newborn 	5	Didactic Lectures, Discussion, Problem based learning Observation, Demonstration
VII	Clinical diagnostic procedures <ul style="list-style-type: none"> • Foetal measure- clinical & biochemical parameters • Biophysical & Ultrasound imaging • Nonstress test,Contraction stress test, amnioscopy, foetoscopy, Radiological examination • Urodynamic tests • Bone density measures • Electromyography • Nerve conduction study • Pulmonary function tests • Exercise testing, fitness 	20	Didactic Lectures Observation, Videos
VIII	Urinary dysfunction Urogenital assessment, principles and interpretation- <ul style="list-style-type: none"> • Bladder diary, PERFECT scheme, Stress test, Post void residual measurement, Mid-stream stop test, Pad test, Paper towel test, Perineal and vaginal assesment, Frequency/volume chart, Perineometer 	20	Didactic Lectures Discussion, Demonstration

IX	Bowel and anorectal function and dysfunction examination ➤ Anal incontinence, Constipation, Anismus, Faecal incontinence, Anal sphincter dysfunction, Rectal prolapsed, Perianal and perineal pain, Proctalgia fuax, Pudendal nerve entrapment neuropathy, Pelvic organ, dyssynergia, vestibulitis, vulvodynia, Coccydynia. piriformis pain syndrome.	20	Clinical orientation Interactive Discussion, Demonstration, Seminars
X	Osteoporosis • Posture • Pain • Muscle power	4	Clinical orientation, Discussion, Demonstration
XI	Burns • Tightness, contractures, deformity • Heterotrophic ossification • Neuropathy	4	Didactic Lectures Discussion, Demonstration
XII	Psychological aspect of physical rehabilitation in relation to obstetrics and gynaecology • Anxiety, Depression, Post traumatic rehabilitation, Levels of pain, stress and tolerance, Psychosocial adaptation	5	Didactic Lectures Problem based learning
XIII	Recent advances in Obstetrics and Gynaecology Physiotherapy	12	Didactic Lectures, Journal articles presentation

SUGGESTED REFERENCES

1. Cunningham et al (2005) Williams Obstetrics –22nd Edition –McGraw Hill
2. Mudaliar & Menon’s Clinical Obstetrics (2005) S. Gopalan & Orient Longman
3. Guyton and Hall(2020) Textbook of Medical Physiology.14th Edition
4. Comprehensive Textbook of Medical Physiology (two volumes), by Dr. G. K. Pal, 2nd Edition, 2019, Jaypee Publications.
5. Cunningham’s manual of Practical Anatomy.

JOURNALS:

1. International Journal of Women's Health and Reproduction Sciences
2. Journal of orthopaedic and sports physical therapy
3. Cardiopulmonary physical therapy
4. Journal of Neurologic Physical Therapy

Unit	Topic	Hours	Teaching Methods
I	General concept & principles of Physiotherapy	10	Didactic Lectures, discussions.
II	Antenatal <ul style="list-style-type: none"> • Routine antenatal & Pre-conceptual care • Gestational diabetes mellitus and high risk pregnancy • Antenatal Exercises & Back care • Nutrition & Weight gain in pregnancy 	20	Clinical orientation, Didactic Lectures, Case based discussion, videos, Journal articles presentation
III	Physiotherapy during pregnancy in: <ul style="list-style-type: none"> • Neurological conditions: Nerve compression syndrome • Cardiovascular conditions: Varicose veins • Musculoskeletal conditions: Muscle cramps, pelvic girdle pain 	20	Clinical orientation, Didactic Lectures, Seminars
IV	Labour <ul style="list-style-type: none"> • Preparation-Coping skills: Relaxation, Breathing, Positions in labour, Massage in labour, Pain relief in labour-TENS, Third stage of labour 	10	Clinical orientation, seminars, Journal articles presentation
V	Post-natal <ul style="list-style-type: none"> • Obstetric anal sphincter injury-anal sphincter exercises, pelvic floor muscle exercises. • Postpartum physical/mental condition • Postnatal care, Baby massage • Perineal pain -Therapeutic agents • Immediate and long-term postnatal problems, Postnatal spinal pain • Early postnatal class, relaxation • Educational principles for individual learning of exercises, ergonomics • Postnatal home exercise, exercise classes in the community • Kegels exercise • Functional exercises, therapeutic modalities • Post operative pain management 	20	Clinical orientation, Symposia, demonstration, seminars, videos, interactive discussion, Journal articles presentation
VI	Breastfeeding: Ergonomics, Breast engorgement, Sore and cracked nipples	4	Clinical orientation, Case based discussion
VII	Psychological and emotional changes. <ul style="list-style-type: none"> • Fatigue, Abortion, Postnatal depression, Anxiety, Maternity or third day blues, Puerperal psychosis, Sexual problems 	4	Didactic Lectures, discussion Seminar Symposium

