

## **NP-45 PHARMACEUTICAL TECHNOLOGY**

### **Aims**

To introduce the students to the subject of drug formulation.

To establish understanding of laboratory techniques for some of the major branches of pharmaceutical sciences.

To instruct the student on the preparation of laboratory reports, using appropriate statistical and mathematical calculations.

### **Learning Outcomes**

On successful completion of this unit should be, at threshold level,

Demonstrate an understanding of methods employed for the drug formulation.

Perform experiments in the laboratory using the most up-to-date techniques for drug quality control.

Carry out a given set of laboratory instructions, record and manipulate numerical data and to present this information in an appropriate format.

### **Syllabus outline**

Pharmacokinetics, transdermal delivery, micro/nano encapsulation and powder technology.

Laboratory practical: Assessment of powder properties (weight, humidity, temperature) by means of computer aid sensors. Assessment of skin properties (humidity, transepidermal water loss, temperature, pH)

### **Learning and Teaching Strategy**

The unit will be delivered through a combination of formal lectures and laboratory classes. All laboratory reports will require statistical, computing and mathematical skills. The material is covered by a textbook and a lab note.

### **Assessment**

Two (2) laboratory reports will be submitted within 2 weeks after the final laboratory class and will require analysis and interpretation of experimental data. A successful completion of the unit will be demonstrated by a final written examination at the end of the semester (grade  $\geq 5$ ).

### **Indicative Reading**

1. Theoretical and Practical topics in Pharmaceutical Technology. Notes S. Malamataris. Thessaloniki 1985.