Fundamentals of Nursing
Theory + Practical
Course Catalogue
2025-2026

College	Erbil Polytechnic University Koya Technical Institute/ Taqtaq - Morning + Evening	
Department	Nursing	
Module Name	Fundamentals of Nursing(Theory)	
Module Code	FON101	
Semester	1	
Credit	8	
Module type	Prerequisite	
Weekly hours	6 hr	
Weekly hours (Theory)	(2)hr Class	(4)hr Workload
Weekly hours (Practical)	(3)hr Class	(1.5)hr Workload
Lecturer (Theory)	Arjuman Mohamed Aziz	
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Lecturer (Practical)		
Email		

Course Book

Course overview:

This course provides opportunities to develop competencies necessary to meet the needs of individuals throughout the lifespan in a safe, legal, and ethical manner using the nursing process. Emphasis is placed on providing care to individuals undergoing surgery, common alterations in respiratory gastro-intestinal, cardiovascular, and endocrine systems concepts are integrated

- **Course objective:**

At completion of this Level, the associate degree nursing student will be able to:

1. Demonstrate competency in performing basic nursing skills for individuals with common health alterations.
2. Utilize foundational knowledge of the communication process in providing nursing care for clients across the lifespan.
3. Apply foundational knowledge of the nursing process in providing nursing care for clients across the lifespan.
4. Utilize critical thinking skills in formulating a plan of care for clients with common health alterations in a variety of settings.
5. Demonstrate professional behaviours associated with nursing.

- **Student's obligation**

The entire student must attend to the lecture, they have to prepare and accomplish all the tasks for this course throughout the academic year. If anyone could not finish his / her tasks or do not attend the lecture will be failed in this subject, otherwise the student have to provide a legal document to be exempt from the university role.

- **Forms of teaching**

The Lecture will be delivered through variety of methods as the following:

1. All the lecture will available on the moodle.
2. PowerPoint Presentation
3. White Board
4. Some Books
5. Group activity and peer working

- **Assessment scheme**

Breakdown of overall assessment and examination of this course

Assessment	Percent of Final Grade
Attendance and daily Participation (Quiz)	5%
Midterm Exam (Theory + Clinical + Lab)	20%
Report or Presentation (Assignment)	5%
2nd Midterm Exam (Theory + Clinical + Lab)	20%
Final Exam	60%
Total	100%

Evaluation: Final Grade Level:

Grading Scale (%)	
90-100	Excellent
80 - 89	Very Good
70 - 79	Good
60 - 69	Medium
50 – 59	Satisfactory
Below 50	Fail

Specific learning outcome:

by the End of this course the student will be able to:

Provide care for clients with respiratory, cardiovascular, endocrine, gastrointestinal, musculoskeletal system alterations.

.. Utilize knowledge from the humanities and science in planning the care of

- **Course Reading List and References:**

▪ Key References:

2016_Fundamentals Of Nursing, 3 ed (2 Vol) by Judith Wilkinson [Dr.Soc]. (n.d.).

Dougherty, L., & Lister, S. (n.d.). *The Royal Marsden Manual of Ninth Edition Clinical Nursing Professional Edition*.

Evolve Student Resources for Clinical Nursing Skills & MORE THAN A TEXTBOOK! REGISTER TODAY! You can now purchase Elsevier products on Evolve! Go to. (n.d.).

http://evolve.elsevier.com/Perry/skills/YOU'VEJUSTPURCHASED

Fundamentals of Nursing. (n.d.).

Jirkovský, D., Prague, al, Marie Hlaváčová PhDr Daniel Jirkovský, P., Mgr Hana Nikodemová PhDr Šárka Tomová, M., PhDr Lada Cetlová, D., & Jana Haluzíková, P. (2014). *NURSING PROCEDURES AND INTERVENTIONS TEXTBOOK FOR BACHELOR'S AND MASTER'S DEGREE PROGRAMMES Publication title: Nursing procedures and interventions-Textbook for Bachelor's and Master's degree programmes*.

The Joint Commission Official "Do Not Use" List of Abbreviations ABBREVIATION PREFERRED TERM*. (n.d.). http://www.jointcommission.org/assets/1/18/Do_Not_Use_List.pdf

Third Edition Nurse Assistant Training. (2013).

▪ Useful references:

1. Ignatavicius, D. D., & Workman, M. L. (2015). ***Medical-Surgical Nursing: Patient- Centered Collaborative Care***. Elsevier Health Sciences.

