



Medication Administration

N2500

Course Coordinator: Jessica Timbrell

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Office Hours by Appointment

Winter 2025

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N2500 Professional Practice: Medication Administration

Calendar Description

This course focuses on safe, effective, and ethical administration of medications.

Expanded course description:

This course is designed to teach students about the administration of medications by various routes. The role and professional accountability of the nurse administering medications will be discussed. Students will learn about various practice standards and best practice guidelines used in the safe medication administration. Ethical considerations will also be discussed. Students will be taught how to correctly calculate medication dosages and develop the necessary psychomotor skills required for safe, competent medication administration, keeping in mind physical, psychosocial, and cultural factors.

Course Weight & Delivery: 0.125FCE, Lab, 4 hours/week

Course Learning Outcomes

Students will:

1. develop knowledge of the professional responsibilities of the nurse when administering medications
2. become familiar with best practice guidelines related to medication administration
3. demonstrate competence in dosage calculations
4. integrate previous knowledge of health assessment to identify necessary assessments pre-and-post-medication administration
5. practice safe medication administration by oral, intravenous, subcutaneous, intramuscular, and enteral routes
6. integrate principles of infection prevention & control
7. demonstrate competence in safe medication administration.

Major Concepts in the course:

- health assessment
- safety
- caring
- professionalism
- clinical judgment
- infection prevention and control
- evidence-informed practice

Competencies for entry-level Registered Nurse practice (CNO, 2020) addressed in the course:

Clinician: 1.4, 1.7, 1.8, 1.11, 1.21

Professional: 2.2, 2.13

Communicator: 3.5, 3.8

Coordinator: 5.2

Leader: 6.6

Advocate: 7.2

Educator: 8.4

Scholar: 9.8

Interprofessional Competencies (CIHC, 2010) addressed in the course:

- Interprofessional communication
- Role clarification
- Patient/family/community-centred care

Nursing Informatics Competencies (CASN, 2015) addressed in the course:

- uses relevant information and knowledge to support the delivery of evidence-informed patient care: indicators 1, 2
- uses ICTs in accordance with professional and regulatory standards and workplace policies: indicators 1, 5
- uses ICTs in the delivery of patient/patient care: indicators 1, 3

How this course will contribute to your development as a professional nurse:

Incorporating previous knowledge of health assessment, students learn how to safely administer medications by various routes in accordance with the standards for medication administration set by the College of Nurses of Ontario (CNO). Students begin developing knowledge and skill in the use of the electronic medication administration record (eMAR) which allows for comprehension, interpretation, and enactment of medication orders alongside their own assessments of simple to more complex patient situations.

Course Materials

Required:

- College of Nurses of Ontario Practice Standards (2019). www.cno.org
- Drug guide of student's choice. The average cost of a nursing drug guide is approximately \$60.
- *Undergraduate Student Information Site*
<https://uwoca.sharepoint.com/sites/NursingUndergraduateInformation?e=1%3A9bcb11eb675d42f1867e859267a302ae&CT=1690304572539&OR=OWA-NT&CID=d6022dc4-883c-f129-18eb-4f2f5576da36>
- Lab kit, purchased through the UWO Bookstore.
 - CTF students purchase Lab Kit C. **The cost is \$131.90**
 - RPNs purchase Lab Kit B. **The cost is \$79.45**
- Uniform, name tag, watch, & stethoscope are required. Please refer to the Undergraduate Student Information Site for more information on the dress policy.

Methods of Evaluation

The dosage calculation quizzes are designed as 10 minute quizzes, each with 5 questions. In keeping with the

principles of Universal Design for Learning (UDL), and in the interest of maintaining confidentiality regarding accommodations, **all students will have 15 minutes to complete their dosage calculation quizzes.** Please note that it is not possible to provide students with a separate space to complete the quizzes. Absolutely NO ADDITIONAL time to complete the quizzes is permitted.

All quizzes are hard copy and completed in-person at the beginning of the lab

Due Date	Assessment	Weight
	Oral medications	Cumulative average across best 4/5 quiz scores must be $\geq 90\%$ to pass the course.
	Subcutaneous medications	
	Intramuscular medications	
	Intravenous medications	
	Blended routes	
	IV therapy module final test <i>*IV self-directed learning module found in Online Clinical Skills Lab (owl.uwo.ca).</i> **IV <u>TEST</u> TAKEN ON <u>BRIGHTSPACE COURSE SITE</u> (not within learning module) Students must complete the IV test on the Brightspace course site, and not the Online Clinical Skills Site, or their mark will not be recorded.	Minimum 70% required to pass the course.

