SCIENCE & HEALTH PROFESSIONS

NURSING PROGRAM

ALTERATIONS IN HEALTH I

COURSE OUTLINE

SPRING 2010

COURSE OUTLINE

Course Number NRS 120 **Course Title: Alterations in Health I**

Credits: 3
Weeks: 5

Hours: 3 Theory Hours
2 College Lab Hours
6 Clinical Lab Hours

Catalog description:

Course is designed to facilitate the student to apply the nursing process when providing care to clients across the lifespan with acute and chronic alterations in health related to the concept of oxygenation. The student will continue to evolve critical thinking and clinical judgment skills as applied to the care of adult and pediatric clients with alterations in ventilation including upper and lower respiratory illness, as well as alterations in tissue perfusion related to cardiovascular illness. Students will advance evidenced-based safe practice through clinical learning experiences in acute care medical-surgical and telemetry as well as specialty hospital and community- based pediatric settings.

Prerequisites: NRS 110 Fundamentals Concepts of Nursing with grade of C or better.

Corequisites: None

Required Textbooks and Materials:

Ball, J. and Bindler, R. (2003*). Pediatric Nursing: Caring For Children.* (4rd. ed.) Norwalk: Pearson.

Ignatavicius, DD and Workman, M. Linda. (2010). *Medical-Surgical Nursing Patient-Centered Collaborative Care*. St. Louis: Elsevier Saunders. (6th.ed.) (**ISBN:** 978-1-4160-3762-0. 2 volume set: **IBSN** 978-1-4160-4903-6).

Lilley, L.L., Harrington, S., and Snyder, J. (2007). *Pharmacology and the Nursing Process*. (5th ed.) St. Louis: Elsevier Mosby. (**IBSN**: 13:978-0-323-04486-8).

Lilley, L.L., Harrington, S., and Snyder, J.S. (2007). *Study Skills Guide for Pharmacology and the Nursing Process.* (5th ed.). St. Louis: Elsevier Mosby.

NRS20 Lab Manual. Download from MCCC Nursing Program Website: www.mccc.edu/~martinl.

Brown, M. and Mulholland, J.A. (2008) Drug Calculations. (8th ed.) St. Louis: Elsevier Mosby. (**IBSN:** 13:078-0-323-04576-6).

Phillips, L.D. (2008). *Manual of IV Therapeutics*. (5th ed.) Philadelphia: F.A. Davis Company

Potter, P.A., Perry, A.G. (2009*). Fundamentals of Nursing.* (7th ed.). St. Louis: Elsevier Mosby. (**IBSN:** 13:978-0-323-4828-6).

Schuster, Pamela McHugh (2008). *Concept Mapping – A Critical-Thinking Approach to Care Planning.* (2nd ed.). Philadelphia: F.A.Davis Company. (**IBSN;** 13:978-0-8036-1567-0).

Smith, S.F. and Duell, D.J. (2008). *Clinical Nursing Skills Basic to Advanced Skills*. (7th ed.) Upper Saddle River: Prentice-Hall (**IBSN:** 13:978-0-132-24355-1)

Snyder, J. (2010). *Critical Thinking Study Guide to Accompany Ignatavicius & Workman Medical-Surgical Nursing***.** (6th ed.). St. Louis: Elsevier Saunders.

Course Information Resources: Course Notes and Assignments. MCCC Nursing Program Website www.mccc.edu/~martinl.

Recommended Textbooks:

Gahart, B. L. (2008*). Intravenous Medications: Handbook For Nurses.*(23nd ed.). St. Louis: C. V. Mosby

Nursing 2010 Drug Handbook. Springhouse: Springhouse Publishers.

Plus all other textbooks used in Health Assessment, Introduction to Nursing, and Fundamental Concepts of Nursing

Information resources: Textbook, library sources, nursing education websites

Personal Digital Assistant with following downloaded textbooks:

Course Coordinator:

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Course Goals (Competencies):

1. Implement the nursing process through critical thinking and clinical judgment using evidence-based practice for clients with alterations in oxygenation as a result of altered ventilation and cardiovascular tissue perfusion.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

2. Demonstrate ability to assess a client s ventilation and cardiovascular status using skills of direct observation, health assessment, and interpretation of laboratory data.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

3. Analyze adult and pediatric assessment findings resulting in nursing diagnosis (es) based on health care alterations.
   Core Abilities: A, B, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

4. Develop an individualized patient concept map based on Maslow s Hierarchy of Needs for clients with alterations in oxygenation across the life span
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