VIII	Physiotherapy in Gynecology disorders <ul style="list-style-type: none"> • Pelvic inflammatory disease, Endometriosis, Prolapse, Menstrual & Premenstrual disorders, Infertility, Polycystic ovarian syndrome, Vaginismus, Dyspareunia, Vulvodynia. 	20	Clinical orientation Journal articles presentation with recent articles
IX	Physiotherapy in Gynaecological surgery <ul style="list-style-type: none"> • Pre-operative, Post-operative, & Discharge advice 	10	Clinical orientation, demonstration.
X	Physiotherapy for women with special needs: <ul style="list-style-type: none"> • Women with physical disabilities, and female sexual dysfunction. • Disease processes with gender differences and increased prevalence in women-chronic fatigue syndrome; urinary tract infection, immune system disorders, • Post-menopausal problems-osteoporosis • Oncologic issues with women's health and lymphedema • Injuries to the pelvic region following accidents 	20	Clinical orientation, Problem based learning, Interactive discussion Clinical conference Seminar Symposium Journal articles presentation
XI	Urinary incontinence <ul style="list-style-type: none"> • Skills to acquire pertaining to prescription of Kegel exercises, wall exercises and Pelvic floor muscle rehabilitation: Sensory awareness, Visualization, Palpation, Auditory input, Muscle awareness, Verbal feedback, Self-examination, Functional retraining, Biofeedback, Interferential Therapy, Electrical stimulator, Manometry, Perineometer, Vaginal cones, Bladder retraining, Voiding training, Continence promoting advice, Treatment of incontinence. 	15	Clinical orientation, seminar, symposium, journal club, videos, charts
XII	Bowel and anorectal dysfunction <ul style="list-style-type: none"> • Defecation retraining, Positioning training, Stretches, Posture, Breathing patterns • Perianal and perineal pain syndromes: Biofeedback, Massage, Neuromuscular stimulator, Behaviour modification • Abdominal activity • Anal sphincter exercise • Neuromuscular electrical stimulation • Rectal sensitivity training, plugs, cone. 	15	Clinical orientation, Didactic Lectures, Problem based learning Journal articles presentation
XIII	Ethical, legal, professional values: <ul style="list-style-type: none"> • Ethical, legal, professional and valid consent in obstetrics and gynecology physiotherapy practice • Clinical practice guidelines for pelvic floor muscle examination 	4	Group activity Problem based learning Blended learning Journal articles presentation

XIV	<p>Community based rehabilitation: Interventions and teaching, learning methods in obstetrics and gynecology physiotherapy practice, Effective communication skills, counselling, health education skills and multidisciplinary teamwork.</p>	4	Self learning, Seminars, Community Field Visits
XV	<p>Advanced approaches in obstetrics and gynecology Physiotherapy practice</p> <ul style="list-style-type: none"> • Electrotherapeutic modalities, Aqua therapy, Exercise protocols, Surface electromyography, Dilators, Visceral mobilization, Trigger point release, Myofascial release, Positional release, Muscle energy techniques. 	4	Seminars, Symposia, Journal articles presentation

SUGGESTED REFERENCES

1. Sapsford, R., Bullock-Saxton, J., & Markwell, S. (1998). Women's health: A textbook for physiotherapists. London: WB Saunders.
2. Mantle, J., Haslam, J., Barton, S., & Polden, M. (2004). Physiotherapy in obstetrics and gynaecology. Edinburgh: Butterworth-Heinemann.
3. Rebecca G. Stephenson, Linda J. O' Connor. (2000). Obstetric and Gynaecologic Care in Physical Therapy. Slack Incorporated.
4. In Bø, K., In Berghmans, B., In Mørkved, S., & In Kampen, M. V. (2015). Evidence-based physical therapy for the pelvic floor: Bridging science and clinical practice. Churchill Livingstone.
5. Carolyn Kisner, Colby Allen Iynn (2012). Therapeutic Exercise Foundations and Technique. 5th Ed F.A. Davis Company.

JOURNALS

1. Journal of Women's Health Physical Therapy
2. Journal of Exercise Science and Physiotherapy
3. Physical therapy-APTA
4. Journal of Pediatrics, Obstetrics and Gynecology
