

# FACULTY OF HEALTH SCIENCES AND SPORTS BACHELOR OF SCIENCE IN BIOMEDICAL TECHNOLOGY (PHARMACY TECHNOLOGY) LEARNING MODULE OUTLINE

Academic Year	2024-2025	Semester	2
Module Code	BSTP4102		
Learning Module	Thesis II (專題習作 II)		
Pre-requisite(s)	Nil		
Medium of Instruction	Chinese / English		
Credits	4	Contact Hours	60
Instructor	Lao Cheng Kin, Chatmann Kuok Chiu Fai, Kenny Yi Tao, Aaron	Email	cklao@mpu.edu.mo (module coordinator)
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## **MODULE DESCRIPTION**

This module requires students to have an in-depth understanding of a specific topic of pharmacy practice or pharmaceutical science. Students will critically review relevant research reports and medical literature to get a thorough understanding of the core issues. Students will be required to implement a research proposal and perform data collection and analysis accordingly. Students will give a formal presentation of their research findings. Each student will need to submit a thesis at the end of the module.

# **MODULE INTENDED LEARNING OUTCOMES (ILOS)**

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

M1.	apply critical thinking skills to identify, analyse and evaluate relevant issues and challenges in pharmacy practice or pharmaceutical science.
M2.	demonstrate awareness and sensitivity to the ethical, social and professional implications of current and emerging trends in pharmacy practice or pharmaceutical science.
M3.	use evidence-based methods to review, synthesise and critique existing literature and research on pharmacy practice or pharmaceutical science.
M4.	formulate action plans to address gaps, problems or opportunities for improvement or innovation in pharmacy practice or pharmaceutical science
M5.	write clear, coherent and persuasive research reports that adhere to academic conventions and standards of publication.



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

PILC	PILOs			М3	M4	M5
P1.	To demonstrate understanding of a range of subjects, fields, principles and approaches relevant to pharmacy technology	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>✓</b>
P2.	To demonstrate understanding of theories, analytical approaches and practices that underpin pharmacy operations and management	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	
P3.	To demonstrate understanding of major trends and issues related to pharmacy technology	<b>√</b>	<b>√</b>	✓	✓	
P4.	To apply professional knowledge and skills to analyse, interpret and solve problems, challenges and risks in pharmacy practice	<b>√</b>	<b>✓</b>	✓	<b>√</b>	<b>✓</b>
P5.	To critically appraise and interpret scientific and clinical literature and apply evidence-based practice	<b>✓</b>		<b>\</b>		
P6.	To acquire and apply research skills in pharmacy technology	<b>✓</b>	<b>√</b>	>	✓	✓
P7.	To demonstrate effective communication and teamwork skills					✓
P8.	To maintain professional and ethical standards in pharmacy practice and research	<b>✓</b>	<b>√</b>	✓	<b>√</b>	<b>✓</b>

# MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
0-2	Develop and refine the research plan and prepare the necessary materials for conducting the research	5
3-11	<ul> <li>Conduct the research data collection</li> <li>Follow the research plan to collect relevant and valid data</li> <li>Apply appropriate methods and tools to analyze the data and interpret the results</li> </ul>	35
12-15	<ul> <li>Communicate the project findings effectively</li> <li>Present and defend the project findings in a clear and convincing manner</li> <li>Write the final thesis in a coherent and professional style, following the academic standards and guidelines</li> </ul>	20

# **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			М3	M4	M5
T1. Case Studies	✓	✓	✓	✓	
T2. Literature Reviews Tutorials	✓	✓	✓	✓	
T3. Group Discussions	✓	✓	✓		
T4. Peer Feedback and Review	✓	✓	✓	✓	
T5. Writing Research Report Workshops					✓
T6. Use multimedia resources (videos, podcasts, or online resources) to share research experiences on different field of research.	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	



## **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. Group score - Presentation of project findings (graded by thesis evaluation committee, including an external evaluator)	50	M1, M2, M3, M4, M5, M6
A2. Individual score 1 - Thesis (graded by group teacher)	40	M1, M2, M3, M4, M5
A3. Individual score 2 - Peer evaluation	10	M2

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

This module does not include a final examination or re-sit examination.

The assessment will be conducted following the University's Assessment Strategy (see <a href="https://www.mpu.edu.mo/teaching\_learning/en/assessment\_strategy.php">www.mpu.edu.mo/teaching\_learning/en/assessment\_strategy.php</a>). Passing this learning module indicates that students will have attained the ILOs of this learning module and thus acquired its credits.

## **MARKING SCHEME**

High grades will be awarded to work that demonstrates exceptional understanding and mastery of the subject matter and consistently exceeding expectations. The followings are the general assessment criteria for the assessment activities.

Assessment	Assessment Criteria	Mark Ranges					
Activities	Assessment Criteria	88-100	73-87	58-72	50-57	<50	
A1. Group score - Presentation of project findings (graded by thesis evaluation committee, including an external evaluator)	<ul> <li>Clarity and coherence of the presentation</li> <li>Quality and relevance of the data analysis and interpretation</li> <li>Ability to answer questions and defend the project</li> <li>Use of appropriate visual aids and references</li> </ul>	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels	

A2.	Individual score 1 - Thesis (graded by group teacher)	<ul> <li>Structure and organization of the thesis</li> <li>Accuracy and completeness of the literature review</li> <li>Originality and significance of the research question and hypothesis</li> <li>Appropriateness and validity of the research design and methods</li> <li>Quality and relevance of the results and discussion</li> <li>Conclusions and recommendations</li> </ul>	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A3.	Individual score 2 - Peer evaluation	<ul> <li>Contribution to the group work and project implementation.</li> <li>Communication and collaboration skills</li> <li>Respect and support for other group members</li> </ul>	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels

# **REQUIRED READINGS**

All the teaching and learning materials from the module 'Research Methods (BSRM3102).'

Reading materials will be provided to the students by the instructors of this module.

Students should also actively identify the reading materials based on their chosen research topics under the guidance of their instructor.

# **REFERENCES**

Students should also identify the references based on their chosen research topics under the guidance of their instructor. These references may include research reports, published undergraduate/postgraduate dissertations, research articles, short communications, professional magazines, and more.



## 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 <a href="https://www.mpu.edu.mo/student\_handbook/">www.mpu.edu.mo/student\_handbook/</a>.