MERCER COUNTY

COMMUNITY COLLEGE

Math, Science and Health Professions

Nursing Program
LPN to RN Advanced Placement
Information Packet

MERCER County Community College
www.mccc.edu

Contents

Dear Prospective Student:

Thank you for your interest in the Mercer County Community College Nursing Education Program. Nursing is an exciting profession where you are offered a wide variety of practice opportunities. The Nursing Program at Mercer County Community College is the first step of your journey.

Nursing at Mercer includes preparation in general education with a focus on the sciences. The curriculum is designed to provide the student with a well-rounded educational experience. Admission to the professional nursing portion of the curriculum is by petition. Students desiring admission submit a petition request that is reviewed for courses completed, GPA and Admission Exam information.

The Nursing Program at Mercer offers day and evening/weekend options for study. Each August, a new class is admitted to the day program. Nursing classes are scheduled during daytime hours. Each January, a new class is admitted to the evening/weekend program. This affords the opportunity for a nursing education to students who must work during the day. Nursing classes are scheduled during evening hours. For both program options, lab and clinical experiences are scheduled according to facility availability and are subject to change. Clinical experiences and college labs may be scheduled during any week or weekend day or evening for the day, evening program.

The Nursing Program incorporates courses that will prepare you to take the NCLX-RN licensure exam. The Nursing curriculum is rigorous and requires a high level of time and student commitment in order for students to be successful. It is recommended that students work less than 20 hours per week while enrolled in nursing courses.

Mercer County Community College's Nursing Program faculty have experience in a wide variety of clinical specialties. Clinical experiences are provided in area hospitals, nursing homes, schools and outpatient clinical settings.

Upon graduation, our students are prepared to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). In addition, the nursing program has many articulations with BSN completion programs, including on-campus options with Rutgers University – Camden and Felician College.

This information packet contains specific information about the Nursing Program at Mercer County Community College. If you have further questions, please feel free to contact me, or schedule an appointment to meet with me through the nursing program specialist, Stephanie Horner, at (609) 570-3391.

I look forward to meeting with you as you begin your journey toward your professional nursing career.

Sincerely,

Donna M. Penn, RN, MSN, CNE

Director of Nursing Education

Nursing Program Accreditation

The college's Nursing program is accredited by the New Jersey Board of Nursing, 124 Halsey Street, 6th Floor, Newark, NJ 07102; 973-504-6430. The program has continuing accreditation by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326; 404-975-5000 with the next evaluation visit scheduled for Fall 2018.

Mission and Philosophy of the MCCC Nursing Education Program

The Associate Degree Nursing program supports the mission of Mercer County Community College. The faculty is committed to providing high quality nursing education to meet the diverse and changing health-care needs of the community and to promote the development of qualified students prepared for the professional role of the entry level registered nurse. Students will be challenged to achieve their goals in a caring, creative and engaged learning environment.

The philosophy of the Associate Degree Nursing program is derived from the essential components of nursing, humans, health and environment. The foundation for the curriculum is based on the principles of patient-centered care, team work & collaboration, clinical reasoning, quality improvement, leadership, information technology, and safety. Based on these principles, faculty mentor, teach and encourage students to develop competency in the knowledge, skills and attitudes required to provide safe and effective nursing care.

The graduate of the Associate Degree Nursing program at Mercer County Community College is prepared to meet the educational competencies defined by the National League for Nursing (2010), Institute of Medicine (2004), and the Nurse Practice Act of New Jersey. Graduates of this program meet the requirements to take the National Council Licensure Examination (NCLEX-RN).

A concept based approach to learning will provide the opportunity to apply adult learning theory to meet the needs of our diverse student population. Education is a life-long process that affords the learner the opportunity to develop intellectually, socially, and personally. Learning is a personal and active process that involves cognitive and psychomotor activities to fulfill ones potential. The student is a proactive participant in the learning process and is responsible for the acquisition of knowledge, skills and attitudes through goal directed learning endeavors. The teaching-learning process is a collaborative experience between students and faculty where knowledge is shared and there is a commitment to excellence and mutual respect. Faculty shapes the educational environment which empowers students to become independent learners, to accept responsibility for life-long learning, and to develop professional behaviors.

Upon completion of the program the graduate is qualified to submit an application to take the NCLEX-RN® examination.

The nursing program uses the program's mission and philosophy to formulate program student learning outcomes which serve as the basis for the development, implementation, and evaluation of the nursing program curriculum.

The nursing faculty at Mercer County Community College defines the essential components of the curriculum as:

- Humans

Humans are complex, multidimensional and unique individuals possessing value and worth, and a member of a family, community and culturally diverse society. All humans have dynamic bio-physical, psychological, socio-cultural, spiritual and developmental needs that contribute to health, quality of life and achievement of potential. All humans should be cared for, respected, nurtured, understood and assisted. In order to provide and manage care, nurses must view the individual at the center of any nursing activity.

- Health
  Health is a dynamic, ever-changing state of mental, physical and spiritual well-being, which exists on a continuum from wellness to illness. An individual's needs for healthcare are determined by their position on the continuum. An individual's health is based on their cultural perceptions and beliefs of health and illness. The individual is responsible for and capable of identifying, learning and practicing health behaviors that can promote wellness, prevent illness, restore or maintain wellness or achieve a dignified death.

- Environment
  The environment concept of nursing comprises all the internal and external factors that act on human beings and affect their behavior and development. This includes psychological, spiritual, social, physical and cultural forces as well as the environment in which nursing care is provided. The idea behind this concept is that the environment influences individual and collective health and that individuals who experience a positive, comfortable nursing environment are more likely to demonstrate good health versus those who receive a level of care that is lacking.

- Nursing
  Nursing refers to the process of caring for the health of human beings and assisting individuals in meeting their needs while also teaching them the basics of caring for themselves. The responsibilities of the nursing profession are to promote good health, to prevent disease when possible, to promote healing in those who are ill and to ease the suffering of dying patients. The concept of nursing extends beyond the health care facility to the community and society as a whole, and views individual health and the environment as closely related. Nursing is defined as care that is tailored to the needs of individuals and that is provided in an efficient and effective manner.

- Patient Centered Care
  The nurse will provide holistic patient centered care that identifies and recognizes an individual's preferences, values, and needs to promote human flourishing, by providing compassionate, coordinated, age and culturally appropriate, safe and effective care.

- Collaboration
  Function effectively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.

- Clinical Reasoning
  Clinical reasoning is the process of using nursing judgment through the spirit of inquiry to arrive at a decision regarding the prevention, diagnosis, or treatment of a clinical problem

- Quality Improvement
  The use of criteria and improvement methods to monitor outcomes, design and test changes which lead to the continuous improvement of quality and safety.

- Leadership
  The process of influencing people through one's professional identity to accomplish goals or to move toward group goal setting and achievement

- Information Management
  The use of information and technology to communicate, manage knowledge, mitigate error, and support decision making.

Admission Requirements

The MCCC Associate Degree Nursing (ADN) program combines coursework in nursing and general education with clinical experiences in regional health care facilities under the supervision of college faculty members. The program is accredited by the New Jersey Board of Nursing and the Accreditation Commission for Education in Nursing (formerly NLNAC). Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Graduates are encouraged to pursue a baccalaureate degree in nursing and credits may be applied in whole or in part in accordance with the policies of the accepting institution.

Successful graduates of the program are awarded the Associate in Science Degree and are prepared to:

1. provide safe, quality, evidence-based, patient-centered nursing care in a variety of healthcare settings to diverse patient populations across the lifespan.
2. engage in clinical reasoning to make patient-centered care decisions.
3. participate in quality improvement processes to improve patient care.
4. collaborate with members of the interprofessional team, the patient, and the patient's support persons.
5. use information management (informatics) principles, techniques, and systems, and patient care technology to communicate, manage knowledge, mitigate error, and support decision-making.
6. assimilate leadership, management, legal, and ethical guidelines in practice as a Registered Nurse.

