

## Viral Disease Management (I002084)

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

**Credits 3.0**      **Study time 90 h**      **Contact hrs**      30.0h

**Course offerings and teaching methods in academic year 2022-2023**

A (semester 1)      English      Gent      lecture      30.0h

**Lecturers in academic year 2022-2023**

Nauwynck, Hans      DIO4      lecturer-in-charge

**Offered in the following programmes in 2022-2023**

	crdts	offering
<a href="#">International Master of Science in Health Management in Aquaculture</a>	3	A
<a href="#">Master of Science in Aquaculture</a>	3	A

**Teaching languages**

English

**Keywords**

Virus, virus characteristics, replication cycle, pathogenesis, clinical picture, antiviral immunity (innate and adaptive), control of viral diseases (vaccination, management), fish, shellfish.

**Position of the course**

This course aims at providing a detailed overview of virology, viral diseases and their control in cultured fish and shellfish.

**Contents**

1. Taxonomy
2. Virus structure
3. Replication cycle
4. Different types of viral infections (local versus general)
5. Antiviral immunity
6. Viral immunity in fish
7. Viral immunity in shellfish
8. Control of viral diseases by vaccination
9. Control of viral diseases by immunomodulators
10. Control of viral diseases by water treatment
11. Control of viral diseases by the use of SPF animals

**Initial competences**

General biology, chemistry, biochemistry and basic knowledge on aquaculture.

**Final competences**

- 1 The student has knowledge on general principles of virology.
- 2 The students has knowledge on viral immunity in fish and shellfish.
- 3 The student has knowledge on different viral diseases in fish and shellfish.
- 4 The student has knowledge on the different ways to control viral diseases in fish and shellfish.

**Conditions for credit contract**

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

**Conditions for exam contract**

This course unit cannot be taken via an exam contract

**Teaching methods**

Lecture

**Extra information on the teaching methods**

Theory lectures: lectures based on powerpoint presentations.

**Learning materials and price**

Estimated cost of the printouts: 15 euro.

**References**

1. Fish Disease: diagnosis and treatment. E.J. Noga (536 pages) ISBN: 978-0-8138-0697-6. June 2010. Wiley-Blackwell
2. Fish Diseases & Disorders: Viral, Bacterial and Fungal Infections. P. Woo & D. Bruno (944 pages) ISBN: 978-1-8459-3554-2. June, 2012. CABI
3. Review articles published in different journals

**Course content-related study coaching**

Study guidance upon request by email or on appointment.

**Assessment moments**

end-of-term assessment

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

Written examination

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

Written examination

**Examination methods in case of permanent assessment**

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

not applicable

**Extra information on the examination methods**

Period aligned evaluation: theory: written closed book exam.

**Calculation of the examination mark**

Out of 20:

20 points attributed to written exam

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.