COURSE DETAIL

INTRODUCTION TO CELL BIOLOGY
Country Netherlands
Host Institution Wageningen University and Research Center
Program(s) Wageningen University
UCEAP Course Level Lower Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 12
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO CELL BIOLOGY
UCEAP Transcript Title INTRO CELL BIOLOGY
UCEAP Quarter Units 5.00
UCEAP Semester Units 3.30

Course Description
This course forms an introductory and partly specialized course into the structure and function of cells, its organelles and bio molecules. Special focus is directed to the molecular and biochemical basis of cell function, ultra-structure and function of the different cell organelles, the cytoskeleton and cellular organization and to cell differentiation processes. Basic principles of intra- and extracellular communication processes are studied to obtain insight into the regulation of cell function in the context of whole tissues, organs, and complete organisms. The basic knowledge obtained should provide a solid basis for several more specialized courses. Results of research into cellular mechanisms are extensively applied in practice. Examples are the recent developments in the fields of biochemistry and gene technology for diagnosis, vaccination, medication, biological pest control and genetic selection. The course covers the following: the structure and components of pro- and eukaryotic cells, especially macro molecules, cell organelles, membranes and cytoskeleton; the molecular principles of DNA replication, transcription, RNA translation, and protein formation; the cell cycle, its regulation and mitosis and meiosis; the way cells communicate with each other, and how this results in regulation of cell function and cell differentiation; basic principles of light- and electron-microscopy; basic cell biological assays.

Language(s) of Instruction
English

Host Institution Course Number
CBI10806

Host Institution Course Title
INTRODUCTION TO CELL BIOLOGY

Host Institution Course Details
https://wur.osiris-student.nl/onderwijscatalogus/extern/cursus

Host Institution Campus
Wageningen University and Research Center

Host Institution Faculty
Food Technology

Host Institution Degree

Host Institution Department
Cell Biology and Immunology

Course Last Reviewed
2025-2026

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