5. Set priorities in the care of clients with complications of alterations in ventilation and cardiovascular tissue perfusion.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

6. Implement principles of universal precautions, medical asepsis and safety when providing care to clients with alterations in ventilation and cardiovascular tissue perfusion.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

7. Describe the therapeutic nurse-client relationship based upon respect for client privacy, confidentiality, and advocacy within acute care medical-surgical and telemetry settings as applied to clients with ventilation and cardiovascular alterations.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

8. Describe the role of the professional nurse as part of the multidisciplinary team providing client care in the care of these diverse clients.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

9. Correlate teaching learning process when addressing client education and discharge planning needs related to nutrition, medication, activity and rest, and psychosocial issues related to problems in ventilation and cardiovascular tissue perfusion.
   Core Abilities: A, B, C, D, E, F, G Gen Ed Outcomes: Goals 1, 2, 3, 4, 5, 8, 9

Course-specific General Education Knowledge Goals and Core Skills.
Alterations in Health I supports the General Education Knowledge Goals and Core Skills

MCCC Core Abilities:

A. **Communication.** Students will communicate effectively in both speech and writing. (See General Education Goal 1.)

B. **Critical Thinking and Problem-Solving**: Students will use critical thinking and problem solving skills in analyzing information.

C. **Ethical Reasoning and Action**: Students will understand ethical issues and situations.

D. **Information Literacy:** Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

E. **Computer Literacy:** Students will use computers to access, analyze or present information, solve problems, and communicate with others.

F. **Collaboration and Cooperation:** Students will develop the interpersonal skills required for effective performance in group situations.

G. **Intra-Cultural and Inter-Cultural Responsibility:** Students will demonstrate an awareness of the responsibilities of intelligent citizenship in a diverse and pluralistic society, and will demonstrate cultural, global, and environmental awareness.

General Education Outcomes:

Goal 1. Communication. Students will communicate effectively in both speech and writing

Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Goal 5. Social Science. Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.

Goal 8. Diversity. Students will understand the importance of a global perspective and culturally diverse peoples.

Goal 9: Ethical Reasoning and Action. Students will understand ethical issues and situations.

Nursing Program Concepts: In this nursing curriculum you will learn the nursing approaches utilized in meeting the basic human needs during periods of interference or impairment that are directed toward maintenance of optimal body functions, prevention of potential problems and restoration of health. The conceptual framework of study in NRS 120 focuses on the client's oxygen needs through alterations in ventilation and tissue perfusion. All client needs as they relate to this course of study will be included.

HYGIENE NEEDS: Concerned with individuals at different age levels who have temporary restriction of self care ability and require assistance in performing the hygiene activities of daily living.

ACTIVITY NEEDS: Concerned with individuals at different age levels who have temporary restriction of movement or activity.

SAFETY NEEDS: Concerned with individuals at different age levels who have hazards to the first line of body defense plus patient and environmental safety concerns.

HUMAN SEXUALITY NEEDS: Concerned with individuals at different age levels who have some temporary alteration of normal sexuality due to maturational factors or limitations of activities.

PSYCHOSOCIAL NEEDS: Concerned with individuals at different age levels who have temporary or minimal interference's with verbal or nonverbal communication or who are experiencing change in the level of well-being.

REST and SLEEP NEEDS: Concerned with individuals at different age levels who have temporary restriction of activity or interference with sleep patterns due to confinement to bed or impairment of the body's vital functions.

OXYGEN NEEDS: Concerned with individuals at different age levels who need have alterations in circulation or ventilation which inpact the body's ability to supply oxygen to tissue.

NUTRITIONAL NEEDS: Concerned with individuals at different age levels who have various nutritional needs, food habits or cultural beliefs that affect nutritional status and physical fitness.

ELIMINATION NEEDS: Concerned with individuals at different age levels who have temporary alteration of normal elimination patterns due to age factors or limitation of activities.

Evaluation of Student Learning / Grading Information

Course Requirements:

1. _____ Unit Tests
2. Final Exam
3. Patient Concept Map
4. Postconference Clinical Presentation

Theory Classes: Classroom sessions are based on learning objectives from the course outline. Classroom sessions are 3 hours per week. Textbook readings are assigned based on weekly learning objectives listed in the course outline and should be completed prior to the class session. Interactive learning activities will be included with each large class sessions. Cell phones should be placed on vibrate or shut off during class sessions. During testing cell phones, PDA's or any other electronic device must be turned off and out of student reach. Recording any class session is at the discretion of the instructor. Permission to tape should be obtained prior to the beginning of class. The iclicker audience response system will be used during theory classes.

