

# EXPERIMENTAL THERAPEUTICS (DPET)

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## Additional Resources

- Catalog Course Search (<https://catalog.unc.edu/course-search/>)
- Course Numbering Guide (<https://catalog.unc.edu/courses/course-numbering/>)
- Scheduled Classes (<https://reports.unc.edu/class-search/>)
- Historical Course Record ([https://reports.unc.edu/historical\\_course\\_record/](https://reports.unc.edu/historical_course_record/))

## Courses

### DPET 816. Drug Metabolism. 1.5 Credits.

Permission of the instructor. Introduction to the use of concepts, chemistry, enzymology, and techniques in drug metabolism for the design and development of safe and effective therapeutic agents.

#### Rules & Requirements

**Grading Status:** Letter grade.

### DPET 822. Advanced Clinical Pharmacy. 1 Credits.

Discussions, workshops, and lectures to develop the student's skills and abilities to make therapeutic recommendations, utilize drug literature, educate patients and health professionals, and record observations, plans, and actions in a problem-oriented record.

#### Rules & Requirements

**Repeat Rules:** May be repeated for credit. 3 total credits. 3 total completions.

**Grading Status:** Letter grade.

### DPET 831. Quantitative Methods in Clinical Research. 3 Credits.

Required preparation, introductory biostatistics or general statistics. Graduate standing or permission of the instructor. This course reviews statistical concepts and discusses the most commonly used statistical methods for analysis of data from clinical studies or research experiments. Students will analyze problem datasets using SAS.

#### Rules & Requirements

**Grading Status:** Letter grade.

### DPET 833. Experimental Design Considerations in Clinical Research. 2 Credits.

Course provides an overview of clinical trials methodology, focusing primarily on designs of (and common flaws in) clinical drug trials and nonclinical research experiments intended to answer clinical questions.

#### Rules & Requirements

**Grading Status:** Letter grade.

### DPET 853. PK Module 1: Pharmacokinetic Concepts and Applications. 1.75 Credits.

Required preparation, elementary calculus; students without prior coursework in pharmacology/pharmacokinetics are encouraged to discuss their backgrounds with the module coordinator for recommendations of introductory work. Module is an introduction to pharmacokinetic theory, mathematical model development, and data analysis. Assumes basic knowledge of human physiology, drug administration and action, and calculus.

#### Rules & Requirements

**Grading Status:** Letter grade.

### DPET 854. PK: Module 2: Pharmacodynamic Concepts and Applications. 1.25 Credits.

This course is an introduction to pharmacodynamics from a modeling and simulation perspective. Students will build upon the material introduced in Module 1 and apply data analysis techniques to dynamics data.

#### Rules & Requirements

**Requisites:** Pre- or corequisite, DPET 853.

**Grading Status:** Letter grade.

### DPET 857. PK Module 3: Population PK/PD Analysis. 2 Credits.

This course is an introduction to population pharmacokinetic and pharmacodynamic modeling techniques, including theory and application.

#### Rules & Requirements

**Requisites:** Prerequisite, DPET 854.

**Grading Status:** Letter grade.

### DPET 858. PK Module 4: Advanced PK/PD Modeling. 2 Credits.

This course covers a series of advanced pharmacokinetics/pharmacodynamics (PK/PD) modeling concepts and techniques, fundamental elements towards systems pharmacology, and methodology of developing mechanism-based PK/PD models in drug development.

#### Rules & Requirements

**Requisites:** Pre- or corequisite, DPET 857.

**Grading Status:** Letter grade.

### DPET 873. Precision Therapeutics Through Genomics. 1.5 Credits.

Evidence-based medicine and the use of clinical practice guidelines is evolving to include application of genomic information to target drug therapies for patients. This course reviews the principles and applications of genomics to therapeutics and studies examples where this field is impacting therapeutic decisions in a variety of disease states.

#### Rules & Requirements

**Grading Status:** Letter grade.