Texas Education Agency

Principles of Nursing Science

PEIMS Code: N1302109
Abbreviation: NURSSCI
Grade Level(s): 9-10
Award of Credit: 1.0

Approved Innovative Course

- Districts must have local board approval to implement innovative courses.

- In accordance with Texas Administrative Code (TAC) §74.27, school districts must provide instruction in all essential knowledge and skills identified in this innovative course.

- Innovative courses may only satisfy elective credit toward graduation requirements.

- Please refer to TAC §74.13 for guidance on endorsements.

Course Description:

The *Principles of Nursing Science* course introduces students to basic principles of the profession of nursing. The goals/student outcomes for the course include knowledge of the history of nursing, an introduction to nursing theory, professionalism (teamwork, communication, conflict resolution), legal/ethical issues in nursing, infection control, safety, and customer (patient) satisfaction. Skills learned include vital signs and how to document on a graphic record, patient positioning/transferring, bed-making, feeding, and personal protective equipment (PPE).

Essential Knowledge and Skills:

(a)   General Requirements. This course is recommended for students in grades 9-10. Students shall be awarded one credit for successful completion of this course.

(b)   Introduction.

   (1)   Career and Technical Education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.

   (2)   The Health Science Career Cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development.

   (3)   The Principles of Nursing Science course introduces students to basic principles of the profession of nursing. The goals/student outcomes for the course include knowledge of the history of nursing, an introduction to nursing theory, professionalism (teamwork, communication, conflict resolution), legal/ethical issues in nursing, infection control, safety, and customer (patient) satisfaction. Skills learned include vital signs and how to document on a graphic record, patient positioning/transferring, bed-making, feeding, and personal protective equipment (PPE).

(4)   To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well with others.

(5)   Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities, recognize limitations, and understand the implications of their actions.

(6)   Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

(7)   Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.

(c)   Knowledge and Skills.

(1)   The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:

(A)   express ideas in a clear, concise, and effective manner;

(B)   exhibit the ability to cooperate, contribute, and collaborate as a member of a team; and

(C)   identify employer expectations such as punctuality, attendance, time management, communication, organizational skills, and productive work habits.

(2)   The student demonstrates effective communication skills for responding to the needs of individuals in a diverse society. The student is expected to:

(A)   identify and describe methods of therapeutic communication;

(B)   identify written, nonverbal, and verbal modes of communication in the field of nursing, including information technology;

(C)   describe how to communicate & collaborate with patients, their families, and the interdisciplinary health care team to assist in the planning, delivery, and coordination of patient-centered care;

(D)   describe communication techniques that assist with maintaining professional boundaries;

(E)   describe the communication of detailed medical information to patients or family members;

(F)   describe patient interaction strategies that build rapport or provide emotional support; and

(G)   discuss how to provide health and wellness advice to patients, program participants, or caregivers.

(3)   The student interprets, transcribes, and communicates medical vocabulary using appropriate technology. The student is expected to:

(A)   identify the systems in the human body, including organs and functions, using medical nomenclature;

  (B) demonstrate how to collect medical information from patients, family members, or other medical professionals;

  (C) explain technical medical information to patients;

  (D) list the steps to recording and interpreting technical health or medical documents; and

  (E) describe entering patient or treatment data into medical software.

(4) The student summarizes the history of nursing. The student is expected to:

  (A) discuss historical factors and nursing leaders that influenced the development of nursing;

  (B) review the historical nursing practices and issues affecting the development and practice of nursing;

  (C) describe the different types of educational programs for nurses; and

  (D) describe the development of the four major areas of nursing science, including practice, administration, education, and research.

(5) The student describes the components of infection control. The student is expected to:

  (A) identify the components of the chain of infection and analyze strategies to break the chain of infection;

  (B) identify standard and transmission-based precautions, such as the use of personal protective equipment (PPE);

  (C) identify characteristics, concepts, and processes related to the transmission of common communicable diseases including individual risk factors and preventative health factors;

  (D) describe how to implement sanitation practices in healthcare settings; and

  (E) demonstrate appropriate hand-washing technique and how to properly don and doff PPE.

(6) The student demonstrates knowledge of teamwork concepts in an integrated healthcare work environment. The student is expected to:

  (A) identify the roles and responsibilities of members of the interdisciplinary health care team;

  (B) define methods of collaboration with healthcare professionals to plan or provide treatment;

  (C) cooperate, contribute and collaborate as a member of the healthcare team to obtain agreement and achieve a collective outcome; and

  (D) evaluate the role of the nurse as a member of the interdisciplinary team.

(7) The student differentiates between professional and nonprofessional behavior in nursing practices. The student is expected to:

  (A) identify aspects of professionalism including attention to appearance and demeanor; and

  (B) identify professional characteristics and values such as altruism, human dignity, truth, justice, freedom, equality, and esthetics.

(8) The student integrates nursing theory into nursing practice. The student is expected to:

   (A) discuss evidence-based clinical practice guidelines;

   (B) discuss nursing philosophy and theory and how each guides nursing practice;

   (C) identify the components of nursing process and apply them to a patient's plan of care; and

   (D) define quality, safety, education in nursing (QESN) concepts and the importance to professional practice.

