

| Module Details |   |
|----------------|---|
| Module Title   | Systems, Physiology and Anatomy         |
| Module Code    | CLS4011-U                               |
| Academic Year  | 2022/3                                  |
| Credits        | 80                                      |
| School         | School of Pharmacy and Medical Sciences |
| FHEQ Level     | FHEQ Level 4                            |

| Contact Hours                  |       |
|--------------------------------|-------|
| Type                           | Hours |
| Directed Study                 | 683   |
| Lectures                       | 82    |
| Practical Classes or Workshops | 35    |

| Availability |  |
|--------------|--|
| Occurrence   | Location / Period                      |
| BDA          | University of Bradford / Academic Year |

| Module Aims   |
|---|
| <p>To provide an introduction to the molecules, cells and tissues which underpin normal structure and function of the human body and to provide basic knowledge of embryology and genetics. To provide an introduction to the physiology, pharmacology, infection and immunology which underpin normal structure and function. To facilitate an understanding of how abnormalities of structure can lead to functional disorder and disease processes and the scientific basis for infectious and non-infectious disease.</p> |

## Outline Syllabus

Cells and Organelles  
 Proteins and Enzymes  
 Tissue Structure and Function

Scientific basis for infectious and non-infectious disease

Infection & Disease  
 Cardiovascular System  
 Respiratory System  
 Gastrointestinal system  
 Renal System  
 Reproductive System  
 Nervous system

## Learning Outcomes

| Outcome Number | Description   |
|----------------|---|
| 1              | Describe the normal structure and function of molecules, cells and tissues which underpin normal structure and function and their relevance to the diagnosis of disease.  |
| 2              | Describe the fundamentals of anatomy, physiology, pharmacology, infection and immunology which underpin normal structure and function and their relevance to the diagnosis of disease and therapeutic strategies. |
| 3              | Use basic histological techniques, be able to recognise cells, tissues and organs, successfully use a light microscope, describe and recognise transmission electron microscope images.                           |
| 4              | Describe the stages in development of the human embryo.   |
| 5              | Describe the structure and function of the human cardiorespiratory and renal systems along with the gastro-intestinal tract and related organs.   |
| 6              | Understand control of respiration and cardiovascular function and the clinical assessment of cardiorespiratory and renal function.  |
| 7              | Describe the features of common diseases and their treatments.  |
| 8              | Discuss the basic principles of human nutrition and be aware of the common diseases affecting the GI tract and their treatment.   |
| 9              | Demonstrate a knowledge of basic laboratory skills and their importance in diagnostics.   |
| 10             | Interpret and gather scientific and clinical data.  |
| 11             | Apply scientific principles to medical practice.  |
| 12             | Review your progress on the module and work to clearly defined targets.   |

## Learning, Teaching and Assessment Strategy

The knowledge and understanding required will be delivered in lectures. Problem-solving tutorials and workshops will be used to reinforce the taught component with opportunities to practise problem solving using a mixture of exam-style questions. Feedback during tutorials and instant (computer-marked) formative quizzes will enable you to monitor your progress. You will use your independent study time to access suggested resources for further reading, to practise problem solving and to monitor and direct your own learning. Anatomy, lab and clinical skills sessions will be used to deliver materials and deepen understanding of the relevant subject.

Formative assessment in the form of timed Canvas quizzes will be made available throughout the year. Ongoing summative assessment will encourage student engagement.

The ability to write scientifically and synthesise knowledge will be assessed by writing a drug monograph and lab report. A synoptic assessment and anatomy spot test will determine if students are able to meet the module learning outcomes.

## Mode of Assessment

| Type      | Method                    | Description  | Weighting |
|-----------|---------------------------|--|-----------|
| Summative | Coursework - Written      | Drug Monograph (1500 words)  | 10%       |
| Summative | Laboratory Report         | Lab Report (1300 words)  | 10%       |
| Summative | Online MCQ Examination    | Anatomy (1 Hr)   | 20%       |
| Summative | Online MCQ Examination    | On-going assessment at the end of each unit (Supp: 1 Hr Viva on failed components) (3 Hrs) | 20%       |
| Summative | Computer-based assessment | Synoptic Assessment (4 Hrs)  | 40%       |

## Reading List

To access the reading list for this module, please visit <https://bradford.rl.talis.com/index.html>

### *Please note:*

*This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.*