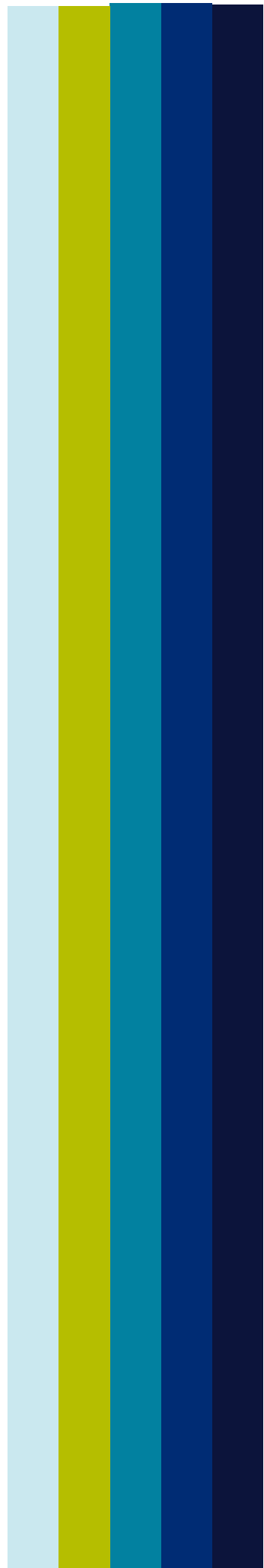


ALPNCE Blueprint Specifications



Prepared by Touchstone Institute

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Purpose and Assumptions of the Exam

The Alberta Licensed Practical Nurses Competence Examination or ALPNCE is designed to assess current knowledge, skills, and attitudes of those seeking Licensed Practical Nurse (LPN) registration within the province of Alberta. This exam is not intended to replace the national exam, but to serve as a step in the LPN registration pathway for those applicants with a nursing credential for whom the College of Licensed Practical Nurses of Alberta (CLPNA) is seeking evidence of sufficient equivalency or prior learning.

The exam is designed to assess an applicant's competency level in comparison to that of a **recent graduate of a CLPNA approved Practical Nursing Program of Alberta**. This exam is based on the entry-level competencies as outlined in the CLPNA's Competency Profile for Licensed Practical Nurses 5th Edition (2020) document.

Applicants for whom this exam is intended may potentially include, but are not limited to:

- Internationally educated graduates of a nursing education program outside of Canada
- Previously registered LPNs or Registered Practical Nurses (RPNs) in any jurisdiction or province in Canada
- Out of province Canadian educated graduates seeking registration for the first time and within Alberta
- Applicants seeking LPN registration reinstatement within Alberta

Exam Specifications

The following section reflects the essential components, content and weighting to be included in each version of the exam.

Exam Components

The ALPNCE is designed to assess competency levels across four major domains using two separate exam components as summarized in Table 1.

Table 1: ALPNCE Domains and Components

Domain	Description	Component	Format
1. Professional Practice	Licensed practical nurses adhere to applicable provincial/territorial and federal legislation and regulations, professional and practice standards, and employer policies that direct practice. They are responsible and accountable for safe and competent nursing practice.	Knowledge-based	Scenario-based MCQ: <ul style="list-style-type: none"> +/- 100 items, excluding pilot items
2. Ethical & Legal Practice	Licensed practical nurses use ethical frameworks (e.g., Code of Ethics, ethical standards) when making professional judgments and practice decisions. They engage in professional regulation by enhancing their competence, promoting safe practice, and maintaining their fitness to practice. Licensed practical nurses recognize that safe nursing practice includes knowledge of relevant legislation and legal boundaries within which the licensed practical nurse must practice.		
3. Foundations of Practice	Licensed practical nurses use critical thinking, reflection, and evidence integration to assess clients, plan care, implement interventions and evaluate outcomes and processes. Foundational knowledge such as, nursing theory, health sciences, humanities, pharmacology, and ethics.	Performance-based	OSCE: <ul style="list-style-type: none"> 9 stations excluding pilot stations
4. Collaborative Practice	Licensed practical nurses work collaboratively with patients and other members of the healthcare team. They recognize that collaborative practice is guided by shared values and accountability, a common purpose of care outcome, mutual respect, and effective communication.		

Note. Domains as aligned with Entry-Level Competencies for Licensed Practical Nurses (2019).

Component 1: Knowledge-based Multiple-Choice Questionnaire

The knowledge-based component comprises of +/- 100 scored scenario-based multiple-choice questions (additional pilot or non-scored items may be included in the administration) targeting the application and interpretation of knowledge across six major competencies

outlined in Table 2. The specific indicators as they relate to each competency are reflected in Appendix A Table 5. Applicable item settings are described in Table 4.

About the Scenario-based Multiple-Choice Questionnaire

The scenario-based multiple-choice questionnaire (MCQ) is best suited to measure examinee competence levels at the *Knows* and *Knows How* levels in accordance with Miller's Pyramid of Assessment (See *Figure 1* in References) which provides a framework for assessing clinical competence in medical education. An MCQ exam comprised of approximately 100 items is recommended to yield acceptably high levels of reliability.

Table 2. Knowledge-based MCQ Specifications Matrix

DOMAIN 1: PROFESSIONAL PRACTICE			
Competency 1. Licensed Practical Nurse Scope of Practice, Legislation & Regulation			
C1: Legislation & Regulation	C-1-1	+/-3% per indicator	+/-15%
C2: Licensed Practical Nurse Scope of Practice	C-2-1 & C-2-4		
	C-2-2		
	C-2-3		
C3: Professional Standards	C-3-3		
Competency 2. Accountability & Responsibility			
C5: Accountability & Responsibility	C-5-1	+/-6% per indicator	+/-18%
	C-5-2		
	C-5-5		
Competency 3. Leadership			
C9: Informal Leadership	C-9-4	+5% per indicator	+/-17%
	C-9-7		
C10: Formal Leadership	C-10-1		
DOMAIN 2: ETHICAL & LEGAL PRACTICE			
Competency 4. Professional Ethics & Boundaries			
C4: Professional Ethics	C-4-1	+5% per indicator	+/-15%
	C-4-3		
C6: Professional Boundaries	C-6-2		
Competency 5. Fitness to Practice			
C7: Fitness to Practice	C-7-1	+5% per indicator	17%
	C-7-2		
	C-7-3		
Competency 6. Legal Protocols, Documenting & Reporting			
D3: Legal Protocols, Documenting & Reporting	D-3-1	+3% per indicator	+/-18%
	D-3-2		
	D-3-3		
	D-3-4		
	D-3-7		
	D-3-8		
Notes. Indicator codes based on alignment with CLPNA: Competency Profile for Licensed Practical Nurses 5 th Ed. (2020) Applicable item settings are described in Table 5			

Component 2: Performance-based Objective Structured Clinical Examination

The performance-based component is designed to comprise of nine scored Objective Structured Clinical Examination or OSCE stations (additional pilot or non-scored stations may be included during the administration) targeting demonstration of knowledge, skills, and attitudes across seven major competencies positioned within nine essential topics as outlined in Table 3. The specific indicators as they relate to each competency and topic are reflected in Appendix B Table 6a and Table 6b respectively. The conditions and contexts around which these stations will be situated are outlined in Table 4.

About the Objective Structured Clinical Examination

The OSCE is best suited to measure examinee competence levels at the *Shows How* level in accordance with Miller's Pyramid of Assessment (*Fig. 1* in References). An OSCE comprised of 9-10 stations is recommended to yield acceptably high levels of reliability.

Table 3. Performance-based OSCE Specifications Matrix

Domain	Competency and Sub-competency		Indicator code	Descriptor <i>(The minimum expectation of a recent LPN graduate per competency)</i>	Station Component	Essential Topics										
						Wound Care (E4: 78)	Nutrition, Hydration & Elimination (E2: 72 & E3: 72)	Mental Health & Addiction (N: 87)	Gerontology (P: 73)	Emergencies (O: 72)	Respiratory (G: 72)	Cardiovascular (J: 71)	Neurological (I: 66)	Med. Prep. & Admin. (U2, U3: 83)		
DOMAIN 3: FOUNDATIONS OF PRACTICE	1. Nursing Process	1.1 Assessment	1.1.1 Health History	B-1-1 B-1-3 B-1-4 B-1-5 (psychosocial)	Performs a holistic health history considering multiple data sources	CE										
			1.1.2 Physical Assessment	B-1-4 B-1-5 (physiological) B-1-6	Elicits and interprets physical findings in an efficient and logical sequence	CE	Included across max. four - five topics									
		1.2 Nursing Diagnosis	B2	Determines and communicates an appropriate nursing diagnosis using holistic health assessment	OQ											
		1.3 Planning & Implementation	B3 & B4	Utilizes best available data, resources, and evidence to develop and implement a plan of care based on needs, expectations, priorities, and values of the patient	OQ											
		1.4 Evaluation	B5	Utilizes best available data, resources etc. to evaluate the nursing interventions and the plan of care.	OQ											
	2. Clinical Judgement & Decision Making	A1 & A2	Applies critical thinking and evidence informed practice to guide the decision-making process	CE												
	3. Workload Prioritization	A3 & F1	Sets priorities and manages time effectively	CE												
	4. Infection Prevention & Control	F2	Applies principles of infection prevention and control	CE												
	5. Medication Management	U1	Applies principles of pharmacology and medication management	CE	Included across the following topics											
	DOMAIN 4: COLLABORATIVE PRACTICE	6. Communication & Collaborative Practice	6.1 Communication & Collaborative Practice	D1	Adapts communication techniques to address barriers using a patient-centred care approach	CE			✓	✓			✓	✓	✓	
6.2 Conflict Management			D4	Manages conflict effectively	OQ	Oral question included across min. four - five topics										
7. Safety		7.1 Patient Safety	F3	Adheres to safety principles that apply to patient, self, interprofessional team and others	CE											
		7.2 Workplace safety	F4	Identifies and reduces risk of physical injury of patient, self and others by effectively contributing and adhering to a culture of safety	OQ	Oral question included across min. four - five topics										

