

## Viral Disease Management (I002084)

**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 2025-2026**

A (semester 1)	English	Gent	lecture
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**Lecturers in academic year 2025-2026**

Nauwynck, Hans	DI04	lecturer-in-charge
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**Offered in the following programmes in 2025-2026**

<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 student 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.

### Study material

None

### 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 assessment

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

Written assessment

### 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.