

Course Overview



Course Information

Code: CPH-555

Title: Pharmacoepidemiology & Research
Methodology

Cr hr: 3+0

Level: 9

Program: PharmD

Co-requisites: CPH-548

Prerequisites: CPH-450, CPH-452

Course Description

Pharmacoepidemiology is the study of the uses and effects of drugs in patient populations. The science of pharmacoepidemiology borrows from pharmacology and epidemiology. This course will introduce students to the field of pharmacoepidemiology including study methodology, relevant statistics, data sources, measurement of treatments and outcomes, sources of bias and control of confounding, techniques to reduce bias and confounding, survival analysis and regression techniques, interpretation of results, and drug safety surveillance and risk management.

Topics

- Introduction and the concepts of pharmacoepidemiology
- Outcome measurements in pharmacoepidemiology
- Study designs
- Drug safety & spontaneous adverse drug reaction or adverse drug event reporting system
- Drug utilization review
- Source of data and databases in pharmacoepidemiology
- Introduction to research
- Introduction to qualitative and quantitative research
- Survey design and the use of questionnaires
- Data collection
- Ethical requirement in research
- Statistical analysis
- Graphic methods
- Inferential statistics
- Basics of hypothesis testing
- Introduction and basics of statistical software