Notes. Competency Indicator and Essential Topics codes based on alignment with CLPNA: Competency Profile for Licensed Practical Nurses 5th Ed. (2020)
Station component where CE: Client Encounter; OQ: Examiner Oral Question

Table 4. Performance-based OSCE Conditions & Context Matrix

Conditions and Contexts		Essential Topics								
		Wound Care (E4: 78)	Nutrition, Hydration & Elimination (E2: 72 & E3: 72)	Mental Health & Addiction (N: 87)	Gerontology (P: 73)	Emergencies (O: 72)	Respiratory (G: 72)	Cardiovascular (J: 74)	Neurological (I: 66)	Med. Prep. & Admin. (U2, U3: 83)
Context/Discipline	# of stations									
Medical	1-2									
Surgical	1-2									
Mental Health & Addiction	1-2									
Geriatric	1-2									
Urgent/Emergent care	1									
Pediatrics	1									
Lifespan/Age										
Child	School age 6-12yrs Adolescent 13-17yrs	1								
Young adult 18-44yrs		2								
Adult 45-64yrs		3								
Older adult 65+yrs		3								
Gender										
The ratio of M:F (no > than)	4:5									
Settings (<i>Applicable to OSCE & MCQ</i>)										
<ul style="list-style-type: none"> Hospital (general, maternal, pediatric, psychiatric) Rural or remote clinic Long-term care facility or supportive living setting Community health clinic or primary health clinic 		<ul style="list-style-type: none"> Physician's office or family practice unit Mental health clinic Rehabilitation centre Home care setting Hospice palliative care 								

References

1. CLPNA: [Competency Profile for Licensed Practical Nurses \(5th ed., 2020\)](#)
2. CCPNR: [Entry-level Competencies for Licensed Practical Nurses \(2019\)](#)
3. Miller's Pyramid for Assessment of Competence: Retrieved from <https://openpress.usask.ca/ideabook/chapter/millers-pyramid-of-clinical-competence/>



Figure 1. Miller's Pyramid for Assessment of Clinical Competence.

Glossary

Competency: The integrated knowledge, skills, behaviours, and attitudes, identified as essential to the profession and public protection.

Components: Separate formats that represent the full exam.

Contexts: Discipline, lifespan, setting etc., that will guide scenario development of the exam content.

Descriptors: Minimum expected competency behaviour in alignment with the standard of the exam.

Domain: Broad areas of the profession which can be defined for the purposes of selecting content and skills for examinations.

Essential Topic: Topics identified by subject matter experts as essential to assess to reflect the most likely examinee context within the profession.

Indicators: Observable and measurable behaviours associated with a competency.

Standard: the anchor against which all examinee performances are compared.

Appendix A

Table 5: Knowledge-based Competencies and Indicators

Knowledge-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
C1: Legislation & Regulation	C-1-1 Demonstrate knowledge and understanding of the Health Professions Act (HPA) and Licensed Practical Nurses Profession Regulation: <ul style="list-style-type: none"> • continuing competence • conduct process • protected titles • registration and renewal • restricted activities
C2: Licensed Practical Nurse Scope of Practice	C-2-1 Demonstrate knowledge of scope of practice as defined in the Licensed Practical Nurses Profession Regulation and the Competency Profile for Licensed Practical Nurses C-2-2 Demonstrate understanding of the Licensed Practical Nurse Practice Statement as defined under legislation: In their practice, Licensed Practical Nurses do one of more of the following: (a) apply nursing knowledge, skill, and judgment to assess patients' needs, (b) provide nursing care for patients and families, (b.1) teach, manage, and conduct research into the science, techniques, and practice of nursing, and, (c) provide restricted activities authorized the regulations.” Schedule 10 Health Professions Act, RSA 2000 C-2-4 Demonstrate knowledge of practice policies, guidelines and additional governance documents that guide and interpret Licensed Practical Nurse scope of practice C-2-3 Demonstrate knowledge and understanding of restricted activities listed in the Government Organization Act, Schedule 7.1, and authorized for Licensed Practical Nurses in the Licensed Practical Nurses Profession Regulation
C3: Professional Standards	C-3-3 Demonstrate knowledge and understanding of additional Standards of Practice that outline professional expectations for LPNs <ul style="list-style-type: none"> • Standards of Practice on Boundary Violations: Protecting Patients from Sexual Abuse and Sexual Misconduct (CLPNA, 2019) • Standards of Practice on Restricted Activities and Advanced Practice (CLPNA, 2020) • Reusable & Single-Use Medical Devices Standards (Government of Alberta, 2019) • Decision-Making Standards for Nurses in the Supervision of HealthCare Aides (2010) • Standards of Practice and Competencies for Perioperative Licensed Practical Nurses (CCPNR, 2010)
C5: Accountability and Responsibility	C-5-1 Demonstrate knowledge and understanding of self-regulation and the accountabilities of the Licensed Practical Nurse to: <ul style="list-style-type: none"> • Public • Profession • Employers • Colleagues • Self • CLPNA

Knowledge-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
	<p>C-5-2 Knowledge of individual legal accountabilities as a Licensed Practical Nurse:</p> <ul style="list-style-type: none"> • duty of care – provide safe, competent, ethical, and compassionate care • duty to report – as required by applicable legislation • maintain fitness to practice • work within scope of practice, nursing role, policies, and procedures • maintain standards of practice, code of ethics, registration, conduct, and continuing competence requirements. <p>C-5-5 Maintain confidentiality:</p> <ul style="list-style-type: none"> • adhere to legislation and regulation, professional standards, and employer policies • identify risks and report breach of confidentiality • manage patient information appropriately
C9: Informal Leadership	<p>C-9-4 Assign, educate, and supervise regulated and unregulated healthcare providers:</p> <ul style="list-style-type: none"> • implement Standards of Practice (CCPNR, 2013) and Decision-Making Standards for Nurses in the Supervision of HealthCare Aides (2010) as appropriate. • provide guidance, coaching, and mentorship • evaluate needs and reassign as necessary <p>C-9-7 Follow appropriate channels of communication and reporting according to employer requirements</p>
C10: Formal Leadership	C-10-1 Apply legislation, regulation, and abide by employer requirements.
C4: Professional Ethics	<p>C-4-1 Knowledge and understanding of the Code of Ethics for Licensed Practical Nurses in Canada (CCPNR, 2013)</p> <p>C-4-3 Demonstrate knowledge and ability to apply ethical principles to decision making:</p> <ul style="list-style-type: none"> • person-centered care • cultural diversity • fitness to practice • honesty and integrity • inter-professional collaboration • moral distress (self and others) • personal beliefs and bias • privacy and confidentiality • professional boundaries • professionalism and accountability • social determinants of health • therapeutic relationship • use of technology and social media
C6: Professional Boundaries	C-6-2 Knowledge of risks associated with inappropriate use of social media
C7: Fitness to Practice	<p>C-7-1 Maintain physical, mental, and emotional health to ensure safe, competent, and ethical practice.</p> <p>C-7-2 Knowledge of components affecting fitness to practice:</p> <ul style="list-style-type: none"> • substance use and addiction • coping mechanisms and stress management • family and environmental issues • physical ability • psychological wellbeing

Knowledge-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
	<p>C-7-3 Take responsibility and self-manage fitness to practice:</p> <ul style="list-style-type: none"> • maintain personal wellness • manage work-life balance • seek assistance and support • self-report and withdraw from practice as appropriate
D3: Legal Protocols, Documenting & Reporting	<p>D-3-1 Professional accountability and responsibility to adhere to legislation, legal protocols, documenting, and reporting guidelines applicable across the continuum of care.</p> <p>D-3-2 Ensure timely, accurate, objective, concise, and complete documentation.</p> <p>D-3-3 Document and report according to practice setting and employer requirements.</p> <p>D-3-4 Obtain informed consent throughout care delivery as appropriate and according to employer requirements.</p> <p>D-3-7 Accept, transcribe, and initiate orders from authorized health professional(s) according to employer requirements:</p> <ul style="list-style-type: none"> • electronic • phone • verbal • written <p>D-3-8 Contact authorized health professional(s) to clarify an unclear or incomplete order:</p> <ul style="list-style-type: none"> • confirm accuracy and completeness • discuss potential actions and/or interactions • share concerns related to patient's changing needs

