IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Spring 2024**	Instructor Name:	**Suellen Encinas, MSN-Ned, RN**
Course Title & #:	**Pharmacology I**	Email:	**Suellen.encinas@imperial.edu**
CRN #:	**21123**	Webpage (optional):	**www.imperial.edu**
Classroom:	**2152**	Office Phone #	**(760) 355-6348**
Class Dates:	**Feb 12 – June 07**	Office Hours:	**M & T: 12-1 W: 1:15 -3:15 Th: 4:15-5:15**
Class Days:	**Th**		
Class Times:	1440-1605	Last Day to Drop With a "W"	**11 MAY 2024**
Units:	1.5	Class Format/Modality:	In-Person

Course Description

An introductory course in pharmacology designed to assist the student in acquiring the basic skills of drug dosage calculations and the administration of medications. Clinical application will be integrated into VN 112.

Course Prerequisite(s) and/or Corequisite(s)

Admission to LVN program

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Calculate dosages in apothecary and metric system and safely administer medications utilizing the 5 rights in the clinical setting ILO 1,2,4

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Calculate basic mathematic problems including addition, subtraction, multiplication and division of fractions and
decimals.
2. Convert metric, apothecary, and household measures accurately.
3. Describe drug orders and labels relevant to the safe administration of drugs.
4. Solve dosage problems using ratio and proportion and given formulas.
5. Calculate adult and pediatric dosages and intravenous flow rates.
6. Discuss the "five and nine rights" of patients relative to administration of medications
7. Describe the routes of administration.
8. Administer oral, topical, sublingual, suppository, and injectable medication; apply medications to Mucous membranes, eyes and ears. (Integrated into Nursing 100 (v) skills laboratory requirements and Nursing 112 (v)

Textbooks & Other Resources or Links

Required

1. Purchase access to www.DosageCalc.com

2. Martinez de Castillo, S., L., Werner-McCullough, Maryanne. (2017). Calculating Drug Dosages. A patient-safe approach to nursing and math. Philadelphia, PA: F. A. Davis

Recommended

1. Dimensional Analysis for Meds, 4th Edition Anna M. Curren, MA, RN Copyright 2010. Delmar Cengage Learning or any Dimensional analysis dosage calculation book. Has to be Dimensional Analysis method.

Other resources

- Registered Nurse RN https://www.youtube.com/channel/UCPyMN8DzkFI2_xnTEiGZ1w
- Kahoots www.kahoot.com
- Poll Everywhere www.polleverywhere.com
- Screencastomatic www.screencastomatic.com
- Confer Zoom www.conferzoom.com
- Khan Academy www.khanacademy.org

Course Requirements and Instructional Methods

Classwork work: The student is expected to have the required materials in class. This includes the required study guides to be worked on during class time.

Class Format: The content is organized into modules (see module outline below). Each module includes several topics, discrete chunks of content for students to master. Each topic is comprised of Learn and Practice pieces. Students must complete the Learn and Practice pieces. Learn delivers the need-to know content in in ways that make it accessible to the student. This includes simple videos, reading and interactive graphics. Practice exercises give students the opportunity to check their understanding in real time. All practice problems include detailed rationales, including sample work in all methods. At the end of each module, students take a module Assessment that ties together the topics within the module and gauges a student's understanding of the content.

Tests: There will be a midterm and a final exam covering the topics reviewed in class. They will consist of in class exams and/or exams taken on Dosagecalc.com.

Note: All on-line content is time stamped and as such, must be submitted accordingly.

Methods of instruction: audio visuals, computer assisted instruction, demonstration, group activities, individual assistance, and lectures.

THERE ARE NO MAKE-UP EXAMS REGARDLESS OF EXCUSE.

Out of class assignments:

- 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.
- Read assigned chapters and be able to complete an equation using dimensional analysis.

- Submit all assessments/learning activities

Course Grading Based on Course Objectives

Grading will include home assignments, class participation, group projects, no more than 6 quizzes, Midterm exam, and Final exam. A total grade of 78% and passing the final at 78% or above are required to pass this course. Students must maintain a "C" average grade as determined by the scale below:

A = 93-100%

B = 85-92%

C = 78=84%

F = Below 78%

"GRADES WILL NOT BE ROUNDED"

To advance to the next semester, a total grade of 78% or above AND passing the final at 78% or above is required in this course and the co-requisite courses.

Module Assignments will be due the following week after lecture.

Module Assessments/Learning Activities will be graded by the scale below:

10pts: 93-100%

9pts: 85-92%

8pts: 78=84%

0pts: Below 78%

The student is responsible for dropping (W) the class before the deadline as outlined on registration forms.