2. Williams, L. S., & Hopper, P. D. (2015). ***Understanding medical surgical nursing*****.** FA Davis.

3. Linton, A. D. (2015). ***Introduction to medical-surgical nursing***. Elsevier Health Sciences.

4. LeMone, P., Burke, K., Dwyer, T., Levett-Jones, T., Moxham, L., Reid-Searl, K., ... & Raymond, D. (2013**).** ***Medical-surgical nursing***. Pearson Higher Education AU.

5. Brunner, L. S. (2010). ***Brunner & Suddarth's textbook of medical-surgical nursing*** (Vol. 1&2). S. C. C. Smeltzer, B. G. Bare, J. L. Hinkle, & K. H. Cheever (Eds.). Lippincott Williams & Wilkins.

▪ Magazines and review (internet).

Course Topics (Theory)	Week	Learning Outcome
Part I: **Infection Prevention and Control** Types of Microorganisms Causing Infections Body Defenses against Infection **The Chain of Infection Breaking the Chain:** Prevention and Control of Health Care–Associated Infections Nursing Responsibility for Infection Prevention and Control. Occupational Health Issues Related to Infection Roles of the Infection Control Practitioner Infection Prevention and Control Is a Shared Responsibility	One	**After Completing This Chapter, You Will Be Able To:** 1. Explain the concepts of medical and surgical asepsis. 2. Identify signs of localized and systemic infections and inflammation. 3. Identify risks for nosocomial and healthcare-associated infections. 4. Identify factors influencing a microorganism's ability to produce an infectious process. 5. Identify anatomic and physiologic barriers that defend the body against microorganisms. 6. Differentiate active from passive immunity. 7. Identify relevant nursing diagnoses and contributing factors for clients at risk for infection and who have an infection. 8. Identify interventions to reduce risks for infections. 9. Identify measures that break each link in the chain of infection.
Part II: **Vital Signs** Body Temperature Pulse Respirations Blood Pressure Oxygen Saturation	Two	**After Completing This Chapter, You Will Be Able To:** 1. Describe factors that affect the vital signs and accurate 2. Identify the variations in normal body temperature, pulse, respirations, 3. Verbalize the steps used in: 4. Describe appropriate nursing care for alterations in vital signs. 5. Identify nine sites used to assess the pulse and state the reasons for their use. 6. List the characteristics that should be included when assessing pulses. 7. Describe the mechanics of breathing and the mechanisms that 8. Recognize when it is appropriate to assign or delegate measurement of vital signs to assistive personnel. 9. Demonstrate appropriate documentation and reporting of vital signs.
Part III: **Medications Administration** Drug Misuse Actions of Drugs in the Body Factors Affecting Medication Action Routes of Administration Medication Order Methods of Calculating Dosages **Administering Medications Safely** Enteral Medications Parenteral Medications Topical Medications Inhaled Medications	Three	**After Completing This Chapter, You Will Be Able To:** 1. Define selected terms related to the administration of medications. 2. Describe legal aspects of administering medications. 3. Describe actions of drugs on the body. 4. Identify factors affecting medication action. 5. Describe various routes of administration for medication, **Including** opioids. 6. Identify essential parts of a medication order. 7. List examples of various types of medication orders. 8. State systems of measurement that are used in the administration of medications. 9. Describe four formulas for calculating drug dosages.
Part IV: **Fecal Elimination** Physiology of Defecation Factors that Affect Defecation Fecal Elimination Problems Bowel Diversion Ostomies Assessing Diagnosing Planning Implementing Evaluating	Four	**After Completing This Chapter, You Will Be Able To:** 1. Describe the physiology of defecation. 2. Distinguish normal from abnormal characteristics and constituents of feces. 3. Identify factors that influence fecal elimination and patterns of defecation. 4. Identify common causes and effects of selected fecal elimination problems. 5. Describe methods used to assess fecal elimination. 6. Identify examples of nursing diagnoses, outcomes, and interventions for clients with elimination problems. 7. Identify measures that maintain normal fecal elimination patterns. 8. Describe the purpose and action of commonly used enema solutions. 9. Describe essentials of fecal stoma care for clients with an ostomy.

Part V: **Urinary Elimination** Physiology of Urinary Elimination Factors Affecting Voiding Altered Urine Production Altered Urinary Elimination Assessing Diagnosing Planning Implementing Evaluating	**Five**	**After Completing This Chapter, You Will Be Able To:** 1. Describe the process of urination, from urine formation through micturition. 2. Identify factors that influence urinary elimination. 3. Identify common causes of selected urinary problems. 4. Describe nursing assessment of urinary function, including subjective and 5. Identify normal and abnormal characteristics and constituents of urine. 6. Develop nursing diagnoses and desired outcomes related to urinary 7. Describe nursing interventions to maintain normal urinary elimination, prevent 8. Delineate ways to prevent urinary infection. 9. Explain the care of clients with indwelling catheters or urinary diversions.
Part VI: **Skin Integrity and Wound Care** Skin Function and Integrity Wounds or Altered Skin Integrity Wound Healing Heat and Cold Applications Care of Specific Common Wound Etiologies Pressure Injury Skin Tears	**Six**	**After Completing This Chapter, You Will Be Able To:** 1. Describe factors affecting skin integrity. 2. Identify clients at risk for pressure injuries. 3. Describe the four stages of pressure injury development. 4. Differentiate primary and secondary wound healing. 5. Describe the three phases of wound healing. 6. Identify three major types of wound exudate. 7. Identify the main complications of and factors that affect wound healing. 8. Identify assessment data pertinent to skin integrity, pressure sites, and wounds. 9. Identify nursing diagnoses associated with impaired skin integrity.
Part VII: **Nutrition** Essential Nutrients: Macronutrients Essential Nutrients: Micronutrients Energy Balance Factors Affecting Nutrition Nutritional Variations Throughout the	**Seven**	**After Completing This Chapter, You Will Be Able To:** 1. Identify essential nutrients and their dietary sources. 2. Describe normal digestion, absorption, and metabolism of carbohydrates, proteins, and lipids. 3. Identify factors influencing nutrition. 4. Identify nutritional variations throughout the lifecycle. 5. Evaluate a diet using a food guide. 6. Discuss essential components and purposes of nutritional 7. Identify risk factors for and clinical signs of malnutrition. 8. Describe nursing interventions to promote optimal nutrition. 9. Discuss nursing interventions to treat clients with nutritional problems.
Part VIII: **Oxygenation** Factors Affecting Respiratory and Cardiovascular Functions Alterations in Function Assessing Diagnosing Implementing Evaluating	**Eight**	**After Completing This Chapter, You Will Be Able To:** 1. Outline the structure and function of the respiratory system. 2. Describe the processes of breathing (ventilation) and gas exchange (respiration). 3. Explain the role and function of the respiratory system in transporting oxygen and carbon dioxide to and from body tissues. 4. Describe the mechanisms for respiratory regulation. 5. Identify factors influencing respiratory function. 6. Identify four major types of conditions that can alter respiratory function. 7. Describe nursing assessments for oxygenation status. 8. Describe nursing measures to promote respiratory function and oxygenation. 9. Explain the use of therapeutic measures such as medications, inhalation therapy, oxygen therapy, artificial airways, airway suctioning, and chest tubes to promote respiratory function.
Part IX: **Fluid, Electrolyte.** Body Fluids and Electrolytes Acid–Base Balance Factors Affecting Body Fluid, Electrolytes, and the Acid–Base Balance Disturbances in Fluid, Electrolyte, and Acid–Base Balance Assessing Diagnosing	**Nine**	**After Completing This Chapter, You Will Be Able To:** 1. Discuss the function, distribution, composition, movement, and regulation of fluids and electrolytes in the body. 2. Describe the regulation of acid–base balance in the body, including the roles of buffers, the lungs, and the kidneys. 3. Identify factors affecting normal body fluid, electrolyte, and acid–base balance. 4. Discuss risk factors for, and causes and effects of, fluid, electrolyte, and acid–base imbalances.

