



PEKING UNIVERSITY HEALTH SCIENCE CENTER-MACAO POLYTECHNIC UNIVERSITY

NURSING ACADEMY (AE)

BACHELOR OF SCIENCE IN NURSING

LEARNING MODULE OUTLINE

Academic Year	2025-2026	Semester	I
Module Code	NPED2101		
Learning Module	Pediatric Nursing		
Pre-requisite(s)	NFUN1101, NFUN1102		
Medium of Instruction	Chinese / English		
Credits	3	Contact Hours	45
Instructor	1. Dr. Zhimin LUO, Glenn Associate Professor (Subject teacher) 2. Dr. Chiu Yin Angela POON, Lecturer	Email	1. glennluo@mpu.edu.mo 2. angelapoon@mpu.edu.mo
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MODULE DESCRIPTION

Pediatric Nursing is the practice of nursing involved in the health care of children from infancy through adolescence. In this course, students would learn developmental issues during childhood, and fundamental knowledge and skills of health promotion and disease prevention as well as direct nursing care for children and their families.

MODULE INTENDED LEARNING OUTCOMES (ILOS)

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

M1.	Describe the major concepts, components, issues, and tasks involved in pediatric nursing.
M2.	Identify growth and development, and influencing factors through infancy to childhood.
M3.	Demonstrate knowledge and skill of health supervision, health assessment, health promotion and disease prevention for children and their families.
M4.	Utilize knowledge and skill to implement nursing care for the child with a health problem.



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

The PILOs are aligned with the Dublin descriptors, including knowledge and understanding, acquisition, application, critical judgment, communication skills, and learning skills/ability.

PILOs	M1	M2	M3	M4
P1. Demonstrate an understanding of the holistic nature of the clients' health status involving individual, family, and community aspects.	✓	✓	✓	✓
P2. Demonstrate effective communication skills and the ability to establish and maintain a therapeutic relationship with clients.			✓	✓
P3. Demonstrate acquisition, mastery, and application of knowledge and skills for nursing practice, including biological sciences, social sciences and humanities, by making appropriate clinical reasoning and performing safe and therapeutic practice.	✓	✓	✓	✓
P4. Demonstrate the ability to maintain legal and ethical standards of nursing practice.	✓	✓	✓	✓
P5. Demonstrate the ability to carry out relevant research and contribute to the community's health.			✓	✓
P6. Work effectively and efficiently alone or in teams.			✓	✓
P7. Demonstrate the ability to identify and evaluate health care issues.		✓	✓	✓
P8. Demonstrate a critical judgment and apply the principles of evidence-based practice to deliver nursing care.		✓	✓	✓

MODULE SCHEDULE, COVERAGE AND STUDY LOAD

Week	Content Coverage	Contact Hours
1	<p>1. Introduction of pediatric nursing (1 class hours)</p> <p>1.1 Job description</p> <p>1.2 Pediatric nursing: scope and standard of practice</p> <p>1.3 Ethical and legal issues</p> <p>(Describe roles and job for pediatric nurses; Describe scope and standard of practice; analyze and judge ethical and legal issues in practice.)</p> <p>2. Growth and development of children (3 class hours)</p> <p>2.1 Age groups</p> <p>2.2 Concepts of growth and development</p> <p>2.3 Principles of growth and development</p> <p>2.4 Factors influencing growth and development</p> <p>2.5 Development of psychosocial function and personality</p> <p>2.6 Role of play in development</p> <p>(Demonstrate an understanding the concepts of growth and development in children; Identify the principles and factors influencing growth and development; Demonstrate an understanding major theories of growth and development in children and role of play in development)</p>	4



