# NUR 1141 Nursing Math & Pharmacology

## Course Description:
Students will learn about medications and their effects on different body systems. The conceptual and mathematical operations necessary for safe and effective administration of intravenous medications, preparing medications that come in powdered form and adjusting medication administration based on medical protocols are discussed. Pre-Req: NUR 1025, 1025C, 1025L, 1060C, 1142; Co-Req: NUR 1211, 1211L.

<table>
<thead>
<tr>
<th>Course Competency</th>
<th>Learning Outcomes</th>
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| **Competency 1:** The student will describe the pharmacology of medications used to treat disorders of the immune system by: | • Numbers / Data  
• Critical thinking  
• Information Literacy  
• Computer / Technology Usage |
| 1. Discussing common characteristics of immunizing agents.  
2. Discussing the role of immunizations in promoting health and preventing disease.  
3. Developing a plan for teaching individuals about recommended immunizations.  
4. Describing the goals of and methods for enhancing immunity.  
5. Discussing characteristics and clinical uses of immunosuppressants. | |
| **Competency 2:** The student will describe the pharmacology of medications used to treat disorders of the gastrointestinal system by: | • Numbers / Data  
• Critical thinking  
• Information Literacy  
• Computer / Technology Usage |
| 1. Identifying categories of medications used.  
2. Comparing and contrasting anti-ulcer agents.  
3. Discussing appropriate use of antacids.  
4. Developing a teaching plan including pharmacologic and non-pharmacologic treatment of peptic ulcer disease.  
5. Discussing appropriate choice of laxatives for selected client populations.  
6. Discussing possible reasons for and hazards of overuse of laxative products. | |
## Competency 3: The student will describe the pharmacology of medications used to treat selected disorders of the neurologic system by:

1. Explaining the rationale for use of intravenous corticosteroids and osmotic diuretics in the treatment of increased intracranial pressure.
2. Explaining the appropriate use of anticoagulants in cerebrovascular accident.
3. Comparing and contrasting commonly used anticonvulsants.
4. Discussing factors that influence the choice of a particular anticonvulsant medication.
5. Applying the nursing process in developing a teaching plan for a client with a seizure disorder.

### Competency 4: The student will describe the pharmacology of medications used in the treatment of cancer by:

1. Describing major categories of anti-neoplastic medications.
2. Discussing common adverse effects.
3. Describing pharmacologic interventions to minimize adverse effects.
4. Developing a teaching plan for clients undergoing chemotherapy.

### Competency 5: The student will describe the pharmacology of medications used in the treatment of diabetes by:

1. Comparing and contrasting the different types of insulin.
2. Discussing relationships between diet, exercise, and drug therapy in controlling diabetes.
3. Differentiating types of oral antidiabetic agents.
4. Discussing reasons for combining insulin and oral agents.
5. Explaining the rationale for and implementation of a sliding scale in treating the insulin dependent diabetic.