

PRX 1142 Pharmacy Calculations Remediation Plan

The following remediation has been individually designed for **XXXXXXXXXX**. Successful completion of this remediation will result in a letter grade of “C*” earned for PRX 1142 Pharmacy Calculations. In the event the remediation is not successful, a letter grade of “F” will be earned, and the student will retake the course next fall.

1. Identification of Academic Deficiencies

Deficiencies in the course material will be listed here. This information will be derived from the course material in which they scored less than 70% on any intra-semester exam.

2. Desired Performance Outcomes

After the completion of this remediation, the student should be able to: (All learning objectives will be listed; however, the ones in which the student was deficient will be bolded)

- *Perform conversions using intersystem relationships (metrification)*
- *Convert (reduce) primary SI units to lower and/or higher denominations*
- *Enlarge and/or reduce formulas to calculate amount needed for preparation*
- *Perform calculations involved in the preparation of powders for constitution (oral and parenteral), compounded products from prefabricated formulations, capsules, suppositories, and special formulations.*
- *Calculate quantities of active ingredient and/or diluent needed in the preparation of compounded products of various formulations (i.e. capsules, suppositories, special formulations, etc.).*
- *Perform calculations involving mg% and mg/mL*
- *Calculate the number of proof gallons contained in a given quantity of alcohol*
- *Perform calculations involving wine gallons, proof gallons, and proof strength of solutions containing alcohol, including tax dollar amounts*
- *Perform calculations involving millimoles, milliosmoles and milliequivalents.*
- *Calculate the sodium chloride equivalent for a given substance when provided molecular weight and dissociation value*
- *Apply the sodium chloride equivalent method to determine the amount of NaCl needed to make a solution isotonic with body fluids*
- *Apply the sodium chloride equivalent method to determine the amount of a substance other than sodium chloride needed to make a solution isotonic with body fluids*
- *Perform calculations for adult and pediatric intravenous infusions and intravenous additives*
- *Perform rate-of-flow calculations for intravenous fluids*
- *Perform calculations involving dosages or dose ranges determined by weight*
- *Calculate a given patient's body surface area using the body surface area equation and/or a nomogram*
- *Perform calculations involving dosages or dose ranges determined by body surface area, including chemotherapy dosing*
- *Calculate doses and volumes of biologic agents for administration which are expressed in units of potency*
- *Calculate doses and volumes of antibiotics, insulin, and vitamins which are expressed in units of potency*
- *Perform calculations in which concentration is specified as ratio strength.*
- *Perform calculations in which concentration is specified as parts per million/ billion.*
- *Calculate the amount of a preparation to be diluted to yield a preparation of lower strength.*
- *Calculate the amount of a preparation to be concentrated to yield a preparation of higher strength.*
- *Perform calculations using the $Q_1C_1 = Q_2C_2$ relationship.*
- *Perform percentage strength calculations (%w/v, %w/w, %v/v), using specific gravity, if necessary.*
- *Calculate ideal body weight*
- *Calculate estimated creatinine clearance rates given patient-specific parameters*
- *Calculate estimated creatinine clearance rates in pediatric patients using the Schwartz formula*
- *Calculate body mass index*
- *Convert blood serum chemistry values from mg/dL to mmol/L, mg/mL or mg% and vice versa*
- *Calculate a corrected calcium level in the presence of an abnormal albumin level*
- *Perform calculations involving the use of buffer solutions*

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- *Apply the buffer equation to calculate the pH of a buffer solution when its composition is known*
- *Apply the buffer equation to calculate the molar ratio of the components of a buffer system required to give a solution of a desired pH*
- *Apply the buffer equation to calculate the change in pH of a buffered solution with the addition of a given amount of base*
- *Perform calculations for altering product strength, including the use of triturations*
- *Apply alligation medial and alligation alternate methods in problem-solving*
- *Calculate the least weighable quantity that a given torsion balance is capable of weighing.*
- *Perform various calculations involving aliquot measures necessary for common compounding, including determination of diluent required for a given prescription.*

3. Plan for Performance Improvement

Details of the remediation plan will be listed here which may include (but are not limited to): review problems, development of example problems, provision of old exams for completion, satisfactory mastery (i.e. 70% or higher) on a cumulative final exam (required).

“Midterm” deficiency exam – 40%

Cumulative final exam – 60%

On the “midterm” deficiency exam, students will receive an exam that focuses on their deficiencies as noted above. This will include material from which they earned less than 70% throughout the semester. This grade will count as 40% of their remediation grade.

On the cumulative final exam, students will test on ALL concepts taught in the course throughout the semester. This grade will count as 60% of their remediation grade.

The remediation grade (determined by the two exams as noted above) must be at least 70% or higher in order to successful “pass” remediation efforts to earn “C_{rem}” for the course. Any grade less than this threshold will result in a grade of “F” being earned, and the student will retake the course next fall.

4. Performance Outcome Measurement

Successful completion of this remediation will be determined by performance on a “midterm” deficiency exam and a cumulative final exam. The “midterm” exam is weighted at 40% and the cumulative final exam is weighted at 60%.

I acknowledge receipt and understanding of the remediation plan listed above.

Student Name:

Date:

Student Signature:

Course Coordinator Signature: