

IMMUNIZATION RESOURCES FOR UNDERGRADUATE NURSING (IRUN)

Curriculum Mapping Tool

A Resource to Enhance the IRUN Curriculum Framework



**Centers for Disease
Control and Prevention**
National Center for Immunization
and Respiratory Diseases



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Immunization Resources for Undergraduate Nursing (IRUN) Overview

Advancements in teaching methods for health professions education and nursing practice have resulted in the need to enhance immunization resources for training and education of nurses. With the current trend of vaccine hesitancy, it is important that future nurses are armed with the best evidence to promote immunizations. To improve the integration of immunization in prelicensure nursing education, the Association for Prevention Teaching and Research (APTR) and the National Center for Immunization and Respiratory Diseases (NCIRD) at the Centers for Disease Control and Prevention (CDC) convened the Nursing Education Experts (NEEs), a group of experts with diverse nursing perspectives. Its members include prelicensure nursing educators, national nursing practice and education association members, and nursing students.

Now referred to as the [Immunization Resources for Undergraduate Nursing \(IRUN\)](#) project, IRUN seeks to improve the integration of immunization in prelicensure nursing education through the development of a curriculum framework and teaching resources.

IRUN Framework

The purpose of the IRUN framework is to:

- ✓ Provide guidance for faculty on integrating immunization content into a curriculum, with a focus on entry-level learning for the prelicensure nursing student.
- ✓ Ensure access to and consistency of current information for faculty and students.
- ✓ Prioritize information and content to be included in curricula.

The framework does not provide instructions for teaching immunization in an academic setting. It serves solely as a guide to foundational topics identified by IRUN, CDC, and APTR. Nursing faculty members are encouraged to assess their existing curricula and incorporate appropriate elements of the framework. The framework consists of 12 topic areas with corresponding learning objectives and suggested resources. The framework objectives are meant to be comprehensive. Faculty members can present the subject matter in any manner they find suitable.



User Guide



Curriculum mapping is a process of collecting and recording curriculum-related data that identify core skills and content taught, instructional processes, and assessment used for each concept area and program level (McCoy and Anema, 2012).

The IRUN Curriculum Mapping Tool links the learning objectives of the 12 IRUN framework topics (Table 1) to 13 common, requisite nursing courses (Table 2). The IRUN Curriculum Mapping Tool operationalizes the IRUN framework and serves as a starting point for individual courses or curriculum revision efforts. The tool can be used by individual faculty and/or curriculum committees for course and/or curricular integration.

Table 1

12 Framework Topics		Description of Topic
1	Public Health Perspective	Contribution of nursing immunization practices to communities' public health efforts
2	Immunization Strategies	Approaches to increase vaccination coverage and improve immunization quality
3	Immune System/Immunology	Connection of the basic function of the immune system to principles of vaccination
4	Vaccine-Preventable Diseases	Overview of diseases for which vaccines are currently administered
5	Types of Vaccines	Classification of vaccines and implications for nursing practice
6	Immunization Schedules	Vaccine administration timing and evidence-based spacing practices
7	Communications	Credible sources of vaccine information and effective communication techniques
8	Legal/Ethical Issues	Application of laws and ethical principles to immunization
9	Vaccine Storage and Handling	Best practices and key nursing roles in appropriate vaccine storage and handling
10	Vaccine Administration	Strategies and resources for proper vaccine preparation and administration
11	Documentation	Best practices and requirements for documentation of vaccine administration, refusal, contraindications, and precautions
12	Vaccine Safety	Nurse's role in monitoring and ensuring vaccine safety, including management of adverse reactions and adverse events

Table 2

13 Nursing Courses	Abbreviation
Pathophysiology	PTH
Pharmacology	PHARM
Health Assessment	HA
Foundations of Nursing Practice	FDN
Adult and Geriatric Nursing (Medical-Surgical 1)	MS1
Mental Health Nursing	MEN
Maternity Nursing	MAT
Pediatric Nursing	PED
Public Health Nursing	PHN
Nursing in Complex Care Scenarios (Medical-Surgical 2)	MS2
Wellness and Health Promotion	WHP
Leadership in Nursing	LEAD
Nursing Ethics	ETH



How to Use

There are two options for using the IRUN Curriculum Mapping Tool to assist with course and curricular integration.

Options	Suggested Use	Description
Option One IRUN Learning Objectives by Nursing Course	Course integration	With objectives listed by nursing courses, this option provides a quick overview of immunization content suggested for common, requisite nursing courses.
Option Two IRUN Learning Objectives and Nursing Courses by Framework Topic	Curricular use	This option is organized into tables that correspond with the 12 IRUN framework topics. With all common, requisite nursing courses listed in the tables' columns, this option provides an overview of immunization content placement across a nursing curriculum. <i>Note: This content is also available in a Word file located on the IRUN web page. In the Word file, empty columns are provided to allow users to map the IRUN learning objectives to additional courses unique to their nursing curricula.</i>

Course integration suggested process

The IRUN Curriculum Mapping Tool, Option One, can be used to identify appropriate immunization content and corresponding resources for common, requisite nursing courses.

1. Identify immunization content in a course.
2. Use the IRUN Curriculum Mapping Tool and the IRUN framework to identify content gaps and/or select content to integrate.
3. Use IRUN teaching materials (case studies, simulation scenarios, slide decks) to address content gaps and/or selected content.

Curricular integration suggested process

Additionally, the IRUN Curriculum Mapping Tool, Option Two, can be used by curriculum committees to plan and strategize sequencing of immunization content across curriculum.

1. Identify immunization content covered and in which course(s).
2. Use the IRUN Curriculum Mapping Tool and the IRUN framework to identify content gaps, redundancies, and/or misalignment of content across courses.
3. Address content gaps using IRUN teaching materials and sequence content based on how courses progress through academic curriculum.

Curriculum mapping is only a first step in content integration. Successful integration of new content into a nursing curriculum can be influenced by many factors, such as faculty buy-in, faculty confidence in teaching content, amount of content to be integrated, methodology to adopt, time requirement, and what is evaluated in the NCLEX-RN® exam. Each nursing program may consider evaluating the presence of potential barriers when working to integrate content.

Questions About Use

More information about the 12 IRUN framework topics and a glossary of terms used throughout the IRUN learning objectives are available at www.IRUNursing.org. Additionally, please submit questions or comments about the IRUN Curriculum Mapping Tool via the [IRUN web page](#).

References

McCoy, J. L., and Anema, M. (2012). *Fast Facts for Curriculum Development in Nursing: How to Develop & Evaluate Educational Programs in a Nutshell*. Springer Publishing Company.

Option One

IRUN Learning Objectives by Nursing Course



Pathophysiology (PTH)

Number of Relevant Course Objectives: 13

Framework Topics Addressed: *Public Health Perspective, Immune System/Immunology, Vaccine-Preventable Diseases, Types of Vaccines*

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
3a. Define the word "antigen."	Immune System/Immunology
3b. Define the word "antibody."	
3c. Identify types of immunity.	
3d. Differentiate between active immunity and passive immunity.	
3e. Compare immunity from immunization with immunity from wild-type infection.	
3f. List factors that affect the immune response to vaccines.	
3g. Describe community (herd) immunity.	
4d. Describe the etiologic agent, pathogenesis, signs and symptoms, appropriate infection control and prevention (e.g., standard, droplet, airborne and contact precaution), and epidemiology of vaccine-preventable diseases.	Vaccine-Preventable Diseases
5a. Identify types of vaccines (i.e., live, inactivated).	Types of Vaccines
5c. Compare types of vaccines by how they produce immunity.	
5d. Discuss implications of the different types of vaccines (i.e., contraindications, precautions, risks, and use in special populations).	
5e. Identify common vaccine components that may be present in a given vaccine product (e.g., adjuvants, preservatives, stabilizers, and antibiotics).	

Pharmacology (PHARM)

Number of Relevant Course Objectives: 41

Framework Topics Addressed: *Public Health Perspective, Types of Vaccines, Communications, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
5a. Identify types of vaccines (i.e., live, inactivated).	Types of Vaccines
5b. Compare types of vaccines by how they are derived.	
5c. Compare types of vaccines by how they produce immunity.	
5d. Discuss implications of the different types of vaccines (i.e., contraindications, precautions, risks, and use in special populations).	
5e. Identify common vaccine components that may be present in a given vaccine product (e.g., adjuvants, preservatives, stabilizers, and antibiotics).	
5f. Identify common public concerns about vaccine components such as formaldehyde, aluminum, and thimerosal.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	Communications
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	Types of Vaccines
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9d. Describe vaccine storage and handling recommendations for off-site or satellite facilities.	
9f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.	
9g. Determine when a vaccine will expire according to a beyond use date (BUD).	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	
10h. Identify age-appropriate sites for administration of vaccine.	
10i. Identify age-appropriate needle lengths and gauges for administration of vaccine.	

Framework Objective	Corresponding Framework Topic
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	Vaccine Administration
10n. Describe best practices to prevent vaccine administration errors.	
10o. Locate resources on current vaccine administration practice.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	
11e. Describe best practices for documenting vaccine contraindications and precautions.	
11f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).	
11g. Describe how to document an adverse event (i.e., anaphylaxis) following vaccination.	
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	
12a. Describe common adverse reactions by vaccine type.	Vaccine Safety
12b. Differentiate between an adverse reaction and an adverse event.	
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	
12h. Describe the process of phased clinical trials and FDA approval and licensure of vaccines in the United States.	
12i. Describe a nurse's role in monitoring and ensuring vaccine safety.	

Health Assessment (HA)

Number of Relevant Course Objectives: 20

Framework Topics Addressed: *Immunization Schedules, Communications, Vaccine Storage and Handling, Vaccine Administration, Documentation*

Framework Objective	Corresponding Framework Topic
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	Immunization Schedules
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6k. Locate resources relevant to current vaccine recommendations.	
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	Communications
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	Vaccine Storage and Handling
9i. Locate resources relevant to current vaccine recommendations.	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	
10n. Describe best practices to prevent vaccine administration errors.	
10o. Locate resources on current vaccine administration practice.	Documentation
11a. Describe federal requirements for documentation related to the administration of vaccines.	
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	

Foundations of Nursing Practice (FDN)

Number of Relevant Course Objectives: 42

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Vaccine-Preventable Diseases, Immunization Schedules, Communications, Legal/Ethical Issues, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1g. Describe the nursing roles related to public health: advocate, care coordinator, educator, school health care provider, state immunization coalition member, leader, and lifelong learner.	Public Health Perspective
2f. Develop a teaching plan on the immunization needs of a patient and/or a population.	Immunization Strategies
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.	Vaccine-Preventable Diseases
4d. Describe the etiologic agent, pathogenesis, signs and symptoms, appropriate infection control and prevention (e.g., standard, droplet, airborne and contact precaution), and epidemiology of vaccine-preventable diseases.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	Immunization Schedules
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	Communications
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	
8d. Identify your state's immunization requirements for health care personnel.	Legal/Ethical Issues
8e. Describe the three types of vaccine exemptions (medical, religious, and philosophical).	
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9c. Locate current vaccine storage and handling resources.	
9e. Develop plans that include standard operating procedures (SOPs) for routine and emergency vaccine storage and handling.	
9f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.	
9i. Locate resources relevant to current vaccine recommendations.	Vaccine Administration
10a. Review the Rights of Medication Administration adapted for vaccines.	
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	

Framework Objective	Corresponding Framework Topic
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	Vaccine Administration
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	
10n. Describe best practices to prevent vaccine administration errors.	
10o. Locate resources on current vaccine administration practice.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	
11e. Describe best practices for documenting vaccine contraindications and precautions.	
11f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).	
11g. Describe how to document an adverse event (i.e., anaphylaxis) following vaccination.	
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	
12a. Describe common adverse reactions by vaccine type.	Vaccine Safety
12b. Differentiate between an adverse reaction and an adverse event.	
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	

Adult and Geriatric Nursing/Medical-Surgical 1 (MS1)

Number of Relevant Course Objectives: 51

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Vaccine-Preventable Diseases, Immunization Schedules, Communications, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
2b. List evidence-based strategies to increase vaccination coverage, such as those cited in the <i>Guide to Community Preventive Services</i> , <i>Standards for Adult Immunization Practice</i> , and <i>Standards for Child and Adolescent Immunization Practices</i> .	
2f. Develop a teaching plan on the immunization needs of a patients and/or a population.	
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older .	Vaccine-Preventable Diseases
4d. Describe the etiologic agent, pathogenesis, signs and symptoms, appropriate infection control and prevention (e.g., standard, droplet, airborne and contact precaution), and epidemiology of vaccine-preventable diseases.	
4f. Describe nursing roles related to vaccine-preventable diseases: advocate, educator, lifelong learner, and reporter.	
6b. Identify the routinely recommended vaccines for children and adolescents aged birth through 18 years using the Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, the Catch-Up Immunization Schedule for Persons Aged 4 Months through 18 Years Who Started Late or Who Are More than 1 Month Behind, and table 3 of the immunization schedule, which shows vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications.	Immunization Schedules
6c. Identify the routinely recommended vaccines for persons aged 19 years and older using the Recommended Adult Immunization Schedule by Age Group and the Recommended Adult Immunization Schedule by Medical Condition and Other Indications.	
6e. Identify contraindications and precautions by vaccine.	
6f. Identify conditions commonly misperceived as contraindications to vaccination.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6j. Discuss the benefits of simultaneous administration.	
6k. Locate resources relevant to current vaccine recommendations.	
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	