College Lab: This weekly lab is designed to help the student gain proficiency in nursing skills in a controlled setting utilizing videos, interactive computer learning, hands on demonstration, and simulation. Weekly readings, objectives and activities will be highlighted in the NRS 120 Lab Manual. The NRS 120 Lab Manual is available online at www.mccc.edu/~martinl. Assigned readings will be taken from your formal text workbook, relevant journal articles, and skills text. Students will observe a critical skill demonstration or view a skill specific video. The student will then be expected to practice the skill to gain proficiency. The student will make an appointment for a critical skill sign-off. Please refer to lab manual for critical skill sign-off
procedure.

Clinical Lab: The clinical laboratory provides students with the opportunity to provide care to clients in order to meet course goals. Preparation for clinical lab will focus on clinical objectives listed in the course outline. The clinical lab consists of six hours twice per week and is held at the assigned clinical facility. Weekly clinical assignment information will be given by the clinical instructor. The student will have use of a college owned PDA during the semester which will come supplied with a variety of nursing resources which the student can utilize during clinical. Clinical preparation guidelines are included in this course outline. In general, during the clinical lab, students are expected to:

Pre-Conference - One Hour: (prior to arrival on clinical unit)
A. Be able to discuss the client's primary and secondary diagnoses including, with succinct explanation of signs and symptoms, as well as methods to diagnose and treat the disease or condition. (Utilize PDA and nursing software as a resource)
B. Identify and explain client's basic need deficits based on disease process, diet order and rationale for ordered pharmacological agents (utilizing PDA resources).
C. Incorporate assessment findings, developmental tasks (according to Erickson), appropriate to the client's age and the implications for planned care.
D. Formulate a written preliminary patient care concept map based on basic need deficits using the nursing process to include 3 nursing diagnosis, each with goals, plan (assessment priorities, nursing

actions, and patient education)
E. Discuss planned care including priority assessment focus, nursing actions (including medication administration), and patient/family education.
F. Pre-conference preparation will be collected by instructor for evaluation.

Clinical Experience Four Hours: (on clinical unit)
A. Receive report on assigned client, review medical record.
B. Assess your assigned client.
C. Revise your preliminary plan as needed using data obtained in report, from the medical record, and your assessment of the client.
D. Implement the nursing plan by caring for your client demonstrating proficiency in nursing skills and seeking help from your instructor. (Refer to weekly clinical objectives in course outline)
E. Administer medications as assigned by clinical instructor and coordinated with primary RN.
F. Report assessment findings to appropriate assigned nursing staff in a timely manner.
G. Document assessment and care as instructed and in accordance with facility policy.
H. Client information received during clinical lab is to remain confidential at all times. Patient records are not permitted to be photocopied.

Post Conference One Hour:
A. Review and evaluate the care given and the client's response to care plan.
B. Discuss revisions that should be made in your plan to improve care.
C. Discuss application of clinical objectives to your client.

NRS 120 Testing Procedure:
All course theory nit tests will be given during the first hour of theory class. Students will have ___ minutes to complete the ___question exam. All belongings, including but not limited to backpacks, books, purses, cell phones, and electronic devices are to be placed in the front of the lecture hall. Seating during the exam is at the discretion of the instructor or exam proctor. All cell phones are to be turned off during the exam period and stored at the front of the lecture hall with the rest of your belongings. All coats and hats are to be removed during the exam period. Please refer to nursing program testing policy in the Nursing Program Handbook.

Determination of NRS 120 Grade:

In order to receive a grade in NRS 120, these criteria must be satisfied:
(A) The student must achieve "Met" as the final grade on the Clinical Laboratory Performance Evaluation for all clinical objectives.
(B) The student must achieve a "satisfactory" in College Lab that will be incorporated into the final grade.
(C) Tests must be taken as scheduled. A grade of 75 or better should be maintained on all tests.
(D) All required written assignments must be completed and submitted as per guidelines.

When all course criteria have been met, the student will be assigned a grade as outlined in Evaluation of Student Learning - Grading.

Grading:

_____Unit Tests…___%
Written Project…….____%
Final Exam……____%
Clinical Presentation… _____% or incorporated into clinical grade

Grading Scale:

A	97-100%
A-	93-96%
B+	89-92%
B	85-88%
B-	81-84%
C+	78-80%
C-	75-77%
D	61-74%
F	60 or below

S = Satisfactory (comparable to a "C" or higher)

C is the lowest acceptable passing grade for all courses in the Nursing Program.