Appendix B

Table 2a: Performance-based Competencies and Indicators

Performance-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
A1: Critical Thinking	<p>A-1-1 Knowledge and application of critical thinking supported with evidence-informed inquiry in nursing practice within all settings of healthcare delivery across the continuum of care.</p> <p>A-1-2 Knowledge of how critical thinking and evidence-informed inquiry influence clinical judgment and decision making.</p> <p>A-1-4 Apply critical thinking and evidence-informed inquiry throughout the decision-making process</p>
A2: Clinical Judgement & Decision Making	<p>A-2-2 Integrate evidence-informed practice in clinical judgment and decision making</p> <p>A-2-3 Provide evidence-informed, person-centered care in all settings of healthcare delivery across the continuum of care</p>
F2: Infection Prevention & Control	<p>F-2-1 Apply principles of infection prevention and control to reduce transmission of pathogenic micro-organisms.</p> <p>F-2-2 Apply principles of aseptic or sterile technique appropriate to environment and care provided.</p> <p>F-2-3 Apply principles of routine standard precautions</p> <p>F-2-4 Apply exposure precautions according to employer requirements</p> <p>F-2-6 Apply best practices for management of single use, patient owned and multi-use medical devices according to Reusable and Single-Use Medical Devices Standards from Alberta Health.</p>
U: Medication Management	<p>U1: Principles of Pharmacology</p> <p>U-1-2 Knowledge and understanding of the principles of pharmacology</p> <ul style="list-style-type: none"> • pharmacokinetics <ul style="list-style-type: none"> ○ absorption ○ distribution ○ metabolism ○ excretion • pharmacodynamics <ul style="list-style-type: none"> ○ adverse effect ○ allergic reaction or anaphylaxis ○ antagonistic effect ○ complementary and alternative therapy interactions ○ desired effect ○ drug interactions ○ drug toxicity ○ duration of action ○ idiosyncratic reactions ○ synergistic effect ○ therapeutic duration <p>U-1-3 Knowledge of routes for medication administration</p> <ul style="list-style-type: none"> • gastrointestinal (oral, enteral)

Performance-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
	<ul style="list-style-type: none"> • inhalational • intra-arterial • intracerebral • intradermal • percutaneous, epicutaneous, subcutaneous • intramuscular • intraosseous • intrathecal • intravenous • intravesical • mucous membranes (sublingual, buccal, nasal, optic, otic, vaginal, rectal) <p>U-1-4 Knowledge and understanding of medication action and effect for patients across the lifespan and associated nursing implications</p> <ul style="list-style-type: none"> • indications and contraindications • interactions • lab values • expected outcomes • risk factors • adverse reactions and side effects <p>U-1-5 Access credible resources for information and research related to medications prior to administration.</p> <p>U-1-6 Apply infection prevention and control standards in safe storage, handling, removal, and disposal of medications according to employer requirements:</p> <ul style="list-style-type: none"> • antineoplastic • autoimmune • cytotoxic • biological • hormones • insulin • narcotics • known hazardous • vasodilators • bronchodilators
B1: Assessment	<p>B-1-1 Assess patient considering multiple data sources:</p> <ul style="list-style-type: none"> • Status • Historical information • Objective and subjective data • Personal directives/Goals of Care <p>B-1-3 Knowledge of data collection methods.</p> <p>B-1-4 Relate to assessment findings to nursing practice.</p> <p>B-1-5 Perform a holistic health assessment:</p> <ul style="list-style-type: none"> • psychosocial <ul style="list-style-type: none"> ○ cultural ○ developmental ○ economic ○ emotional ○ environmental ○ mental