Framework Objective	Corresponding Framework Topic
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	Communications
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.	
9h. Describe proper vaccine disposal procedures based on state and environmental agency regulations.	
9i. Locate resources relevant to current vaccine recommendations.	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	
10h. Identify age-appropriate sites for administration of vaccine.	
10i. Identify age-appropriate needle lengths and gauges for administration of vaccine.	
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	
10k. Describe age-appropriate patient positioning when administering vaccines.	
10m. Describe techniques to reduce procedural pain associated with vaccination.	
10n. Describe best practices to prevent vaccine administration errors.	
10o. Locate resources on current vaccine administration practice.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	
11e. Describe best practices for documenting vaccine contraindications and precautions.	
12a. Describe common adverse reactions by vaccine type.	Vaccine Safety
12b. Differentiate between an adverse reaction and an adverse event.	
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	

Mental Health Nursing (MEN)

Number of Relevant Course Objectives: 12

Framework Topics Addressed: *Public Health Perspective, Vaccine-Preventable Diseases, Communications, Vaccine Storage and Handling, Vaccine Administration*

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.	Vaccine-Preventable Diseases
7c. Recommend credible sources of vaccine information.	Communications
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	
9i. Locate resources relevant to current vaccine recommendations.	Vaccine Storage and Handling
10b. Describe the steps for proper vaccine administration.	Vaccine Administration
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10n. Describe best practices to prevent vaccine administration errors.	

Maternity Nursing (MAT)

Number of Relevant Course Objectives: 26

Framework Topics Addressed: Public Health Perspective, Immunization Strategies, Vaccine-Preventable Diseases, Immunization Schedules, Communications, Vaccine Storage and Handling, Vaccine Administration

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	
2f. Develop a teaching plan on the immunization needs of a patient and/or a population.	Immunization Strategies
4a. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.	Vaccine-Preventable Diseases
6e. Identify contraindications and precautions by vaccine.	Immunization Schedules
6f. Identify conditions commonly misperceived as contraindications to vaccination.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6k. Locate resources relevant to current vaccine recommendations.	
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	Communications
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	Vaccine Storage and Handling
9i. Locate resources relevant to current vaccine recommendations.	
10b. Describe the steps for proper vaccine administration.	Vaccine Administration
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	
10h. Identify age-appropriate sites for administration of vaccine.	
10i. Identify age-appropriate needle lengths and gauges for administration of vaccine.	
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	
10n. Describe best practices to prevent vaccine administration errors.	

Pediatric Nursing (PED)

Number of Relevant Course Objectives: 60

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Immune System/Immunology, Vaccine-Preventable Diseases, Types of Vaccines, Immunization Schedules, Communications, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	Public Health Perspective
1d. Describe the purpose of the Vaccines for Children (VFC) program.	
1g. Describe the nursing roles related to public health: advocate, care coordinator, educator, school health care provider, state immunization coalition member, leader, and lifelong learner.	
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
2b. List evidence-based strategies to increase vaccination coverage, such as those cited in the <i>Guide to Community Preventive Services, Standards for Adult Immunization Practice, and Standards for Child and Adolescent Immunization Practices.</i>	
2f. Develop a teaching plan on the immunization needs of a patients and/or a population.	
3c. Identify types of immunity.	Immune System/Immunology
3d. Differentiate between active immunity and passive immunity.	
3e. Compare immunity from immunization with immunity from wild-type infection.	
3f. List factors that affect the immune response to vaccines.	
3g. Describe community (herd) immunity.	
4a. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.	Vaccine-Preventable Diseases
5f. Identify common public concerns about vaccine components such as formaldehyde, aluminum, and thimerosal.	Types of Vaccines
6b. Identify the routinely recommended vaccines for children and adolescents aged birth through 18 years using the Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, the Catch-Up Immunization Schedule for Persons Aged 4 Months through 18 Years Who Started Late or Who Are More than 1 Month Behind, and table 3 of the immunization schedule, which shows vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications.	Immunization Schedules
6e. Identify contraindications and precautions by vaccine.	
6f. Identify conditions commonly misperceived as contraindications to vaccination.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6j. Discuss the benefits of simultaneous administration.	
6k. Locate resources relevant to current vaccine recommendations.	Communications
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	

Framework Objective	Corresponding Framework Topic
7c. Recommend credible sources of vaccine information.	Communications
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9c. Locate current vaccine storage and handling resources.	
9d. Describe vaccine storage and handling recommendations for off-site or satellite facilities.	
9e. Develop plans that include standard operating procedures (SOPs) for routine and emergency vaccine storage and handling.	
9f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.	
9i. Locate resources relevant to current vaccine recommendations.	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	
10h. Identify age-appropriate sites for administration of vaccine.	
10i. Identify age-appropriate needle lengths and gauges for administration of vaccine.	
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	
10k. Describe age-appropriate patient positioning when administering vaccines.	
10l. Describe strategies to prevent syncope (specifically among adolescents).	
10m. Describe techniques to reduce procedural pain associated with vaccination.	
10n. Describe best practices to prevent vaccine administration errors.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	

Framework Objective	Corresponding Framework Topic
11e. Describe best practices for documenting vaccine contraindications and precautions.	Documentation
11f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).	
11g. Describe how to document an adverse event (i.e., anaphylaxis) following vaccination.	
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	
12a. Describe common adverse reactions by vaccine type.	Vaccine Safety
12b. Differentiate between an adverse reaction and an adverse event.	
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	



Public Health Nursing (PHN)

Number of Relevant Course Objectives: 100

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Immune System/Immunology, Vaccine-Preventable Diseases, Types of Vaccines, Immunization Schedules, Communications, Legal/Ethical Issues, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1a. Explain how immunization practice relates to the three levels of disease prevention (i.e., primary, secondary, and tertiary).	Public Health Perspective
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	
1d. Describe the purpose of the Vaccines for Children (VFC) program.	
1e. Discuss how the Advisory Committee on Immunization Practices (ACIP) develops immunization recommendations.	
1f. Describe the role of your state and/or local immunization program.	
1g. Describe the nursing roles related to public health: advocate, care coordinator, educator, school health care provider, state immunization coalition member, leader, and lifelong learner.	
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
2b. List evidence-based strategies to increase vaccination coverage, such as those cited in the <i>Guide to Community Preventive Services, Standards for Adult Immunization Practice, and Standards for Child and Adolescent Immunization Practices</i> .	
2c. Describe immunization quality improvement strategies for providers.	
2d. Explain the benefits of an immunization information system (IIS).	
2f. Develop a teaching plan on the immunization needs of a patients and/or a population.	
2g. Describe nursing roles related to immunization strategies: advocate, authority figure, communicator, care coordinator, records manager, educator, and lifelong learner.	Immune System/Immunology
3c. Identify types of immunity.	
3d. Differentiate between active immunity and passive immunity.	
3e. Compare immunity from immunization with immunity from wild-type infection.	
3g. Describe community (herd) immunity.	
3h. Describe nursing roles related to the immune system/immunology: advocate, educator, and lifelong learner.	Vaccine-Preventable Diseases
4a. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.	
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.	
4c. Identify the diseases prevented by travel vaccines.	
4e. Explain the nurse's role in vaccine-preventable disease surveillance.	
4f. Describe nursing roles related to vaccine-preventable diseases: advocate, educator, lifelong learner, and reporter.	Types of Vaccines
5a. Identify types of vaccines (i.e., live, inactivated).	
5b. Compare types of vaccines by how they are derived.	

