



Macao Polytechnic University

Faculty of Health Sciences and Sports

MASTER OF SCIENCE IN NURSING LEARNING MODULE OUTLINE

Academic Year	2025-2026	Semester	I
Module Code	NURS6143		
Learning Module	Research Methods and Ethics		
Pre-requisite(s)	Nil		
Medium of Instruction	Chinese / English		
Credits	3	Contact Hours	45
Instructor	1. Dr. Zhimin LUO, Glenn Associate Professor (Subject teacher) 2. Dr. Haobin YUAN Associate Professor 3. Dr. Lingling GAO Professor 4. Dr. Yokman CHAN, Cyman Associate Professor	Email	1. glennluo@mpu.edu.mo 2. hbyuan@mpu.edu.mo 3. lgao@mpu.edu.mo 4. ymchan@mpu.edu.mo
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MODULE DESCRIPTION

This module aims to emphasize the students to master and apply scientific research method. The contents include overview of research concepts, research methods, research processes and ethical principles; quantitative research, qualitative research, and mixed methods research; research proposal writing and management of nursing research projects. Through this module, the students can conduct literature review and develop research project.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

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

M1.	Describe and discuss research concepts, importance and function, types and methods, research processes and ethical principles.
M2.	Apply and explain the difference between quantitative research, qualitative research, and mixed methods research.



M3.	Select statistical methods suitable for research objectives, design type, data type, and sample size and other conditions.
M4.	Conduct literature review to find and critically appraise evidence.
M5.	Write a research proposal on a specific research situation in nursing practice and health care through applying theoretical knowledge.
M6.	Describe and discuss management of nursing research projects.

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

PILOs	M1	M2	M3	M4	M5	M6
P1. Knowledge and awareness of a range of advanced modules, fields, theories and approaches applicable to nursing discipline	✓	✓	✓	✓	✓	✓
P2. Knowledge and understanding of advanced assessment tools used to assess and interpret issues in nursing, challenges and risks in a changing context	✓	✓	✓	✓	✓	✓
P3. Critical understanding of the growing scientific and clinical literature which affect nursing in practice	✓	✓	✓	✓	✓	✓
P4. Knowledge of advanced nursing competency working in different clinical specialties	✓	✓	✓	✓	✓	✓
P5. Develop an understanding of the theories, analytical approaches, methodologies and practices that underpin nursing in modern society	✓	✓	✓	✓	✓	✓
P6. Evaluate, extrapolate and synthesise relevant literature and empirical data and competently apply these to different nursing actual situations				✓	✓	✓
P7. Develop ability to apply nursing theory to the analysis of a broad range of actual problems in current practice area				✓	✓	✓
P8. Develop the capabilities in clinical analysis and thinking, as well as disciplinary research				✓	✓	✓
P9. To learn continuously within academia and industry and beyond and to employ relevant information and knowledge in understanding different contexts	✓	✓	✓	✓	✓	✓
P10. To acquire research skills and values which can provide different approaches to the problem solving and decision making in nursing area				✓	✓	✓
P11. To develop advanced knowledge and analytical skills that are transferable to nursing in practice	✓	✓	✓	✓	✓	✓
P12. To reinforce evidenced-based nursing through learnt knowledge and skills in research	✓	✓	✓	✓	✓	✓
P13. To have a positive attitude towards society and the environment	✓	✓	✓	✓	✓	✓
P14. To adhere to high moral standards and to commit to excellence in life-long learning	✓	✓	✓	✓	✓	✓



MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
1	Foundations of nursing research and evidence-based practice (6 hours) (DESCRIBE: concept definition, importance and function, types and methods, research processes, ANALYZE: relationship between nursing research and evidence-based practice, GIVE EXAMPLES and APPLY: key concepts and steps in nursing research)	6
2	Conceptualizing a study to generate evidence for nursing (6 hours) (DESCRIBE: research problems, research questions, hypotheses, ANALYZE: literature reviews, theoretical frameworks, and ethics in nursing research, GIVE EXAMPLES and APPLY: literature reviews, theoretical frameworks, and ethics in nursing research, APPRAISE: research problems, research questions, hypotheses, theoretical framework, and evidence)	6
3	Quantitative research (9 hours) (DESCRIBE: concept definition, paradigm, and characteristics, ANALYZE: descriptive design and intervention design, GIVE EXAMPLES and APPLY: design, sampling, sample size and data collection, and analysis, APPRAISE: quality criteria, and guidelines for critically appraising)	9
4	Qualitative research (6 hours) (DESCRIBE: concept definition, paradigm, and characteristics, ANALYZE: types such as phenomenology, grounded theory, and other types of qualitative research, GIVE EXAMPLES and APPLY: design, sampling and data collection, and analysis, APPRAISE: quality criteria, and guidelines for critically appraising)	6
5	Mixed methods research (4 hours) (DESCRIBE: concept definition, rationale, paradigm, and application situation, ANALYZE: paradigm issue, issue of integration, and practical issues, GIVE EXAMPLES and APPLY: mixed methods design, sampling and data collection, and data analysis, APPRAISE: quality criteria, and guidelines for critically appraising)	6
6	1. Research proposal writing (2 hours) (DESCRIBE: concept, purpose and function, content and format, GIVE EXAMPLES and APPLY: master research proposal writing) 2. Management of nursing research projects (4 hours) (DESCRIBE: concept, and type, GIVE EXAMPLES and APPLY: management of projects and fund, PRESENT and DISCUSS: Research proposal and research projects)	6
7	Statistical methods (6 hours) (GIVE EXAMPLES and APPLY: descriptive statistics, inferential statistics, multivariate statistics)	6



Timetable

No.	Date	Time	Topic	Teaching hours	Teachers
1.	26Aug 2025 (Tue)	18:30- 21:30	Foundations of nursing research and evidence-based practice-1	3	Glenn1
2.	2Sep 2025 (Tue)	18:30- 21:30	Foundations of nursing research and evidence-based practice-2	3	Glenn2
3.	11Sep 2025 (Thur)	18:30- 21:30	Conceptualizing a study to generate evidence for nursing -1	3	Glenn3
4.	16Sep 2025 (Tue)	18:30- 21:30	Conceptualizing a study to generate evidence for nursing -2	3	Glenn4
5.	23Sep 2025 (Tue)	18:30- 21:30	Mixed methods research-1	3	Presenter: Glenn5 Participant: Cymon CHAN1
6.	18Oct 2025 (Sat)	10:00- 13:00	Mixed methods research-2	3	Presenter: Glenn6 Participant: Cymon CHAN2
7.	18Oct 2025 (Sat)	14:00- 16:00	Research proposal writing	2	Glenn7
8.	23Oct 2025 (Thur)	18:30- 21:30	Quantitative research-1	3	Presenter: Haobin1 Participant: Gao Lingling1
9.	11Nov 2025 (Tue)	18:30- 21:30	Quantitative research-2	3	Presenter: Haobin2



					Participant: Gao Lingling2
10.	13Nov 2025 (Thur)	18:30- 21:30	Quantitative research-3	3	Presenter: Haobin3 Participant: Gao Lingling3
11.	18Nov 2025 (Tue)	18:30- 21:30	Qualitative research-1	3	Presenter: Haobin4 Participant: Gao Lingling4
12.	20Nov 2025 (Thur)	18:30- 21:30	Qualitative research-2	3	Presenter: Haobin5 Participant: Gao Lingling5
13.	25Nov 2025 (Tue)	18:30- 21:30	Statistical methods-1	3	Presenter: Gao Lingling1 Participant: Haobin1
14.	27Nov 2025 (Thur)	18:30- 21:30	Statistical methods-2	3	Presenter: Gao Lingling2 Participant: Haobin2
15.	29Nov 2025 (Sat)	09:00- 11:00	Management of nursing research projects	2	Presenter: Gao Lingling3
16.	29Nov 2025 (Sat)	11:00- 13:00	Management of nursing research projects	2	Presenter: Gao Lingling4



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	M5	M6
T1. Lectures and video	✓	✓	✓	✓	✓	✓
T2. Tutorial discussion	✓	✓	✓	✓	✓	✓
T3. Case studies	✓	✓	✓	✓	✓	✓

ATTENDANCE

Attendance requirements are governed by the Academic Regulations Governing Master'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
Continuous assessment	A1. Classroom performance	40	M1, M2, M4, M5, M6
Final assessment	A2. Individual written assignment	60	M1, M2, M3, M4, M5, M6

The assessment will be conducted following the University's Assessment Strategy (see 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

1 • Classroom performance (40%)

Assessment will be based on student's classroom attendance, response to questions, participation in discussions, article analysis, oral presentation, and exercise in class as well as other activities.