Students must be able to meet the competencies associated with safe medication administration, including dosage calculations. Failure to achieve a satisfactory grade in the following components will result in an unsatisfactory grade (failure) in the course.

To achieve a satisfactory grade in this course:

- attend and participate in all laboratory sessions
- demonstrate safety and competence in practice
- complete all assignments by the due dates
- achieve minimum 70% on the final test for 'Intravenous Therapy'
- attain cumulative average of 90% across best 4 out of 5 medication administration quizzes
- complete the 'Medication Information Card' template, as required
- complete and submit weekly clinical worksheet, as required

Title: Medication Quizzes (5 total)

(relates to course learning outcome #1, 2, 3)

Due: In-class

The purposes of the quizzes are for students to:

- demonstrate accuracy with dosage calculations
- demonstrate knowledge of CNO practice standards
- demonstrate clinical judgment related to medication administration.

Full Description

Students write five (5) short medication quizzes. A 90% *cumulative* average across the 4 best quiz scores out of 5 is a condition for passing the course. **There are NO REWRITES permitted.** In keeping with the NCLEX examination, calculators may be used. Quizzes are designed to be completed in 10 minutes. In keeping with principles of Universal Design for Learning (UDL) and in consideration of students writing with accommodations, all students receive 15 minutes to complete each quiz. **No additional time is permitted. There is no ability to provide students with a private space in which to complete the quizzes.**

Title: Intravenous Therapy Final Test

(relates to course learning outcomes #1, 2, 4)

Due:

Due:

The purposes of the IV test are to:

- challenge students' understanding of intravenous access device safety
- promote competence in intravenous access site/patient assessment and clinical judgement
- assist students to develop their knowledge and skill related to intravenous therapy

Full Description

The Intravenous Therapy Module is a self-directed learning package prepared using a variety of learning activities to provide students with basic knowledge of intravenous therapy. When students have completed the module, they will complete a multiple-choice test **in the quizzes tab on the Brightspace course site.** Please note that the test is not to be completed on the Online Clinical Skills Lab site within the learning module. Students may take the test once and a minimum achievement of 70% is required..

LAB SCHEDULES (4) by Room: Rotations 1 & 2

Rotation 1

Date	Topic	Course Concept	Course Goals
	Introduction to Medication Administration	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration I <i>Practice questions & answers posted (oral meds)</i>	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration II <i>Quiz 1-oral dosage calculations</i>	Clinical judgment Infection prevention & control	1, 2, 3
	Subcutaneous Medication Administration I <i>Practice questions & answers posted (subcutaneous meds)</i>	Clinical judgment Infection prevention & control Evidence -informed practice	2, 3, 4, 5, 6, 7
	Subcutaneous Medication Administration II	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	2, 3, 4, 5, 6, 7
	Subcutaneous medication administration III <i>Quiz 2- subcutaneous dosage calculations</i> <i>Practice questions & answers posted (intramuscular meds)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intramuscular medication administration	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	2, 3, 4, 5, 6, 7
	Intravenous medication administration I <i>Quiz 3 - intramuscular dosage calculations</i> <i>Practice questions & answers posted (intravenous meds)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intravenous medication administration II <i>IV therapy test to be completed online in quizzes tab on Brightspace course site</i>	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration III <i>Quiz 4 – intravenous dosage calculations</i>	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration IV	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Medication Medley <i>Quiz 5 – blended routes dosage calculations</i>	Clinical judgment Infection prevention & control Evidence-informed practice	3, 4, 5, 6, 7

Rotation 1

Date	Topic	Course Concept	Course Goals
	Introduction to Medication Administration	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration I <i>Practice questions & answers posted (oral route)</i>	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration II <i>Quiz 1-oral dosage calculations</i>	Clinical judgment Infection prevention &	1, 2, 3
	Subcutaneous Medication Administration I <i>Practice questions & answers posted (subcutaneous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice	2, 3, 4, 5, 6, 7
	Subcutaneous Medication Administration II	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Subcutaneous medication administration III <i>Quiz 2- subcutaneous dosage calculations Practice questions & answers posted (intramuscular route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intramuscular medication administration	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Intravenous medication administration I <i>Quiz 3 - intramuscular dosage calculations Practice questions & answers posted (intravenous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intravenous medication administration II <i>IV therapy test to be completed online in quizzes tab on Brightspace course site</i>	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration III <i>Quiz 4 – intravenous dosage calculations</i> Room 315 – prepare for intravenous IV instead	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration IV Room 315 – prepare for intravenous III instead	Clinical judgment Infection prevention & control	3, 4, 5, 6, 7
	Medication Medley <i>Quiz 5 – blended routes dosage calculations</i>	Clinical judgment Infection prevention & control Evidence-informed practice	3, 4, 5, 6, 7

