

## Cell Biology and Histology (J000485)

**Course size** *(nominal values; actual values may depend on programme)*

**Credits 3.0**

**Study time 90 h**

### Course offerings and teaching methods in academic year 2026-2027

A (semester 1)

Dutch

Gent

lecture

### Lecturers in academic year 2026-2027

Hoste, Esther

WE14

lecturer-in-charge

Adriaens, Dominique

WE11

co-lecturer

### Offered in the following programmes in 2026-2027

[Bachelor of Science in Pharmaceutical Sciences](#)

**crdts**

3

**offering**

A

### Teaching languages

Dutch

### Keywords

Eukaryotic cells, cell biology, histology, embryonic development.

### Position of the course

The aim of this course is to provide basic knowledge on the structure and function of the animal cell, of tissues, and of their organisation in multicellular animal organisms (as part of the acquisition of pharmaceutical basic knowledge). By introducing (disease) cases, insight is trained into the relationship between biological/molecular basic knowledge and its medical application (as part of the acquisition of general and scientific competences).

### Contents

- Introduction to cell biology (including structure and function of membranes, organelles, nucleus, nucleic acids, gene expression and regulation, cell cycle, cell death, cell signalling, cell-cell recognition and communication,...)
- Introduction to histology: structure and function of the basic tissue types (epithelium, connective tissue, blood and the immune system, muscle tissue, nervous tissue)
- Brief introduction to embryonic development (fertilisation, cleavage, gastrulation, fate of the germ layers)

### Initial competences

Final competences of secondary school or competences corresponding herewith. Basic biological knowledge can be absent (e.g. because the student had no or hardly any biology in his/her education). To this end, the content of the course is structured in a logical and hierarchical manner.

### Final competences

- 1 To integrate aspects of the structure and function of cell membranes, cell organelles, and the nucleus (incl. nucleic acids and genes).
- 2 To describe the development and structure of the basic tissue types; to indicate their main functions.
- 3 To understand the different hierarchical levels of structural organisation in the body (molecules, cells, tissues) and to use this knowledge in a problem setting.
- 4 To link certain diseases to the function of certain genes, organelles, cells or tissues.

### Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

(Approved)

**Conditions for exam contract**

Access to this course unit via an exam contract is unrestricted

**Teaching methods**

Lecture

**Extra information on the teaching methods**

During the lectures, the theory is explained with the help of the blackboard, slides and demonstrations. Following the appropriate lecture, a disease case is introduced. Using the theoretical background knowledge, this should allow the student to understand the etiology, the symptoms, or the cure of that particular disease.

**Study material**

Type: Slides

Name: Slides partim 'Development and histology'

Indicative price: € 35

Optional: no

Language : Dutch

Number of Slides : 220

Oldest Usable Edition : 2022

Available on Ufora : Yes

Online Available : Yes

Available in the Library : Yes

Available through Student Association : Yes

Type: Slides

Name: Cell biology: summary and slides

Indicative price: € 12

Optional: no

Language : Dutch

Number of Slides : 180

Oldest Usable Edition : 2025

Available on Ufora : Yes

Online Available : Yes

Available through Student Association : Yes

**References****Course content-related study coaching**

Possibilities to ask questions after the lectures, or by appointment.

During a rehearsal lecture (after the last lecture) questions are answered and multiple choice questions (cf. exam) are being trained.

**Assessment moments**

end-of-term assessment

**Examination methods in case of periodic assessment during the first examination period**

Written assessment with multiple-choice questions, Written assessment with open-ended questions

**Examination methods in case of periodic assessment during the second examination period**

Written assessment with multiple-choice questions, Written assessment with open-ended questions

**Examination methods in case of permanent assessment****Possibilities of retake in case of permanent assessment**

not applicable

**Extra information on the examination methods**

Multiple choice questions (40, 20 of each part)

**Calculation of the examination mark**

Periodic evaluation (100%).