Framework Objective	Corresponding Framework Topic
5c. Compare types of vaccines by how they produce immunity.	Types of Vaccines
5d. Discuss implications of the different types of vaccines (i.e., contraindications, precautions, risks, and use in special populations).	
5e. Identify common vaccine components that may be present in a given vaccine product (e.g., adjuvants, preservatives, stabilizers, and antibiotics).	
5f. Identify common public concerns about vaccine components such as formaldehyde, aluminum, and thimerosal.	
5g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor.	
6a. Recognize the role of the Advisory Committee on Immunization Practices (ACIP) and other organizations (i.e., the American Academy of Pediatrics [AAP], the American Academy of Family Physicians [AAFP], the American College of Obstetricians and Gynecologists [ACOG], the American College of Physicians [ACP], and the American College of Nurse-Midwives [ACNM]) in the development of immunization schedules.	Immunization Schedules
6b. Identify the routinely recommended vaccines for children and adolescents aged birth through 18 years using the Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, the Catch-Up Immunization Schedule for Persons Aged 4 Months through 18 Years Who Started Late or Who Are More than 1 Month Behind, and table 3 of the immunization schedule, which shows vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications.	
6c. Identify the routinely recommended vaccines for persons aged 19 years and older using the Recommended Adult Immunization Schedule by Age Group and the Recommended Adult Immunization Schedule by Medical Condition and Other Indications.	
6d. Identify the routinely recommended vaccines for travelers.	
6e. Identify contraindications and precautions by vaccine.	
6f. Identify conditions commonly misperceived as contraindications to vaccination.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6j. Discuss the benefits of simultaneous administration.	
6k. Locate resources relevant to current vaccine recommendations.	
6l. Describe the nursing roles related to the immunization schedule: advocate, communicator, care coordinator, educator, lifelong learner, and screener/assessor.	
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	

Framework Objective	Corresponding Framework Topic
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	Communications
7g. Describe the requirements for the use of VISs.	
7h. Describe the nursing roles related to communication: risk manager, communicator, educator, advocate, records manager, and lifelong learner.	
8a. Describe how ethical principles apply to immunization, including the individual's rights to confidentiality and privacy, informed consent, and informed refusal. (Ethical principles include beneficence, nonmaleficence, respect for autonomy, fairness, truthfulness, and justice.)	Legal/Ethical Issues
8b. Differentiate between federal and state laws related to immunization practice and required activities such as administration, record-keeping, and reimbursement.	
8e. Describe the three types of vaccine exemptions (medical, religious, and philosophical).	
8f. Identify the nurse's own professional scope of practice as it relates to immunization (jurisdiction or board of nursing, accountability, delegation, organization, practice setting, etc.).	
8g. Discuss fiscal implications (barriers and facilitators) related to immunization access.	
8h. Describe nursing roles related to legal/ethical issues: advocate, leader, and lifelong learner.	
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9c. Locate current vaccine storage and handling resources.	
9d. Describe vaccine storage and handling recommendations for off-site or satellite facilities.	
9e. Develop plans that include standard operating procedures (SOPs) for routine and emergency vaccine storage and handling.	
9f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.	
9g. Determine when a vaccine will expire according to a beyond use date (BUD).	
9h. Describe proper vaccine disposal procedures based on state and environmental agency regulations.	
9i. Locate resources relevant to current vaccine recommendations.	
9j. Describe nursing roles and responsibilities related to storage and handling: ensuring appropriate storage and handling, maintaining vaccine integrity, and monitoring and overseeing vaccine storage and handling, as well as records manager and lifelong learner.	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	

Framework Objective	Corresponding Framework Topic
10h. Identify age-appropriate sites for administration of vaccine.	Vaccine Administration
10i. Identify age-appropriate needle lengths and gauges for administration of vaccine.	
10j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.	
10k. Describe age-appropriate patient positioning when administering vaccines.	
10m. Describe techniques to reduce procedural pain associated with vaccination.	
10n. Describe best practices to prevent vaccine administration errors.	
10o. Locate resources on current vaccine administration practice.	
10p. Discuss the role of mass administration of vaccines (during a public health emergency or an influenza vaccination clinic).	
10q. Describe nursing roles and responsibilities related to administration: vaccine administration or supervision of vaccine administration, educator, care coordinator, records manager, and lifelong learner.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	
11e. Describe best practices for documenting vaccine contraindications and precautions.	
11f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).	
11g. Describe how to document an adverse event (i.e., anaphylaxis) following vaccination.	
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	
12a. Describe common adverse reactions by vaccine type.	Vaccine Safety
12b. Differentiate between an adverse reaction and an adverse event.	
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	
12e. Describe the National Vaccine Injury Compensation Program (NVICP).	
12f. Describe ongoing processes for vaccine post-marketing safety monitoring (e.g., Vaccine Adverse Event Reporting System [VAERS], Clinical Immunization Safety Assessment [CISA] Project, and Vaccine Safety Datalink [VSD]).	
12g. Describe who may report to VAERS, what is reported, and how the data are used (i.e., to monitor for signals of vaccine safety problems, which may lead to additional studies in VSD or elsewhere to assess causality).	
12h. Describe the process of phased clinical trials and FDA approval and licensure of vaccines in the United States.	
12i. Describe a nurse’s role in monitoring and ensuring vaccine safety.	
12j. Describe other nursing roles related to safety: records manager, reporter, and lifelong learner.	

Nursing in Complex Care Scenarios/Medical-Surgical 2 (MS2)

Number of Relevant Course Objectives: 34

Framework Topics Addressed: *Public Health Perspective, Vaccine-Preventable Diseases, Immunization Schedules, Communications, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	Public Health Perspective
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.	Vaccine-Preventable Diseases
4d. Describe the etiologic agent, pathogenesis, signs and symptoms, appropriate infection control and prevention (e.g., standard, droplet, airborne and contact precaution), and epidemiology of vaccine-preventable diseases.	
6c. Identify the routinely recommended vaccines for persons aged 19 years and older using the Recommended Adult Immunization Schedule by Age Group and the Recommended Adult Immunization Schedule by Medical Condition and Other Indications.	Immunization Schedules
6e. Identify contraindications and precautions by vaccine.	
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	Communications
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	
9a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.	Vaccine Storage and Handling
9b. Identify common storage and handling errors and appropriate actions to address these errors.	
9i. Locate resources relevant to current vaccine recommendations.	
10a. Review the Rights of Medication Administration adapted for vaccines.	Vaccine Administration
10b. Describe the steps for proper vaccine administration.	
10c. Describe how to prepare a vaccine from a single-dose vial.	
10d. Describe how to prepare a vaccine from a multidose vial.	
10e. Describe how to prepare a vaccine in a manufacturer-filled syringe.	
10f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.	

Framework Objective	Corresponding Framework Topic
10g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.	Vaccine Administration
10n. Describe best practices to prevent vaccine administration errors.	
11c. Describe best practices for documenting vaccine administration.	Documentation
11d. Describe best practices for documenting vaccine refusal.	
11f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).	
12b. Differentiate between an adverse reaction and an adverse event.	Vaccine Safety
12c. Develop a plan to manage an adverse event following vaccination.	
12d. Describe supplies and staff training needed to manage anaphylaxis.	
12j. Describe other nursing roles related to safety: records manager, reporter, and lifelong learner.	

Wellness and Health Promotion (WHP)

Number of Relevant Course Objectives: 45

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Vaccine-Preventable Diseases, Types of Vaccines, Immunization Schedules, Communications, Legal/Ethical Issues, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1a. Explain how immunization practice relates to the three levels of disease prevention (i.e., primary, secondary, and tertiary).	Public Health Perspective
1b. Describe the impact of immunization on vaccine-preventable disease incidence.	
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
2b. List evidence-based strategies to increase vaccination coverage, such as those cited in the <i>Guide to Community Preventive Services</i> , <i>Standards for Adult Immunization Practice</i> , and <i>Standards for Child and Adolescent Immunization Practices</i> .	
2c. Describe immunization quality improvement strategies for providers.	
2f. Develop a teaching plan on the immunization needs of a patients and/or a population.	
4a. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.	Vaccine-Preventable Diseases
4b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.	
5g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor.	Types of Vaccines
6d. Identify the routinely recommended vaccines for travelers.	Immunization Schedules
6g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).	
6h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.	
6i. Discuss the importance of appropriate spacing and timing of vaccine doses.	
6j. Discuss the benefits of simultaneous administration.	
6k. Locate resources relevant to current vaccine recommendations.	
7a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.	Communications
7b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.	
7c. Recommend credible sources of vaccine information.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	
7f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).	
7g. Describe the requirements for the use of VISs.	

Framework Objective	Corresponding Framework Topic
8a. Describe how ethical principles apply to immunization, including the individual's rights to confidentiality and privacy, informed consent, and informed refusal. (Ethical principles include beneficence, nonmaleficence, respect for autonomy, fairness, truthfulness, and justice.)	Legal/Ethical Issues
8c. Identify your state's immunization requirements, including those for child care settings, schools, colleges and universities, and health care settings.	
8d. Identify your state's immunization requirements for health care personnel.	
8f. Identify the nurse's own professional scope of practice as it relates to immunization (jurisdiction or board of nursing, accountability, delegation, organization, practice setting, etc.).	
8g. Discuss fiscal implications (barriers and facilitators) related to immunization access.	
8h. Describe nursing roles related to legal/ethical issues: advocate, leader, and lifelong learner.	
9c. Locate current vaccine storage and handling resources.	Vaccine Storage and Handling
9d. Describe vaccine storage and handling recommendations for off-site or satellite facilities.	
9i. Locate resources relevant to current vaccine recommendations.	
9j. Describe nursing roles and responsibilities related to storage and handling: ensuring appropriate storage and handling, maintaining vaccine integrity, and monitoring and overseeing vaccine storage and handling, as well as records manager and lifelong learner.	
10n. Describe best practices to prevent vaccine administration errors.	Vaccine Administration
10o. Locate resources on current vaccine administration practice.	
11a. Describe federal requirements for documentation related to the administration of vaccines.	Documentation
11b. Describe additional state and local requirements for documentation related to the administration of vaccines.	
11c. Describe best practices for documenting vaccine administration.	
11d. Describe best practices for documenting vaccine refusal.	
12e. Describe the National Vaccine Injury Compensation Program (NVICP).	Vaccine Safety
12f. Describe ongoing processes for vaccine post-marketing safety monitoring (e.g., Vaccine Adverse Event Reporting System [VAERS], Clinical Immunization Safety Assessment [CISA] Project, and Vaccine Safety Datalink [VSD]).	
12g. Describe who may report to VAERS, what is reported, and how the data are used (i.e., to monitor for signals of vaccine safety problems, which may lead to additional studies in VSD or elsewhere to assess causality).	
12h. Describe the process of phased clinical trials and FDA approval and licensure of vaccines in the United States.	
12i. Describe a nurse's role in monitoring and ensuring vaccine safety.	
12j. Describe other nursing roles related to safety: records manager, reporter, and lifelong learner.	

Leadership in Nursing (LEAD)

Number of Relevant Course Objectives: 25

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Immune System/Immunology, Vaccine-Preventable Diseases, Types of Vaccines, Immunization Schedules, Communications, Legal/Ethical Issues, Vaccine Storage and Handling, Vaccine Administration, Documentation, Vaccine Safety*

Framework Objective	Corresponding Framework Topic
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	Public Health Perspective
1g. Describe the nursing roles related to public health: advocate, care coordinator, educator, school health care provider, state immunization coalition member, leader, and lifelong learner.	
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
2c. Describe immunization quality improvement strategies for providers.	
2e. Describe how a health care facility's policies can integrate immunization-related activities with other health care services and/or interventions.	
2g. Describe nursing roles related to immunization strategies: advocate, authority figure, communicator, care coordinator, records manager, educator, and lifelong learner.	Immune System/Immunology
3h. Describe nursing roles related to the immune system/immunology: advocate, educator, and lifelong learner.	
4e. Explain the nurse's role in vaccine-preventable disease surveillance.	Vaccine-Preventable Diseases
4f. Describe nursing roles related to vaccine-preventable diseases: advocate, educator, lifelong learner, and reporter.	
5g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor.	Types of Vaccines
6a. Recognize the role of the Advisory Committee on Immunization Practices (ACIP) and other organizations (i.e., the American Academy of Pediatrics [AAP], the American Academy of Family Physicians [AAFP], the American College of Obstetricians and Gynecologists [ACOG], the American College of Physicians [ACP], and the American College of Nurse-Midwives [ACNM]) in the development of immunization schedules.	Immunization Schedules
6i. Describe the nursing roles related to the immunization schedule: advocate, communicator, care coordinator, educator, lifelong learner, and screener/assessor.	
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	Communications
7h. Describe the nursing roles related to communication: risk manager, communicator, educator, advocate, records manager, and lifelong learner.	
8a. Describe how ethical principles apply to immunization, including the individual's rights to confidentiality and privacy, informed consent, and informed refusal. (Ethical principles include beneficence, nonmaleficence, respect for autonomy, fairness, truthfulness, and justice.)	Legal/Ethical Issues
8d. Identify your state's immunization requirements for health care personnel.	
8f. Identify the nurse's own professional scope of practice as it relates to immunization (jurisdiction or board of nursing, accountability, delegation, organization, practice setting, etc.).	
8g. Discuss fiscal implications (barriers and facilitators) related to immunization access.	
8h. Describe nursing roles related to legal/ethical issues: advocate, leader, and lifelong learner.	