Upon enrollment in the college, students must declare their program of study (major) as Health Science Nursing. Students must be a U.S. citizen or Permanent Resident. Qualified out of county applicants will be considered for admission only after all qualified Mercer County residents are accommodated.

Admission requires a high school diploma or the equivalent; satisfactory performance on the college skills placement test and completion of any required academic foundations courses.

MCCC's Nursing Education Program uses a rubric for admissions consideration, assigning point values based on (see sample rubric in the Appendix):

- Cumulative GPA (transfer or MCCC) of 2.5 or higher
- Score of 80% or higher on English Language Composite portion of the HESI Admission Assessment Exam
- Score of 80% or higher on the math portion of the HESI Admission Assessment Exam

All of the following required math and sciences courses must have been completed within the last **10 years** at the time of petition:

- MAT125 or MAT135 or MAT140 or MAT200 (minimum grade of C)
- BIO103 – Anatomy & Physiology I (minimum grade of C+)
- BIO104 – Anatomy & Physiology II (minimum grade of C+)
- BIO201 – Microbiology (minimum grade of C+)
- CHE107 – General & Physiological Chemistry (minimum grade of C)

Applicants must meet the following requirements to be considered for admission:

- Successful completion of all semester 1 courses (ENG101, CHE107, BIO103, Math elective).
- All general education and science coursework required for the nursing program must be completed in three (3) or fewer attempts.
- All general education and science coursework **required for admission** (semester 1 courses) to the nursing program requires a grade of "C" or higher, with the exception of BIO103, which requires a "C+" or higher.
- All students must have a cumulative GPA (transfer or MCCC) of 2.5 or higher. ***GPA's are not rounded***.
- All students must achieve an 80% or higher on the English Language Composite and 80% or higher on the math portions of the HESI Admission Assessment exam in three (3) or fewer attempts. HESI scores are good for 2 years from the date of testing. ***HESI scores are not rounded***.
- All students petitioning for the nursing program must attend a 90 minute information session prior to petitioning for the nursing program. Information regarding these information sessions can be found on the nursing website, under the "Admissions Information" link.
- All students must be declared as a Health-Science Nursing major. Change of program forms are available through the College Admissions Office and the Math, Science & Health Professions Division office (MS128)

Curriculum Revision & Changes to Admission Requirements

In March 2015, the New Jersey State Board of Nursing (NJBON) approved changes to the nursing curriculum.

As previously announced, the following admission requirements will change with the implementation of the new curriculum:

- Students will be required to achieve a C+ or higher in BIO 103 (A&P I), BIO 104 (A&P II) and BIO 201 (Microbiology). The C+ requirement for BIO 103, BIO 104 and BIO 201 will go into effect with students who take these classes starting in Summer 2015; for students who have already completed the courses (in or prior to Spring 2015), the passing grade of C will be accepted.
- HPE110 or HPE111 are no longer a Nursing Program requirement.
- NRS101 and NRS102 are no longer a Nursing Program requirement and will no longer be offered.
- Students will qualify to petition for the nursing program having only completed, or be in progress with at the time of petition, the semester 1 courses (ENG101, CHE107, BIO103, MAT elective).
- Cumulative GPA (transfer or MCCC) of 2.5 or higher.
- Score of 80% or higher on the English Language composite portion and 80% or higher on the math portion of the HESI Admission Assessment Exam, in three or fewer attempts, beginning with those students petitioning for Spring 2016 and beyond.

Admissions Assessment Examination

All nursing program applicants are required to achieve a passing score (80% or higher) on the English Language Composite portion **and** a passing score (80%) or higher on the math portion of the HESI Admission Exam ***prior*** to petitioning for the program. This score will not be rounded. (The science portions of the HESI exam are no longer required) Students are limited to three (3) attempts to pass the exam in order to qualify to petition for the nursing program. HESI scores are good for 2 years from the date of testing. No student will be accepted into the professional phase of the Nursing Program without achieving these scores. Exam dates and registration instructions are posted on the nursing website (www.mccc.edu/nursing**)**. All students are required to register for this exam through the Nursing Program office. Students not achieving the passing score will be required to complete exam remediation activities in the content areas below 80% and wait thirty (30) days before **registering** for their next test date. A HESI Admission Exam study guide is available for purchase in the campus bookstore. Please see the full HESI Admission Exam policy in the appendix.

Acceptance to the Professional Phase Nursing Program

Once accepted into the professional phase of the nursing program, students must:

- obtain a physical examination from a licensed practitioner on a form provided by the nursing program.
- provide proof of current CPR certification for Healthcare Providers (American Heart Association) or Basic Life Support for Health Care Providers (American Red Cross).
- obtain professional liability insurance for a Registered Nurse student.
- complete a criminal background check per Nursing Program policy.
- complete a 10-panel urine drug screen per nursing program policy.
- Provide proof of immunity for Rubella, Rubeola, Hepatitis B and Varicella by providing lab report of titers.
- provide proof of current flu vaccination by October 15th each year.
- provide proof of current health insurance.
- provide proof of negative tuberculin skin testing (PPD) (If you test positive for PPD, then a chest x-ray or Quantiferon blood study is required)
- attend a mandatory 1 hour registration meeting and a 6 hour NRS112 orientation session. The NRS112 orientation session will typically be scheduled during the week before classes begin each semester. (Note: if you are planning to travel the week prior to the start of classes, please check with the nursing office for the NRS112 orientation date)

Once accepted into the Nursing Program, students are expected to successfully complete all professional phase nursing courses within six (6) semester of starting NRS112 for the first time. Failure to successfully complete all required professional phase nursing courses within the six (6) semesters will result in dismissal from the nursing program.

All Health Science Nursing students are assigned a nursing faculty advisor and are encouraged to schedule advisement appointments each semester.

Upon completion of the program, the New Jersey Board of Nursing reserves the right to determine the eligibility for licensure of any student with a history of substance abuse or criminal offenses.

Please refer to the information regarding nurse licensure by examination found at **http://www.njconsumeraffairs.gov/nursing/nurse_app.pdf.**

All Nursing Program admission information (including HESI and Information session dates) can be found on the nursing website at www.mccc.edu/nursing.

Once a students Change of Program is approved (to Health Science Nursing) by the Nursing department, you will be sent an email to your Mercer student email account letting you know that your change of program has been approved and that you have been assigned a nursing advisor. (Email accounts are set up on all newly accepted students and directions for accessing email can be found on the college website, in the Admissions office or the Nursing Program office). This email will contain contact information for your advisor. We suggest that you make an appointment to speak to your advisor and review what steps you would need to take to complete your pre requisite courses and prepare to apply to the nursing program.

