



**FACULTY OF HEALTH SCIENCES AND SPORTS**  
**BACHELOR OF SCIENCE IN BIOMEDICAL TECHNOLOGY (MEDICAL LABORATORY TECHNOLOGY)**  
**LEARNING MODULE OUTLINE**

Academic Year	2023/2024	Semester	I
Module Code	BSHP3101		
Learning Module	Histopathology(組織病理學)		
Pre-requisite(s)	BSPP1102 - Pathophysiology		
Medium of Instruction	Cantonese & English		
Credits	5	Contact Hours	75
Instructor	葉玉清 YIP Yuk Ching 肖剛 XIAO Gang 陳建勇 CHAN Kin long 韋潔貞 WAI Kit Cheng (Consultant in path.) 古杰鳴 KU Kit Meng 冼麗芳 SIN Lai Fong	Email	<a href="mailto:T1041@mpu.edu.mo">T1041@mpu.edu.mo</a> <a href="mailto:T1148@mpu.edu.mo">T1148@mpu.edu.mo</a> <a href="mailto:T1417@mpu.edu.mo">T1417@mpu.edu.mo</a> <a href="mailto:T1418@mpu.edu.mo">T1418@mpu.edu.mo</a> <a href="mailto:T1224@mpu.edu.mo">T1224@mpu.edu.mo</a> <a href="mailto:T1567@mpu.edu.mo">T1567@mpu.edu.mo</a>
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**MODULE DESCRIPTION**

Histopathology is a bridging discipline involving both basic science and clinical practice and devoted to the study of the structural and functional changes in cells, tissues and organs that underlie disease. Histopathology explains the whys and wherefores of the signs and symptoms of the patients and provides a sound foundation for rational clinical care and therapy.

As other medical courses, the study of histopathology consists of two parts: lectures and laboratory work. The purpose of laboratory work is mainly to integrate theoretical knowledge with practical work and to train the ability of observing the structures of cells, tissues and organs with microscope. Cytology and some relevant pathological techniques will also be highlighted in the courses.



## MODULE INTENDED LEARNING OUTCOMES (ILOS)

On completion of this learning module, students will be able to:

M1.	Grasp light microscopic structures and function of the human tissues.
M2.	Grasp etiology and pathogenesis of disease
M3.	Grasp morphological changes of disease.
M4.	Understand the principles of technology and methodology of histopathology research

These ILOs aims to enable students to attain the following Programme Intended Learning Outcomes (PILOs):

PILOs	M1	M2	M3	M4
P1. To demonstrate understanding of a range of subjects, fields, principles and approaches relevant to medical laboratory technology	✓			
P2. To demonstrate understanding of theories, analytical approaches and practices that underpin medical laboratory operations and management				✓
P3. To demonstrate understanding of major trends and issues related to medical laboratory technology		✓	✓	
P4. To apply professional knowledge and skills to analyse, interpret and solve problems, challenges and risks in medical laboratory practice				
P5. To critically appraise and interpret scientific and clinical literature and apply evidence-based practice				
P6. To acquire and apply research skills in medical laboratory technology				
P7. To demonstrate effective communication and teamwork skills				
P8. To maintain professional and ethical standards in medical laboratory practice and research				

## MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
1st	1.Introduction to histopathology, technology and methodology of pathology research (1)	3
2nd	2.Connective tissue and muscle tissue	3
2nd	3.Urinary and endocrine system	3
3rd	4.Circulatory and immune system	3
3rd	5.Respiratory and nerve system	3
4th	6.Female reproductive system	3
4th	7.Damage and repair of cells and tissue, Neoplasm 1	3
5th	8.Epithelial tissue and Digestive system	3



5th	9. Practice (Pathological technology) in Path. Dept. of Kiang Wu hospital 1	3
6th	10. Practice (Histology & Cytology) in Path. Dept. of Kiang Wu hospital 2	3
6th	11.Inflammation	3
7th	12.Middle exam	3
8th	13.Hemodynamic Disorders	3
8th	14.Neoplasm 2	3
9th	15.Common diseases of respiratory and nerve system, application of relevant pathology technology	3
9th	16.Common diseases of digestive system, application of relevant pathology technology	3
10th	17.Common diseases of urinary system, application of relevant pathology technology	3
11th	18.Technology and methodology of pathology research (2)	3
11th	19.Common infectious diseases, application of relevant pathology technology	3
12th	20.Common endocrine diseases, cytopathology (1)	3
12th	21.Common diseases of cardiovascular system, application of relevant pathology technology	3
13th	22.Common diseases of Reproductive system, application of relevant pathology technology	3
13th	23.Cytopathology ( 2 )	3
14th	24.Cytopathology ( 3 )	3
14th	25Lesson review Final exam	3

## TEACHING AND LEARNING ACTIVITIES

In this learning module, students will work towards attaining the ILOs through the following teaching and learning activities:

Teaching and Learning Activities	M1	M2	M3	M4
T1. Introduction to histopathology, technology and methodology of pathology research (1)	✓			
T2. Connective tissue and muscle tissue	✓			
T3. Urinary and endocrine system	✓			



T4. Circulatory and immune system	✓			
T5. Respiratory and nerve system	✓			
T6. Female reproductive system	✓			
T7. Damage and repair of cells and tissue, Neoplasm 1		✓		
T8. Epithelial tissue and Digestive system	✓			
T9. Practice (Pathological technology) in Path. Dept. of Kiang Wu hospital 1				✓
T10. Practice (Histology & Cytology) in Path. Dept. of Kiang Wu hospital 2				✓
T11. Inflammation		✓		
T12. Middle exam	✓	✓	✓	✓
T13. Hemodynamic Disorders		✓		
T14. Neoplasm 2		✓		
T15. Common diseases of respiratory and nerve system, application of relevant pathology technology			✓	✓
T16. Common diseases of digestive system, application of relevant pathology technology			✓	✓
T17. Common diseases of urinary system, application of relevant pathology technology			✓	✓
T18. Technology and methodology of pathology research (2)				✓
T19. Common infectious diseases, application of relevant pathology technology			✓	✓
T20. Common endocrine diseases, cytopathology (1)			✓	✓
T21. Common diseases of cardiovascular system, application of relevant pathology technology			✓	✓
T22. Common diseases of Reproductive system, application of relevant pathology technology			✓	✓
T23. Cytopathology (2)			✓	✓
T24. Cytopathology (3)			✓	✓
T25. Lesson review Final exam	✓	✓	✓	✓



## ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing Bachelor's Degree Programmes of the Macao Polytechnic University. Students who do not meet the attendance requirements for the learning module shall be awarded an 'F' grade.

## ASSESSMENT

In this learning module, students are required to complete the following assessment activities:

Assessment Activities	Weighting (%)	ILOs to be Assessed
A1. Middle exam	35	M1-M4
A2. Final exam	55	M1-M4
A3. Attendance & Practice in Path. Dept. of Kiang Wu hospital	10	M4

This learning module is graded on a 100 point scale, with 100 being the highest possible score and 50 being the passing score.

Any students scoring less than 35% of the total mark in the final examination will be given an "F" grade for the module even if the overall grade is 50% or higher.

The assessment will be conducted following the University's Assessment Strategy (see [www.mpu.edu.mo/teaching\\_learning/en/assessment\\_strategy.php](http://www.mpu.edu.mo/teaching_learning/en/assessment_strategy.php)). Passing this learning module indicates that students will have attained the ILOs of this learning module and thus acquired its credits.

## MARKING SCHEME

Assessment Activities	Assessment Criteria	Mark Ranges				
		88-100	73-87	58-72	50-57	<50
A1. Class learning activities	Demonstrate the understating of the subjects covered in classes and show active learning attitude	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A2. Practice (Pathological technology and Cytology)	Demonstrate the understanding of the technology and show active learning attitude	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A3. Mid-term test and Final examination	Demonstrate the ability to identify and apply appropriate concepts, methods and techniques	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A4. Others	others	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels



## REQUIRED READINGS

Zou zhongzi. (2013). Histology and embryology. Eighth edition. Beijing: People's Medical Publishing House.

高等醫學教材：組織學與胚胎學主編：鄒仲之 第八版人民衛生出版社（2018）

Li yulin. (2018). Pathology. Eighth edition. Beijing: People's Medical Publishing House.

高等醫學教材：病理學主編：李玉林 第八版人民衛生出版社（2018）

## REFERENCES

1. Wheate's Functional Histology A text and colour atlas sixth Edition 2013
2. Robbins and Cotran Pathologic basis of disease 9th Edition international edition 2010
3. The Bethesda system for reporting cervical cytology 3rd Edition 2015
4. Histology for pathologists 4th Edition 2012 Lippincott Williams & Wilkins
5. Muir's textbook of pathology fifteenth Edition 2014. Essentials of Anatomic Pathology 3rd Edition 2011
7. Koss's diagnostic cytology 5<sup>th</sup> Edition 2005

## STUDENT FEEDBACK

At the end of every semester, students are invited to provide feedback on the learning module and the teaching arrangement through questionnaires. Your feedback is valuable for instructors to enhance the module and its delivery for future students. The instructor and programme coordinators will consider all feedback and respond with actions formally in the annual programme review.

## ACADEMIC INTEGRITY

The Macao Polytechnic University requires students to have full commitment to academic integrity when engaging in research and academic activities. Violations of academic integrity, which include but are not limited to plagiarism, collusion, fabrication or falsification, repeated use of assignments and cheating in examinations, are considered as serious academic offenses and may lead to disciplinary actions. Students should read the relevant regulations and guidelines in the Student Handbook which is distributed upon the admission into the University, a copy of which can also be found at [www.mpu.edu.mo/student\\_handbook/](http://www.mpu.edu.mo/student_handbook/).