Framework Objective	Corresponding Framework Topic
9j. Describe nursing roles and responsibilities related to storage and handling: ensuring appropriate storage and handling, maintaining vaccine integrity, and monitoring and overseeing vaccine storage and handling, as well as records manager and lifelong learner.	Vaccine Storage and Handling
10q. Describe nursing roles and responsibilities related to administration: vaccine administration or supervision of vaccine administration, educator, care coordinator, records manager, and lifelong learner.	Vaccine Administration
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	Documentation
12g. Describe who may report to VAERS, what is reported, and how the data are used (i.e., to monitor for signals of vaccine safety problems, which may lead to additional studies in VSD or elsewhere to assess causality).	Vaccine Safety
12i. Describe a nurse's role in monitoring and ensuring vaccine safety.	
12j. Describe other nursing roles related to safety: records manager, reporter, and lifelong learner.	

Nursing Ethics (ETH)

Number of Relevant Course Objectives: 14

Framework Topics Addressed: *Public Health Perspective, Immunization Strategies, Types of Vaccines, Immunization Schedules, Communications, Legal/Ethical Issues, Vaccine Storage and Handling, Documentation*

Framework Objective	Corresponding Framework Topic
1c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.	Public Health Perspective
2a. Identify barriers to immunization (e.g., patients, providers, and systems).	Immunization Strategies
5g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor.	Types of Vaccines
6a. Recognize the role of the Advisory Committee on Immunization Practices (ACIP) and other organizations (i.e., the American Academy of Pediatrics [AAP], the American Academy of Family Physicians [AAFP], the American College of Obstetricians and Gynecologists [ACOG], the American College of Physicians [ACP], and the American College of Nurse-Midwives [ACNM]) in the development of immunization schedules.	Immunization Schedules
6l. Describe the nursing roles related to the immunization schedule: advocate, communicator, care coordinator, educator, lifelong learner, and screener/assessor.	
7d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.	Communications
7e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.	
8a. Describe how ethical principles apply to immunization, including the individual's rights to confidentiality and privacy, informed consent, and informed refusal. (Ethical principles include beneficence, nonmaleficence, respect for autonomy, fairness, truthfulness, and justice.)	Legal/Ethical Issues
8e. Describe the three types of vaccine exemptions (medical, religious, and philosophical).	
8f. Identify the nurse's own professional scope of practice as it relates to immunization (jurisdiction or board of nursing, accountability, delegation, organization, practice setting, etc.).	
8g. Discuss fiscal implications (barriers and facilitators) related to immunization access.	
8h. Describe nursing roles related to legal/ethical issues: advocate, leader, and lifelong learner.	
9j. Describe nursing roles and responsibilities related to storage and handling: ensuring appropriate storage and handling, maintaining vaccine integrity, and monitoring and overseeing vaccine storage and handling, as well as records manager and lifelong learner.	Vaccine Storage and Handling
11h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.	Documentation

Option Two

IRUN Learning Objectives and Nursing Courses by Framework Topic



IRUN Learning Objectives and Nursing Courses by Framework Topic

This option is organized into tables that correspond with the 12 IRUN framework topics. With all common, requisite nursing courses listed in the tables' columns, this option provides an overview of immunization content placement across a nursing curriculum.

IRUN Learning Objectives Count by Course and Framework Topic	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health Nursing	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
1. Public Health Perspective <i>(Topic covered in 12 courses)</i>	1	1		1	1	1	2	3	7	2	3	2	1
2. Immunization Strategies <i>(Topic covered in 8 courses)</i>				1	3		1	3	6		4	4	1
3. Immune System/ Immunology <i>(Topic covered in 4 courses)</i>	7							5	5			1	
4. Vaccine-Preventable Diseases <i>(Topic covered in 10 courses)</i>	1			2	3	1	1	1	5	2	2	2	
5. Types of Vaccines <i>(Topic covered in 7 courses)</i>	4	6						1	7		1	1	1
6. Immunization Schedules <i>(Topic covered in 10 courses)</i>			4	3	9		6	8	12	5	6	2	2
7. Communications <i>(Topic covered in 12 courses)</i>		3	6	5	7	4	6	6	8	6	7	2	2
8. Legal/Ethical Issues <i>(Topic covered in 5 courses)</i>				2					6		6	5	5
9. Vaccine Storage and Handling <i>(Topic covered in 12 courses)</i>		5	1	6	5	1	1	7	10	3	4	1	1
10. Vaccine Administration <i>(Topic covered in 11 courses)</i>		12	7	10	14	5	9	14	16	8	2	1	
11. Documentation <i>(Topic covered in 10 courses)</i>		8	2	8	5			8	8	3	4	1	1
12. Vaccine Safety <i>(Topic covered in 8 courses)</i>		6		4	4			4	10	5	6	3	
Total Framework Topic Objectives Per Course	13	41	20	42	51	12	26	60	100	34	45	25	14

1. Public Health Perspective

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Explain how immunization practice relates to the three levels of disease prevention (i.e., primary, secondary, and tertiary).									PHN		WHP		
b. Describe the impact of immunization on vaccine-preventable disease incidence.	PTH	PHARM			MS1	MEN	MAT		PHN	MS2	WHP		
c. Recognize the nurse's professional responsibility for keeping her/his own immunizations up to date.							MAT	PED	PHN	MS2	WHP	LEAD	ETH
d. Describe the purpose of the Vaccines for Children (VFC) program.								PED	PHN				
e. Discuss how the Advisory Committee on Immunization Practices (ACIP) develops immunization recommendations.									PHN				
f. Describe the role of your state and/or local immunization program.									PHN				
g. Describe the nursing roles related to public health: advocate, care coordinator, educator, school health care provider, state immunization coalition member, leader, and lifelong learner.				FDN				PED	PHN			LEAD	

2. Immunization Strategies

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Identify barriers to immunization (e.g., clients, providers, and systems).					MS1			PED	PHN		WHP	LEAD	ETH
b. List evidence-based strategies to increase vaccination coverage, such as those cited in the <i>Guide to Community Preventive Services</i> , Standards for Adult Immunization Practice, and Standards for Child and Adolescent Immunization Practices.					MS1			PED	PHN		WHP		
c. Describe immunization quality improvement strategies for providers.									PHN		WHP	LEAD	
d. Explain the benefits of an immunization information system (IIS).									PHN				
e. Describe how a health care facility's policies can integrate immunization-related activities with other health care services and/or interventions.												LEAD	
f. Develop a teaching plan on the immunization needs of a client and/or a population.				FDN	MS1		MAT	PED	PHN		WHP		
g. Describe nursing roles related to immunization strategies: advocate, authority figure, communicator, care coordinator, records manager, educator, and lifelong learner.									PHN			LEAD	

