GHENT UNIVERSITY

Course Specifications

From the academic year 2021-2022 up to and including the academic year

Technology of Fishery Products (I001084)

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

Credits 3.0	**Study time 75 h**	**Contact hrs**	30.0h

Course offerings and teaching methods in academic year 2022-2023

A (semester 1)	English	Gent	seminar: coached exercises	5.0h
			excursion	3.75h
			guided self-study	3.75h
			lecture	17.5h

Lecturers in academic year 2022-2023

Devlieghere, Frank	LA23	lecturer-in-charge
Kuuliala, Lotta	LA23	co-lecturer

Offered in the following programmes in 2022-2023	**crdts**	**offering**
Bachelor of Science in Food Technology	3	A
Master of Science in Aquaculture	3	A
Master of Science in Food Technology	3	A
Exchange Programme in Bioscience Engineering: Agricultural Sciences (master's level)	3	A
Exchange Programme in Bioscience Engineering: Food Science and Nutrition (master's level)	3	A

Teaching languages

English

Keywords

Fish technology, fish processing, fish quality, spoilage, safety, preservation

Position of the course

The aim of this course is to create an insight in the relation between post-mortem changes in fish and the consequences on its quality and further processing. Furthermore, the students should get familiar with the different processes used in the fish industry as well as aspects of safety and quality and basis aspects of prerequisite programmes (PRP) in fish processing.

Contents

Theory:

1. Chemical composition
2. Post-mortem changes in fish
2.1. Rigor mortis
2.2. Autolytic changes
2.3. Bacteriological changes
2.4. Rancidity
2.5. Physical changes
3. Technological processes
3.1. Chilling
3.2. Freezing
3.3. Modified atmosphere packaging (MAP)
3.4. Canning
3.5. Curing
3.6. Marinades
4. Basic principles of Prerequisite Programmes related to fish processing.
5. Quality monitoring of fish and fishery products

6. Safety aspects of fish and fishery products

Practice:

Case studies on fish processing
Tasting session
Company visit

Initial competences

General knowledge on biochemistry and microbiology

Final competences

1 To have insights in the properties and post-mortem changes of fish as a raw material and how these properties influence the quality of the derived fish and fishery products.
2 To have insights in how processing used for the production of fishery products influences the properties and the quality of the produced product.
3 To be able to identify and explain the consecutive steps in the production of a fishery product.
4 To be able to argument on quality and safety aspects of fishery products in a certain situation.
5 To be able to critically reflect and make substantiated decisions based on scientific literature related to fish processing/technology.

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

Guided self-study, Excursion, Lecture, Seminar: coached exercises

Extra information on the teaching methods

Lecture: the theory is given in lectures
Seminar: coached exercises: these comprise a tasting session and 2 plenary discussions of a case study.
Study visit: to a fish processing company or auction
Independent work: to prepare the case studies

Learning materials and price

English course notes with literature references are available. Cost: 15 EUR

References

Fish processing technology. 1992. Ed. G.M. Hall. Blackie Academic & Professional
Evaluation of seafood freshness quality. 1995. Ed. E.R. Botta. VCH
Fish handling and processing. 1982. Ed. A. Aitken, I.M. Mackie, J.H. Meritt & M.L. Windsor. Government Bookshops
Quality Management Systems in the Food Industry. 2005. Baert, K., Devlieghere, F., Jacxsens, L. & Debevere, J. St. Kliment Ohridski Universtiy Press. ISBN 90-5989-055-8

Course content-related study coaching

Before and after the lectures and exercises, the student can ask additional information or explanation to the teacher or assistant. The teacher and assistant can also be contacted by mail.

Assessment moments

end-of-term and continuous assessment

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

Written examination with open questions

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

Written examination with open questions

Examination methods in case of permanent assessment

Participation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

The assignment includes a report of the company visit and the preparation of case studies.
The participation includes active participation and significant and valuable contribution to the plenary discussion of the case studies.

Calculation of the examination mark

Theory: (67%)
Practice: (33%): This comprises the preparation of the case studies and active participation to the plenary discussion and the report of the company visit..
The student needs to participate to all assignments and exams that are part of the evaluation (period aligned and non-period aligned). Students who eschew period aligned and/or non-period aligned evaluations for this course unit, or when one obtains a score lower than 8/20 (not rounded up) on one of both parts (period aligned or non-period aligned evaluation), they will fail for this course unit. In that case the end score is set to 9/20 even when the calculation indicates a point of 10/20 or more.