

Lesson Plan

Name of the Faculty : Monika
 Discipline : Medical Lab Technology
 Semester : 4th
 Subject : Immunopathology & Cytology

		Theory	
Lecture day	Tentative date of lect.	Topic (including assignment test)	Topic
1 st		Principles of light microscope	1. Demonstration of various parts of light microscope (Mechanical & Optical)
2 nd		Various parts of microscope	
3 rd		Uses of microscope	
4 th		Cleaning and maintenance of microscope AND Various attachments of compound microscope (principle only)	2. Demonstration of cryostat (brochures and charts can be used)
5 th		-Polarizing microscopy	
6 th		-Darkfield microscopy	
7 th		-Phase contrast microscopy	3. Processing of tissue for frozen section
8 th		-Fluorescent microscopy	
9 th		-Electron microscopy	
10 th		Principle, significance and interpretation of different types of stains -PAS	4. Staining and mounting of frozen section using H&E stain (rapid method), Oil Red "O".
11 th		-Silver impregnation stain – Reticulin fibre	
12 th		-Ziehl Neelson's – for AFB and Leprae	
13 th		-Masson's trichrome stain	5. Preparation of various mounting reagents for use on specimens
14 th		-Oil Red O – fat	
15 th		-Gram's stain – Gram +ve and Gram –ve	
16 th		Decalcification – Process of decalcification	6. Demonstration and care of autopsy instruments
17 th		Various types of decalcifying methods	
18 th		Their mechanism, advantage, disadvantage and applications	
19 th		Assessment of decalcification	7. Demonstration of malignant cell
20 th		Handling of fresh histological tissues 4.1 Reception and processing of frozen tissue Freezing microtome and cryostat	
21 st		Advantages and disadvantages of freezing microtome and cryostat	

		Working,care,maintenanceoffreezing	
		microtomeandcryostat	
22 nd		Frozensctioncutting Staining - RapidH&E - Fatstain Mountingoffrozensction	8. Preparationofdrysmeearandwets mear
23 rd		Introductiontomuseumwithemphasison importanceofmuseum	
24 th		Reception,fixationandprocessingofvarious museumspecimens	
25 th		Cataloguingofmuseumspecimen	9.To performPapstain
26 th		Autopsy -Introduction to autopsy technique(Care and maintenance of autopsy area,autopsyinstruments,handlingofdeadbodie s)Useofautopsy	
27 th		MalignantCellsCharacteristics Differencesfromnormalcell	
28 th		HarmonalAssessment Importance ofHCG UseofHarmonalAssessment(PregnancyT est)	10.Fixationofsmearsandstai ningwithMGG
29 th		PrincipleofFNAC(FineNeedleAspiration Cytology)	
30 th		IndicationsofFNACUsesofFNAC	
31 st		- PAPStain - MGG	REVISION
32 nd		Principle,Technique&InterpretationofPAS	
33 rd		ZeihlNeelson's(ZN)Stain(AFB)	
34 th		AdvancementsinCytology-Automationin Cytology, UseofCytospin	Revision
35 th		Revision	
36 th		Revision	
37 th		Revision	Revision
38 th		Revision	
39 th		Revision	
40 th		Revision	Revision
41 st		Revision	
42 nd		Revision	
43 rd		Revision	Revision
44 th		Revision	
45 th		Revision	

