

## Foundation Studies for Pharmacy 1 (Molecules to Systems)

|                |                                         |
|----------------|-----------------------------------------|
| Module Code:   | PHA4001-C                               |
| Academic Year: | 2018-19                                 |
| Credit Rating: | 30                                      |
| School:        | School of Pharmacy and Medical Sciences |
| Subject Area:  | Pharmacy                                |
| FHEQ Level:    | FHEQ Level 4                            |
| Module Leader: | Dr Sriharsha Kantamneni                 |

### Additional Tutors:

Professor Tim Palmer, Dr Mohammad Isreb, Dr Diana Wood, Dr Keren Bielby-Clarke, Dr Sonia Correa, Marcus Rattray, Dr Richard Wheelhouse, Dr Bishwa Tuladhar, Mrs Diane Butterworth

### Pre-requisites:

Co-requisites: Foundation Studies for Pharmacy 2 (Life Cycle of a Medicine)

### Contact Hours

| Type           | Hours |
|----------------|-------|
| Lectures       | 16    |
| Tutorials      | 32    |
| Laboratory     | 15    |
| Directed Study | 237   |

### Availability Periods

| Occurrence | Location/Period                                     |
|------------|-----------------------------------------------------|
| BDA        | University of Bradford / Academic Year (Sept - May) |

### Module Aims

The module aims to introduce pharmacy students to the structure, function and properties of biological membranes, microorganisms and human cells and tissues in order to understand their role in the functioning of the body in health and their importance in the process and treatment of disease.

## Outline Syllabus

Structure, function and life-cycle of a cell

Structure of simple and compound glands

Structure and function of specialist cells and tissues

The effect of disease processes on the cell

The characteristics of a range of micro-organisms and their role in infectious disease

The modes of action of a range of anti-microbial agents

The structure and function of antibodies, the use of vaccines and the characteristics and role of the immune system

Membrane structure and the properties and functions of membrane lipids and proteins

The movement of ions and molecules across membranes

The effect and influence of chemical messengers on the activity of cells and organs

## Module Learning Outcomes

*On successful completion of this module, students will be able to...*

- 1 Apply knowledge of cell structure and function to explain how the human body functions in health and disease.
- 2 Apply principles of the biology of microorganisms in health and disease to explain the aetiology of disease, identify preventive measures, and the treatment of infectious disease.
- 3 Apply the biophysical, chemical and pharmacological principles of membrane structure and the properties and functions of membrane lipids and proteins to explain the movement of ions and molecules across membranes and how chemical messengers, such as hormones and neurotransmitters and drugs influence the activity of cells and organs.

## Learning, Teaching and Assessment Strategy

Students will develop the knowledge, understanding and skills necessary to meet the learning outcomes of the module through the programme's instructional learning and teaching strategy; team-based learning. Students will study the core knowledge-based content of the module out of class; this is then assessed through a series of individual readiness assurance tests (i-RAT), which are MCQ assessments for learning taken at regular intervals throughout the academic year. Students discuss the i-RAT assessment in teams of 5-7 and retake the assessment as a team (t-RAT). In class sessions, students will apply their new knowledge to a number of formative and summative team application exercises during the academic year.

Finally, students will be assessed that they can individually meet learning outcomes through a summative exam at the end of the stage. To pass the module, students will need to demonstrate a pass standard of 40% in the module overall and must also achieve at least 40% in the exam.

Supplementary Assessment for the module is as original, the only exception is for the Peer Review of Team performance component where the supplementary will be a reflection

exercise.

### Mode of Assessment

| Type      | Method                                 | Description                                                                                                                                                       | Length  | Weighting | Final Assess' |
|-----------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|---------------|
| Summative | Other form of assessment<br>DO NOT USE | On-going auditive assessment (i-RATs(15%) t-RATs(5%) Team Application Exercise(5%)&Peer review of performance in team(5%) Reflection at Supplementary if required |         | 30%       | No            |
| Summative | Examination - MCQ                      | Final MCQ & EMQ examination must be passed at 40%                                                                                                                 | 2 hours | 70%       | Yes           |

### Legacy Code (if applicable)

PH-1215U

### Reading List

To view Reading List, please go to [rebus:list](#).