3. Immune System/Immunology

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Define the word "antigen."	PTH												
b. Define the word "antibody."	PTH												
c. Identify types of immunity.	PTH							PED	PHN				
d. Differentiate between active immunity and passive immunity.	PTH							PED	PHN				
e. Compare immunity from immunization with immunity from wild-type infection.	PTH							PED	PHN				
f. List factors that affect the immune response to vaccines.	PTH							PED					
g. Describe community (herd) immunity.	PTH							PED	PHN				
h. Describe nursing roles related to the immune system/immunology: advocate, educator, and lifelong learner.									PHN			LEAD	

4. Vaccine-Preventable Diseases

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger.							MAT	PED	PHN		WHP		
b. Identify vaccine-preventable diseases for which vaccines are included in the ACIP Recommended Adult Immunization Schedule for ages 19 years or older.				FDN	MS1	MEN			PHN	MS2	WHP		
c. Identify the diseases prevented by travel vaccines.									PHN				
d. Describe the etiologic agent, pathogenesis, signs and symptoms, appropriate infection control and prevention (e.g., standard, droplet, airborne, e. contact, and airborne precaution), and epidemiology of vaccine-preventable diseases.	PTH			FDN	MS1					MS2			
e. Explain the nurse's role in vaccine-preventable disease surveillance.									PHN			LEAD	
f. Describe nursing roles related to vaccine-preventable diseases: advocate, educator, lifelong learner, and reporter.					MS1				PHN			LEAD	

5. Types of Vaccines

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Identify types of vaccines (i.e., live, inactivated).	PTH	PHARM							PHN				
b. Compare types of vaccines by how they are derived.		PHARM							PHN				
c. Compare types of vaccines by how they produce immunity.	PTH	PHARM							PHN				
d. Discuss implications of the different types of vaccines (i.e., contraindications, precautions, risks, and use in special populations).	PTH	PHARM							PHN				
e. Identify common vaccine components that may be present in a given vaccine product (e.g., adjuvants, preservatives, stabilizers, and antibiotics).	PTH	PHARM							PHN				
f. Identify common public concerns about vaccine components such as formaldehyde, aluminum, and thimerosal.		PHARM						PED	PHN				
g. Describe the nursing roles related to types of vaccines: communicator, educator, lifelong learner, and screener/assessor.									PHN		WHP	LEAD	ETH

6. Immunization Schedules

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Recognize the role of the Advisory Committee on Immunization Practices (ACIP) and other organizations (i.e., the American Academy of Pediatrics [AAP], the American Academy of Family Physicians [AAFP], the American College of Obstetricians and Gynecologists [ACOG], the American College of Physicians [ACP], and the American College of Nurse-Midwives [ACNM]) in the development of immunization schedules.									PHN			LEAD	ETH
b. Identify the routinely recommended vaccines for children and adolescents aged birth through 18 years using the Recommended Child and Adolescent Immunization Schedule for ages 18 years or younger, the Catch-Up Immunization Schedule for Persons Aged 4 Months through 18 Years Who Started Late or Who Are More than 1 Month Behind, and table 3 of the immunization schedule, which shows vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications.					MS1			PED	PHN				
c. Identify the routinely recommended vaccines for persons aged 19 years and older using the Recommended Adult Immunization Schedule by Age Group and the Recommended Adult Immunization Schedule by Medical Condition and Other Indications.					MS1				PHN	MS2			
d. Identify the routinely recommended vaccines for travelers.									PHN		WHP		
e. Identify contraindications and precautions by vaccine.					MS1		MAT	PED	PHN	MS2			
f. Identify conditions commonly misperceived as contraindications to vaccination.					MS1		MAT	PED	PHN				

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
g. Use the current immunization schedule to determine what vaccines are needed based on individual factors (e.g., age, risk factors, and health status).			HA	FDN	MS1		MAT	PED	PHN	MS2	WHP		
h. Use the current immunization schedule to determine what vaccines are needed for persons who have received vaccines outside the United States.			HA	FDN	MS1		MAT	PED	PHN	MS2	WHP		
i. Discuss the importance of appropriate spacing and timing of vaccine doses.			HA	FDN	MS1		MAT	PED	PHN	MS2	WHP		
j. Discuss the benefits of simultaneous administration.					MS1			PED	PHN		WHP		
k. Locate resources relevant to current vaccine recommendations.			HA		MS1		MAT	PED	PHN		WHP		
l. Describe the nursing roles related to the immunization schedule: advocate, communicator, care coordinator, educator, lifelong learner, and screener/assessor.									PHN			LEAD	ETH

7. Communications

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Assess the patient/caregiver's literacy level and apply appropriate communication methods/materials.			HA	FDN	MS1				PHN	MS2	WHP		
b. Locate evidence-based information and resources for communicating with parents and patients about vaccines.			HA		MS1		MAT	PED	PHN	MS2	WHP		
c. Recommend credible sources of vaccine information.			HA		MS1	MEN	MAT	PED	PHN	MS2	WHP		
d. Recognize the patient's attitudes and beliefs about immunization that may lead to religious or philosophical exemption from immunization.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2	WHP		ETH
e. Recognize how nurses' personal attitudes and beliefs affect communication about immunization.				FDN	MS1		MAT	PED	PHN		WHP	LEAD	ETH
f. Communicate clear, concise messages about the risks of vaccine-preventable diseases and the risks and benefits of vaccination using resources such as vaccine information statements (VISs).		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2	WHP		
g. Describe the requirements for the use of VISs.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2	WHP		
h. Describe the nursing roles related to communication: risk manager, communicator, educator, advocate, records manager, and lifelong learner.									PHN			LEAD	

8. Legal/Ethical Issues

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Describe how ethical principles apply to immunization, including the individual's rights to confidentiality and privacy, informed consent, and informed refusal. (Ethical principles include beneficence, nonmaleficence, respect for autonomy, fairness, truthfulness, and justice.)									PHN		WHP	LEAD	ETH
b. Differentiate between federal and state laws related to immunization practice and required activities such as administration, record-keeping, and reimbursement.									PHN				
c. Identify your state's immunization requirements, including those for child care settings, schools, colleges and universities, and health care settings.											WHP		
d. Identify your state's immunization requirements for health care personnel.				FDN							WHP	LEAD	
e. Describe the three types of vaccine exemptions (medical, religious, and philosophical).				FDN					PHN				ETH
f. Identify the nurse's own professional scope of practice as it relates to immunization (jurisdiction or board of nursing, accountability, delegation, organization, practice setting, etc.).									PHN		WHP	LEAD	ETH
g. Discuss fiscal implications (barriers and facilitators) related to immunization access.									PHN		WHP	LEAD	ETH
h. Describe nursing roles related to legal/ethical issues: advocate, leader, and lifelong learner.									PHN		WHP	LEAD	ETH

