



UNIVERSITI TEKNOLOGI MARA

MLT517: GYNAECOLOGIC CYTOPATHOLOGY

Course Name (English)	GYNAECOLOGIC CYTOPATHOLOGY APPROVED
Course Code	MLT517
MQF Credit	3
Course Description	This course provides a sound understanding of gynaecologic cytopathology as a clinical laboratory science discipline. It discusses techniques used to prepare and stain cells obtained from the human body to be studied microscopically towards the diagnosis of various diseases state. The theory and practical components enhance the student's competence in the interpretation of cytology specimens.
Transferable Skills	Hands-on, Analytical skill, Time management, Problem-solving
Teaching Methodologies	Lectures, Case Study, Practical Classes, Presentation
CLO	CLO1 Distinguish the theoretical and principle concept of gynaecologic cytopathological CLO2 Display the practical skill in processing gynaecologic cytopathological CLO3 Interpret the cytomorphological features of the normal, inflammation and malignancy in gynaecologic cytopathological
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction to cytology. 1.1) Describe the history of cytology. 1.2) Review Laboratory Safety. Guidelines for storing and handling chemicals and electrical equipment. 1.3) Infectious hazards especially on the prevention of the transmission of HIV Work-flow of the cytology laboratory. 1.4) Reception and proper handling of Pap smear slide. 1.5) Apply the theory and practice of Pap stain. 1.6) Analysed the assessment of smear quality. 1.7) List the common artefacts and contaminants in Pap smear	
2. Female Genital Tract (FGT). 2.1) Anatomy of Female Genital Tract. 2.2) Histology correlation of female Genital Tract. 2.3) Squamo-columnar junction. 2.4) Cytology of the Normal Female Genital Tract (FGT). 2.5) Stratified Squamous Epithelium (superficial, intermediate, parabasal). 2.6) Columnar Epithelium (endocervical and endometrial) . 2.7) Non-epithelial cells (wbc, rbc, histiocytes). 2.8) Hormonal Cytology (progesterone, estrogen) Vaginal Cytology Effect of Hormone on Epithelium and Smear Cytohormonal evaluation from new-born, puberty, reproductive age, and post-menopause.	
3. The Bethesda reporting system 3.1) Type of sample adequacy. 3.2) Interpretation of results Negative for intraepithelial lesion or malignancy. 3.3) Organism present Other non-neoplastic finding. 3.4) Epithelial cell abnormalities. 3.5) Squamous cell Glandular cell. 3.6) Comment Suggestion	

4. Concept of carcinogenesis.

- 4.1) Cervical cancer Relation between cervical cancer and human papilloma virus (HPV).
- 4.2) The virology of HPV.
- 4.3) The natural pathophysiology of HPV infection.
- 4.4) Epidemiology.
- 4.5) High risk HPV.
- 4.6) Other risk factors for cervical cancer

5. Cytomorphology.

- 5.1) Normal epithelial cells of female genital tract.
- 5.2) Reserve cell hyperplasia and squamous metaplasia.
- 5.3) Inflammation, degeneration, and regeneration.
- 5.4) Radiation and chemotherapy changes.
- 5.5) Hormone status: normal and abnormal pattern
- 5.6) Microbiology of the FGT and viral cytopathological changes.
- 5.7) Neoplasia: general features and an understanding of the process.

6. Cytomorphology and histopathological basis

- 6.1) Cervical intraepithelial neoplasia (CIN) / squamous intraepithelial lesion (SIL).
- 6.2) Micro invasive and invasive squamous carcinoma of the uterine cervix.

7. Cytomorphology and histopathological basis

- 7.1) Adenocarcinoma and glandular abnormalities.
- 7.2) Explain the principle of investigation and management of patient with abnormal cervical smears.

8. Liquid-based cytology.

- 8.1) Explain the theory and practices of liquid based cytology.
- 8.2) Describe the differences in cytomorphology appearances between conventional smear and liquid-based cytology

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Online discussion forum (ODF) is a web-based application that brings students together to share the theoretical and practical knowledge of gynaecologic cytopathology to emphasize "critical thinking and problem solving".	20%	CLO3
	Presentation	A creative presentation interpreting gynaecologic cytopathological samples to emphasize "critical thinking and problem solving".	30%	CLO3
	Test	Test related to the theoretical concept of gynaecologic cytopathological knowledge to emphasize the attribute of 'knowledge'.	25%	CLO1
	Test	Test related to the practical concept of gynaecologic cytopathological knowledge to emphasize the attribute of 'knowledge'.	25%	CLO2

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Gabrijela Kocjan, Winifred Gray, Tanya Levine, Ika Kardum-Skelin, Philippe Vielh 2013, <i>Diagnostic Cytopathology Essentials</i>, Churchill Livingstone [ISBN: 9780702044502] • Sudha R. Kini 2011, <i>Color Atlas of Differential Diagnosis in Exfoliative and Aspiration Cytopathology</i>, Lippincott Williams & Wilkins [ISBN: 9781608312757] • Marluce Bibbo, David C. Wilbur 2008, <i>Comprehensive Cytopathology</i>, Saunders [ISBN: 9781416042082] • Diane Solomon, Ritu Nayar 2004, <i>The Bethesda System for Reporting Cervical Cytology</i>, Springer Science & Business Media [ISBN: 0387403582]

Article/Paper List	This Course does not have any article/paper resources
Other References	<ul style="list-style-type: none"> • Website Hologic Inc 2019, <i>Cytologystuff</i>, Hologic Inc, Marlborough, USA https://cytologystuff.com/