I = Incomplete
IW = Withdrawal
WI = Withdrawal Instructor Initiated
WA = Withdrawal Administration Initiated
U = Unsatisfactory

Grading Information:

Student learning will be evaluated by ___ unit theory tests, written project_____, and a cumulative final exam. In the case where a student misses a test, a make-up test will be administered at the discretion of the instructor. The student must notify the instructor in advance of the scheduled test of a student's inability to take an exam as scheduled. Failure to notify the instructor will result in a 0 grade for the exam.

- All tests are scored on Scantron forms. The Scantron sheet stands as the formal grade.
  Please have a #2 pencil available for testing.
  All cell phones must be turned off and stored with student belongings during testing.
  All unit theory tests will contain ___ multiple choice format questions and will include 1-2 dosage calculation questions.
- The final exam will consist of ____ multiple choice questions.
- After testing, all Scantron forms are secured in the nursing office.
  Please refer to the nursing program testing policy in your program handbook for more information on testing.
- In order to successfully pass this course, point scores for the calculation of tests and the plan of care concept map must be 75% or higher.

Guidelines for Success

Academic Honesty

Academic honesty is important to the learning organization's purpose of helping learners to develop critical, independent thinking skills and habits. Cheating and other forms of academic dishonesty run counter to this purpose and violate ethical and intellectual principles; they are therefore subject to penalties. For purposes of this course we will define academic dishonesty as:

Plagiarism: Presentation of work that originates from another unacknowledged source as one's own. Presenting someone else's ideas, argument, or information verbatim (or close to verbatim) without acknowledgement of the source in assessments, papers, or discussions, constitutes plagiarism.

Cheating:

a) Giving, receiving, or using, or attempting to give, obtain, or use, unauthorized information or assistance during an assessment or an examination

b) Obtaining or conveying, or attempting to obtain or convey, unauthorized information about an assessment or examination questions

c) Giving or receiving assistance on an essay or assignment that goes beyond that specifically allowed by the instructor (this includes buying and selling, or attempt to buy or sell essays and/or research assistance relating to course assignments)

d) Impersonating someone else or causing or allowing oneself to be impersonated in an examination, or knowingly availing oneself of the results of impersonation

e) Presenting a single piece of work in more than one course without the permission of the instructors involved

Academic Integrity Statement:

Mercer County Community College is committed to Academic Integrity – the honest, fair and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work, and that faculty and academic support services staff members will take reasonable precautions to prevent the opportunity for academic dishonesty.

The college recognizes the following general categories of violations of Academic Integrity, with representative examples of each. Academic Integrity is violated whenever a student:

A. Uses or obtains unauthorized assistance in any academic work.

- Copying from another student’s exam.
- Using notes, books, electronic devices or other aids of any kind during an exam when prohibited.
- Stealing an exam or possessing a stolen copy of an exam.

B. Gives fraudulent assistance to another student.
- Completing a graded academic activity or taking an exam for someone else
- Giving answers to or sharing answers with another student before, during or after an exam or other graded academic activity.
- Sharing answers during an exam by using a system of signals.

C. Knowingly represents the work of others as his/her own, or represents previously completed academic work as current.
- Submitting a paper or other academic work for credit which includes words, ideas, data or creative work of others without acknowledging the source.
- Using another author's words without enclosing them in quotation marks, without paraphrasing them or without citing the source appropriately
- Presenting another individual's work as one's own.
- Submitting the same paper or academic assignment to another class without the permission of the instructor.

D. Fabricates data in support of an academic assignment.
- Falsifying bibliographic entries.
- Submitting any academic assignment which contains falsified or fabricated data or results.

E. Inappropriately or unethically uses technological means to gain academic advantage.
- Inappropriate or unethical acquisition of material via the Internet or by any other means.
- Using any electronic or hidden devices for communication during an exam.

Each instructor and academic support service area is authorized to established specific guidelines consistent with this policy.

Consequences for Violations of Academic Integrity
For a single violation, the faculty member will determine the course of action to be followed. This may include assigning a lower grade on the assignment, assigning a lower final grade, failing the student in the course, or other penalty appropriate to the violation. In all cases, the instructor shall notify the Chair of the Academic Integrity Committee of the violation and the penalty imposed.