(9) The student explains the legal and ethical responsibilities in nursing practice. The student is expected to:

   (A) identify key federal and state statutes such as Health Insurance Portability and Accountability Act (HIPAA) and Protected Health Information (PHI) and institutional policies regarding confidentiality;

   (B) identify the nurses' legal scope of practice in accordance with the Texas Nurse Practice Act;

   (C) analyze legal and ethical issues related to the delivery of culturally sensitive care to patients and their families;

   (D) discuss the rights and responsibilities of patients regarding healthcare, including self-determination and right of refusal; and

   (E) demonstrate the application of ethical principles to unethical situations involving the nursing profession.

(10) The student understands patient-centered care. The student is expected to:

   (A) evaluate the individualized plan of care to assist patients to meet basic physical and psychosocial needs; and

   (B) analyze methods for providing culturally sensitive care that address the needs of diverse individuals and their families across the lifespan.

Recommended Resources and Materials:

Alligood, M. R. (2018). Nursing Theorists and Their Work (9th ed.). St. Louis: Elsevier.

American Nurses Association (2015). Code of ethics for nurses with interpretive statements. Silver Spring, MD: Nursesbooks.org. Retrieved from https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/code-of-ethics-for-nurses/coe-view-only/ .

Bayer, M., Bonalumi, N. M., Sweet, V. (2018). Professionalism and Leadership. Emergency Nursing Core Curriculum (7th ed.). 686-697.

Dorland's Electronic Medical Dictionary. London: W.B. Saunders, 2000. Retrieved from https://www.nursingworld.org/ana/about-ana/history/hall-of-fame/

"Hand Hygiene Interactive Education." Centers for Disease Control and Prevention. Department of Health and Human Services. Accessed July 16, 2020. https://www.cdc.gov/handhygiene/training/interactiveEducation/.

"How Infections Spread." Centers for Disease Control and Prevention. Department of Health and Human Services. Accessed July 16, 2020. https://www.cdc.gov/infectioncontrol/spread/index.html.

Richards, Ann, and Sharon Edwards. *Nurse's Survival Guide to the Ward (3rd Edition)*. Elsevier Health Sciences UK, 2012. 59-173.

Laur, C. (2010, December 20). 10 Strategies to Provide Patients With Superior Customer Service. Retrieved from https://www.beckershospitalreview.com/hospital-management-administration/10-strategies-to-provide-patients-with-superior-customer-service.html?em=.

Patterson, Kerry. (Eds.) (2012) Crucial conversations: tools for talking when stakes are high (2nd ed.). New York: McGraw-Hill.

Perry, A.G., Potter, P.A., Ostendorf, W.R. (Eds.). (2018). Clinical nursing skills & techniques (9th ed.). St. Louis: Elsevier.

Phillips, N., (2017). Expected Behaviors of Perioperative Caregivers. Betty & Kohn's Operating Room Technique (13th ed., pp. 1-14). St. Louis: Elsevier.

Smith, C. E., (2019). Care of the Patient in Surgery (16th ed.). St. Louis: Elsevier.

Taking Vital Signs. Brookside Associates, 2015. https://brooksidepress.org/vitalsigns/.

Urden, L. D., (2018). Critical Care Nursing Practice (8th ed.). St. Louis: Elsevier.

Recommended Course Activities:

- Participate in skills lab for patient care skills (instructor-led or video-led demonstration, practice, demonstration for evaluation)
- Role play for communication and growth and development objectives
- Participate in critical-thinking scenarios (students must read scenarios and provide evidence-based responses)
- Review Journals and articles
- Medical math worksheet activities
- Review medical charts
- Attend professional guest speaker lectures
- Review case studies (patient care and professional nursing issues)
- I Didn't Know Nurses Did That! - Career Investigation PPT (presentation on professional nursing career avenues and specialties.)
- Complete Intro to Body Systems organ and functions activities -coloring, clay, food, paper.

Suggested methods for evaluating student outcomes:

1. <u>Weekly Reflective Journal</u>
   - instructor to provide reflection questions based on content taught that week
2. <u>Concept Mapping</u>
   - nursing scope of practice / responsibility
   - history of nursing
   - infection prevention & control
3. <u>Role Play / Simulation</u>
   - facilitate demonstration of appropriate communication, professionalism, conflict resolution, and customer service
4. <u>Examination</u>
   - combination of multiple choice, fill in, labelling, math, and defining of key terms related to nursing
5. <u>Skills validation / check off</u>
   - Vital Signs
   - Documenting on graphic record
   - Patient positioning/transferring
   - Bed-making
   - Feeding
   - PPE
6. <u>Virtual Group Presentation</u>
   - summative evaluation of course objectives

Teacher qualifications:

An assignment for Principles of Nursing Science is allowed with one of the following certificates:

- Health Science: Grades 6-12.
- Health Science Technology Education: Grades 8-12.

Additional information: