

**Eastern West Virginia Community and Technical College
COURSE ASSESSMENT REPORT**

Course Title and Number: NU 142 Drug and Dosage Calculations II (1 CR)	Academic Term and Year of Assessment Activity (Ex: Fall, 2014) Spring, 2015
Report Submitted By: Eleanor Berg, MS, RN	Number of Students Assessed: 16
Date Report Submitted: 5/12/2015	Number of Sections Included: 1
Course Delivery Format (list all modalities used in sections assessed. Ex: web based, VDL, traditional section, hybrid course, etc.): Traditional	

Course Role in the Curriculum
Provide a description of the role the course serves in the curriculum (i.e. general education requirement, program technical core, restricted elective, etc.). Note all as appropriate.
NU 142 is a mandatory course in the nursing curriculum which must be taken in the second semester. The student must be in the nursing program and must have completed NU 132 with a "C" or above. Drug and Dosage Calculations are utilized in the nursing profession and the student must be able to apply the concepts to safely deliver nursing care. The course expands the nursing student's ability to read, interpret, and solve increasingly complex dosage calculation problems. Critical thinking skills are applied to age and acuity specific variations in select populations. The methods of calculations were taught in both NU 132 and NU 142 but this course expanded the knowledge to encompass IV drips in critical care along with utilizing drug inserts to obtain information in mixing and administering IV medications.

Assessment Methods
Provide a description of the assessment process used. Include description of instrument and performance standards in description. Note all methods.
11 take home quizzes for a total of 239 points were given along with a 30 point quiz in class to evaluate whether the nursing student learning objectives and the course objectives were met. The HESI exam was administered as a final exam and was worth 100 points. The benefit of the HESI exam was to determine how the class and each student compared to other nursing students nationally. The HESI exam was worth 100 points.

Assessment Results
Provide a summary of results including tables/charts. Incorporate information from previous assessments as appropriate. Append additional pages if necessary. If appending, include notation in box to "See attached".
The course has never been offered before and was developed by faculty of the WVCADN. All 16 of the students successfully completed the course with a "C" or above. The desirable score on a HESI exam is 850 or above. The scores ranged from 644-1226. 10 students (62.5%) scored over 1000 but 4 (25%) students scored less than 850 with the range being 644-845. The class average was 1001 and the national average was 921 which placed the class in the 63.7 th percentile nationally. The quizzes were matched to the college core values, the course objectives and the nursing student learning objectives. 100% of the objectives were measured with the quizzes and the HESI exam. Multiple students stated they felt well

prepared for the HESI exam but one with the lowest score stated that she had forgotten how to convert grams to milligrams.

Course Level Assessment Summary of Outcomes, Indicators and Results Course Title and Number: NU 142 Drug and Dosage Calculations Number of students in assessment sample = 16 Number of Sections in Assessment = 1 Add additional rows to table if necessary				
Learning Outcomes (Insert learning outcomes assessed during this cycle)	Indicator (Insert indicators used for each outcome: exam question, scoring rubric, etc. Be specific)	Percent of Correct Responses	Percent of Incorrect Responses	Performance Standard Met (75%)* (yes or no)
Outcome 1: Nursing Judgement Professional Identity Human Flourishing Demonstrates facility with four methods of converting units of measurement and calculating dosages/amounts to administer using correct notation and labeling.	Students will score 850 or above on the HESI assessment exam for Drug Calculations which included 55 questions on drug calculations and administrations. These included but not limited to grams, milligrams, kilograms, milliliters, liters and household measurements.	75%	25%	yes
Outcome 2: Nursing Judgement Identify medication administration errors and assess accuracy of ordered and calculated medication dosages.	The drop rate is the number of drops per minute to maintain a certain rate. They are listed as drops per minute. The drop rate depends on the drop factor (also called the drip factor) of the IV tubing. The drop factor is the number of drops it takes to equal 1 ml and will be listed on the tubing box. A microdrip (or microdropper) is 60 gtts/ml. If you are using a microdrip, it is exactly the same as the ml/hr ordered. 1. D10W at 40 mL/hr a) 10 gtt/mL ____ b) 15 gtt/mL ____	100%	0%	yes

	c) 20 gtt/mL ____ d) 60 gtt/mL ____			
Outcome 3: Nursing Judgement Identify medication administration errors and assess accuracy of ordered and calculated medication dosages.	Dopamine 400mg in 250mL D5W at 3 mcg/kg/min, pt's weight is 60kg a) Concentration b) mcg/hr c) mcg/min d) ml/hr	100%	0	yes
Outcome 4: Nursing Judgment Human Flourishing Calculate pediatric dosages based on body weight	For fluid maintenance, a child needs 100 mL of IV fluid per kg administered in 24 hours. The child weighs 22 lbs. How much fluid does the child need in 24 hours? How many mL per hour will you give?	100%	0%	yes
Outcome 5 Nursing Judgment Calculate adult dosages based on body weight.	Lidocaine 1 mg/kg IVP now with a maximum dose of 100mg. Give over two minutes IVP. Available is 100mg/ml. The patient weighs 240 pounds. How many mLs will be give and how many mLs will be given in one minute?	100%	0%	yes
Outcome 6 Spirit of Inquiry Interpret drug labels, package directions, tables, charts and graphs in order to administer medications correctly.	Each student was given a drug insert label issued by the pharmaceutical company. The students had to provide the following information. Brand name, generic name, drug classification, length of time of use, recommended dose and schedule, recommended use, when does the drug peak, what is the plasma half-life, any adjustments for kidney or liver failure, how does it work, any special tests prior to administration, contraindications, serious side-effect or reactions, safety in pregnancy or breastfeeding, safety in pediatrics and geriatrics, how do you treat an overdose, reconstitution, stability and storage, range of adult dose, recommended administration time	87.5% of the class scored 100% on the quiz	12.5% scored less than 100% on the quiz.	yes

	and what did you learn about use of medication package inserts? The quiz was worth 25 points.			
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* Please note if using a different minimum performance standard.

Conclusions
Provide a brief summary of conclusions derived based on analysis of data. Append additional pages if necessary. If appending, include notation in box to "See attached".
Overall, the class performed very well but four students failed to meet the benchmark on the HESI exam although two were very close. Eleanor Berg informally talked to the students and most felt that they were well prepared for the HESI exam. One of the students with the lowest score said that she had forgotten how to convert grams to milligrams which had been taught in NU 132 and the other stated that she was overwhelmed with the extensive word problems on the HESI exam.

Previous Assessment Reports and Results
Date of Previous Assessment: N/A
List of Outcomes Not Met: N/A
Summary of Actions Taken to Address Unmet Learning Outcomes: Append additional pages if necessary. If appending, include notation in box to "See attached".
First time offering the course.

Action Plan and Date for Reassessment
Identify action plan for improvement or maintaining current performance levels including outcomes identified for re-assessment, curriculum revision, LOT proposal, new or revised course activities to reinforce learning outcomes, etc. Append additional pages if necessary. If appending, include notation in box to "See attached".
Will add at least 5 questions per exam which includes conversion between measurements.

Assessment Committee Recommendation/Approval (To be posted by Assessment Committee Chair)
Approved as presented.
Date: May 13, 2015

LOT Recommendation/Approval (To be posted by Assessment Committee Chair)
Approved as presented.
Date: May 18, 2015