Rotation 2

Date	Topic	Course Concept	Course Goals
	Introduction to Medication Administration	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration I <i>Practice questions & answers posted (oral route)</i>	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration II <i>Quiz 1-oral dosage calculations</i>	Clinical judgment Infection prevention &	1, 2, 3
	Subcutaneous Medication Administration I <i>Practice questions & answers posted (subcutaneous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice	2, 3, 4, 5, 6, 7
	Subcutaneous Medication Administration II	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Subcutaneous medication administration III <i>Quiz 2- subcutaneous dosage calculations Practice questions & answers posted (intramuscular route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intramuscular medication administration	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Intravenous medication administration I <i>Quiz 3 - intramuscular dosage calculations Practice questions & answers posted (intravenous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intravenous medication administration II <i>IV therapy test to be completed online in quizzes tab on Brightspace course site</i>	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration III <i>Quiz 4 – intravenous dosage calculations</i>	Clinical judgment Infection prevention & control Evidence -informed	3, 4, 5, 6, 7
	Intravenous medication administration IV	Clinical judgment Infection prevention & control	3, 4, 5, 6, 7
	Medication Medley <i>Quiz 5 – blended routes dosage calculations</i>	Clinical judgment Infection prevention & control Evidence-informed practice	3, 4, 5, 6, 7

Rotation 2

Date	Topic	Course Concept	Course Goals
	Introduction to Medication Administration	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration I <i>Practice questions & answers posted (oral route)</i>	Clinical judgment Infection prevention & control	1, 2, 3
	Oral Medication Administration II <i>Quiz 1-oral dosage calculations</i>	Clinical judgment Infection prevention &	1, 2, 3
	Subcutaneous Medication Administration I <i>Practice questions & answers posted (subcutaneous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice	2, 3, 4, 5, 6, 7
	Subcutaneous Medication Administration II	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Subcutaneous medication administration III <i>Quiz 2- subcutaneous dosage calculations</i> <i>Practice questions & answers posted (intramuscular route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice Health assessment	1, 2, 3, 4, 5, 6
	Intramuscular medication administration	Clinical judgment Infection prevention & control Evidence -informed	2, 3, 4, 5, 6, 7
	Intravenous medication administration I <i>Quiz 3 - intramuscular dosage calculations</i> <i>Practice questions & answers posted (intravenous route)</i>	Clinical judgment Infection prevention & control Evidence -informed practice	1, 2, 3, 4, 5, 6
	Intravenous medication administration II <i>IV therapy test to be completed online in quizzes tab on Brightspace course site</i>	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration III <i>Quiz 4 – intravenous dosage calculations</i> Room 315 - prepare intravenous IV instead	Clinical judgment Infection prevention & control Evidence -informed practice	3, 4, 5, 6, 7
	Intravenous medication administration IV Room 315 - prepare intravenous III instead	Clinical judgment Infection prevention & control	3, 4, 5, 6, 7
	Medication Medley <i>Quiz 5 – blended routes dosage calculations</i>	Clinical judgment Infection prevention & control Evidence-informed practice	3, 4, 5, 6, 7

Undergraduate Program Site

All students are required to visit the Undergraduate Program Site and be familiar with its contents. The Undergraduate Program Manual and full list of School of Nursing Policies can be accessed:

Requires login with UWO username and password:

<https://uwoca.sharepoint.com/sites/NursingUndergraduateInformation?e=1%3A9bcb11eb675d42f1867e859267a302ae&CT=1690304572539&OR=OWA-NT&CID=d6022dc4-883c-f129-18eb-4f2f5576da36>

Attendance

Students are expected to demonstrate professional responsibility through regular attendance at, and participation in, all course learning activities. Much of the learning that takes place is a result of preparation and engagement with the material, as well as active dialogue with colleagues and faculty. Students are expected to organize their schedules such that weekly preparation for class is completed, and classes are attended, with consistency.

