



# Curricula

## BASIC STUDY COURSE FOR FISH PROCESSING WORKERS



The union of VERKVEST  
funded the translation of this  
document

**Name of study programme:**

Basic study course for fish processing workers.

Study course no. 16-160-1-128.

**Student working hours:**

128 hours, divided into 48 hours with an educator and 80 hours of vocational training.

**Intended for:**

Adults on the labor market who are over the age of 18 years and have received little formal schooling.

**Number of units:**

Up to 7 secondary school units.

**Issuer:**

Fræðslumiðstöð atvinnulífsins (The Education and Training Service Centre, ETSC).

2nd edition, 2016.

## Preface

The duration of the study program *Basic study course for fish processing workers* is 128 hours but in its earlier version it was 40 hours. The study program as such has not been significantly altered but an 8 hour continuation course has been added to the program. Also, 80 hours of vocational training have been added. Therefore the study program consists of 12 study components that add up to a total of 48 hours in addition to 80 hours of vocational training.

The number of units is based on the student's working hours but no specific rules regarding calculation of the number of units have been issued for the continuation course so calculations for secondary schools are used for reference. A result of this is that the students attending the continuation course are not receiving units for the work experience which they bring with them to their studies. In order to assess work experience as part of students' work hours the study component *Vocational training* has been added. It is assumed that most if not all participants in the study course have received the training that is required for this study component which an educator can assess.

The Education Fund provides funds for the 48 hours intended for the studies that take place with an accredited educator but does not fund the 80 hours that are intended for vocational training. In addition, the Education Fund provides funds for 2 hours intended for administration due to assessment of work experience,

i.e. assessment of the study component *Vocational training*. It is assumed that the educator will use some of the total time of the study program for presentation and assessment of studies at his/her own discretion.

## Table of Contents

Study program.....	4
Organization.....	4
Learning outcomes of the studies.....	5
Study assessment.....	6
Vocational education .....	6
Electives/free selection.....	6
Instructions for teachers.....	6
Study components .....	7
Fish processing – fishing, processing sectors and marketing .....	8
Work facilities and posture .....	9
Safety in the work place.....	10
Hygiene and bacterial proliferation .....	11
Internal controls in a fish processing company .....	12
The economy, personnel and the pay systems.....	13
Co-operation and interactions in the work place .....	14
Intercultural society .....	15
First aid.....	16
Confidence Building .....	17
Environmental concerns and responsible fishing .....	18
Quality and treatment of foodstuffs - from fishing to processing.....	19
Vocational training.....	20
Appendices.....	21
Check list for vocational training in fish processing.....	22
Learning outcomes of study components.....	23
Tree-table.....	35

## Study program

The study program is a description of studies for fish processing workers at Stage 1 of the qualification framework of the Icelandic education system, divided into 13 study components. The studies are intended for people who work in the processing and preparation of seafood, i.e. filleting, freezing, salting, drying, prawn processing and shelling. The objective of the studies is to increase the students' knowledge about seafood processing and treatment of the catch at every stage from the time it is caught until it is served at the consumer's table, as well as enhancing the professional abilities of the students.

The studies are tailored to people who are 18 years old or older and have received little formal schooling. The arrangement of the studies is described in Chapter 18 of the wage agreement of SA - Business Iceland and the Federation of General and Special workers in Iceland/Flóabandalagið from 29 May 2015. The duration of the study course is 128 hours and it can be assessed as 7 units at secondary school level.

### Organization

An accredited educator is responsible for the implementation of the studies. The educator ensures the quality of the studies and delegates to his/her staff managerial tasks that include preparation, presentation, implementation and follow up of the studies. The educator provides adequate study facilities in consultation with managers at the work place, is the contact person with the work place and organizes the amount of time that is spent under direction from instructors/vocational trainers on one hand and independent study on the other. It is desirable that study components are integrated as far as possible and that instructors bear this in mind with all study components of the study program. It is both useful to build on the components that have already been addressed and a broader scope of study is achieved with extensive integration. A certain amount of homework can be part of the studies but this may differ between study components and individuals. It is emphasized that instructors shall use diverse teaching methods that are suitable for adult students. The study components *Fish processing - fishing, processing sectors and marketing*, *Internal control in fish processing companies* and *Hygiene and bacterial proliferation* must be completed before the study components *Environmental concerns and responsible fishing* and *Quality and treatment of foodstuffs - from fishing to processing* in order to ensure the quality of the studies.

