

Lesson plan

Name of the Faculty : Rajesh Kumar

Discipline : DMLT

Semester : 4th

Subject : IMMUNOPATHOLOGY AND CYTOLOGY

Lesson Plan Duration : 15 weeks

Work load (Lecture / practical) per week (n hours) = Lecture= 03, Practical=04

Week	Theory	Topics (inculding assignment/test)	Practical	Topic
	Lecture day		Practical Day	
1	1	Principle, significance and interpretation of PAS (Periodic Acid Schiff's Reagent)	1	Demonstration of cryostat (brochures and charts can be used)
	2	Principle, significance and interpretation of - Silver impregnation stain		
	3	Principle, significance and interpretation of Reticulin fibre		
2	4	Principle, significance and interpretation of Ziehl Neelson's – for AFB and Leprae	2	Processing of tissue for frozen section
	5	Principle, significance and interpretation of Masson's trichrome stain		
	6	Principle, significance and interpretation of		
3	7	Principle, significance and interpretation of	3	Staining and mounting of frozen section using H&E
	8	Definition of Decalcification		
	9	Process of decalcification		
4	10	Various types of decalcifying methods, Their mechanism, advantage, disadvantage and applications	4	To stain paraffin embedded section for the demonstration of reticulin fibers by Silver
	11	Assessment of decalcification		
	12	Handling of fresh histological tissues		
5	13	Reception of frozen tissue	5	To stain paraffin embedded section using Oil Red "O"
	14	processing of frozen tissue		
	15	Freezing microtome and cryostat		
6	16	Advantages and dis-advantages of freezing	6	Preparation of Kaiserling's solution I and II for
	17	Working, care, maintenance of freezing		
	18	Frozen section cutting		
7	19	Staining - Rapid H&E - Fat stain, Mounting of	7	Preparation of various mounting reagents for
	20	Introduction to museum with emphasis on		
	21	Reception, fixation and processing of various		
8	22	Cataloguing of museum specimen	8	Processing and Labeling of various museum
	23	Introduction to autopsy technique		
	24	Care and maintenance of autopsy area,		
9	25	handling of dead bodies and various use of	9	Demonstration and care of autopsy instruments
	26	Unit test		
	27	Assignment		
10	28	Principle of FNAC (Fine Needle Aspiration)	10	Preparation of dry smear and wet smear
	29	Procedure of FNAC		
	30	Indications of FNAC		
11	31	Uses of FNAC	11	To perform PAP stain
	32	Principle, Technique & Interpretation of PAS		
	33	Principle, Technique & Interpretation of Zeihl		
12	34	Advancements in Cytology	12	Fixation of smears and staining
	35	Assignment		

	36	Automation in Cytology		with MGG
13	37	Use of Cytospin	13	To perform Harmonal Assessment
	38	Harmonal Assessment		
	39	Importance of HCG		
14	40	Use of Harmonal Assessment (Pregnancy	14	To perform PAS staining method of cytological sample
	41	Revision of unit I		
	42	Class test		
15	43	Revision of unit II	15	To perform ZN staining method of cytological sample
	44	Cytological Special Stains		
	45	Assignment		