Performance-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
	<ul style="list-style-type: none"> ○ social ○ spiritual ● physiological <ul style="list-style-type: none"> ○ biological ○ cognitive ○ functional ○ physical <p>B-1-6 Perform and interpret patients</p> <ul style="list-style-type: none"> ● vital signs ● blood glucose level ● elimination ● nutrition/hydration ● pain ● vaccination history/screening ● oxygenation ● allergies and sensitivities ● level of consciousness ● Specimen collection
B2: Nursing Diagnosis (Examiner Oral Question)	<p>B-2-3 Determine a nursing diagnosis using holistic health assessment: identify actual and potential concerns and health issues</p> <ul style="list-style-type: none"> ● research and validate components of patient issues and concerns ● apply nursing diagnosis framework <p>B-2-4 Communicate a nursing diagnosis with a patient, family, and others.</p>
B3: Planning (Examiner Oral Question)	<p>B-3-2 Develop a plan of care based on patient needs, priorities, expectations, and values.</p>
B4: Implementation (Examiner Oral Question)	<p>B-4-2 Implement a plan of care based on patient needs, priorities, expectations, and values.</p> <p>B-4-3 Utilize best available data, resources, and evidence throughout implementation of plan of care.</p>
B5: Evaluation (Examiner Oral Question)	<p>B-5-2 Evaluate plan of care based on:</p> <ul style="list-style-type: none"> ● patient needs, priorities, expectations, and values ● patient progress and response to care ● challenges and barriers ● actual and expected outcomes <p>B-5-3 Utilize best available data, resources, and evidence throughout evaluation of plan of care:</p> <ul style="list-style-type: none"> ● assess quality and effectiveness of care ● measure level of care required ● determine family and social support system
A3: Time Management	<p>A-3-2 Prioritize and manage patient care</p>
F1: Urgent & Emergent Situations	<p>F-1-2 Differentiate and determine priority needs in an urgent or emergent situation.</p>
D1: Communication & Collaborative Practice	<p>D-1-2 Adapt communication techniques to address barriers:</p> <ul style="list-style-type: none"> ● cognitive ● cultural ● developmental ● emotional ● functional ● mental ● social ● spiritual ● language

Performance-based Competencies	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
	<ul style="list-style-type: none"> • technological <p>D-1-3 Demonstrate knowledge and ability to engage patient, family, and others as partners in patient centered care.</p>
D4: Conflict Management (Examiner Oral Question)	<p>D-4-3 Manage conflict effectively by identifying:</p> <ul style="list-style-type: none"> • concern or issue • subjective interest or investment • mutual options and possible resolutions • objective criteria
F3: Patient Safety	<p>F-3-1 Maintain safety principles that applies to patient, self, interprofessional team, and others.</p> <p>F-3-3 Assess, plan, and manage patient safety throughout care delivery:</p> <ul style="list-style-type: none"> • adverse reactions • chemical, physical, and environmental restraints • error prevention • managed risk agreement <p>F-3-4 Accurately report and document patient safety according to employer requirements and applicable legislation.</p>
F4: Workplace Safety (Examiner Oral Question)	<p>F-4-2 Comply with employer policies and OH&S Act, Regulation and Code to achieve workplace safety.</p> <p>F-4-4 Utilize controls to identify and reduce risk of physical injury of patient's self and others:</p> <ul style="list-style-type: none"> • hazard and exposure assessment (Chemical, biological) • handling and disposal of known • hazardous medications • safe handling and use of tools and equipment • safe lifting and transferring (patient, equipment) • properly don, doff, and dispose of personal protective equipment <p>F-4-3 Accountability to safety of patient, self, and others by effectively contributing and adhering to a culture of safety:</p> <ul style="list-style-type: none"> • attend OH&S orientation and training programs • recognize workplace hazards and controls • report unsafe conditions as per employer requirements • report workplace injuries as per Workers' Compensation Act

Table 2b: Performance-based Topics and Indicators

Performance-based Topics	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
U2: Medication Preparation & Administration	<p>U2: Medication Preparation & Administration</p> <p>U-2-2 Accept, process, verify, and initiate written, verbal, telephone, or electronic medication orders considering:</p> <ul style="list-style-type: none"> • date and time prescribed • patient’s full name • medication name, strength, and dosage • route, frequency, duration • authorized prescriber (name, signature, designation) • order is accurate, appropriate, and complete • follow up with authorized prescriber as necessary <p>U-2-3 Accurately calculate dosages, concentrations, rates, and volumes using formulas and standards of measurement associated with medication administration.</p> <p>U-2-4 Perform patient assessment prior to medication administration.</p> <p>U-2-5 Appropriately prepare medications for administration according to principles of safe medication preparation and employer requirements.</p> <p>U-2-6 Apply the “rights” and “checks” of medication administration to reduce risk of medication error and ensure patient safety.</p> <p>U-2-7 Adhere to employer requirements and procedure for safe administration of medication by:</p> <ul style="list-style-type: none"> • gastrointestinal (oral, enteral) • inhalational • intradermal • percutaneous, epicutaneous, subcutaneous • intramuscular • intravenous (continuous, intermittent, direct) • mucous membranes (sublingual, buccal, nasal, optic, otic, vaginal, rectal) • intravesicular (bladder instillation) <p>U-2-9 Monitor, evaluate, and document medication effectiveness.</p> <p>U3: Immunization & Communicable Disease Control</p> <p>U-3-3 Knowledge of immunity and principles of infectious disease prevention and control.</p> <p>U-3-14 Document patient assessment and report any risks and contraindications.</p> <p>U-3-19 Landmark injection site and use proper technique to administer intradermal, subcutaneous, and intramuscular injections.</p> <p>U-3-20 Properly dispose of sharps and maintain infection prevention and control standards</p>