## Learning outcomes of the studies

The student shall have acquired knowledge and understanding of:

- The basics of fishing and the processing and treatment of fish products.
- Work practices, work processes and rules that apply to the work.
- The chief safety aspects of fish processing.
- The rights and obligations on the labor market.
- Environmental concerns and the importance of responsible fishing.
- The importance of good self-confidence in communication.

The student shall have acquired skills at:

- Following predetermined work processes and rules in the work place.
- The student shall have acquired skills at working in accordance with hygiene and quality standards.
- Maintaining proper posture when performing work tasks.
- Providing first aid.
- Applying correct work practices in the processing of seafood.
- Interacting with co-workers in an effective manner.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Improve his/her own work skills with regard to fish processing.
- Resolve the issues/tasks that are part of the student's work.
- Recognize the importance of following predetermined work processes and rules in the work place.
- Recognize his/her own impact on the company's quality chain.
- Adopt a positive attitude to the work.

### Study assessment

Study progress is assessed based on the quality standards of the study program. Study progress shall be assessed with diverse assessment techniques where formative assessment is emphasized. Study assessment is intended to be both a confirmation of study progress and also a form of learning, incentive and feedback during the study period. It is suggested that students keep a work journal as a part of assessing their study progress. Students shall include in their work journal documents from the studies which will enable them to keep track of the knowledge, skills and qualifications that they acquire in the course of their studies. It is emphasized that the instructor and students review their progress as often as possible and also the students' success in achieving the learning outcomes of the studies.

### Vocational education

One component of the studies is vocational training (*F-STSH1PJ\_8*). The objective of this study component is to support the translation of study into skills in the work place and training of the competencies and skills that have been built up during study. The educator along with the employer organizes the vocational training. It is also desirable to organize other components of study as workplace-based training to some extent.

### Electives/free selection

The organizer is authorized to make changes to an extent representing up to 10% of the total length of study if such changes do not conflict with the objectives or purpose of the studies. Changes in excess of 10% are only authorized with the approval of the Education and Training Service Centre.

### Instructions for teachers

Integration of study components and connection with work tasks is emphasized. It is also emphasized that diverse teaching methods are used (documents, equipment, organization and facilities) that encourage study and support the individual in taking on the tasks and meeting the quality standards that are the basis of the studies.

## Study components

Name of study component	Abbreviation	Hours	Level
Fish processing – fishing, processing sectors and marketing	F-FIVI1GF_2	4	1
Work facilities and posture	F-VILI1VI_2	4	1
Safety in the work place	F-ÖMÁL1ÖR_1	4	1
Hygiene and bacterial proliferation	F-HRGE1HR_1	4	1
Internal controls in a fish processing company	F-INNR1EF_2	4	1
The economy, personnel and the pay systems	F-VIVI1LA_3	4	1
Co-operation and interactions in the work place	F-SASK1SA_2	4	1
Intercultural society	F-FJÖM1FF_1	4	1
First aid	F-SKYN2HJ_10	4	2
Confidence building	F-SJÁS1TR_1	4	1
Environmental concerns and responsible fishing	F-UMHÁ1FI_2	4	1
Quality and treatment of foodstuffs - from fishing to processing	F-GMÁL1FI_1	4	1
Vocational training	F-STSH1PJ_8	80	1
<b>Student work contribution</b>		<b>128</b>	



## Fish processing – fishing, processing sectors and marketing

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Fish processing
<b>Subjects</b>	The basics of fishing, development of fishing equipment and ship types, fish consumption, the fishing industry and development of markets.