2. Individual written assignment (60%)

Students write a condensed version of research proposal on a specific research situation in nursing practice and health care and submit a paper of around 3,000~5000 words. Assessment criteria for this assignment is as follows:



Assessment Criteria	Weighting	Score and Comments
1. Background and significance 1.1 Research Background - Well justified according to current situation - Relevant issues explored - Adequate supportive evidence 1.2 Research significance - Research gap and significance of research - Reasonable explanation	10%	
2. Literature reviews - Theoretical definitions of research concepts - Measurements of research concepts - Appraise the relevant literature critically - Review summary	15%	
3. Theoretical framework or Philosophical perspective (in qualitative research) - Theory or philosophy appropriate to the study - Understanding and explanation of theory application	5%	
4. Research objectives - Reasonable & feasible purpose - Relevant to nursing practice	5%	
Hypothesis (if applicable) - With theoretical evidence/explanations - Related to the research objectives	5%	
5. Methodology 5.1 Rational design of study	5%	
5.2 Research Population - Population - Sample - Appropriate sample size - Appropriate sampling method - Inclusion and exclusion criteria	10%	
5.3 Description of research settings	5%	
5.4 Definition of each research concept - Clear operational definition for each research concept - Relevant hypothesis with theoretical evidence	5%	
5.5 Instruments - Detailed explanation - Validity and reliability	5%	
Intervention (if applicable) - Intervention process - Quality control	5%	
5.6 Data collection and data analysis 5.6.1 Data collection - Appropriate data collection methods - Appropriate data collection process	5%	
5.6.2 Technical & ethical consideration	5%	



Assessment Criteria	Weighting	Score and Comments
- Comprehensive consideration - Reasonable solutions		
5.6.3 Data analysis methods - Appropriate statistical methods - Match the research purpose	5%	
References and Appendix - Current references (local and international literature) - Documents: timetable, instruments, consent forms, letter for approval, intervention planning, etc.	5%	
Quality of writing - systematic organization - correct formats	5%	
Comment:		
Total Score : () / 100 = () %		
If no intervention : () / 95 = () %		
If no hypothesis and intervention : () / 90 = () %		

The paper should be submitted on or before: **12th December (Friday), 2025.**

*** Delay of submitting assignment for one day will be deducted 10% of the score.**

REQUIRED READINGS

[insert text]

REFERENCES

1. Polit, D. F., & Beck, C. T. (2020). Nursing research: Generating and assessing evidence for nursing practice (11th ed.). Wolters Kluwer.
2. LoBiondo-Wood, G., & Haber, J. (2022). Nursing research: Methods and critical appraisal for evidence-based practice (10th ed.). Elsevier.
3. 李崢、劉宇主編（2018）。護理學研究方法（第2版）。北京：人民衛生出版社。
4. 護理質性研究存在問題與誤區. 劉明, 袁浩斌, 2009.
5. 護理質性研究的特點和論文寫作的注意事項. 嶽鵬, 2015.
6. 護理質性研究文獻計量學分析. 瞿佳, 翁雪玲, 高玲玲, 2018.
7. Colaizzi 七個步驟在現象學研究資料分析中的應用. 劉明, 2021.
8. Lived experiences of clinical preceptors: A phenomenological study. Ming Liu, Yin Lei, et al., 2010.
9. 張文彤主編（2017）。SPSS 統計分析基礎教程。北京：高等教育出版社。
10. 張文彤、董偉主編（2018）。SPSS 統計分析高級教程。北京：高等教育出版社。



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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/.