Failure to pass this class will affect the ability to progress to the next semester.

Students failing must make an appointment to speak with the Director of Nursing Education.

The student is responsible for making an appointment with their instructor any time their grade average drops below 82

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Course Policies

Each student in this class is expected to respectfully participate. Please act professionally and keep other students feelings in mind and refrain from rude, inappropriate behavior and language in class.

Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.

Food and Drinks 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, only students enrolled in the class may attend; children are not allowed.

Academic Honesty: 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.

Attendance

It is the responsibility of each student to attend all class time and to contact the faculty person before the start of class of any need to be excused from class. The class will start as indicated above; any student who is tardy 15 minutes or more will be counted as absent, will not be allowed to take any scheduled or unannounced quizzes, tests, or major exams.

Absences are limited to the number of hours class meets in one week (One for a 1.5-unit course). A student who reaches the maximum allowable hours of absenteeism may be dropped by the instructor. If you are absent more than 1 day, you need to drop the class. If you no longer plan to attend class it is your responsibility, not the instructor's, to drop you from the class.

Students are strongly encouraged to meet all class sessions as homework and assignments will be provided at the end of lecture.

• A student who fails to attend the first meeting of a 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 who have continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped.

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IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 02/15/2024	Syllabus & Introduction DosageCalc 360 Student Orientation	DC360 Module Assessment • Basic Math
Week 2 02/22/2024	**Module: Safety in Medication Administration** • Preventing Medication Errors • Medication Administration • Process • Drug Labels **Module: Systems of Measurement** • The Metric System • The Household System	DC360 Module Assessment • Safety in Medication Administration • Systems of Measurement
Week 3 20/29/2024	**Module: Dimensional Analysis** • Introduction to Dimensional Analysis • Calculating Using Dimensional Analysis	DC360 Module Assessment • Dimensional Analysis
Week 4 03/07/2024	**Module: Calculating Oral Medication Doses** • Understanding Types of Medication and Measuring Devices • Oral Dose Calculations	DC360 Module Assessment • Calculating Oral Medication Doses
Week 5 03/14/20241	**Module: Syringes and Needles** • Introduction to Syringes • Types of Syringes and Needle • Lengths and Gauges Module: Calculating Parenteral Medication Dosages • Understanding Parenteral Medications • Parenteral Dose Calculations	DC360 Module Assessment • Syringes and Needles
Week 6 03/21/2024	**Module: Preparing Powdered Parenteral Medications** • Introduction to Powdered Parenteral Medications • Reconstitution Problems	DC360 Module Assessment • Preparing Powdered Parenteral Medications
Week 7 03/28/2024	**Module: Administering Insulin** • Introduction to Insulin • Insulin Syringes	DC360 Module Assessment • Administering Insulin
Week 8 04/04/2024	**Holiday**	
Week 9 04/11/2024	Midterm Exam (wk 1- 7)	

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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 10 04/18/2024	**Module: Calculating for IV Medications and Infusions** • Understanding IV Infusion • Calculating Flow Rate • Calculating Infusion and • Completion Time • Monitoring IV Therapy	DC360 Module Assessment • Calculating for IV Medications and Infusions
Week 11 04/25/2024	**Module: Administering Direct IV Medications** • Introduction to Direct IV Therapy • Diluting Direct IV Medications • Calculating Rate of Administration for Direct IV Medications	DC360 Module Assessment • Administering Direct IV Medications
Week 12 05/02/2024	**Module: Verifying Safe Dose** • Introduction to Safe Dose • Weight-Based dosing • Dose by Body Surface Area	DC360 Module Assessment • Verifying Safe Dose
Week 13 05/09/2024	• **Module: Titration of Intravenous Medications** Introduction to Titration • Solving for Infusion Rate of • Titrated Medications	DC360 Module Assessment • Titration of Intravenous Medications
Week 14 05/16/2024	**Module: Calculating Intake and Output** • Calculating Oral Intake • Calculating and Recording • Output • Calculating Parental Intake • Calculating for Special Populations • General Considerations for the Adult Population • • Enteral Nutrition	DC360 Module Assessment • Calculating Intake and Output
Week 15 05/23/2024	Module: Calculation for Special Population • General Consideration for the Older Adult Population • Enteral Nutrition • Considerations for the Pediatric Patient • IV Fluid Replacement	DC360 Module Assessment • Calculation for Special Population
Week 16 05/30/2024	Review for Final Exam	
Week 17 06/06/2024	Final Exam	

*****Subject to change without prior notice*****