



Cursusomvang (nominale waarden; effectieve waarden kunnen verschillen per opleiding)

Studiepunten 4.0      Studietijd 120 u      Contacturen 60.0 u

Aanbodssessies en werkvormen in academiejaar 2018-2019

|                |        |                                 |        |
|----------------|--------|---------------------------------|--------|
| A (semester 1) | Engels | begeleide zelfstudie            | 2.5 u  |
|                |        | practicum                       | 20.0 u |
|                |        | werkcollege: geleide oefeningen | 10.0 u |
|                |        | zelfstandig werk                | 10.0 u |
|                |        | excursie                        | 5.0 u  |
|                |        | hoorcollege                     | 12.5 u |

Lesgevers in academiejaar 2018-2019

Devlieghere, Frank      LA23      Verantwoordelijk lesgever

Aangeboden in onderstaande opleidingen in 2018-2019

|  | stptn | aanbodssessie |
|--|-------|---------------|
| <a href="#">Master of Science in Food Technology</a>   | 4     | A             |
| <a href="#">Uitwisselingsprogramma bio-ingenieurswetenschappen: Food Science and Nutrition (niveau master-na-bachelor)</a> | 4     | A             |

Onderwijstalen

Engels

Trefwoorden

Fish technology, fish processing, HACCP, fish quality

Situering

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, different basic technologies, applied in the fish processing industry, are discussed. The practical work consists out of a training in HACCP (Hazard Analysis Critical Control Points) and QMS (quality management systems) combined with seminars and a practical demonstration of assessment of quality parameters in the fish processing industry. The teaching segment is usually followed by a company visit to give students a complete overview of the production process.

Inhoud

The theory and exercises of this course is also given simultaneously in the partim 'Technology of Fishery Products', which is part of the Master of Science in Aquaculture, EXCEPT for the the practical part of assessment of quality parameters of raw fish and the training in HACCP and QMS and product specific case studies on technological aspects and HACCP. These additional aspects of this course are indicated below *in italics*.

### 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. Food safety of fish and fishery products

### Exercises

1. Assessment of quality parameters of raw fish: theory and practice
2. training in HACCP and QMS and product specific case studies on technological aspects and HACCP
3. Case study on Pangasius processing
4. Company visits

### Begincompetenties

*Technology of Fishery Products builds on certain learning outcomes of course units Food Processing, Food Microbiology and Analysis, Food Chemistry and Analysis; or the learning outcomes have been achieved differently*

### Eindcompetenties

- 1 The student knows and understands the properties of the raw material fish and the processing techniques used in the transformation of fish to fish products.
- 2 The student has insight in the factors influencing the quality of fresh and processed fish.
- 3 The student is able to identify the consecutive steps in the production of a fishery product and is able to build a HACCP system for this production

### Creditcontractvoorwaarde

Toelating tot dit opleidingsonderdeel via creditcontract is mogelijk mits gunstige beoordeling van de competenties

### Examencontractvoorwaarde

Dit opleidingsonderdeel kan niet via examencontract gevolgd worden

### Didactische werkvormen

Begeleide zelfstudie, excursie, hoorcollege, practicum, zelfstandig werk, werkcollege: geleide oefeningen

### Leermateriaal

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

### Referenties

- Fish processing technology. 1992. Ed. G.M. Hall. Blackie Academic & Professional. ISBN 0-216-93324-2
- Evaluation of seafood freshness quality. 1995. Ed. J.R. Botta. VCH Publishers. ISBN 0-216-933324-2
- Fish handling and processing. 1982. Ed. A. Aitken, I.M. Mackie, J.H. Meritt & M.L. Windsor. Government Bookshops. ISBN 0-11-491741-8
- Quality Management Systems in the Food Industry. 2005. Baert, K., Devlieghere, F., Jaccsens, L. & Debevere, J. St. Kliment Ohridski Universitij Press. ISBN 90-5989-055-8

### Vakinhoudelijke studiebegeleiding

Before the theory and the theoretical exercises, contact hours are scheduled. During these contact hours the student can ask additional information or explanation to the teacher. The practical exercises are guided by a teaching assistant.

### Evaluatiemomenten

periodegebonden en niet-periodegebonden evaluatie

### Evaluatievormen bij periodegebonden evaluatie in de eerste examenperiode

Schriftelijk examen, openboekexamen

### Evaluatievormen bij periodegebonden evaluatie in de tweede examenperiode

Schriftelijk examen, openboekexamen, mondeling examen

### Evaluatievormen bij niet-periodegebonden evaluatie

Mondeling examen, werkstuk

### Tweede examenkans in geval van niet-periodegebonden evaluatie

Examen in de tweede examenperiode is niet mogelijk

### Toelichtingen bij de evaluatievormen

Het mondelinge gedeelte van de niet-periodegebonden evaluatie betreft de mondelinge presentatie van de resultaten van de oefeningen.

### Eindscoreberekening

Theory: (67%)

Exercises: (33%): 1/3 of the exercises score is comprised of the score of the Pangasius processing case study score with the HACCP task score, report from the practical exercises and QMS question given at the final exam; 2/3 of the exercises score is comprised of the score on the "Production of a fishery product" project.

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