Basic Course Information

Semester:	**SU 2017**	Instructor Name:	**Daniel G. Ortiz, Jr.**
Course Title & #:	**NURS 100: Medication Math**	Email:	**daniel.ortiz@imperial.edu**
CRN #:	**30005**	Webpage (optional):	**www.imperial.edu**
Classroom:	**2131**	Office #:	**2126**
Class Dates:	**June 19 – June 29, 2017**	Office Hours:	**Posted in office**
Class Days:	**Monday - Thursday**	Office Phone #:	**760-355-6493**
Class Times:	07:45am – 09:50am	Emergency Contact:	**760-355-6348**
Units:	1.0 unit		

Course Description

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This course focuses on those components of safe medication calculation and administration. The emphasis is on accuracy of calculation and the critical thinking involved in client/patient safety. This is an intense class on med math calculations that is required of all RN majors. Clinical application is integrated into the clinical nursing courses.
In NURS100, the student is required to apply mathematical principles to the calculation of drug dosages. This includes addition, subtraction, multiplication & division of decimals and fractions. A thorough knowledge of the metric system with emphasis on the conversions is required. Dimensional analysis as it applies to calculating drug dosages is included.

Student Learning Outcomes

Student Learning Outcomes:

Upon completion of this class the student will be able to:
1.Calculate the flow rate of a simple primary intravenous line in ml/hr or drops/min as measured by one (1) randomly selected question on the final exam with a class average for the measured question at 92% or better.
2.Pass a comprehensive final exam on dosage calculations at 75% including critical care and pediatric problems.

Course Objectives

Course Objectives:

1.Calculate basic mathematic problems including addition, subtraction, multiplication &division of fractions & decimals.
2.Convert metric, apothecary and household measures accurately.
3.Solve dosage problems using dimensional analysis

4.Calculate adult & pediatric dosages.
5.Calculate intravenous flow rates.
6.Interpret drug orders and labels relevant to the safe administration of drugs.
7.Discuss the "Six rights" of clients relative to administration of medications.
8.Describe the routes of administration.

Unit Outcome Competencies:

The student will practice problems in class, in the Nursing Learning Center and at home to develop proficiency in calculations.

Textbooks & Other Resources or Links

REQUIRED

Access to www.dosagecalc.com is required for this class | **The Class ID is 5D2329A077.**

RECOMMENDED Dosage Calculations tutorials on https://www.atitesting.com/home.aspx
Dimensional Analysis for Meds, 4th Edition Anna M. Curren, MA, RN Copyright© 2010
Delmar Cengage Learning or any Dimensional analysis dosage calculation book.

Course Requirements and Instructional Methods

Classroom work:

The student is expected to bring required materials to class. This includes the required study guides to be worked on during class time.

Tests:

There will be exams covering the topics reviewed in class. They may consist of in class exams and/or exams taken on Dosagecalc.com.
THERE ARE NO MAKE-UP EXAMS REGARDLESS OF EXCUSE.

Out of Class Assignments: There will be homework assignments from the required website. The results of the assignments will be tracked and scored on-line. The assignments will cover the topics discussed in class. **NO LATE WORK WILL BE ACCEPTED.**
The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester.

Course Grading Based on Course Objectives

Students must maintain a “C” average grade as determined by the scale below:
A = 92-100%
B = 83-91%
C = 75-82%
D = 68-74%
F = Below 68%
Grades will not be “rounded”.

Attendance

According to the Imperial Valley College catalog: Regular attendance in all classes is expected of all students enrolled. Instructors are expected to take a student's record into account in computing grades. A student may be excluded from further attendance in a class during any semester when absences after the close of registration have exceeded the number of class hours that the class meets per week. Further, an instructor may drop any student judged to be a disturbing element in the class.

However, the attendance policy of the nursing program is further implemented as follows:
Absences will be limited to two (2) hours or 1 class session for the course.

It is the responsibility of each student to attend all classroom and to contact the faculty person before the start of class of any need to be excused from class. A student who reaches the maximum allowable hours of absenteeism or tardiness may be dropped by the instructor.

Acceptance of absenteeism excuses is at the discretion of the faculty member and may result in failure of the class.

A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.

Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.

Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- The appropriate method of instruction will be determined by each instructor and may include, but not be limited to the following: classroom lecture, small group discussions, student presentations, demonstration, simulations, CD or online assisted instruction, audiovisuals, textbooks, handouts, and required reading and assignments.
- During all classroom time, every person will be respected within the group and it is expected that all interactions between students, faculty, and other staff will take place professionally and courteously.
- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Additional Student Services

- Calculating Dosages ONLINE support center: http://dosagecalc.com/Help/SupportCenter
- Nursing Learning Center (NLC): Please utilize the nursing learning center tutors for assistance with medication math related studies. NOTE: NLC is not open year-round, please contact the nursing office for hours of availability.
- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.

- **Library Services**. There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center**. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC Mental Health Counseling Services at 760-355-6196 in Room 2109 for more information.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

Anticipated Class Schedule/Calendar

[Required Information – Discretionary Language and Formatting: *The instructor will provide a tentative, provisional overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format may be useful for this purpose.]*

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1, Day 1 Monday June 19, 2017	**Orientation** **Basic Math Review** a.Fractions b.Decimals c.Roman Numerals	**All Exams are online with exception to the Final** **ASSIGNMENT: Complete Online Exercises: Basic Math Review: Fractions Decimals, Roman Numerals, & *Module Review*** **TEST 1:** Basic Math Module Test -1

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1, Day 2 Tuesday June 20, 2017	**Methods of Calculation** a.Ratio and Proportion b.Dimensional Analysis c.Formula Method	**ASSIGNMENT: Complete Online Exercises: Methods of Calculation: Ratio and Proportion, Dimensional Analysis, Formula Method & *Module Review*** **TEST 2:** Methods of Calculation Module Test -1m *****All Exam scores must be submitted to the gradebook for credit. (i.e., Module Review and Test Scores for each assigned day)**
Week 1, Day 3 Wednesday June 21, 2017	**System of Measurement** a.The Metric System b.The Household System c.Conversions **Intake and Output** a.Intake and Output b.Parenteral Intake c.Tube Feedings	**ASSIGNMENT: Complete Online Exercises: System of Measurement: The Metric System, The Household System, Conversions & *Module Review* Intake and Output: Intake and Output, Parenteral** **TEST 3:** System of Measurement Module Test-1 **TEST 4:** Intake and Output Module Test-1
Week 1, Day 4 Thursday June 22, 2017	**Reading Medication Labels** a.Components of aMedication Label b.The Dosage Strengthand Units ofMeasurements **Oral Medications** a.Intro to Oral Drugs b.Calculations of OralDrugs **Mid-Term**	**ASSIGNMENT: Complete Online Exercises: Reading Medication Labels: Reading Labels, & *Module Review* Administration of Oral Medications: Introduction to Oral Drugs, Calculating Oral Drugs, & *Modular Review*** **TEST 5:** Medication Labels Module Test-1 **TEST 6:** Oral Medications Module Test-1
Week 2, Day 5 Monday June 26, 2017	**Syringes and Needles** a.Intro to Syringes b.Types of Syringes c.Intro to Needles d.Types of Needles **Parenteral Medications** a.Parenteral Drugs b.Calculating parenteralDrug Dosages	**ASSIGNMENT: Complete Online Exercises: Syringes and Needles: Syringes, Needles, & *Module Review* Administration of Parenteral Medications: Parenteral Drugs, Calculating Parenteral Drug Dosages, & Modular Review** **TEST 7:** Syringes and Needles Module Test -1 **TEST 8:** Parenteral Medications Module Test-1
Week 2, Day 6 Tuesday June 27, 2017	**Powdered Medications** a.Simple Reconstitution b.Complex Reconstitution **IV Calculations** a.IV Calculations b.Labeling IV Bags	**ASSIGNMENT: Complete Online Exercises: Reconstitution of Powdered Medications: Simple Reconstitution, Complex Reconstitution, & *Module Review* IV Calculations: IV Calculations, Labeling IV Bags, & *Modular Review*** **TEST 9:** Powdered Medications Module Test-1 **TEST 10:** IV Calculations Module Test-1

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 2, Day 7 Wednesday June 28, 2017	**Pediatric Calculations** a.Pediatric Calculations b.Determining Safe Dose c.NG Fluid Replacement **Titration of IV Medications** a.Intro to Titration b.Solving TitrationProblems	**ASSIGNMENT: Complete Online Exercises: Pediatric Calculations: Pediatric Calculations, Determining Safe Dose, NG Fluid Replacement, & *Module Review*** **Titration of IV Medication: Intro to titration, Solving titration Problems, & *Modular Review*** **TEST 11:** Pediatric Calculations **TEST 12:** Titration of IV Medications
Week 2, Day 8 Thursday June 29, 2017	**FINAL EXAMINATION** **Developing Competency in Drug Dosage Calculations**	Details on Final Exam will be provided in class.

*****Tentative, subject to change without prior notice*****