### Description

Great emphasis is placed on strengthening students' knowledge about the basics of fish processing, fishing and the development thereof in Iceland, fishing equipment and ship types. The principal species of fish that are caught in Icelandic waters are dealt with, there is an introduction on fishing equipment and the chief types of fishing vessels as well as on the part played by Iceland with regard to fishing worldwide. There is a discussion of the most common ways to process seafood, of the most valuable products and the principal markets for them. The marketing of fishery products, advertising and presentations in domestic and foreign markets is discussed. There is a review of fish consumption on a global scale, and there is an emphasis on regarding fish as food. There is a discussion of the development of new fishing methods, processing and value augmentation.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The basics of fish processing in Iceland.
- The principal species of fish that are caught in Icelandic waters.
- Different types of fishing vessels and fishing equipment.
- The value of fishery products and the principal markets.
- Fish as food.
- Different ways for marketing.
- The interaction of fishing, treatment of fish and marketing.

## Work facilities and posture

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Health and safety
<b>Subjects</b>	Work facilities, posture.

### Description

It is emphasized that the health and well-being of employees is very important for the running of a company and therefore it is important that the design and arrangement of the work facilities can be a deciding factor in decreasing work-related illnesses of the human musculoskeletal system. Proper posture and working practices regarding fish processing is discussed. There is a review of the human skeletal system and the necessity of exerting the body in an appropriate manner, especially with regard to the spine, joints and muscles.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The human musculoskeletal system.

The student shall have acquired skills at:

- Maintaining proper posture when performing work tasks.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Appreciate the impact which the work has on the human body.
- Appreciate the importance of good posture.

## Safety in the work place

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Security issues
<b>Subjects</b>	Safety in the work place, the role of the safety representative and security guards.

### Description

Safety in the work place and the importance of safety thinking is given great emphasis. There is a discussion of laws and regulations, risk assessments for employees, the working environment, safety risks and accident prevention. There is also a discussion of the importance of acquiring knowledge of instructions and safety issues regarding machinery, tools and cleaning products. Safety clothing, safety equipment and the principal security measures regarding fire and ammonia leakage are discussed. There is a discussion of the impact of noise and the impact of lighting, of responding to accidents and of the obligation to report accidents to the Administration of Occupational Safety and Health. There is a review of the responsibilities of the employer, superiors and employees and the role of safety representatives and security guards. Students are encouraged to act in a responsible manner through good conduct, obtaining information about safety issues in their work place and pointing out ways of improvement if necessary.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- Safety in the work place and working environment.
- Proper work practices with regard to machinery used in fish processing.
- The chief dangers involved with fish processing and the importance of prevention.
- Accident and fire prevention in the work place.
- The importance of using personal protective equipment at work.
- The obligation to report accidents to the Administration of Occupational Safety and Health.
- The role of safety representatives and security guards.

The student shall have acquired skills at:

- The use of preventative measures to avoid accidents.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Adopt a responsible attitude towards conduct in the work place.
- Point out ways to improve safety in the work place where needed.

## Hygiene and bacterial proliferation

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Hygiene
<b>Subjects</b>	Hygiene, bacterial proliferation, the quality of products.

### Description

There is great emphasis on proper hygiene in food processing and the requirements of official regulatory bodies, buyers and consumers in this regard. A review is made of all principal factors that influence bacterial proliferation in fish, such as improper treatment, unsatisfactory cleaning, too much heat and other factors that create optimal conditions for any kind of microorganisms. The importance of proper personal hygiene of people working in food processing is also emphasized. There is a review of the performance of cleaning processes and there are instructions regarding proper washing, disinfecting and treatment of the work place where fish processing is concerned. Students shall adopt an attitude where proper hygiene and responsible treatment of the work place is emphasized.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The importance of proper hygiene in food processing with regard to the quality of the products.
- The principal factors that impact bacterial proliferation in fish.
- Hygiene requirements of external parties.

The student shall have acquired skills at:

- Performing adequate cleaning in fish processing.
- Treating the work place in such a manner as to diminish the risk of bacterial contamination.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Adopt proper personal hygiene practices in the work place.

## Internal controls in a fish processing company

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Internal control
<b>Subjects</b>	Surveillance, the HACCP-system.

### Description

In this study component there is a chief emphasis on the major aspects of laws regarding the treatment of sea products, supervision of their production as well as the minimum requirements regarding hygiene and sanitary measures in the processing of foodstuffs. There is an introduction on how the HACCP-system is used in internal control of the aforesaid factors in order to ensure the quality and wholesomeness of the company's products. Work is carried out on taking measurements and how to log them, making flow charts and undertaking risk analysis in order to prevent danger. The student will obtain an understanding of his/her own role within the company with regard to internal control.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The HACCP-quality system.
- Official requirements regarding the treatment of sea products and surveillance of the production thereof.
- Risk analysis, monitoring, registration and improvements.
- The principal types of flow charts and their purpose.

The student shall have acquired skills at:

- Taking measurements and registering findings.
- Making simple flow charts.
- Taking part in risk analysis.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Appreciate his/her defined role within the company with respect to internal control.

## The economy, personnel and the pay systems

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Work and the labor market
<b>Subjects</b>	The economy, personnel, the pay systems

### Description

There is great emphasis on presenting the roles of various parties in the labor market and labor law. There is a review of the principal pay systems in fish processing, as applicable. Students are also given a presentation of the rights and obligations of employees and there is a thorough review of the enforcement of wage agreements, especially with regard to hiring, wage insurance, wage issues, the right to vacation time, the right to sick leave and holidays and pension issues. Finally, there is a general discussion about economic matters and the operation of companies.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- His/her rights and obligations on the labor market.
- The structure of the pay system.
- Enforcement of wage agreements.
- The activities of trade unions.
- The roles of parties in the labor market and labor law.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Obtain information regarding pay systems and wage-related issues.

## Co-operation and interactions in the work place

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Fish processing
<b>Subjects</b>	Co-operation, communication.

### Description

The importance of job satisfaction is stressed and ways are indicated whereby this can be increased by promoting one's own well-being and encouraging positive and honest communication. Effective communication is discussed and also what reactions are appropriate in situations of stress and the challenges that arise in various circumstances, such as when bullying, sexual harassment and crises occur in the workplace.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The importance of job satisfaction.
- Methods that promote effective communication.
- The major stress factors that have an effect on communication and self-confidence.
- The consequences of bullying and sexual harassment.

The student shall have acquired skills at:

- Strengthening and improving interactions with others.
- Responding to problems in a responsible and self-confident manner.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Appreciate the importance of good communications for job satisfaction.

## Intercultural society

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Intercultural society
<b>Subjects</b>	Culture, multicultural and intercultural society.

### Description

The origins of the Icelandic people and the cultural history of Iceland is discussed. The concepts of culture and multicultural and intercultural societies are defined. There is a discussion of human diversity, stereotypes, prejudices, different cultural groups and the impact of these factors on communications and general quality of life.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The concepts of culture and multicultural and intercultural societies.
- The difference between multicultural and intercultural societies.
- Human diversity and one's own prejudices.
- Intercultural awareness and its positive impact on one's own quality of life.

The student shall have acquired skills at:

- Communicating with people of different cultural origin.
- Strengthening communications and co-operation in the work place.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Be tolerant of people of different cultural origin.



## First aid

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	First aid
<b>Subjects</b>	The four steps of first aid, basic resuscitation, responding after disasters and accidents have occurred.

### Description

Much attention is given to the basics of first aid and how to deal with emergencies after accidents have occurred or in cases of acute illness until specialized assistance arrives. The four steps of first aid are reviewed: ensuring safety at the site, assessing the condition of injured or ill people, getting help and providing first aid. Students are given training in basic resuscitation, opening the respiratory tract, checking breathing, administering cardio-pulmonary resuscitation and using an automated external defibrillator (AED). They will learn about the resuscitation chain, the recovery position and removal of foreign objects from the respiratory tract. There is also a brief review of internal and external bleeding, burns, head trauma, chest pain (heart attack), acute allergic reactions and strokes.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The four steps of first aid.
- Basic resuscitation, the resuscitation chain, the recovery position and removal of foreign objects from the respiratory tract.
- Responding to internal and external bleeding, burns, head trauma, chest pain, acute allergic reactions and strokes.

