

# MD1B2-30 Systems: Cell to Society

**20/21**

**Department**

Warwick Medical School

**Level**

Undergraduate Level 1

**Module leader**

Leda Mirbahai

**Credit value**

30

**Module duration**

6 weeks

**Assessment**

40% coursework, 60% exam

**Study location**

University of Warwick main campus, Coventry

---

## Description

### Introductory description

[Module web page](#)

### Module aims

This module aims to facilitate a broad base of understanding of systems as they exist from cell to society, locally and globally. Students will experience integrated perspectives of systems from the course themes which are consolidated and advanced through case-based learning.

### Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

As this is the first integrated module experienced by students there will be an introductory flavour to some of the aspects of the module. The module will include taught content with lecture theatre-based presentations and interactive presentations as well as case-based learning sessions, all supported by TEL online content. Students will be encouraged to re-visit and use confidently new vocabulary terminology to provide a link to the previous module.

In the medical sciences, students will be introduced to cell cycle regulation, cell division and cell

communication, principals of genetics and epigenetics, elements of developmental biology and parental transfer of information, and anatomy and physiology of the cardiovascular system, bones and muscles in health and disease.

In the health sciences, core concepts such as health behaviour, different health belief models and the interrelationships of population health and health and gender will be discussed. Topics such as the ethical debates surrounding organ donation, transplant, consent and autonomy will be explored alongside professional boundaries and regulatory functions in health and care.

The cases in this module will explore contemporary examples of curable and incurable diseases and conditions. Students will consider that problem solving in health might not mean problem eradication, but management of problems in the short and long terms. Students will learn to appreciate different, sometimes competing, points of view with regard to management and how this can affect responsible, emotionally intelligent strategic plans.

## **Learning outcomes**

By the end of the module, students should be able to:

- 1. To illustrate familiarity with the key concepts, principles and theories, which will support a multidisciplinary approach to understanding of disease and systems related to health
- 6. To identify scope, illustrate boundaries and highlight interrelationships within global health, public health and professional practice in health.
- 3. To describe basic aspects of human anatomy and physiology of the musculoskeletal and cardiovascular systems in health and disease.
- 4. To show awareness of approaches to modern diagnostics and precision medicine and the nature of curable and incurable disease.
- 5. To distinguish the concepts of health beliefs, behaviour and ethics and how they can impact provision of good care.
- 7. To develop and use reasoning skills to engage with others to individually or collectively put forward ideas that can have a positive influence on local and global challenges in health
- 2. To show a basic understanding of topics related to inheritance and the molecular and cellular basis of human development.

## **Indicative reading list**

1. Alberts B., et al., (2009) Essential cell biology. 3rd edition, Taylor & Francis Inc.
2. Lewin B. (2017) Genes. 12th edition. Jones and Bartlett Publishers, Inc.
3. Tortora and Derrickson (2008) Principles of anatomy and physiology. Volume 1 & 2. 12th edition, Wiley.
4. Gilbert S.F., (2003) Developmental biology. 7th edition, Sinauer Associates Inc.
5. Marshall and Roe (2016) Health Sciences: Concepts and applications. Goodheart-Wilcox Publisher.
6. Dalal A.R., (2015) Philosophy of organ donation: review of ethical facets. World J Transplant. 5(2): 44-51
6. Phillips S.P., (2011) including gender in public health research. Public Health Rep. 126 (Suppl 3): 1621

## **Subject specific skills**

No subject specific skills defined for this module.

## Transferable skills

No transferable skills defined for this module.

---

## Study

### Study time

| Type           | Required                    |
|----------------|-----------------------------|
| Lectures       | 39 sessions of 1 hour (13%) |
| Seminars       | 27 sessions of 1 hour (9%)  |
| Other activity | 22 hours (7%)               |
| Private study  | 86 hours (29%)              |
| Assessment     | 126 hours (42%)             |
| Total          | 300 hours                   |

### Private study description

Students would be expected to engage in 212 hours of self-directed learning outside other learning and teaching activities outlined above. We anticipate that 60% of this time (126h) is spend on preparation for assessment and the remaining hours on course work and background reading.

### Other activity description

Technology enhanced learning, including the use of online interactive presentations and videos, quizzes

## Costs

No further costs have been identified for this module.

---

## Assessment

You do not need to pass all assessment components to pass the module.

### Assessment group D

|                | Weighting | Study time |
|----------------|-----------|------------|
| Concept Map x1 | 40%       | 50 hours   |

|  | Weighting | Study time |
|--|-----------|------------|
| One concept map on a case scenario (1000 words)  |           |            |
| Locally Timetabled Examination - Online  | 30%       | 38 hours   |
| Locally Timetabled Examination - Synoptic Paper  | 30%       | 38 hours   |
| Integrates information across four modules. Questions will be single best answer and short answer questions. |           |            |

## Feedback on assessment

Feedback will be provided to students from their multiple choice question examinations by highlighting the topic areas the student answered incorrectly. The concept maps and synoptic exam will be marked using standardised rubrics, which will provide feedback to the students (including individualised feedback) in line with WMS assessment criteria (including submission to Plagiarism software). Further verbal feedback will be available to students on request. Every student who fails an element will be offered an appointment for face to face feedback.

[Past exam papers for MD1B2](#)

---

## Availability

## Courses

This module is Core for:

- UMDA-B990 Undergraduate Health and Medical Sciences
  - Year 1 of B990 Health and Medical Sciences
  - Year 1 of B990 Health and Medical Sciences