Nursing Program Curriculum

Code	Course (lecture/lab hours)	Credits
Semester 1	(Pre Professional) **[these are the only courses now required for admission consideration]**	
BIO103	Anatomy & Physiology I (3/3)	4
CHE 107	General & Physiological Chemistry (2/1/2)	4
MAT125	Elementary Statistics I (3/0)[1]	3
ENG101	English Composition I (3/0)	3
Semester 2	**Professional Phase**	
BIO104	Anatomy & Physiology II (3/3)	4
ENG102	English Composition II (3/0)[2*]	3
NRS 111	Clinical Reasoning in Nursing Practice (1/0)	1
NRS112	Concepts of Nursing Practice I (3/3/)	6
	(NRS111 & NRS112 are co-requisites)	
Semester 3		
BIO 201	Microbiology (3/3)	4
PSY 101	Introduction to Psychology (3/0)*	3
NRS 125	Concepts of Nursing Practice II (3/3/12)	8
	(NRS125 pre-requisites: BIO104, NRS111, NRS112)	
Semester 4		
PSY207	Developmental Psychology: Across the Lifespan (3/0)[3*]	3
NRS 225	Concepts of Nursing Practice III (3/3/12)	8
	(NRS225 pre-requisites: BIO201, NRS125)	
Semester 5		
NRS235	Concepts of Nursing Practice IV (3/3/12)	8
	(NRS235 pre-requisites: NRS225)	
	Humanities general education elective[4*]	
	Total Credits	**65-66**

NOTE:

1 MAT 135, 140 (4 credits) or MAT 200 (3 credits) are acceptable alternatives.

2 ENG112 is an acceptable alternative.

3 SOC 101 is an acceptable alternative (general education elective)

4 PHI 102 or PHI 205 are recommended

* This is the recommended course sequence. Courses marked with an asterisk may be completed at any time, however, must be completed prior to graduation.

Petition Process

There are two different program options available to students wishing to enter the Nursing program: a daytime program that starts in August of each academic year and an evening/weekend program that starts each January.

When students have met all admission requirements and are ready to begin the professional nursing portion of their education, candidates complete a petition form and return it to the nursing program office. Petitions are submitted:

- from September 1 - October 1 for the evening/weekend program that begins each January
- from March 15 – April 15 for the day program that begins in August.

Petitions will not be accepted before or after these dates. Petitions are available one week prior to the start of a petition period outside the nursing program office (MS127). They are also available on the nursing program website at **www.mccc.edu/nursing** and click on the Admissions link.

All petitions received during the petition period will be reviewed for admission into the nursing program. All students who petition will receive notification by mail, within 2 weeks of the completion of the current academic semester. The letter will contain information about the student's next steps in the admission process. If a student is not accepted they will be informed in writing of the reason for non-acceptance. They will need to re-petition for entry into another class during the next petition period. Petitions will not be held from semester to semester and there is no wait list for the nursing program. Seats in each nursing class are limited.

What happens after I am accepted?

When you are accepted to the nursing program, you will receive an acceptance letter and information as to how to proceed. You will also be receiving information on the following:

- Criminal Background Checks - Clinical facilities are mandating criminal background checks for nursing students. Students accepted into the nursing program will be instructed how to complete their background check. In addition, a more comprehensive background check is required by the Board of Nursing at the time of licensure. Failure to pass the background check may prevent a student from being admitted to the nursing program. Background checks will be repeated annually while enrolled in the nursing program.

- Health Records - You will need to complete a Physical Examination Form for the Nursing Program that must be completed by your healthcare provider. The laboratory tests and immunizations must be within one year of beginning NRS112. Proof of current flu vaccination will also be required and will need to be updated annually by October 15th each year. Flu vaccines are available from September through April each year.

  Students will be required to enroll in the Complio Health Record Management System at a student cost of $20.00 per year. This system will maintain all required student health documentation during enrollment in the program.

- Health Insurance – All students are required to provide proof of current health insurance upon admission and annually each year.

- CPR Certification - You will also need to be CPR certified and submit proof of such certification. The class must encompass adult, child and infant victims, as well as AED training. ***CPR certification as a Healthcare Provider (American Heart Association) or Basic Life Support for Health Care Provider (American Red Cross) are the only certifications accepted.*** This will be updated every 2 years and due by January 15th for spring classes and August 15th for fall classes.

- Liability Insurance - All students are required to purchase liability insurance for **Registered Nurse Student**. Information for purchasing this insurance will be provided. Liability insurance is updated annually while enrolled in the nursing program.

- Drug Screen – All students will be required to complete a 10 panel urine drug screen as per Nursing Program policy. Any student who has a positive drug screen will be evaluated to determine their eligibility to begin the professional phase of the nursing program. Drug screens will be repeated annually while enrolled in the nursing program.

- Mandatory Orientation – All students will be required to attend a 6 hour NRS112 orientation session, the week prior to the start of classes for the semester they are

admitted to NRS112. ***Any student accepted but, fails to attend the orientation will forfeit their seat for the semester.***

Students will be required to submit proof of the above requirements by the date specified in their acceptance letter. Any student not meeting this deadline will forfeit their seat for the semester.

All students will be required to purchase a uniform, blood pressure cuff and stethoscope for clinical experiences. You will receive information regarding ordering once accepted into the nursing program.

Transfer of Credits / Degrees

Students may request that Mercer County Community College (MCCC) accept credits earned at other accredited colleges. Potential transfer credits are evaluated for their applicability to MCCC degree or certificate programs. The Nursing Program only reviews transcripts of those students enrolled at MCCC with their major declared for Nursing or Health Science Nursing. Approved transfer credits are entered on the student's transcript only after the student has been accepted in a degree or certificate program and have taken at least one class at MCCC. Foreign transcripts require translation or evaluation by an approved outside agency. **Please note: It takes approximately 4-6 weeks from time of receipt in the Nursing office to fully complete the evaluation of your transcripts. Please be sure to request official transcripts from your previous college as soon as possible. Transcripts are not evaluated by appointment. Unofficial transcripts are not reviewed or evaluated.**

International Students

Transferring Credits to MCCC

If you have completed college or university courses in another college in the United States or in your home country, the courses and credits may apply to your degree program at Mercer County Community College (MCCC). The courses must be evaluated before they can be transferred to MCCC.

Transferring Credits from Another College in the United States

If you have completed college courses at another college in the United States and want to transfer the credits, you must submit your official transcript to Mercer County Community College to:

Admissions
Mercer County Community College
1200 Old Trenton Rd.
W. Windsor, NJ 08550

Transferring Credits From Your Home Country

If you have completed university level courses in your home country and are interested in transferring credits to Mercer, you must first submit your official transcript and a certified English translation to a transcript evaluation service. Visit these websites of credential evaluation services for guidelines, procedures, policies and fees for an academic document review:

- **World Education Service**
- **American Education Research Corporation (AERC)**
- **International Consultant of Delaware, Inc.**
- **International Education Research Foundation**

Send your completed credentials evaluation to Mercer for your admission file at this address:

Mailing Address:

Coordinator of International Students
Mercer County Community College
P.O. Box 17202
Trenton, NJ 08690

LPN - RN Advanced Placement

The LPN-RN advanced placement option offers licensed practical nurses (LPNs) the opportunity to gain experiential credit for their LPN license. LPN licensure gives the licensed LPN credit for Concepts of Nursing Practice I (NRS112).

Applicants must:

- possess a high school diploma (or equivalent).
- have graduated from an accredited LPN school.
- possess a valid New Jersey LPN license.
- complete all the prerequisite course and admission requirements for the nursing program.

Admission to the professional phase of the program, as an LPN, also requires:

- cumulative GPA (transfer or MCCC) of 2.5 or higher. **GPA's are not rounded.**
- a passing score (80% or higher) in the English Language Composite and 80% or higher on the Math portion of the HESI Admission Assessment Exam in three (3) attempts or less**. Scores are not rounded.**
- successful completion of the Clinical Reasoning in Nursing Practice course (NRS111) with a C+ or higher.
- completion of the HESI Fundamentals of Nursing Exam. Students who achieve below an 800 on this exam will be required to complete an academic success plan with their advisor.
- passing a comprehensive Skills Assessment exam in two attempts or less.
- passing a Dosage Calculation Exam with 90% or higher in two attempts or less.

