



D. Y. Patil University

Syllabus of MS Orthopedics

1. Basic Sciences Related to Locomotor system.
2. Development, histology of bone, cartilage, collagen, muscles and nerve.
3. Physiology of bone, cartilage, muscle & nerve.
4. Surgical pathology related to bones, cartilage, muscle, collagen & nerve in various congenital affections, infections, Tumours and tumorous conditions and metabolic affections.
5. Orthopaedic diseases
 - Metabolic bone disease
 - Bone infections – Acute and Chronic
 - Congenital deformities and development conditions of upper extremity, lower extremity, spine general defects.
 - Diseases of joints
 - Tumours of Bones
 - Orthopaedic Neurology including spine bifida, Poliomyelitis and cerebral palsy.
 - Diseases of muscle, fibrous tissue and vessels
 - Regional orthopaedic conditions related to neck, shoulder, elbow, wrist, hand, hip, knee, ankle, foot, back and pelvis.
 - Special subject – Amputation and disarticulation physiotherapy and rehabilitation Recent advances in orthopedic diseases.

Orthopedic Radiology

Basics of :-

- a) Plain X-ray, Bones, Spine, Pelvis, Joints etc.
- b) USG – Musculoskeletal & Joints etc.
- c) C.T. – Plain, Contrast, Enhanced CT, CT myelo, PET, CT.
- d) MRI
- e) Colour Doppler



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- f) Radio isotope Scanning – Bone scan, MIBG, Role in tumors infections,
 - i. Metabolic & hematological conditions.
 - ii. Endocrinal Disorders
 - iii. Hereditary Disorders
 - iv. Endoscopy
 - v. Computer Assisted procedures
 - vi. Materials used in Orthopaedics
 - vii. Legal perspectives of practice (M.L.C) Nursing home acts, labour laws, waste disposal, various certificates – M.L.C & Disability percentage.
 - viii. Infection control, theatre disciplines
 - ix. Doctor patient relationship
 - x. Doctor as an administrator, hospital management.
 - xi. Maintenance of instruments and equipments.
6. General principles of Surgery and Traumatology.
 - Wound healing
 - Fracture healing
 - Rehabilitation after bone and joint injuries
 - Systematic response to injury
 - Acute trauma care and early management of injured
 - Injury to head, face, chest, abdomen, vessels & nerves.
 - Polytrauma
 - Fracture & dislocations in all bones and joints including diagnosis, classifications, various modalities of investigation and operative nonoperative treatment including complications.
 - Fractures in children
 - Pathological fractures
 - Recent Advance in various fractures and complications management.
7. Exposure to surgical techniques & surgical approaches to various regions to manage common infection, tumor, joint diseases, different type of trauma, congenital, neurological and miscellaneous conditions.



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8. Principles of Arthroscopy microsurgery & Arthroplasty.
9. Orthotics & Prosthetics, disability calculation, Bio-mechanics of gait, splints.
10. Thesis – Aim is to train the PG student in research work. Topics should be in experimental, clinical, retrospective analysis or combination such that students is encouraged to do exhaustive reference work. Topics should be relevant to subject and region of work.
11. Under Graduate teaching in clinical methods.
12. Seminar presentation on common topics.
13. Journal reading and discussion.
14. Case presentation, ward record maintenance.
15. Adequate experience in closed reduction of various fractures, as listing major Operation, independent operative management of common orthopedic condition.
16. Preparation of paper for presentation in conference.
17. Preparation of article for publication.



UNIVERSITY EXAMINATIONS

After successful completion 3 Years' residency

Theory Examination: Each paper 100 marks – 3 hrs duration

	Sections with marks
Paper I	Basic and applied sciences as related to Orthopedics 4 Sections, each having two questions: 'A' (13 marks), and 'B' (12 marks) Total = 100 marks
Paper II	Orthopaedics Traumatology 4 Sections, each having two questions: 'A' (13 marks), and 'B' (12 marks) Total = 100 marks
Paper III	Orthopedics diseases 4 Sections, each having two questions: 'A' (13 marks), and 'B' (12 marks) Total = 100 marks
Paper IV	Essay questions. 5 Questions of 25 marks each, out of which 4 questions have to be attempted Total = 100 marks
	TOTAL THEORY = 400

Minimum passing marks in each head 40% and aggregate: 50% in all papers

Practical Examination:

	Description	Marks	Preparation time	Assessment time
Long Cases (One)	1 long case	150	45 min	20 min
Short Cases (Three)	3 short cases	50 each = 150	15 min each	10 min
Viva (Four Tables)	A) Instrument = 15 Marks B) X-rays = 15 Marks C) Operation = 15 Marks D) Specimen & bones = 15 Marks E) Ward round = 40 Marks	100		5 min each.
	TOTAL PRACTICAL	400		

Minimum passing marks: 50% separate in clinical and viva