Planning Implementing Evaluating		5. Collect assessment data related to clients' fluid, electrolyte, and acid– 6.Identify examples of nursing diagnoses, outcomes, and interventions for clients with altered fluid, electrolyte, or acid–base balance. 7. Teach clients measures to maintain fluid and electrolyte balance. 8. Implement measures to correct imbalances of fluids, electrolytes, acids, and bases, such as enteral or parenteral replacements and blood
Part X: **Diagnostic Testing:** 1. Discuss the relevant client teaching guidelines for the care of the client before, during, and after diagnostic testing. 2. Describe the common specimen collection methods. 3. Describe common invasive and noninvasive diagnostic procedures. 4. Discuss nursing interventions for the common diagnostic procedures.	**Ten**	**After Completing This Chapter, You Will Be Able To:** 1. Describe the nurse's role for each of the phases involved in diagnostic testing. 2. List common blood tests. 3. Discuss the nursing responsibilities for specimen collection. 4. Explain the rationale for the collection of each type of specimen. 5. Describe how to collect and test stool specimens. 6. Compare and contrast the different types of urine specimens. 7. Describe how to collect sputum and throat specimens. 8. Describe visualization procedures that may be used for the client with gastrointestinal, urinary, and cardiopulmonary alterations. 9. Compare and contrast CT, MRI, and nuclear imaging studies.
Course Topics (Practical)	**Week**	**Learning Outcome**
Part I: Infection Prevention and Control. **Procedure 1**-Handwashing: Visibly Soiled Hands **Procedure 2:** Applying Sterile Gloves via the Open Method **Procedure 3: Donning** and **Removing** Clean and Contaminated Gloves, Cap, and Mask **Procedure 4:** Surgical Hand Antisepsis **Procedure 5:** Applying Sterile Gloves and Gown via the Closed Method **Procedure 6:** Removing Contaminated Items	**One**	**Students Will Be Able To:** 1. Identify risks for health care–associated infections. 2. Describe the specific and nonspecific body defenses against microorganisms. 3. Outline the pathophysiology of infection and describe the characteristics of the five major types of microorganisms that can cause an infection. 4. Describe the six links in the chain of infection and identify measures that break each link. 5. Describe the three major routes of transmission of microorganisms.
Part II: Vital Signs. **Procedure 7:** Measuring **Body Temperature** **Procedure 8:** Assessing **Pulse Rate** **Procedure 9:** Assessing **Respiration** **Procedure 10:** Assessing **Blood Pressure**	**Two**	**Students Will Be Able To:** 1. Describe factors that affect the vital signs and accurate measurement of them. 2. Identify the normal range variations in body temperature, pulse, respirations, and blood pressure that occur across the lifespan. 3. Describe the body's system of thermoregulation and identify factors influencing the body's heat production. 4. Explain and distinguish oral, rectal, axillary, tympanic membrane, and temporal artery methods of measuring body temperature and their relative merits. 5. Outline appropriate nursing care for alterations in body temperature.
Part III: Medication Administration. **Procedure 11:** Performing Venipuncture. **Procedure 12:** Performing a Skin Puncture. **Procedure 13: Medication Administration:** **I. Oral, II. Sublingual,** and **III. Buccal.** **Procedure 14:** Withdrawing Medication from an Ampule **Procedure 15:** Withdrawing Medication from a Vial **Procedure 16:** Mixing Medications from Two Vials into One Syringe **Procedure 17:** Medication Administration: **Intradermal.** **Procedure 18:** Medication Administration: **Subcutaneous** **Procedure 19:** Medication Administration: **Intramuscular** **Procedure 20:** Medication Administration via Secondary Administration Sets (**Piggyback**) . **Procedure 21:** Medication Administration: **Eye** and **Ear.** **Procedure 22:** Medication Administration: **Nasal.** **Procedure 23:** Medication Administration: **Nebulizer.** **Procedure 24:** Medication Administration: **Rectal.** **Procedure 25:** Medication Administration: **Vaginal.**	**Three**	**Students Will Be Able To:** 1. Define selected terms related to the administration of medications. 2. Identify physiological factors and individual variables affecting medication action. 3. Describe the various routes of medication administration. 4. Identify the essential parts of a medication order. 5. Describe three methods for calculating drug dosages.