Six academic credits are given for Concepts of Nursing Practice I (NRS112). The student is then able to apply for acceptance into the second semester nursing courses, Concepts of Nursing Practice II (NRS125). Students must earn a minimum grade of "C+" in BIO103, BIO104, BIO201 and all nursing courses to graduate, as well as a minimum grade of C in all other courses in the Nursing Program Curriculum.

Please note that admission to the LPN-RN Advanced Placement program option are on a space available basis only. Students are ranked utilizing the admission rubric outlined in this packet.

For students to apply for this option they must submit a letter, requesting admission to the second semester of nursing as an LPN. This letter must be submitted by the petition deadlines outlined in this packet. The daytime program option for these students begins in spring and the evening/weekend option begins in fall. The letter must be submitted along with your HESI Admission Assessment and Fundamentals of Nursing exam score reports, Dosage Calculation exam report, and Skills Assessment score report. Please contact the nursing office to arrange for skills assessment, dosage calculation and HESI exams.

If a student does not qualify for advanced placement by successfully completing all the above steps, they are eligible to petition to the nursing program starting with NRS112.

Students who complete the college's Nursing program earn the Associate in Science (A.S.) degree and are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

In addition to the academic requirements for admission to the Nursing Program, to receive Advanced Placement credit for NRS 112, the following patient care skills must be successfully completed.

1. Hand washing
2. Donning and doffing of isolation equipment
3. Head to toe assessment
4. Manual blood pressure, apical heart rate, respiratory rate and temperature measurement
5. Bathing of an adult patient
6. Changing of an occupied bed
7. Assessment and staging of a pressure ulcer
8. Application of an oxygen device
9. Assisting a patient with a bedpan
10. Drawing medications from an ampule and a vial
11. Medication injection via intramuscular and subcutaneous routes
12. Administration of a medication via a PEG tube

LPN's must successfully demonstrate these skills within two attempts. The checklists are included.

Suggested reference guide is:

> North Carolina Custom Edition, (2015). *Nursing Skills for a Concept-Based Approach to Learning*. New York: Pearson Learning Solutions. (ISBN 13:978-0-558-35687-3)

You will also be required to take a 10 question dosage calculation test. Sample questions, similar to those on the test, are attached. You must achieve 90% within two attempts.

Suggested reference guide is:

Pickar, G.D., Abernethy, A.P. (2013) *Dosage Calculations*. (9 th ed.) Clifton Park: Thompson Delmar Learning (ISBN10: 1-4390-5847-4; Ebook: ISBN13: 978-1-4390-5847-3)

Appointments for these requirements can be made by contacting Stephanie Horner at horners@mccc.edu.

Patient Care Skills

Vital Signs

Assessing an Apical Pulse	**Performed**	
	Yes	**No**
Gathered stethoscope.		
Introduced self and verified client's identity. Provided client privacy and a quiet environment.		
Performed hand hygiene.		
Provided comfort and safety for client. Placed client in a supine or in a sitting position. Exposed the area of the chest over the apex of the heart.		
Located the apical impulse by palpating the angle of Louis just below the suprasternal notch, sliding the index finger to the third intercostal space, and moving laterally toward the midclavicular line.		
Warmed the stethoscope in the palm of your hand for 5–10 seconds.		
Counted client's heartbeats for 30 seconds and multiplied by 2 for regular rhythm or 60 seconds for irregular rhythm.		
Performed hand hygiene and cleaned stethoscope.		
Documented apical pulse rate and regularity in client's record.		

Assessing a Blood Pressure	**Performed**	
	Yes	**No**
Gathered stethoscope and appropriate size cuff.		
Introduced self and verified client's identity. Provided client privacy and a quiet environment.		
Performed hand hygiene.		
Provided comfort and safety for client. Positioned client in a sitting position with upper arm exposed, palm of the hand facing up, and forearm supported.		
Wrapped deflated cuff evenly around the upper part of arm (lower border of		

Assessing a Blood Pressure	**Performed**	
	Yes	**No**
cuff 1 inch above antecubital space) with center of cuff bladder over the artery.		
Located and palpated brachial artery with fingertips.		
Closed valve on sphygmomanometer pump. Positioned stethoscope ear pieces in ears and ensured stethoscope hung freely from ears to its diaphragm.		
Placed bell (or diaphragm) of stethoscope directly on skin over the brachial pulse site and inflated cuff rapidly.		
Read pressure on manometer at eye level.		
Released the valve on the cuff and deflated it at a rate of 2-3 points mm Hg/second. Did not leave cuff inflated for a prolonged period.		
Noted point at which Korotkoff's sounds began (phase I).		
Deflated cuff completely and removed cuff from client's arm.		
Performed hand hygiene.		
Recorded blood pressure readings using two phases: 120/80 where 120 is the systolic (phase I) and 80 is the diastolic (phase V) pressure.		

Note: Blood pressure reading may vary up to 10 mmHg between instructor and student.

Assessing Body Temperature	**Performed**	
	Yes	**No**
Gathered appropriate thermometer for client and lubricant, if necessary.		
Introduced self and verified client's identity. Provided client privacy and a quiet environment.		
Performed hand hygiene and donned gloves, if appropriate.		
Provided comfort and safety for client. Positioned client appropriately for device and route.		
Applied protective sheath or cover over thermometer probe. Lubricated rectal thermometer with water soluble lubricant.		
Oral Route		

Assessing Body Temperature	**Performed**	
	Yes	**No**
Placed probe under client's tongue at one side. Had client close mouth and either held thermometer in place or monitored while taking temperature.		
Rectal Route Placed client in prone or side-lying position. Inserted thermometer 1⁄4 to 1⁄2 inch into rectum for infant—1⁄2 to 1 inch for child, and held in place.		
Left digital thermometer in place 45–90 seconds or removed electronic thermometer when audible signal occurred.		
Removed thermometer and discarded cover.		
Removed gloves if used. Performed hand hygiene.		
Documented temperature and route.		

Assessing Peripheral Pulses	**Performed**	
	Yes	**No**
Introduced self and verified client's identity. Provided client privacy and a quiet environment.		
Performed hand hygiene.		
Provided comfort and safety for client.		
Selected pulse point.		
Palpated and compared the most distal pulses bilaterally on each extremity.		
Performed hand hygiene.		
Documented pulse site, symmetry, strength, and regularity.		

Assessing Respirations	**Performed**	
	Yes	**No**
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene.		

Assessing Respirations	**Performed**	
	Yes	**No**
Provided comfort and safety for client.		
Observed or palpated chest rise and fall and counted the respiration rate..		
Counted the respiration rate for 30 seconds and multiplied by two if respirations were regular and 60 seconds if they were irregular.		
Noted characteristics of respirations.		
Performed hand hygiene.		
Documented rate, depth, and pattern of respirations.		

Using a Pulse Oximeter	**Performed**	
	Yes	**No**
Gathered pulse oximeter. Choose a sensor appropriate for client's weight, size, and desired location.		
Introduced self and verified client's identity.		
Performed hand hygiene.		
Provided comfort and safety for client.		
Applied the sensor and connected it to the pulse oximeter.		
Read oxygen saturation level on digital readout monitor.		
Ensured accuracy of measurement. Minimized artifacts due to motion. Covered sensor if necessary to shield from light. c. Validated oximeter pulse rate is consistent with manually assessed pulse rate.		
Performed hand hygiene.		
Recorded findings.		

