

**Dr Bayomi taught many undergraduate and graduate courses at College of Pharmacy King Saud University. These courses include PHT 251, PHT 252, PHT 471 and PHT 461 (for undergraduate students) as well as PHT 511, PHT 524, PHT 591 (for graduate students).**

**Dr. Bayomi is going to teach courses PHT 224 and PHT 312 in the new program that leads for graduation of B. Sc. and Pharm D students.**

**PHT 251 Course Description:**

**Calculation and Pharmaceutical Solutions**  
**Pre-requisite PHT 105 and PHT 106 Chem.**  
**(2+1) credit hours**  
**For B. Sc. students**

**An introductory course that emphasize on the calculations needed in prescriptions and compounding of pharmaceutical preparations. It also deals with solubility and preparation of aqueous and non-aqueous pharmaceutical solutions and their relevant physicochemical properties.**

**PHT 252 Course Description:**

**Dispersion Systems and Drug Stability.**

**Pre-requisite PHT 261 and MATH 109.**

**(3+1) credit hours.**

**For B. Sc. students**

**The course include discussion of the fundamental principles of interfacial phenomena, dispersion system, rheology, polymorphism and their impact on the preparation and design of thermodynamically stable heterogenous dosage forms. The course also include study of reaction order for simple and complex reactions. Models for drug stability that predict the effect of formulation and storage factors on expiration date are also illustrated.**

**PHT 224 Course Description:**

**Pharmaceutics I**

**Pre-requisite MATH 109, CHEM 105, CHEM 106.**

**(2+1) credit hours.**

**For level 4 students.**

**This course is designed to introduce the quantitative and theoretical physical principles of science to pharmacy students that can be applied to pharmacy practice. Principles of chemistry, physics and mathematics are applied to pharmaceutical sciences. The following subjects will be covered in this course: fundamental of measurement and calculation, interpretation of prescription and calculation of doses, states of matter, solubility and distribution phenomena, rheology, surface phenomena, crystals and polymorphism, stability of pharmaceuticals and basic reaction kinetics, diffusion and dissolution phenomena, buffer and isotonic solutions, colligative properties of solutions.**

**PHT 312 Course Description:**

**Pharmaceutics II**

**Pre-requisite PHT 224.**

**(2+1) credit hours.**

**For level 5 students.**

**This course deals with preparation of liquid pharmaceutical dosage forms. It has been designed to help pharmacy students to understand the concepts of the liquid dosage forms, the types of these dosages, method of preparations, rationales of uses, applications, advantages and drawbacks. In addition, semisolids also are included in this course. The following main subjects are going to be covered: pharmaceutical solutions, pharmaceutical suspensions, pharmaceutical emulsions, colloidal systems, liposomal and nanoparticl preparations, aerosols, ointments, creams, gels and pastes.**

