Lesson Plan

Discipline: DMLT

Semester: 3rd semester

Subject: Histopathology & cytology

Lesson Plan Duration: **15 weeks (from Aug, 2024)**

Week	Theory		Practical	
	Lecture Day	**Topic (including assignment / test)**	**Practical Day**	**Topic**
1st	1	Introduction of histo & histopathology	1	Reception of specimen
	2	Defination of histology,histopathology	2	Labeling of specimen
	3	Introduction & definition of autopsy, biopsy,putrefaction & autolysis		Preserving of specimen
2nd	4	Introduction of Tissue preparation	3	Preparation of imprint smear
	5	Defination of unfixed Tissue preparation	4	Prereration of teased smear
	6	Introduction & method of Imprint method		Preparation of different fixatives
3rd	7	Methods of Teased preparation	5	Repetation of practical
	8	Defination & method of Squashed preparation	6	Repetation of practical
	9	Method of frozen section		Preserving of specimen
4th	10	Revision	7	**Preparation of formaline based fixatives**
	11	Introduction of fixed tissue preparation	8	Preparation of paraffin blocks
	12	Introduction of paraffin embedding		Repetation of practical
5th	13	Method of paraffin embedding	9	Preparation with various tissue pieces of paraffin blocks
	14	Introduction of celloidin embedding	10	Labeling of paraffin blocks
	15	Procedure & method of celloding embedding		Repetation of practicals
6th	16	Introduction of gelatin embedding	11	Practical test
	17	Class test	12	Parts of microtome and demonstration

	18	Introduction of reception & recording of histological specimen		Handling of microtome
7th	19	Labeling and preservation of histological specimen	13	Repetation of preparation of fixatives
	20	Introduction of fixation	14	Demonstration of microtome knive
	21	Classification of fixatives		Sharpening of microtome knives
8th	22	Composition of Fixatives	15	**Repetation of microtome handling**
	23	Advantage and disadvantage of fixatives	16	Demonstration of Care and maintence of microtome
	24	Procedure of paraffin technique		Preparation of blocks

1st	1	Revision	1	Preparation of blocks for fine cutting
	2	Defination & procedure of dehydration	2	Preparation of blocks for rough cutting
	3	Introduction of infilteration & impregnation		Repetation of practical
2nd	4	Procedure of Paraffin Embedding	3	Test of preparation of fixatives
	5	Class test	4	Trimming of blocks
	6	Introduction of Automation		Practice of fine cutting section
3rd	7	Defination of Histokinete	5	Repetation of practical
	8	Types and principal of histokinete	6	Repetation of practical
	9	Care and maintenance of automatic tissue processor		Repetation of practical
4th	10	Introduction of microtome	7	Practice of lifting of section on the slides
	11	Types of microtome	8	Repetation of practical
	12	Contd. (above)		Repetation of practical
5th	13	Advantages & disadvantages of Microtome	9	Perfoming H&E staining on sections
	14	Revision	10	Repetation of practical
	15	Revision		Perform mounting of tissue sections
6th	16	Working and principal of microtome	11	Test of fine cutting
	17	Care and maintenance of microtome	12	Repetation of fine cutting
	18	Introduction of Microtome knives		Repetation of mounting of tissue sections

7th	19	Class test	13	Demonstration of cell in buccal smear
	20	Class test	14	Repetation of practical
	21	Types of Knives		Repetation of practical
8th	22	Procedure of sharpening of knives	15	Demonstration of cell in urine sample
	23	Introduction of honing technique	16	Test of H&E staining on sections
	24	Procedure of honing technique		Repetation of H&E staining on sections
9th	25	Introduction of stropping technique	17	Processing of urine sample for malignant cells
	26	Introduction of automatic knives sharpener	18	Repetation of practical
	27	Uses and care,maintence of automated knives sharpner		Repetation of practical
10th	28	Uses of abrasive & lubricants	19	Repetition of Practicals
	29	Introduction of disposable knives	20	Processing of sputum sample for malignant cytology
	30	Advantages and disadvantages of disposable knives		Repetation of practical
11th	31	Introduction of section cutting	21	Test of honing technique for sharpening microtome knives
	32	Defination of rough cutting	22	Repetation of sputum sample for malignant cytology
	33	Defination of fine cutting		Perform PAP Stain
12th	34	Uses of tissue floatation bath	23	Repetation of practical
	35	Introduction and uses of adhesive media	24	Repetation of practical
	36	Procedure of lifting of sections to the slide		Perform MGG stain
13th	37	Introduction pf Errors or cutting faults in sections	25	Repetation of practical
	38	Principle & Procedure of estimation of various methods.	26	Test of PAP staining on given smears
	39	Defination of fixation for cytological specimen		Perform H&E stain
14th	40	Types of fixatives for cytological specimen	27	Repetation of practical
	41	Advantages and disadvantages of fixatives for cytological specimen	28	Test of MGG stain on given smear
	42	Introduction of cytological stainings		Repetation of PAP staining
15th	43	Principal and technique of cytological	29	Repetition Of H&E staining

		stainings		
	44	Discuss about Role of laminar airflow In cytology	30	Demonstration of various automation use by brochures.
	45	Introduction of cytotechnician and role in cytology		Demonstration of various automation use by charts