	<p>3. Health assessment of children (2 class hours)</p> <p>3.1 Communication with children</p> <p>3.2 Health history</p> <p>3.3 Sequence of the physical examination</p> <p>3.4 Case study</p> <p>(Demonstrate an understanding of the appropriate health history to obtain from the child and the parent or primary caregiver; Demonstrate communication skills with children; Describe the appropriate sequence of the physical examination in the context of the child's developmental stage; Demonstrate skill to perform a health assessment using approaches that relate to the age and developmental stage of the child.)</p> <p>4. Nursing care of children during illness and hospitalization (2 class hours)</p> <p>4.1 Stressors of hospitalization</p> <p>4.2 Factors affecting a child's response to illness and hospitalization</p> <p>4.3 The nurse's role in caring for hospitalized children</p> <p>4.4 Nursing care plan</p> <p>(Identify the reactions and responses of children and their families during illness and hospitalization; Explain the factors that influence the reactions and responses of children and their families during illness and hospitalization; Describe the nursing care that minimizes the stressors of children who are ill or hospitalized; Demonstrate skill to perform a nursing care plan for hospitalized children.)</p> <p>5. Nursing care during a pediatric emergency (2 class hours)</p> <p>5.1 Factors contributing to emergency situations</p> <p>5.2 Common treatments and medications</p> <p>5.3 Health history of a child in an emergency situation</p> <p>5.4 Rapid cardiopulmonary assessment</p> <p>5.5 Common laboratory and other diagnostic tests</p> <p>5.6 Nursing diagnoses and related interventions</p> <p>5.7 Assessment and management of the most common types of emergencies</p> <p>(Identify factors contributing to emergency situations among children; Discuss common treatments and medications used during pediatric emergencies; Conduct a health history of a child in an emergency situation, specific to the emergency; Perform a rapid cardiopulmonary assessment; Discuss common laboratory and other diagnostic tests used during pediatric emergencies; Identify nursing diagnoses and related interventions; Discuss assessment and management of the most common types of emergencies in children.)</p>	6
3	<p>6. Pain management in children (2 class hours)</p> <p>6.1 Physiology of pain</p> <p>6.2 Factors influencing pain</p> <p>6.3 Developmental consideration</p> <p>6.4 Nursing process overview for the child in pain</p> <p>6.5 Management of pain</p> <p>(Identify the major physiologic events associated with the perception of pain; Discuss the factors that influence the pain response; Identify the developmental consideration of the effects and management of pain in children; Explain the principles of pain assessment as they related to children; Understand the use of the various pain rating scales and physiologic monitoring for children; Develop a nursing care plan for children related to management of pain.)</p> <p>7. Test (2 class hours)</p>	4
4	<p>8. Nursing care of high-risk newborn (3 class hours)</p> <p>8.1 Classification of newborns</p> <p>8.2 Nursing care of high-risk newborns</p>	6



	<p>8.3 Nursing care of preterm infants 8.4 Nursing care of newborns with jaundice (Describe classification of newborns and characteristics of normal newborns; Identify high-risk newborns and describe classification of high-risk newborns; Demonstrate skill to perform general nursing process for high-risk newborns; Describe factors related to preterm infants; Identify characteristics of preterm infants; Develop an individualized nursing care plan for preterm infants; Describe classification of jaundice (hyperbilirubinemia) and related risk factor; Develop an individualized nursing care plan for newborns with jaundice.)</p> <p>9. Nursing care of the child with a cardiovascular disorder (3 class hours) 9.1 Anatomic and physiologic differences of the cardiovascular system 9.2 Psychosocial impact of chronic cardiovascular disorders on children 9.3 Individualized nursing care plan for the child with congenital heart disease 9.4 Patient/family teaching plans for the child with congenital heart disease 9.5 Congestive heart failure (Compare anatomic and physiologic differences of the cardiovascular system in infants and children versus adults; Describe manifestations and treatment of congenital heart disease; Develop an individualized nursing care plan for the child with congenital heart disease; Analyze the relationship between pathophysiology and manifestations of congestive heart failure; Point out nursing management for the child with congestive heart failure.)</p>	
5	<p>10. Nursing care of the child with a respiratory disorder (4 class hours) 10.1 Anatomy and physiology of the respiratory system in children 10.2 Different respiratory illnesses 10.3 Nursing interventions 10.4 Individualized nursing care plan 10.5 Patient/family teaching plans (Compare how the anatomy and physiology of the respiratory system in children differs from that of adults; Distinguish different respiratory illnesses based on the signs and symptoms associated with them; Discuss nursing interventions commonly used for respiratory illnesses; Devise an individualized nursing care plan for the child with a respiratory disorder; Develop patient/family teaching plans for the child with a respiratory disorder.)</p> <p>11. Nursing care of the child with a gastrointestinal disorder (2 class hours) 11.1 The differences in the anatomy and physiology 11.2 Common gastrointestinal illnesses of childhood 11.3 Nursing intervention 11.4 Individualized nursing care plan 11.5 Teaching plans for family/patient education (Compare the differences in the anatomy and physiology of the gastrointestinal system between children and adults; Distinguish common gastrointestinal illnesses of childhood; Discuss nursing interventions commonly used for gastrointestinal illnesses; Devise an individualized nursing care plan for infants/children with diarrhea; Develop teaching plans for family/patient education for children with diarrhea.)</p>	6
6	<p>12. Nursing care of the child with an infectious disease (2 class hours) 12.1 Anatomic and physiologic differences in children 12.2 Nursing assessments and interventions 12.3 Various infectious illnesses occurring in childhood 12.4 Individualized nursing care plan 12.5 Patient/family teaching plans (Discuss anatomic and physiologic differences in children versus adults in relation to the infectious process; Distinguish various infectious illnesses occurring in childhood;</p>	4