Assessment

Head to Toe	**Performed**	
	Yes	**No**
Gathered supplies.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately and raised bed to working height.		
Skin Assessment		
Inspected skin color and uniformity.		
Assessed edema, if present.		
Inspected, palpated, and described skin lesions.		
Observed and palpated skin moisture and temperature.		
Hair		
Inspected amount of body hair. Noted presence of infections or infestations by parting the hair in several areas, checking behind the ears and along the hairline at the neck.		
Mouth and oropharynx		
Inspected the oral mucous membranes for color, moisture, texture, and the presence of lesions.		
Ears and nose		
Inspected auricles and palpated for areas of tenderness.		
Inspected external ear canals for cerumen, skin lesions, pus, and blood.		
Inspected the external nose for flaring or discharge from the nares.		
Lightly palpated the external nose to determine any areas of tenderness, masses, and displacements of bone and cartilage.		
Eyes		
Inspected the pupils for shape, symmetry and size.		
Assessed each pupil's direct and consensual reaction to the light to determine function of the third cranial nerve.		

Head to Toe	**Performed**	
	Yes	**No**
a. Partially darkened room. b. Asked client to look straight ahead. c. Used a penlight and approached from side and shined a penlight. d. Observed the response of the illuminated pupil. e. Shined the light on the pupil again, and observed the response of the other pupil.		
10. Assessed each pupil's reaction to accommodation. a. Held an object about 10 cm from the bridge of the client's nose. b. Asked the client to look first at the top of object and then at a distant object behind the penlight. Alternated gaze from the near to the far object. c. Observed pupil response. d. Observed pupils to converge when penlight moved toward client's nose.		
Neurological		
Determined the client's orientation to time, place, and person by tactful questioning.		
Calculated the Glasgow Coma Scale. **I. Motor Response** 6 – Obeys commands fully 5 – Localizes to noxious stimuli 4 – Withdraws from noxious stimuli 3 – Abnormal flexion, i.e. decorticate posturing 2 – Extensor response, i.e. decerebrate posturing 1 – No response **II. Verbal Response** 5 – Alert and Oriented 4 – Confused, yet coherent, speech 3 – Inappropriate words and jumbled phrases consisting of words 2 – Incomprehensible sounds 1 – No sounds **III. Eye Opening** 4 – Spontaneous eye opening 3 – Eyes open to speech 2 – Eyes open to pain 1 – No eye opening		
Thorax		
Inspected the thorax for shape, symmetrical expansion, presence of scars		

Head to Toe	**Performed**	
	Yes	**No**
and respiratory effort.		
Auscultated the chest using the diaphragm of the stethoscope. a. Used the systematic zigzag procedure comparing left to right side. b. Asked the client to take slow, deep breaths through the mouth. Listened at each point to the breath sounds during a complete inspiration and expiration. c. Compared findings at each point with the corresponding point on the opposite side of the thorax.		
Cardiovascular		
Auscultated the heart in all four anatomic sites: aortic, pulmonic, tricuspid, and apical. a. Eliminated sources of room noise. b. Kept the client in a supine position with head elevated 30 to 45 degrees. c. Used both the diaphragm and the bell to listen to all areas and distinguish both S1 and S2 sounds. d. Concentrated on one particular sound at a time in each area: the first heart sound, followed by systole, then the second heart sound, then diastole.		
Inspected the jugular veins for distention while client was placed in a semi-Fowler's position with the head supported on a small pillow.		
Abdomen		
Inspected the abdomen for size, shape, symmetry, and presence of scars.		
Auscultated the abdomen for bowel sounds..		
Percussed several areas in each of the four quadrants to determine presence of tympany and dullness.		
Palpated all four quadrants of abdomen to detect areas of tenderness.		
Musculoskeletal		
Noted the presence of contractures or tremors.		
Tested muscle strength by having the client push against resistance in both upper and lower extremities bilaterally.		
Peripheral vascular system		

Head to Toe	**Performed**	
	Yes	**No**
Palpated the peripheral pulses on both sides of the client's body individually and simultaneously (except the carotid pulse) to determine the symmetry of pulse volume.		
Nails		
Inspected fingernail plate shape to determine its curvature and angle.		
Inspected fingernail and toenail texture and color.		
Performed blanch test of capillary refill. Pressed two or more nails between thumb and index finger; looked for blanching and return of pink color to nail bed. Counted in seconds the time for color to return completely.		
Removed and discarded gloves. Performed hand hygiene.		
Documented assessment data in the client's record.		

Assessment of Pressure Ulcers	**Performed**	
	Yes	**No**
1. Introduced self and verified client's identity. Provided client privacy..		
2. Performed hand hygiene.		
3. Provided comfort and safety for client. Raised bed to appropriate height for procedure.		
4. Determined size and characteristics of pressure ulcer, including stage, wound bed appearance and undermining/tunneling.		
5. Returned bed to lowest height. Performed hand hygiene.		
6. Documented pressure ulcer assessment data.		

Caring Interventions

Application of an Oxygen Device	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves, if needed.		
Provided comfort and safety for client. Positioned client appropriately in a semi-Fowler position.		
Performed respiratory assessment for baseline data.		
Explained safety precautions to client and support people.		
Set up oxygen equipment and humidifier, if used: a. Attached flow meter to wall outlet or tank. b. Filled humidifier bottle with tap or distilled water, if needed. c. Attached humidifier bottle to base of flow meter if being used. d. Attached prescribed oxygen tubing and delivery device to flow meter or humidifier, if used.		
Turned on the oxygen at the prescribed rate, and ensured proper functioning. Checked that oxygen was flowing freely through tubing. Set oxygen at flow rate ordered. If reservoir bag was attached, partially inflated it with oxygen.		
Applied the appropriate oxygen delivery device.		
Documented procedure, assessment data, and client's response.		
Variation: Using a Nasal Cannula		
Put cannula with outlet prongs curved downward, fitting into nares; and elastic band around head or tubing over ears and under chin. Taped cannula at sides of face if it would not stay in place. Padded tubing and band over ears and cheekbones if needed.		
Variation: Using a Non-rebreather Mask		
Checked size of face mask to make sure it fits client. Guided mask towards client's face and applied from nose downward. Fitted mask and metal nose bracket to contours of client's face. Secured elastic band around client's head so that the mask was comfortable but snug. Verified oxygen flow rate at 10–15 L/min providing highest oxygen concentration by mask. Checked to make sure oxygen bag did not totally deflate during inspiration.		

Assisting with a bedpan	**Performed**	
	Yes	**No**
Gathered supplies.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately and raised bed to working height.		
Placed client in supine position if appropriate for client.		
Placed client on bedpan. a. Placed absorbent pad under hips if needed. b. Asked client to flex the knees and push up to raise the buttocks. Assisted client to do this as necessary by placing own hand under the lower back and lifting buttocks. Positioned a bedpan under the buttocks with the buttocks resting on the smooth, rounded rim. c. If client unable to lift buttocks, assisted client to side-lying position, placed the bedpan against the buttocks, and slowly rolled the client onto the bedpan while holding it in place.		
Elevated head of the bed to a semi-Fowler's position if appropriate for client. Covered client with top bed linen. Placed signal light and toilet tissue within easy reach. Raised the side rail, if lowered, adjusted the bed to lowest height, and asked the client to signal when finished. Ensured client would be safe to leave alone.		
When client had voided, returned, performed hand hygiene and donned clean gloves. Raised the bed to a comfortable height. Removed the bedpan and assisted with wiping front to back as necessary. Did further cleaning of area as needed and verified skin was dry.		
Removed the disposable absorbent pad or replaced drawsheet if soiled.		
Provided opportunity for client to perform hand hygiene.		
Repositioned client for comfort and returned bed to lowest height.		
Measured intake and output if required.		
Emptied bedpan and disposed of soiled linen.		
Removed gloves and performed hand hygiene.		
Documented results and how the client tolerated the procedure in the client's record.		

Bathing a Patient	**Performed**	
	Yes	**No**
Gathered supplies, clean linen, personal hygiene articles, clean gloves, and laundry bag.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately.		
Offered toileting opportunity to client before beginning procedure.		
Positioned bed at a comfortable working height. Positioned client closer to side of bed working from		
Placed bath blanket over client and over top linen. Loosened top linen at edges and foot of bed. Removed dirty top linen from under bath blanket (top sheet), starting at client's shoulders and rolling linen down toward client's feet. Asked client to grasp and hold top edge of bath blanket to keep it in place while pulling linen to foot of bed. Placed dirty linen in laundry hamper.		
Removed client's hospital gown without disturbing IVs/tubes. Kept client covered with bath blanket. Placed gown in laundry bag.		
Placed towel under client's head.		
Made a mitt with washcloth.		
Bathed client's face. Washed around client's eyes, using clear water. With one edge of facecloth, wiped from the inner canthus toward the outer canthus. Using a different section of the washcloth, repeated procedure on other eye. Washed, rinsed, and dried client's forehead, cheeks, nose, and area around lips. Dried client's face thoroughly Washed, rinsed, and dried area behind and around the client's ears. Washed, rinsed, and dried client's neck.		
Removed towel from under client's head.		
Bathed client's upper extremities. Placed towel under area to be bathed. Washed both arms by elevating client's arm and holding client's wrist. Used long, firm strokes from wrist toward shoulder, including axillary area. Washed, rinsed, and dried client's axillae. Applied deodorant,if		

Bathing a Patient	**Performed**	
	Yes	**No**
desired. Washed client's hands by soaking them in the basin or with a washcloth. Cleaned client's nails.		
Bathed client's abdomen and chest. Kept client's chest covered with the towel, washed, rinsed and thoroughly dried client's chest (especially under breasts). Washed, rinsed, and dried abdomen and umbilicus. Replaced bath blanket over client's upper body and abdomen.		
Bathed client's legs and feet. Placed towel under leg to be bathed. Draped other leg, hip, and genital area with the bath blanket. Carefully placed bath basin on the towel near the client's foot, with knee bent. With one arm under the client's leg, grasped the client's foot and bent knee. Placed foot in basin of water. Bathed client's leg using long, smooth, firm strokes, moving toward hip. Rinsed and dried client's leg. Washed client's foot with washcloth. Rinsed and dried foot and area between toes thoroughly. Carefully moved basin to other side of bed, and repeated procedure for client's other leg and foot.		
Changed bath water. Raised side rails when refilling basin.		
During the bath, continuously assessed client's skin.		
Bathed client's back. Helped client turn to a side-lying or prone position. Placed towel under area to be bathed. Covered client with a bath blanket.		
Washed, rinsed, and dried client's back, moving from the shoulders to the buttocks.		
Assisted client to a supine position and determined whether the client could self-wash perineal area. Draped and assisted client as needed to wash the area.		
Removed gloves and placed in receptacle.		
Assisted client to use grooming aids and dress in clean hospital gown.		
Cleaned and stored bath equipment. Disposed of dirty linen.		
Repositioned bed to lowest height and placed upper side rails in UP position before leaving client.		
Performed hand hygiene.		
Documented type of bath, skin assessment data, how the client tolerated the procedure and ability of client to assist.		

Changing an occupied bed	**Performed**	
	Yes	**No**
Gathered supplies, clean linen, clean gloves, and laundry bag.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately.		
Raised bed to working height. Lowered side rail on near side of the bed; made sure side rail on opposite side was in UP position.		
Loosened top linens.		
Removed spread, sheet, and blanket at the same time the bath blanket (or top sheet) was pulled over client. If they were to be reused, folded them and placed on the chair.		
Placed top sheet in linen hamper (unless being used to cover client).		
Assisted client to side of bed, placed in side-lying position facing away and as near the far side rail as possible.		
Loosened bottom linens on near side of the bed.		
Pushed dirty linen under or as close as possible to client.		
Placed clean bottom sheet on mattress while client lying on opposite side of bed. Placed center fold of sheet on middle of mattress with end of sheet even with end of mattress.		
Unfolded bottom sheet and covered mattress. Made sure clean bottom sheet was underneath any used linen.		
Tucked top of sheet under head of bed, or positioned contour sheet around corner of mattress.		
Tucked remaining bottom sheet well under mattress from head to foot.		
Centered drawsheet on bed, if the client requires a drawsheet, and fanfolded half of sheet under client. Tucked side of sheet under mattress. Smoothed out any wrinkles. a. Folded drawsheet in half or quarters if a pull sheet was needed. Positioned sheet in middle of bed. Fanfolded half of pull sheet under client. b. Fanfolded absorbent pad and centered it on bed under client's buttocks, absorbent side up and plastic side down. Placed pad close to client for ease in pulling it through to other side of bed.		
Helped client roll over to other side of bed.		
Told client why there was a hump of linen in center of bed. Made client		

Changing an occupied bed	**Performed**	
	Yes	**No**
comfortable.		
Raised side rail. Moved to other side of bed.		
Gently pulled linens toward other side of bed.		
Lowered side rail, and loosened bottom sheets.		
Pulled dirty linen to side of bed and rolled into a bundle at the foot of bed or placed linen in linen hamper.		
Did not place dirty linen on floor.		
Pulled clean linen across mattress and straightened under client.		
Helped client into a supine position in the center of the bed and adjusted pillow.		
Placed top sheet, blanket, and spread over client.		
Removed bath blanket, and straightened top sheet and blanket.		
Pulled up all layers of linen at client's toes.		
Raised side rail.		
Removed pillow from bed, and changed pillowcase.		
Returned bed to lowest position.		
Disposed of soiled laundry.		
Removed gloves and performed hand hygiene.		

Infection

Hand Hygiene	**Performed**	
	Yes	**No**
Stood in front of but away from sink.		
Ensured that paper towel was hanging down from dispenser.		
Turned on water using foot pedal or faucet so that flow was adequate, but not splashing.		
Adjusted temperature to warm.		
Wet hands under running water, keeping hands below elbow level.		
Placed a small amount (one to two teaspoons, 5–10 mL) of liquid soap on hands. Thoroughly distributed over hands. Used soap from a dispenser, not bar soap.		
Rubbed vigorously, using a firm, circular motion, while keeping fingers pointed down, lower than wrists. Started with each finger, then between fingers, then palm and back of hand.		
Washed hands for at least 20 seconds.		
Rinsed hands under running water, keeping fingers pointed downward.		
Dried hands thoroughly with a paper towel, while keeping hands positioned with fingers pointing up.		
Turned off water faucet with dry paper towel, if not using foot pedal.		
Variation: Using Waterless Antiseptic Agents (Foams or Gels)		
Checked dirt on hands and used waterless agent only if hands were clean.		
Applied small amount of alcohol-based rub, foam or gel (3–5 mL), on palm of hand.		
Rubbed hands together vigorously, covering all surfaces, sides of hands and fingers.		
Rubbed hands until dry. Does not dry with paper towel.		