When two (or more) violations of academic integrity are reported on a student, the Academic Integrity Committee may impose disciplinary penalties beyond those imposed by the course instructor/s. The student shall have the right to a hearing before the Academic Integrity Committee or a designated subcommittee thereof.

Appeals
The student has a right to appeal the decision of the instructor, or the Academic Integrity Committee. Judicial procedures governing violations of Academic Integrity are contained in the Student Handbook. *Approved by Board of Trustees May 18, 2000 Amendments by AIC 1/26/2004*

ADA Statement

If you believe that you may require special accommodations or services to participate in this course, please contact the instructor or a counselor in Student Services. See the MCCC Student Handbook for further details.

The Nursing Program Handbook Information Packet

Each nursing student receives a copy of this handbook, is responsible for the information contained in the handbook, and is expected to comply with requirements and policies.

LEARNING OBJECTIVES	HRS	CONTENT	LEARNING ACTIVITY	LAB ACTIVITY	STUDENT LEARNING ACTIVITY
- Apply the nursing process across the life span to the care of the client alterations of the upper respiratory tract. -Differentiate between alterations in ventilation, perfusion and diffusion -Discriminate between differences of oxygenation needs related to specific body systems -Discriminate between classes of common pharmacological and treatment options for clients with alterations of the upper and lower airway problems.. -Analyze how oxygenation needs effect all other basic human needs		UNIT I - OXYGENATION – related to alterations in ventilation: A. Alterations in Ventilation Upper respiratory tract 1. Infectious 2. Noninfectious B. Alterations in Ventilation Lower respiratory tract 1. Infectious 2. Noninfectious	Interactive lecture & discussion Case study analysis Concept mapping	Skills/Assessment: -Respiratory focused assessment -Distinguish priority nursing diagnosis -Plan care for clients with alterations in oxygenation -Choose and demonstrate appropriate nursing interventions -Evaluate client outcome based on nursing plan of care Demonstrate skills related to care of a client with alterations in oxygenation: -Tracheostomy Care: - Suctioning - Inner cannula care Plan/Nsg Dx – Simulation Implementation/ Evidenced-based Interventions Across the Lifespan Oxygen deliver systems: - T-piece - Trach mist collar Peripheral/PICC/ Central (flushing, tubing and dressing change	Students to review: - Alterations in oxygenation / ventilation: Upper and lower respiratory tract Assessment: - Normal anatomy & physiology - Diagnostic studies - Pharmacology - Nutrition - Cultural considerations - Pediatric and gerontologic considerations Student CD-ROM NCLEX test questions Student website: www.evolve.elsevier.com/iggy

LEARNING OBJECTIVES	HRS	CONTENT	LEARNING ACTIVITY	LAB ACTIVITY	STUDENT LEARNING ACTIVITY
- Apply the nursing process across the life span to the care of the client with alterations of the oxygenation related to altered cardiovascular tissue perfusion and cardiac output . -Differentiate between alterations in ventilation, perfusion and diffusion -Differentiate between various macro and micro alterations in tissue perfusion -Discriminate between classes of common pharmacological and treatment options for clients alterations in cardiovascular tissue perfusion. -Analyze how oxygenation needs effect all other basic human needs		UNIT II - OXYGENATION – related to alterations in cardiovascular tissue perfusion and cardiac output . A. Alterations in Cardiovascular Tissue Perfusion 1. Cardiac Problems 2. Peripheral Vascular Problems 3. Pulmonary Vascular Problems B.Alterations in Cardiac Output 1. Cardiac dysrhythmias 2. Pump failure	Interactive lecture & discussion Case study analysis Concept mapping	Skills/Assessment: -Cardiovascular focused assessment -Distinguish priority nursing diagnosis Critical thinking and Simulation: -Incorporating assessment, medication administration & calculation, and analysis of diagnostics in providing care to clients with altered cardiovascular perfusion and altered cardiac output. -Plan care for clients with alterations in cardiac tissue perfusion – chest pain, acute coronary syndrome, client undergoing cardiac catheterization, and invasive cardiac revascularization. -Implementation/ Simulated Evidenced-based Nursing Care -Choose and demonstrate appropriate nursing interventions -Evaluate client outcome based on nursing plan of care Math: - IV calculations for small volume - Heparin-weight based	Students to Review: - Alterations in oxygenation/tissue perfusion cardiovascular Assessment: - Normal anatomy and physiology - Diagnostic studies - Pharmacology - Nutrition - cultural considerations - Pediatric and gerontologic considerations Student CD-ROM NCLEX test questions Student website: www.evolve.elsevier.com/iggy