The student shall have acquired skills at:

- Dealing with emergencies after accidents have occurred or in cases of acute illness until specialized assistance arrives.
- Providing basic resuscitation until specialized assistance arrives.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Assess conditions at the site of an accident and responding appropriately.

## Confidence Building

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Confidence building
<b>Subjects</b>	Self-confidence.

### Description

Great emphasis is placed on strengthening self-confidence and also on the importance of self-confidence in communication. Items regarding self-empowerment through body language and appropriate responses to criticism and praise. There is a discussion about the importance of being able to establish boundaries with regard to other people, being able to say no, being able to ask for a favor, being able to apologize and to forgive.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The importance of positive self-appraisal and self-confidence that increases the student's well-being in daily life.

The student shall have acquired skills at:

- Adopting an attitude of positive responding in various circumstances.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Be confident of his/her own ability.

## Environmental concerns and responsible fishing

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Environmental concerns
<b>Subjects</b>	Contamination, conservation of the environment, sorting, recycling, efficient use of resources, eco-labelling, responsible fishing and certification.

### Description

The importance of the environment is stressed and how we can live in harmony with it and what simple actions can be taken in order to protect the environment. There is also a discussion of the state of environmental matters in the world today, what the nation can do, what the municipality can do, what the company can do and what we ourselves can do. The principal eco-labels are reviewed and also responsible fishing, certification thereof and the importance of leaving resources to our descendants in no worse condition than they were in when we took charge of them. Questions are raised regarding ways for conservation and more efficient use of resources such as water, raw materials and electricity. Ways to use by-products and waste products are discussed and how waste production can be reduced and sorting, recycling and efficient use improved.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- The impact that processing and the individual has on the environment.
- What food processing companies can do for environmental policies and increased environmental awareness.
- Measures that are taken in order to protect the environment against pollution.
- The main eco-labels.
- The need for responsible fisheries' management and sensible use of the resource.
- How certification can be obtained for responsible fishing according to different standards.
- Ways to reduce the expense of waste disposal and consumption of water and electricity.
- His/her own responsibility towards the environment.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Appreciate his/her own contribution where the environment is concerned. - Improve his/her own environmental awareness.

## Quality and treatment of foodstuffs - from fishing to processing

<b>Level</b>	1
<b>Working hours</b>	4
<b>Field of study</b>	Quality issues
<b>Subjects</b>	Good industrial practices, equipment, the impact of temperature, cross contamination risk, quality evaluation, traceability.

### Description

The main emphasis is placed on good practices in fishing and processing and how the entire processing chain is one continuous whole. There is a discussion of equipment and the proper treatment of de-heading machines, filleting and skinning machines and dressing. The importance of proper treatment of fish immediately after it is caught and proper procedures when gutting, washing and icing the fish in containers is discussed. There is also a discussion of the importance of refrigeration/icing throughout the chain when receiving, processing, packing and storing the fish. Also addressed are the effects of treatment on quality factors such as muscle loosening and rigor mortis in fish and the effects of external factors such as that of temperature on how quickly rigor mortis sets in. Traceability and the importance of labelling throughout the processing track is reviewed. Also, the design and arrangement of housing is examined with regard to preventing cross contamination and students are given projects in connection with this. There is an introduction of the quality factor method for assessing the age and quality of whole fish. Whole fish is assessed using this method.

### Learning outcomes of the study component

The student shall have acquired knowledge and understanding of:

- Good practices in fishing and processing.
- The impact of good practices on the quality and safety of raw material.
- The importance of labelling at all stages for ensuring traceability from fishing to buyer.
- The impact of treatment, refrigeration/icing and hygiene on the quality of fish and fish products with regard to efficient use.
- The principal methods of assessing the quality of raw material.
- The manner in which housing is designed in order to prevent cross contamination in the processing and treatment of foodstuffs.
- The connection between hygiene and refrigeration and the effects thereof on storage life.
- How to assess the quality of whole fish with the quality factor method.

The student shall have acquired skills at:

- Organoleptic assessment of whole fish.
- Assessing the risk of cross contamination.

The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:

- Explain the purpose of preventive measures in the treatment of fish and fish products throughout the process from fishing to buyer.

## Vocational training

<b>Level</b>	1
<b>Working hours</b>	80
<b>Field of study</b>	Fish processing
<b>Subjects</b>	Vocational training.

### Description

The objective of this study component is to facilitate the translation of study into skills in the work place and put into practice the knowledge, skills and abilities that have been built up during study.

### Learning outcomes of the study component

The student shall have knowledge and understanding of:

- The interaction of fishing, treatment of fish, quality and marketing.

The student shall have skills at:

- Working in accordance with safety, hygiene and quality standards.
- Having effective communications with coworkers.

The student shall be able to make use of the knowledge and skills which he/she has acquired in order to:

- Employ good work practices in the treatment of raw materials and fish products.
- Follow predetermined work processes and rules in the work place.
- Complete tasks in fish processing in an adequate manner.

## Appendices

Appendices
Check list for vocational training in fish processing
Learning outcomes of study components
Tree-table

## Check list for vocational training in fish processing

### Qualifications for the work

- ☐ Knowledge of the basics of fish processing in Iceland.
- ☐ Applying correct work practices in the processing of seafood.
- ☐ Knowledge of the principal fish species that are processed.
- ☐ Working in accordance with the working rules of the Company.
- ☐ Knowledge of the interaction of fishing, processing, quality and marketing.
- ☐ Employing good work practices in the treatment of raw materials and fish products.
- ☐ An understanding of one's own role with respect to internal control and the quality of products.
- ☐ Working with measurements and registration according to instructions in the HACCP-system.
- ☐ Working according to rules and safety requirements.
- ☐ Pointing out ways to improve safety if needed.
- ☐ Maintaining proper posture when performing work tasks.
- ☐ Adopting a responsible attitude towards conduct in the work place. ☐ Maintaining good personal hygiene at work.
- ☐ Showing tolerance towards co-workers.
- ☐ Confidence in one's own abilities.
- ☐ An awareness of one's own responsibility as regards the Company's environmental matters.

### Human resources

- ☐ Introduction of the Company's activities.
- ☐ Facilities such as wash-room, parking spaces, coffee facilities, canteen, smoking area.
- ☐ The Company's values, objectives and principal tasks.
- ☐ Work clothes, cleaning and general conduct.
- ☐ Important contact people and telephone numbers.

### Safety and environmental issues

- ☐ Basic work rules concerning safety and health.
- ☐ Evacuation routes and areas assembly points.
- ☐ Use of safety and personal protective equipment.

All items on the check list have been checked and marked. On the last day of vocational training it is good to review items which the vocational trainer and/or the student want to address further.

Place and date: \_\_\_\_\_

Student's signature: \_\_\_\_\_

Vocational trainer's signature: \_\_\_\_\_

**Vocational Trainer: Fill in and return the signed form to the educator.**

## Learning outcomes of study components

Fish processing - fishing, processing sectors and marketing - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The basics of fish processing in Iceland.				
The principal species of fish that are caught in Icelandic waters.				
Different types of fishing vessels and fishing equipment.				
The value of fishery products and the principal markets.				
Fish as food.				
Different ways for marketing.				
The interaction of fishing, treatment of fish and marketing.				

Date	Place	Instructor's signature



Safety in the work place - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
Safety in the work place and working environment.				
Proper work practices with regard to machinery used in fish processing.				
The chief dangers involved with fish processing and the importance of prevention.				
Accident and fire prevention in the work place.				
The importance of using personal protective equipment at work.				
The obligation to report accidents to the Administration of Occupational Safety and Health.				
The role of safety representatives and security guards.				
The student shall have acquired skills at:	1	2	3	4
The use of prevention to avoid accidents.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Adopt a responsible attitude towards conduct in the work place.				
Point out ways to improve safety in the work place where needed.				