Isolation Attire	**Performed**	
	Yes	**No**
Donning Attire		
1. Performed hand hygiene.		
2. Took gown from isolation cart or cupboard. Put on a new gown each time entering an isolation room.		
3. Held gown so that opening was in back when worn.		
4. Put gown on by placing one arm at a time through sleeves. Pulled gown up and over shoulders.		
5. Fasten in back of neck and waist		
6. Don mask, securing ties or elastic bands at middle of head and neck. Fit flexible band to nose bridge to fit snug to face and below chin. Fit-check respirator, if applicable,		
7. Don goggles or face shield, placing over face and eyes and adjust to fit.		
8. Donned clean gloves and pulled gloves over gown wristlets.		
Removing Attire		
1. Grasp the gown in the front and pull away from your body so that the ties break, touching outside of gown only with gloved hands. While removing the gown, fold or roll the gown inside-out into a bundle.		
2. While removing gown, peel off gloves at the same time, only touching the inside of the gloves and gown with bare hands. Place the gown and gloves into a waste container		
3. Remove goggles or face shield from the back by lifting head band and without touching the front of the goggles or face shield. If the item is reusable, place in designated receptacle for reprocessing. Otherwise, discard in a waste container		
4. Grasp bottom ties or elastics of the mask/respirator, then the ones at the top, and remove without touching the front. Discard in a waste container		
5. Performed hand hygiene.		
6. Completed hand hygiene.		

Medication Administration

Preparing medications from an ampule	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Performed hand hygiene		
Flicked upper stem of ampule with fingernail to bring all medication into main portion of the ampule.		
Used an ampule opener, or placed unopened alcohol wipe or piece of gauze between thumb and ampule neck and broke off the top of the ampule away from self. Disposed of top in sharps container.		
Placed ampule on a flat surface. Attached the filter needle to the syringe.		
Removed the cap from the needle and inserted the needle into the center of the ampule. Withdrew all the medication.		
Tapped syringe barrel to dislodge air bubbles to hub of syringe. Ejected air with syringe in an upright position. If amount of solution was overdrawn, inverted syringe and removed excess solution to medical waste receptacle.		
Removed filter needle from syringe and placed in sharps container. Replaced filter needle with a regular needle, tightened the cap at the hub of the needle, and push solution into the needle to the prescribed amount.		
Labeled syringe with medication name and dosage in syringe, if medication is not given immediately.		

Drawing up medications from a ampule	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Performed hand hygiene.		
Flicked upper stem of ampule with fingernail to bring all medication into main portion of the ampule.		
Used an ampule opener, or placed unopened alcohol wipe or piece of gauze between thumb and ampule neck and broke off the top of the ampule away from self. Disposed of top in sharps container.		
Placed ampule on a flat surface. Attached the filter needle to the syringe.		
Removed the cap from the needle and inserted the needle into the center of the ampule. Withdrew all the medication.		
Tapped syringe barrel to dislodge air bubbles to hub of syringe. Ejected air with syringe in an upright position. If amount of solution was		

Drawing up medications from a ampule	**Performed**	
	Yes	**No**
overdrawn, inverted syringe and removed excess solution to medical waste receptacle.		
Removed filter needle from syringe and placed in sharps container. Replaced filter needle with a regular needle, tightened the cap at the hub of the needle, and push solution into the needle to the prescribed amount.		
Labeled syringe with medication name and dosage in syringe, if medication is not given immediately.		

Preparing medications from a vial	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Performed hand hygiene		
Mixed medication solution as needed by rotating vial between the palms of the hands. Removed protective cap from vial and cleaned rubber cap vial with antiseptic wipe in circular motion.		
Ensured needle firmly attached to syringe (used a filter needle if needed).		
Removed cap from needle and drew up into the syringe the amount of air equal to the volume of medication to be withdrawn.		
Inserted needle into upright vial through the center of the rubber cap, maintaining sterility of the needle.		
Injected air into vial, then withdrew the prescribed amount of medication by holding the vial down or inverting the vial.		
Held syringe and vial at eye level to determine correct dosage of drug was drawn into the syringe.		
Tapped syringe barrel to dislodge air bubbles to hub of syringe. Ejected air with syringe in an upright position. If amount of solution was overdrawn, inverted syringe and removed excess solution to medical waste receptacle. If filter needle used, replaced it with a regular needle and ejected air from new needle.		
Labeled syringe with medication name and dosage in syringe, if medication is not given immediately.		

Administering subcutaneous injections	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately.		
Prepared correct amount of medication without contaminating it.		
Selected fatty site for injection, alternating sites for each injection. .		
Cleansed area with antimicrobial swab and allowed to dry		
Used thumb and forefinger and gently grasped loose area of fatty tissue on appropriate site.		
Removed needle guard, held syringe like a dart between the thumb and forefinger, and inserted needle at a 45° or 90° angle.		
Injected medication slowly. Waited 10 seconds, then withdrew needle quickly and activated needle safety feature.		
Released tissue and massaged area with swab (if indicated).		
Discarded needle/syringe unit in puncture-proof container.		
Discarded gloves and performed hand hygiene.		
Documented medication administration including assessment findings, if indicated.		

Administering intramuscular injections	**Performed**	
	Yes	**No**
Reviewed provider's order and gathered supplies.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and donned gloves.		
Provided comfort and safety for client. Positioned client appropriately.		
Prepared correct amount of medication without contaminating it.		
Selected injection site, identifying bony landmarks. Considered client's size, amount and viscosity of medications being injected. Alternated sites each time injections were given.		

Administering intramuscular injections	**Performed**	
	Yes	**No**
Cleansed area with antimicrobial swab and allowed to dry.		
Spread skin taut between thumb and forefinger (grasping muscle is acceptable in pediatric and geriatric clients with less fatty tissue) to ensure needle placement in muscle belly.		
Inserted needle at a 90° angle to the muscle, using a quick, darting motion.		
Injected medication slowly. Waited 10 seconds, then withdrew needle quickly and activated needle safety feature. Massaged area with gauze pad.		
Discarded needle/syringe unit in puncture-proof container.		
Discarded gloves and performed hand hygiene.		
Documented medication administration including assessment findings, if indicated.		

Administering medications by enteral tube	**Performed**	
	Yes	**No**
Checked medication orders.		
Removed appropriate medication from medication drawer, shelf, or refrigerator. Used liquids or crushed and dissolved tablets.		
Introduced self and verified client's identity. Provided client privacy.		
Performed hand hygiene and applied gloves.		
Positioned client in a Fowler's or sitting position.		
If client was receiving a continuous feeding tube, press "Hold" button on enteric feeding pump.		
Disconnected tubing that was being used for suction or feeding from gastric tube. Placed cap on end of tubing.		
Assessed tube placement by gastric pH testing, aspiration of gastric contents and patient verbalizations without distress.		
Pinched or folded over gastric tube.		
Administered the medication(s): a. Removed the plunger from the syringe and connected the syringe to a pinched or folded over tube. b. Put 30 mL of water to the syringe barrel to flush the tube before administering the first medication. Raised or lowered barrel of syringe to adjust flow as needed. Pinched or clamped tubing before all of water was instilled. c. Poured liquid or dissolved medication into syringe barrel and allowed to flow by gravity into enteral tube. d. After administering the last medication, flushed the tube with 30 mL of tap water. f. Pinched or folded over gastric tube and reconnected to tubing for continuous feeding. g. Removed and discarded gloves. Performed hand hygiene. Discarded disposable supplies.		
Documented medication administration in client's record.		

LPN Advanced Placement

Sample Dosage Calculation Exam

Name _____ Date _____

Show all your work/Round to the nearest 10th when appropriate/Circle your final answer

1. An IV of NS 1,000 mL is to infuse over 10 hours. The drop factor is 15 gtt/mL. Calculate the flow rate in gtt/min using a whole number.

2. Order: gentamycin sulfate (Garamycin) 100 mg IV q8h
   Supply: Garamycin 40mg/mL. Calculate the dose to be administered.

3. Order: clonazepam (Klonopin) 500 mcg po
   Supply: Klonopin 0.25 mg per tablet. Calculate the dose to be administered.

4. Order: acetaminophen (Tylenol) 15mg/kg po is ordered for a patient who weighs 66 lbs
   Supply: Tylenol suspension 300 mg/20 mL. Calculate the dose to be administered.

5. Order: Ampicillin 175 mg IV q8h
   The directions on the package state: "Reconstitution of the single-use vial with 5 mL yields 250 mg/6 mL." Calculate the dose to be administered.

6. Order: Penicillin G 300 mg IM q6h
   The label reads: Penicillin 1g. Add 2 mL Bacteriostatic Water for injection. Each mL contains 500mg of Penicillin. Calculate the dose to be administered.

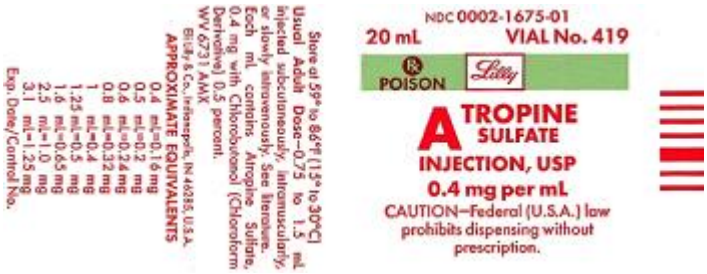
7. Ordered: Heparin 3,200 units subcutaneously q8h
Supply: 4,000 units/mL in a multidose vial. Calculate the dose to be administered.

8. Ordered: Heparin 70 units/kg for a patient who weighs 220 lbs
Supply: 10,000 units/mL in a multidose vial. Calculate the dose to be administered.

9. Ordered: Depakene (Valproic acid) 950 mg po
Read the label and calculate the dose to be administered.

10. Ordered: Atropine 0.6 mg IM

Read the label and calculate the dose to be administered.



LPN Advanced Placement

Sample Dosage Calculation Exam - Answers

Name _____ Date _____

Show all your work/Round to the nearest 10th when appropriate/Circle your final answer

1. An IV of NS 1,000 mL is to infuse over 10 hours. The drop factor is 15 gtt/mL. Calculate the flow rate in gtt/min using a whole number.

1000mL/(10hr x 60 mins/hr) = 1.67mL/min x 15 gtt/mL = 24.99 gtt/min **x= 25 gtt/min**

2. Order: gentamycin sulfate (Garamycin) 100 mg IV q8h
   Supply: Garamycin 40mg/mL. Calculate the dose to be administered.

$\frac{100mg}{X\ mL} = \frac{40mg}{1mL}$ $40x = 100$ $\frac{40x = 100}{40}$ **x= 2.5 mL**

3. Order: clonazepam (Klonopin) 500 mcg po
   Supply: Klonopin 0.25 mg per tablet. Calculate the dose to be administered.

$\frac{0.25mg}{1} = \frac{500mcg\ (0.5mg)}{x}$ $0.25x = 500mcg$ $\frac{0.25x = 0.5mg}{0.25}$ **x = 2 tabs**

4. Order: acetaminophen (Tylenol) 15mg/kg po is ordered for a patient who weighs 66 lbs
   Supply: Tylenol suspension 300 mg/20 mL. Calculate the dose to be administered.

66lbs = 30kg $\frac{15mg}{Kg}$ x 30kg = 450mg $\frac{450mg}{x} = \frac{300mg}{20mL}$ $\frac{300x = 9000mL}{300}$ **x = 30 mL**

5. Order: Ampicillin 175 mg IV q8h
   The directions on the package state: "Reconstitution of the single-use vial with 5 mL yields 250 mg/6 mL." Calculate the dose to be administered.

$\frac{175mg}{x} = \frac{250mg}{6mL}$ $250x = 1050mL$ $\frac{250x = 1050mL}{250}$ **x = 4.2 mL**

6. Order: Penicillin G 300 mg IM q6h
   The label reads: Penicillin 1g. Add 2 mL Bacteriostatic Water for injection. Each mL contains 500mg of Penicillin. Calculate the dose to be administered.

$\frac{300mg}{x} = \frac{500mg}{1mL}$ $\frac{500x = 300mL}{500}$ **x = 0.6 mL**

7. Ordered: Heparin 3,200 units subcutaneously q8h
   Supply: 4,000 units/mL in a multidose vial. Calculate the dose to be administered.

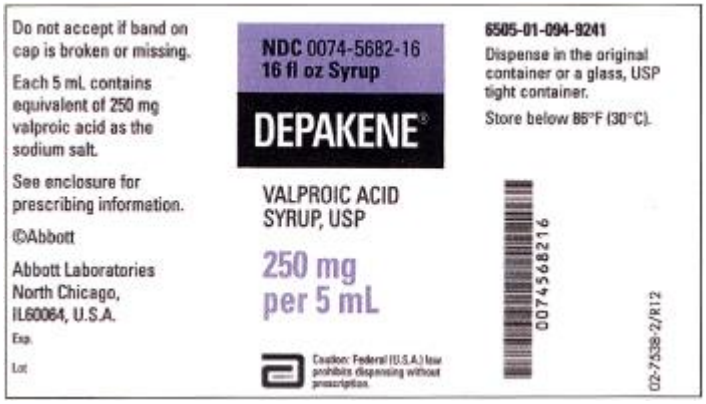
$\frac{3200units}{x} = \frac{4000units}{1}$ $4000x = 3200$ $\frac{4000x = 3200}{4000}$ **x=0.8 mL**

8. Ordered: Heparin 70 units/kg for a patient who weighs 220 lbs
Supply: 10,000 units/mL in a multidose vial. Calculate the dose to be administered.

220lbs = 100kg 100kg x 70units/kg = 7000units = $\frac{7000\text{units}}{X} = \frac{10{,}000\text{units}}{1\text{mL}}$

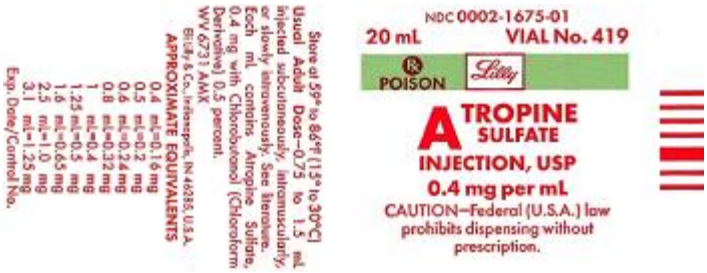
$\frac{10{,}000x = 7000\text{units}}{10{,}000}$ **x = 0.7 mL**

9. Ordered: Depakene (Valproic acid) 950 mg po
Read the label and calculate the dose to be administered.



$\frac{250\text{mg}}{5\text{mL}} = \frac{950\text{mg}}{x}$ 250x = 4750mL $\frac{250x = 4750\text{mL}}{250}$ **x = 19 mL**

10. Ordered: Atropine 0.6 mg IM
Read the label and calculate the dose to be administered.



$\frac{0.6\text{mg}}{x} = \frac{0.4\text{mg}}{1\text{mL}}$ 0.4x = 0.6mL $\frac{0.4x = 0.6\text{mL}}{0.4\text{mL}}$ **x = 1.5mL**

Health Profession Programs Suspension/Expulsion Policy

Policy

Student/ learners who are or have been subjected to disciplinary action for violation of the College's Policies regarding Academic Integrity which have resulted in suspension or expulsion by the Mercer County Community College Academic Integrity Committee are no longer eligible to participate in any of the Health Professions programs.

MCCC Health Professions programs: Nursing, Medical Laboratory Technology, Radiography, and Physical Therapist Assistant

Suspension is a non-learner status during which a student/learner will not lose previously accrued academic credits but may not continue to participate in any of the Health Professions programs**.** Students who have been suspended from the College will not be considered for re-admission or initial admission to any of the Health Professions programs.