

# Guide About Nursing Help Classes

Pharmacology can be one of the most challenging nursing classes. But if you're serious about a career in nursing, it's essential that you understand the key concepts associated with [NURS FPX 6004 Assessment 1 Dashboard Benchmark Evaluation](#).

Most medications use fixed dosing, meaning that factors like body weight don't play a role in the actual dose prescribed. However, other factors can impact the drug's effectiveness and side effects.

## Medications and Dosages

The ability to calculate medication dosages is one of the most critical skills nursing students learn as it lowers the risk of toxicity and improves patient outcomes. This is an essential skill for a nurse because it is used when dispensing and preparing medications as well as when administering them to patients.

There are many different types of medicines and some require more precise dosing than others. For example, an adult may need to take two tablets of a medicine twice a day, while a child may only need one tablet. In other cases, the medication might need to be administered in a specific time interval, such as every four hours.

To help nurses make the right dose calculations, we've compiled this list of 15 resources that incorporate books, online tools, worksheets, video tutorials, and more. We've also included information on high-alert medications (with their heightened risk of causing serious patient harm), look-alike and sound-alike medication names, and routes of [NURS FPX 6004 Assessment 3 Policy Proposal Presentation](#).

## General Dosage

If you're a nursing student, you might hear this topic referred to as "med math," "dosage calc," or "drug calculation." The terms all mean the same thing — it's important for nurses to know how to calculate dosage accurately.

Medication dosages are ordered for patients based on many different factors, including the patient's diagnosis and their weight. In addition, some medications may be classified as high alert drugs because of their increased risk of causing harm if incorrectly administered. A high-alert tab is placed at the top of appropriate medication monographs in Davis' Drug Guide for Nurses to help nurses recognize these [NURS FPX 6004 Assessment 2 Policy Proposal](#).

Other critical information includes the route of administration (oral, rectal, injection, inhalation or ointment) and strength of the drug. In addition, special dosing considerations for specific clinical situations are listed. Examples include the use of suppositories, oral liquid concentrates and extended-release tablets in pediatric patients and the use of [NURS FPX 6008 Assessment 1 Proposing a New Initiative](#).

## **Percentage Dosage**

When it comes to medication dosages, a precise measurement is essential for safe nursing care. Medication is measured in a variety of units, including the household and metric system and apothecary units such as the fluid ounce, pint, minim, dram, scruple and pound.

Our research shows that nursing students often struggle with the math required for drug calculation. This is particularly true for more complex calculations such as doses based on body weight and those involving percentages.

In year 1 of our four-year degree program, students practice basic dose calculations through a series of written exercises. In years 2 and 3, they are also given opportunities to perform these types of calculations through theory classes and low-fidelity simulation, totaling about six hours per year. Our study's limitations include its retrospective design and the fact that it was based solely on written calculations. However, [NURS FPX 4000 Assessment 4 Analyzing a Current Health Care Problem](#) provides a rich picture of where specifically nursing students make mistakes.

## **Weight-Based Dosage**

Medications and dosage calculations (also called drug calc, dose calc, or med math) are important nursing skills because they ensure that the medication you administer to your patient is within safe dosage limits. This is particularly critical for young children, who can receive an incorrect dose if a standard adult dosage was written on the prescription.

You'll also encounter medications that use weight-based dosing when you're a registered nurse, such as insulin, some antibiotics, and Children's Tylenol (acetaminophen). The weight-based method involves multiplying the medication's dosage by your own body weight to determine how much to take.

However, using a weight-based dosing method can be inconvenient for patients, as they'll have to weigh themselves and perform calculations each time they take the medication. This can make it difficult for them to keep track of their health and maintain good nutrition. In addition, some drugs require special dosing adjustments for patients with obesity due to the increased drug clearance in obese individuals.