**PHT 210**

*This course is designed to provide students with basic understanding of pharmaceutical calculations to prepare safe and effective pharmaceuticals, apply basic statistical research analysis, and understand biological activity of drug absorption.*

**Different topics will be discussed in the class including:**

1. International system of units.
2. Density, specific gravity and specific volume.
3. Interpretation of prescription and medication orders.
4. Percentage, ratio strength and other expressions of concentrations.

**Text books:**

Pharmaceutical Calculations 13th and 14th editions. Howard C. Ansel

**The objectives of the course are computations related to:**

1. Prescription and medication orders including drug dosage, dosage regimens, and patient adherence.
2. Chemical and physical properties of drug substances and pharmaceutical ingredients.
3. Biological activity of drug substance, its bodily distribution, metabolism and excretion.
4. Development and formulation of pharmaceutical products.

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| Week | Item | Source | Lecturer |
| 1 | Fundamentals of pharmaceutical calculations | Chapter 1 | Dr. M.  Altamimi |
| 2 | International System of Units | Chapter 2 |
| 3 | Interpretation of prescription and medication orders | Chapter 4 |
| 4 | Density, specific gravity and specific volume | Chapter 5 |
| 5 | Percentage, ratio strength and other expressions of concentrations | Chapter 6 |
| 6 | Calculation of Doses: general considerations | Chapter 7 |
| 7 | Calculation of Doses: patient parameter  (1st Midterm exam) | Chapter 8 |