Performance-based Topics	Indicators (*Note. Not all indicator sub-bullets will be included in the exam, these serve merely as guidelines for item writers who will be trained to construct content at the recent graduate level only)
E2: Nutrition, Hydration and E3: Elimination	<p>E-2-1: Assess and provide nutrition and hydration by multiple routes:</p> <ul style="list-style-type: none"> • enteral • gastrostomy • hypodermoclysis • intravenous • jejunostomy • nasogastric • nasojejunal • oral • orogastric • intraosseous <p>E-2-4 Perform nutrition and hydration assessment and manage patient care needs</p> <ul style="list-style-type: none"> • appetite • basic chewing and swallowing • assessments • dietary and fluid restrictions • referral as required <p>E-3-1 Manage elimination needs.</p> <ul style="list-style-type: none"> • urinary <ul style="list-style-type: none"> ○ bladder capacity assessment ○ catheter flush ○ continuous bladder irrigation ○ distension ○ double J stent ○ incontinence ○ urethral and coude catheter (insert & remove) ○ nephrostomy ○ reinserting established suprapubic catheter ○ residual urine ○ retraining ○ urethrostomy ○ vaginal pessary (insert and remove) ○ appropriate management of prolapse ○ bladder scan (see Standards of Practice #9, section Z of this document). • bowel <ul style="list-style-type: none"> ○ digital stimulation ○ enema and suppositories ○ fecal disimpaction ○ ostomy care and irrigation ○ rectal tubes ○ appropriate management of prolapse <p>E-3-2 Demonstrate knowledge and ability to utilize devices and equipment related to elimination needs.</p>
E4: Wound care	<p>E-4-1 Identify patient risk for recurrence or exacerbation of skin breakdown.</p> <p>E-4-2 Knowledge and comprehension of pathophysiology and etiology related to principles of wound assessment, healing, and management</p> <ul style="list-style-type: none"> • biochemical process related to wound healing <ul style="list-style-type: none"> ○ hemostasis ○ inflammation ○ proliferation and granulation ○ remodeling and maturation • factors which impede healing

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	<ul style="list-style-type: none"> o vascular compromise o immunodeficiency o metabolic disease o connective tissue disorders o malignancy o hygiene practices o psychosocial disorders o infection, burns, trauma o nutritional deficiencies o effects of medication • factors related to optimal healing environment • utilize wound classification and staging tools • differentiate between acute, chronic, and malignant wounds
G: Respiratory	<p>G-1-3 Evaluate effects of respiratory interventions.</p> <p>G-1-4 Manage airway issues associated with acute and chronic</p> <p>G-1-8 Recognize indications and contraindications for oxygen</p> <p>G-1-9 Apply and manage oxygen therapy devices:</p> <ul style="list-style-type: none"> • aerosol mask (simple face mask) • high flow oxymizer • nasal cannula • nasal catheter • non re-breathing mask • oropharyngeal airway • partial re-breather mask • bi-level positive airway pressure (BiPAP) machine • continuous positive airway pressure (CPAP) machine • oximetry and capnography <p>G-1-10 Care for patient with oxygen therapy devices:</p> <ul style="list-style-type: none"> • monitor laryngeal mask airway • monitor nasopharyngeal airway • monitor ventilator <p>G-1-11 Knowledge of safety precautions when utilizing oxygen therapy</p>
I: Neurological	<p>I-1-1 Knowledge of anatomy, physiology, and pathophysiology related to illness, disorders, and trauma of the neurological system:</p> <ul style="list-style-type: none"> • determinants of normal function • impairment, shock • illness, trauma, and surgery: <ul style="list-style-type: none"> o brain and spinal tumors o carotid endarterectomy o Guillain-Barre syndrome o Intracranial hemorrhage or pressure o meningitis o seizures and epilepsy o brain and spinal cord injury o stroke or transient ischemic attack <p>I-1-3 Apply principles of pharmacokinetics and pharmacodynamics specific to medication management in neurological nursing.</p> <p>I-1-5 Anticipate and recognize actual or potential neurological crisis:</p> <ul style="list-style-type: none"> o abnormal respirations

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	<ul style="list-style-type: none"> ○ bradycardia and tachycardia ○ decreased level of consciousness ○ hypertension and hypotension ○ hyperthermia and hypothermia ○ widening pulse pressure
J: Cardiovascular	<p>J-1-1 Knowledge and understanding of anatomy, physiology, and pathophysiology of the cardiovascular system and cardiovascular disease</p> <ul style="list-style-type: none"> • cardiac cycle and conduction pathway • cardiovascular diseases and disorders <ul style="list-style-type: none"> ○ atherosclerosis ○ dysrhythmias ○ valve insufficiency or stenosis ○ cardiomyopathy ○ congenital heart disease or anomaly ○ pericarditis, myocarditis, endocarditis ○ heart failure or organ system failure ○ hypercholesterolemia and dyslipidemia ○ hyper and hypotension ○ ischemic heart disease ○ peripheral artery disease • blood pressure and central venous pressure • decompensation, shock, hypovolemic shock <p>J-1-2 Assess and monitor the cardiovascular patient hemodynamics</p> <ul style="list-style-type: none"> • lab values and biochemical markers • peripheral diagnostic interventional procedures • renal sufficiency • venous thromboembolism • prepare patient for diagnostic procedures, treatments, and surgery • sequential compression device • vital signs • differentiate normal rhythm and arrhythmia • implement pre and post procedure protocols <p>J-1-6 Apply principles of pharmacokinetics and pharmacodynamics specific to medication management in cardiovascular nursing according to employer requirements.</p> <p>J-1-8 Anticipate and recognize actual or potential life-threatening health crisis</p> <ul style="list-style-type: none"> • alteration in cardiac output • impaired tissue perfusion (compartment syndrome) • cardiac arrhythmias • cardiac tamponade • cardiomyopathy • congenital heart defect • congestive heart failure • myocardial infarction • shock <p>J-1-5 Knowledge and understanding of normal and abnormal lab values and cardiac markers.</p>
N: Mental Health & Addiction	<p>N-1-9 Assess and manage signs and symptoms of a change in mental health status</p> <ul style="list-style-type: none"> • behavioral • emotional • intellectual • level of alertness and activity • perception of reality

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	<ul style="list-style-type: none"> • suicidal ideation <p>N-2-2 Assess signs of potential aggression and implement preventative measures.</p> <p>N-2-3 Apply physical, chemical, or environmental restraints according to appropriate use and employer requirements.</p> <p>N-1-13 Recognize and intervene in crisis situations.</p> <p>N-1-15 Apply principles of pharmacokinetics and pharmacodynamics specific to medication management in mental health and addiction nursing.</p> <p>N-2-1 Identify physiologic determinants and behavioral predispositions for aggressive patient response towards self and others.</p> <p>N-2-4 Promote safety of self and others when managing aggressive patient responses.</p>
O: Emergencies	<p>O-1-3 Obtain, assess, and monitor diagnostic tests and lab values according to employer requirements</p> <p>O-1-1 Perform a holistic health assessment</p> <ul style="list-style-type: none"> • current status • health and medication history • psychosocial • physiological
P: Gerontology	<p>P-1-3 Assess risk and implement safety measures specific to gerontological patient:</p> <ul style="list-style-type: none"> • environmental • psychosocial • physiological <p>P-1-7 Assess chronic disease and multisystem health issues</p> <ul style="list-style-type: none"> • activities of daily living (ADLs) • auditory and visual screening • bowel and bladder continence • Braden scale • chronic disease index • dementia assessment • delirium screening • elder abuse and neglect screening • falls risk • lifestyle choices • functional assessment • geriatric depression scale • nutrition, hydration, and oral health assessment • Resident Assessment Instrument (InterRAI) <p>P-1-8 Assess pain, provide comfort measures, and pain management</p> <ul style="list-style-type: none"> • history and physical examination • patient appropriate pain scale • chronic and acute <p>P-1-11 Promote skin integrity and perform skin assessment and wound care.</p> <p>P-1-12 Apply principles of pharmacokinetics and pharmacodynamics specific for gerontological patient</p> <ul style="list-style-type: none"> • multiple prescriptions (polypharmacy)

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	<ul style="list-style-type: none"> • medication reconciliation • non-pharmaceutical and complementary therapies • interactions and adverse reactions <p>P-2-2 Assess and recognize physiological causes for cognitive changes</p> <ul style="list-style-type: none"> • age related changes • cardiovascular (hypertension, myocardial infarction, coronary artery disease, transient ischemic attack) • alcoholism and substance use • stress, anxiety, depression • fluid and electrolyte imbalance • diabetes • infection and sepsis • pain (observed or perceived) • vitamin and hormone deficiencies <p>P-3-3 Recognize and manage responsive behaviors identify potential causes or triggers</p> <ul style="list-style-type: none"> • protect patient from risk of harm • promote independence in activities of daily living • plan prevention or modification strategies • document and report circumstances related to distress behaviors