Part IV: Fecal Elimination. **Procedure 26:** Administering an Enema	**Four**	**Students Will Be Able To:** 1. Describe the physiology of defecation. 2. Identify 11 factors that influence fecal elimination and patterns of defecation. 3. Distinguish normal from abnormal characteristics and constituents of feces. 4. Conduct a thorough assessment of fecal elimination. 5. Differentiate five fecal elimination problems.
Part V: Urinary Elimination. **Procedure 27:** Obtaining a Residual Urine Specimen from an Indwelling Catheter **Procedure 28:** Collecting a Clean-Catch Midstream Urine Specimen **Procedure 29:** Measuring Blood Glucose Levels **Procedure 30:** Inserting an Indwelling Catheter: Female. **Procedure 31:** Irrigating an Open Urinary Catheter **Procedure 32:** Assisting with a Bedpan or Urinal **Procedure 33:** Applying a Condom Catheter **Procedure 34:** Inserting an Indwelling Catheter: Male **Procedure 35:** Irrigating the Bladder Using a Closed-System Catheter **Procedure 36:** Measuring Intake and Output.	**Five**	**Students Will Be Able To:** 1. Describe the process of urination, from urine formation through to micturition. 2. Identify seven factors that influence urinary elimination. 3. Discuss eight common alterations in urine production and elimination. 4. List the common causes of selected urinary problems. 5. Describe nursing assessment of urinary function, including objective and subjective data.
Part VI: Skin Integrity and Wound Care. **Procedure 37:** Irrigating a Wound **Procedure 38:** Obtaining a Wound Drainage Specimen for Culturing **Procedure 39:** Preventing and Managing the Pressure Ulcer	**Six**	**Students Will Be Able To:** 1. Discuss factors affecting skin integrity. 2. Classify wounds according to etiology, depth, chronicity, and level of contamination. 3. Describe the process of wound healing and factors that can affect healing. 4. Identify assessment data pertinent to the integument. 5. Differentiate among wound colonization, contamination, and infection.
Part VII: Nutrition. **Procedure 40:** Inserting a Nasogastric or Nasointestinal Tube for Suction and Enteral Feedings **Procedure 41:** Administering Enteral Tube Feedings	**Seven**	**Students Will Be Able To:** 1. Identify six essential nutrients and dietary sources of each. 2. Describe normal digestion, absorption, and metabolism of carbohydrates, proteins, and lipids. 3. Explain the essential aspects of energy balance. 4. Discuss body weight and body mass standards. 5. List 13 factors that influence nutrition.
Part VIII: Oxygenation. **Procedure 42:** Administering Oxygen Therapy **Procedure 43:** Administering Pulse Oximetry	**Eight**	**Students Will Be Able To:** 1. Outline the structure and function of the respiratory and cardiovascular systems. 2. Describe the processes of pulmonary ventilation and respiration. 3. Identify seven factors that influence respiration and circulatory function. 4. List the clinical manifestations of hypoxemia and hypoxia. 5. Identify 10 types of altered breathing patterns.
Part IX: Fluid, Electrolyte. **Procedure 44:** Preparing an IV Solution **Procedure 45:** Preparing the IV Bag and Tubing **Procedure 46:** Assessing and Maintaining an IV Insertion Site **Procedure 47:** Changing the IV Solution **Procedure 48:** Flushing a Central Venous Catheter. **Procedure 49:** Setting the IV Flow Rate. **Procedure 50:** Administering a Blood Transfusion	**Nine**	**Students Will Be Able To:** 1. Discuss the function, distribution, movement, and regulation of fluids and electrolytes in the body. 2. Describe the regulation of acid–base balance in the body, including the roles of buffers, the lungs, and the kidneys. 3. Identify factors affecting normal body fluid, electrolyte, and acid base balance. 4. Outline the risk factors for and the causes and effects of fluid, electrolyte, and acid–base imbalance. 5. Collect assessment data related to the client's fluid, electrolyte, and acid–base balance.
Part X: Diagnostic Testing. **Procedure 51:** Performing Venipuncture **Procedure 52:** Performing a Skin Puncture **Procedure 53:** Obtaining a Residual Urine Specimen from an Indwelling Catheter.	**Ten**	**Students Will Be Able To:** 1. Discuss the relevant client teaching guidelines for the care of the client before, during, and after diagnostic testing. 2. Describe the common specimen collection methods. 3. Describe common invasive and noninvasive diagnostic procedures. 4. Discuss nursing interventions for the common diagnostic procedures.

- **Examinations (question design):**

1. Myocardial infarction is caused by reduced blood flow in a coronary artery due to _____ and occlusion of an artery by _____.

2. _____Abdomen eventually becomes markedly distended; loops of colon become visibly outlined through the abdominal wall.

Q2: Putting the character in the Column B, in front of Column A: (15 Marks)

Column A

Volvulus: twisted bowel

Major cause of blindness

Acute cholecystitis

Q: A. Put true and False in front the below statements

1. Chronic cholecystitis usually associated with gallstone formation.
2. Cerebral vascular accident is one of potential complication essential hypertension.

Q: Answer the following question.

1. Enumerate, and briefly discuses nursing care plan, and intervention for patient with Anemia?
2. Explain Dietary management of the GERD?
3. How to instruct the patient with Asthma?

Q: Case Scenario:

50-year-old male patient presented to the emergency department at 2 AM with vomiting and abdominal pain. He had a 2-week history of polyuria and polydipsia, accompanied by a 10- killiogram of added to his weight, and blurred vision. His medical history was unremarkable, except for being treated for hypertension with amlodipine 10 mg daily, which provided good control. (His blood pressure on admission was 135/80.) Results of hospital laboratory studies revealed that the patient's initial blood glucose level was 1192 mg/dL. Diagnosed with Diabtets Mellitus.

intervention for this patient?

External Evaluator

This course book has reviewed and signed by a peer. As their name and titles mentioned below:

Assistant Lecturer
Arjuman M Aziz
BSC. In nursing
MSc. Med-Surge Nursing
PhD Student