Correspondence Statement

The centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner. Students are further expected to attend to announcements presented through Brightspace, and to read emails generated in this way.

Scholarly Requirements

All scholarly writing will follow the 7th edition of the *Publication manual of the American Psychological Association* (2020), which includes guidelines for both content and format. In addition, all other writing will follow APA (7th ed.) format when citing or referring to an author's work or ideas. Failure to do so is unethical and is plagiarism.

Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following

website: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Plagiarism

Student work is expected to be original. Plagiarism is a serious academic offence and could lead to your expulsion from the nursing program. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging and appropriately citing the author to whom the work belongs. You are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. You are plagiarizing if you present your own work, otherwise used for other course(s)/purposes, as original material in current course work. At the discretion of the course instructor, you may be asked to submit your work to a program called **Turnitin.com** to verify originality. For further information, please see the BScN Program Manual for the academic policy on plagiarism.

Re-submission of Previously Graded Material

Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Artificial Intelligence (AI)

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and

engage in original research to synthesize and develop their own ideas, arguments, and perspectives. The use of AI tools can serve as a starting point for exploration, with students expected to uphold academic integrity by appropriately attributing all sources and avoiding plagiarism. Assignments and/or lab reports should reflect the student's own thoughts and independent written work. By adhering to these guidelines, students contribute to a responsible and ethical learning environment that promotes critical thinking, independent inquiry and allows them to produce original written contributions.

Use of Electronic Devices

During Exams

Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any electronic devices (e.g., cell phones, tablets, cameras, smart glass, smart watches, or iPods) during ANY tests, quizzes, midterms, examinations, or other in-class evaluations. **These devices MUST either be left at home or with your belongings at the front of the room. They MUST NOT be at your test/exam desk or in your pocket. Any student found with a prohibited device will receive an automatic grade of zero on the test or exam.**

During Lectures and Tutorials

Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class.

Contingency Plan for an In-Person Class Pivoting to 100% Online Learning

In the event of a situation that requires this course to pivot to online content delivery, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on Brightspace for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request (in writing) any necessary academic considerations at least two weeks prior to the holiday to the academic advisors in the School of Nursing. Additional information is provided in the Western Multicultural Calendar.

Academic Consideration

Most forms of academic consideration require documentation, and this documentation is to be submitted to the academic advisor as close to the date of consideration as possible. Academic considerations shall be granted only where the documentation indicates that the onset, duration, and severity of the illness are such that the student could not reasonably be expected to complete their academic responsibilities.

Under no circumstances are students to submit documentation or rationale for an absence to course instructors. Students are, however, required to follow-up with course instructors, in a timely fashion, to identify the ways in which academic consideration will be implemented.

(Note – it will not be sufficient to provide documentation indicating simply that the student “was seen for a medical reason” or “was ill.”)

Electronic devices

Electronic devices are useful in assisting with the teaching/learning process in both classroom and professional practice settings. In the classroom or praxis setting, devices should be used in a manner that is not distracting to others or oneself. In professional practice placement settings, please abide by the policies set by the agency about use of social media, internet, and handheld devices. Additionally, technology use in the presence of patients or agency staff may require explanation as to its use as part of professional practice (e.g., a drug guide on a smart phone).

Mental Health

Students who are in emotional/mental distress should refer to MentalHealth@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

Review of Graded Assignments

After a graded assignment is returned, a student's first step is to take time to reflect on the assignment description in the syllabus, on the feedback provided by the original marker within the assignment, and on the marking rubric. If a student cannot understand the meaning or intent behind the feedback received, they may submit a written request to the original marker for an informal consultation to review the assignment grade. The request must include documentation of grounds, based on the marker's feedback, to support the assignment review. An assignment will not be reviewed simply because a student is unhappy with the grade received, or they believe the mark does not reflect the effort they put into completing the assignment.

Students who need assistance with their writing skills should contact on-campus resources for support. <http://writing.uwo.ca/>

If, after the assignment review, a student still believes they have grounds with supporting documentation their grade was unfairly calculated, they may request a formal appeal of the grade in accordance with the policy for academic appeals. <https://www.uwo.ca/ombuds/>

Review of Graded Assignments

Further details about this process provided in 'expanded description'