9. Vaccine Storage and Handling

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Describe vaccine storage and handling best practices, including training, equipment, and inventory management.		PHARM		FDN	MS1			PED	PHN	MS2			
b. Identify common storage and handling errors and appropriate actions to address these errors.		PHARM		FDN	MS1			PED	PHN	MS2			
c. Locate current vaccine storage and handling resources.				FDN				PED	PHN		WHP		
d. Describe vaccine storage and handling recommendations for off-site or satellite facilities.		PHARM						PED	PHN		WHP		
e. Develop plans that include standard operating procedures (SOPs) for routine and emergency vaccine storage and handling.				FDN				PED	PHN				
f. Determine the time a vaccine (and diluent, if applicable) expires when using a single-dose vial, a multidose vial, and a manufacturer-filled syringe.		PHARM		FDN	MS1			PED	PHN				
g. Determine when a vaccine will expire according to a beyond use date (BUD).		PHARM							PHN				
h. Describe proper vaccine disposal procedures based on state and environmental agency regulations.					MS1				PHN				
i. Locate resources relevant to current vaccine recommendations.			HA	FDN	MS1	MEN	MAT	PED	PHN	MS2	WHP		
j. Describe nursing roles and responsibilities related to storage and handling: ensuring appropriate storage and handling, maintaining vaccine integrity, and monitoring and overseeing vaccine storage and handling, as well as records manager and lifelong learner.									PHN		WHP	LEAD	ETH

10. Vaccine Administration

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Review the Rights of Medication Administration adapted for vaccines.		PHARM	HA	FDN	MS1			PED	PHN	MS2			
b. Describe the steps for proper vaccine administration.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2			
c. Describe how to prepare a vaccine in a single-dose vial.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2			
d. Describe how to prepare a vaccine in a multidose vial.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2			
e. Describe how to prepare a vaccine in a manufacturer-filled syringe.		PHARM		FDN	MS1	MEN	MAT	PED	PHN	MS2			
f. Describe proper vaccine reconstitution using the diluent supplied with the vaccine.		PHARM		FDN	MS1		MAT	PED	PHN	MS2			
g. Describe the recommended routes for intramuscular, subcutaneous, intranasal, and oral vaccine administration.		PHARM	HA	FDN	MS1			PED	PHN	MS2			
h. Identify age-appropriate sites for administration of vaccine.		PHARM			MS1		MAT	PED	PHN				
i. Identify age-appropriate needle lengths and gauges for administration of vaccine.		PHARM			MS1		MAT	PED	PHN				
j. Describe proper administration of vaccines via the intramuscular, subcutaneous, intranasal, and oral routes.		PHARM		FDN	MS1		MAT	PED	PHN				
k. Describe age-appropriate patient positioning when administering vaccines.					MS1			PED	PHN				
l. Describe strategies to prevent syncope (specifically among adolescents).								PED					

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
m. Describe techniques to reduce procedural pain associated with vaccination.					MS1			PED	PHN				
n. Describe best practices to prevent vaccine administration errors.		PHARM	HA	FDN	MS1	MEN	MAT	PED	PHN	MS2	WHP		
o. Locate resources on current vaccine administration practice.		PHARM	HA	FDN	MS1				PHN		WHP		
p. Discuss the role of mass administration of vaccines (during a public health emergency or an influenza vaccination clinic).									PHN				
q. Describe nursing roles and responsibilities related to administration: vaccine administration or supervision of vaccine administration, educator, care coordinator, records manager, and lifelong learner.									PHN			LEAD	

11. Documentation

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Describe federal requirements for documentation related to the administration of vaccines.		PHARM	HA	FDN	MS1			PED	PHN		WHP		
b. Describe additional state and local requirements for documentation related to the administration of vaccines.		PHARM		FDN	MS1			PED	PHN		WHP		
c. Describe best practices for documenting vaccine administration.		PHARM		FDN	MS1			PED	PHN	MS2	WHP		
d. Describe best practices for documenting vaccine refusal.		PHARM		FDN	MS1			PED	PHN	MS2	WHP		
e. Describe best practices for documenting vaccine contraindications and precautions.		PHARM		FDN	MS1			PED	PHN				
f. Explain the benefits of using an immunization information system (IIS) (see Topic 2–Immunization Strategies).		PHARM		FDN				PED	PHN	MS2			
g. Describe how to document an adverse event (i.e., anaphylaxis) following vaccination.		PHARM		FDN				PED	PHN				
h. Describe nursing roles and responsibilities related to documentation: vaccine administration or supervision of vaccine administration, advocate, records manager, educator, and lifelong learner.		PHARM	HA	FDN				PED	PHN			LEAD	ETH

12. Vaccine Safety

Blank cells represent not applicable (N/A) to the corresponding topic.

IRUN Learning Objectives	Pathophysiology	Pharmacology	Health Assessment	Foundations of Nursing Practice	Adult and Geriatric Nursing (Medical-Surgical 1)	Mental Health	Maternity Nursing	Pediatric Nursing	Public Health Nursing	Nursing in Complex Care Scenarios (Medical-Surgical 2)	Wellness and Health Promotion	Leadership in Nursing	Nursing Ethics
a. Describe common adverse reactions by vaccine type.		PHARM		FDN	MS1			PED	PHN	MS2			
b. Differentiate between an adverse reaction and an adverse event.		PHARM		FDN	MS1			PED	PHN	MS2			
c. Develop a plan to manage an adverse event following vaccination.		PHARM		FDN	MS1			PED	PHN	MS2			
d. Describe supplies and staff training needed to manage anaphylaxis.		PHARM		FDN	MS1			PED	PHN	MS2			
e. Describe the National Vaccine Injury Compensation Program (NVICP).									PHN		WHP		
f. Describe ongoing processes for vaccine postmarketing safety monitoring (e.g., Vaccine Adverse Event Reporting System [VAERS], Clinical Immunization Safety Assessment [CISA] Project, and Vaccine Safety Datalink [VSD]).									PHN		WHP		
g. Describe who may report to VAERS, what is reported, and how the data are used (i.e., to monitor for signals of vaccine safety problems, which may lead to additional studies in VSD or elsewhere to assess causality).									PHN		WHP	LEAD	
h. Describe the process of phased clinical trials and FDA approval and licensure of vaccines in the United States.		PHARM							PHN		WHP		
i. Describe a nurse's role in monitoring and ensuring vaccine safety.		PHARM							PHN		WHP	LEAD	
j. Describe other nursing roles related to safety: records manager, reporter, and lifelong learner.									PHN	MS2	WHP	LEAD	



**Centers for Disease
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