

Course: Biology of Cancer

credits: 5

Course code BFVH24BIOCANCER
Name Biology of Cancer
Study year 2026-2027
ECTS credits 5
Language Dutch, with parts in English
Coordinator W.A. Pool

Modes of delivery Assignment
 Guest lecture
 Lecture
 Practical / Training
 Tutorial

Assessments Portfolio Biology of Cancer - Other assessment
 Theorie Biology of Cancer - Computer, organised by STAD examinations

Learning outcomes

This module has the following learning outcomes:

You describe the cell cycle and its regulation in eukaryotes, and you predict the consequences of changes in (the regulation of) the cell cycle for the cell, tissue and organism as a whole.

You recognise different types of DNA changes, give possible causes for them and speculate on their possible effects at protein and cell level.

You know various types of biological markers and use them to make informed statements about the presence of tumour cells.

You delve into the pathology of tumour tissue, and understand the operation and function of various (radiological) techniques.

You use your biological knowledge to explain various forms of cancer, and speculate about points of leverage for possible treatment.

You deepen your topic appropriately within the biology of cancer and present it in a relevant way to an audience of your peers.

Content

This module discusses various aspects of cancer biology. Briefly, causes, pathology, analytical techniques used and possible treatments are covered. This module builds on module 2.1.1 NGS and Genetics and module 2.2.2 Immunology. This module includes lecture/work, and will look at different tissue types in a lab practical. During the module, you will work on the theory yourself, which will be tested individually.

In addition, each student (alone or in pairs) will give a short theoretical lecture on a topic relevant to this module. To implement the theory directly, you will work on a case (a chosen type of cancer) in each pair. This module is designed in conjunction with module 3.2.2, where the theory covered in this module can be used for understanding the biological background of the projects.

Included in programme(s)

Bio-Informatics

School(s)

Engineering, Life Sciences & ICT