	<p>Identify appropriate nursing assessments and interventions related to medications and treatments for childhood infectious and communicable disorders; Devise an individualized nursing care plan for the child with an infectious or communicable disorder; Develop patient/family teaching plans for the child with an infectious or communicable disorder.)</p> <p>13. Immunization and Vaccination (2 class hours) 13.1 Concepts of immunization and vaccination 13.2 Recommended Children Schedule 13.3 Nursing assessments and interventions 13.4 Patient/family teaching plans (Understand the difference between concepts of immunization and vaccination; Discuss the Macau SAR Immunization Program – Recommended Children Schedule; Identify appropriate nursing assessments and interventions related to vaccinations; Develop patient/family teaching plans for management of adverse reactions post-vaccinations.)</p>	
7	<p>14. Nursing care of the child with an immunologic disorder (2 class hours) 14.1 Appropriate nursing assessments and interventions 14.2 Individualized nursing care plan 14.3 Patient/family teaching plans (Explain anatomic and physiologic differences of the immune system in infants and children versus adults; Distinguish immune and autoimmune disorders common in infants, children, and adolescents; Identify appropriate nursing assessments and interventions related to medications and treatments for pediatric immune, autoimmune, and allergic disorders; Develop patient/family teaching plans for the child with an immune or autoimmune disorder.)</p> <p>15. Nursing care of the child with a genetic disorder (2 class hours) 15.1 Genetic disorders introduction 15.2 Individualized nursing care plan 15.3 Patient/family teaching plans (Discuss various inheritance patterns; Distinguish various genetic disorders occurring in childhood; Identify nursing interventions related to common laboratory and diagnostic tests used in the diagnosis and management of genetic conditions; Devise an individualized nursing care plan for the child with a genetic disorder; Develop patient/family teaching plans for the child with a genetic disorder.)</p>	4
8	<p>16. Nursing care of the child with musculoskeletal and neuromuscular disorders (2 class hours) 16.1 Anatomy and physiology of the musculoskeletal and neuromuscular system in children 16.2 Musculoskeletal and neuromuscular illnesses occurring in childhood 16.3 Nursing assessments and interventions related to medications and treatments 16.4 Patient/family teaching plans (Compare difference between the anatomy and physiology of the musculoskeletal and neuromuscular system in children versus adults; Distinguish various musculoskeletal and neuromuscular illnesses occurring in childhood; Identify appropriate nursing assessments and interventions related to medications and treatments used for childhood musculoskeletal or neuromuscular conditions; Develop patient/family teaching plans for the child with musculoskeletal or neuromuscular disorders.)</p> <p>17. Final Exam (2 class hours)</p>	4



9	<p style="text-align: center;">Practice 1 (2 hours)</p> <p>18. Laboratory practice: pediatric assessment (Class A: September 16 (Tue) at 09:00-11:00; Class B: November 7 (Fri) at 14:30-16:30; Class C: November 11 (Tue) at 09:00-11:00, 2025) (Demonstrate the skills in measuring physical growth and development; Assess and evaluate developmental status in children using developmental tools)</p> <p style="text-align: center;">Practice 2 (2 hours)</p> <p>19. Laboratory practice: medication management (Class A: September 18 (Thur) at 09:00-11:00; Class B: November 10 (Mon) at 09:00-11:00; Class C: November 11 (Tue) at 14:30-16:30, 2025)</p> <ul style="list-style-type: none">19.1 Atraumatic methods for preparing children for procedures19.2 “Eight rights” of pediatric medication administration19.3 Physiologic differences in children19.4 Recommended pediatric medication doses19.5 Proper technique for administering medication19.6 Atraumatic care in medication administration for children19.7 Preferred sites for peripheral and central intravenous medication administration19.8 Nursing management <p>(Describe the “8 rights” of pediatric medication administration; Accurately determine recommended pediatric medication doses; Demonstrate the proper technique for administering medication to children via the oral, rectal, ophthalmic, otic, intravenous, intramuscular, and subcutaneous routes; Identify the preferred sites for peripheral and central intravenous medication administration; Describe nursing management related to maintenance of intravenous infusions in children, as well as prevention of complications.)</p>	4
10	<p style="text-align: center;">Practice 3 (3 hours)</p> <p>20. Group presentation: Class A on October 30 (Thur) at 14:30-17:30, and Class B on November 27 (Thur) at 14:30-17:30; Class C on November 28 (Fri) at 14:30-17:30, 2025.</p> <p>For every class, students will divide into 5 groups by students themselves. Every group selects a different topic related to child health and pediatric nursing and present by group. PowerPoint will be accepted as the presentation type. The length of presentation is 20 minutes, and plus 5 minutes for discussion at the end of each presentation.</p>	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. Lectures	✓	✓	✓	✓
T2. Lab practice	✓	✓	✓	✓
T3. Presentation and Discussion	✓	✓	✓	✓

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

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

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

Assessment Activities	Weighting (%)	ILOs to be Assessed
A1. Classroom performance	10%	M1, M2, M3, M4
A2. Mid-term test (Growth and development of Children, Health assessment of Children, Nursing care of children during illness and hospitalization, Nursing care during a pediatric Emergency, Pain Management in Children, and Nursing care of the child with a respiratory disorder)	30%	M1, M2, M3, M4
A3. Group presentation	20%	M1, M2, M3, M4
A4. Skill exam (Laboratory practice: pediatric assessment, and Laboratory practice: medication management)	10%	M1, M2, M3, M4
A5. Final exam (Nursing care of the child with a gastrointestinal disorder, Nursing care of the child with an infectious disease, Immunization and Vaccination, Nursing care of the child with an immunologic disorder, Nursing care of the child with a genetic disorder, Nursing care of the child with Musculoskeletal and Neuromuscular Disorders, Nursing care of high-risk newborn, and Nursing care of the child with a cardiovascular disorder)	30%	M1, M2, M3, M4



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

Assessment Activities	Assessment Criteria	Mark Ranges				
		88-100	73-87	58-72	50-57	<50
A1.	Demonstrate the understanding of the subjects covered in classes and show active learning attitude	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A2.	Demonstrate the ability to identify and apply appropriate concepts, methods and techniques	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A3.	Demonstrate the understanding of the subject and the arguments are articulated and organized in terms of verbal presentation and report writing	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A4.	Demonstrate the ability to identify and apply appropriate skills for special situation and scenario	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels
A5.	Demonstrate the ability to identify and apply appropriate concepts, methods and techniques	Excellent	Good/ Very Good	Satisfactory	Marginal Pass	Fail; not reaching marginal levels

REFERENCES

Reference books

1. Kyle, T., & Carmon, S. (2020). *Essentials of Pediatric Nursing* (4th ed.). LWW.
2. Hockenberry, M.J., Wilson, D., & Rodgers, C.C. (2021). *Wong's Essentials of Pediatric Nursing* (11th ed.). Mosby.
3. 陳月枝等 (編) (2021)。實用兒科護理 (第9版)。台灣：華杏。
4. 崔焱, 仰曙芬 (編) (2021)。兒科護理學 (第7版)。北京：人民衛生。

Websites

1. World Health Organization Health Topics: <http://www.who.int/topics/en/>
2. Macao Health Bureau Child Health: <http://www.ssm.gov.mo/childhealth/>



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/.



Pediatric Nursing (NPED2101)

Session	Topics	Teacher(s)
1	Introduction to pediatric nursing Growth and development (1)	Glenn LUO
2	Growth and development of children (2)	Glenn LUO
3	Health assessment of children	Glenn LUO
4	Nursing care of children during illness and hospitalization	Glenn LUO
5	Nursing care during a pediatric Emergency	Glenn LUO
6	Pain Management in Children	Glenn LUO
7	Laboratory practice: pediatric assessment	Glenn LUO Angela POON
8	Laboratory practice: medication management	Angela POON Glenn LUO
9	Nursing care of the child with a respiratory disorder (1)	Angela POON
10	Nursing care of the child with a respiratory disorder (2)	Angela POON
11	Nursing care of the child with a gastrointestinal disorder	Angela POON
12	Test	XXX
13	Nursing care of the child with an infectious disease	Angela POON
14	Immunization and Vaccination	Angela POON
15	Nursing care of the child with an immunologic disorder	Angela POON
16	Nursing care of the child with a genetic disorder	Angela POON
17	Nursing care of the child with Musculoskeletal and Neuromuscular Disorders	Angela POON
18	Nursing care of high-risk newborn(1)	Glenn LUO
19	Nursing care of high-risk newborn(2) Nursing care of the child with a cardiovascular disorder (1)	Glenn LUO
20	Nursing care of the child with a cardiovascular disorder (2)	Glenn LUO
21	Group presentation	Glenn LUO
22	Final Exam	XXX