Date	Place	Instructor's signature

Hygiene and bacterial proliferation - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The importance of proper hygiene in food processing with regard to the quality of the products.				
The principal factors that impact bacterial proliferation in fish.				
Hygiene requirements of external parties.				
The student shall have acquired skills at:	1	2	3	4
Performing adequate cleaning in fish processing.				
Treating the work place in such a manner as to diminish the risk of bacterial contamination.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Maintaining good personal hygiene at work.				

Date	Place	Instructor's signature

Internal controls in a fish processing company - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The HACCP-quality system.				
Official requirements regarding the treatment of sea products and surveillance of the production thereof.				
Risk analysis, monitoring, registration and improvements.				
The principal types of flow charts and their purpose.				
The student shall have acquired skills at:	1	2	3	4
Taking measurements and registering findings.				
Making simple flow charts.				
Taking part in risk analysis.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Appreciate his/her defined role within the company with respect to internal control.				

Date	Place	Instructor's signature

The economy, personnel and the pay systems - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
His/her rights and obligations in the labor market.				
The structure of the pay system.				
The enforcement of wage agreements.				
The activities of trade unions.				
The roles of parties in the labor market and labor law.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Obtain information regarding pay systems and wage-related issues.				

Date	Place	Instructor's signature

Work facilities and posture - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The human musculoskeletal system.				
The student shall have acquired skills at:	1	2	3	4
Maintaining proper posture when performing work tasks.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Appreciate the impact which the work has on the human body.				
Appreciate the importance of good posture.				

Date	Place	Instructor's signature

Co-operation and interactions in the work place - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The importance of job satisfaction.				
Methods that promote effective communication.				
The major stress factors that have an effect on communication and self-confidence.				
The consequences of bullying and sexual harassment.				
The student shall have acquired skills at:	1	2	3	4
Strengthening and improving interactions with others.				
Responding to problems in a responsible and self-confident manner.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Appreciate the importance of good communication for job satisfaction.				

Date	Place	Instructor's signature

Intercultural society - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The concepts of culture and multicultural and intercultural societies.				
The difference between multicultural and intercultural societies.				
Human diversity and one's own prejudices.				
Intercultural awareness and its positive impact on one's own quality of life.				
The student shall have acquired skills at:	1	2	3	4
Communicating with people of different cultural origin.				
Strengthening communications and co-operation in the work place.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Be tolerant of people of different cultural origin.				

Date	Place	Instructor's signature

First Aid - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The four steps of first aid.				
Basic resuscitation, the resuscitation chain, the recovery position and removal of foreign objects from the respiratory tract.				
How to respond to internal and external bleeding, burns, head trauma, chest pain, acute allergic reactions and strokes.				
The student shall have acquired skills at:				
Dealing with emergencies after accidents have occurred or in cases of acute illness until specialized assistance arrives.				
Providing basic resuscitation until specialized assistance arrives.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:				
Assess conditions at the site of an accident and responding appropriately.				

Date	Place	Instructor's signature



Confidence building				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The importance of positive self-appraisal and self-confidence that increases the student's well-being in daily life.				
The student shall have acquired skills at:				
Adopting an attitude of responding positively in a variety of circumstances.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:				
Have confidence in his/her own abilities.				

Date	Place	Instructor's signature

Environmental concerns and responsible fishing -level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
The impact that processing and the individual has on the environment.				
What food processing companies can do for environmental policies and increased environmental awareness.				
Measures that are taken in order to protect the environment against pollution.				
The main eco-labels.				
The need for responsible fisheries management and sensible use of the resource.				
How certification can be obtained for responsible fishing according to different standards.				
Ways to reduce the expense of waste disposal and consumption of water and electricity.				
His/her own responsibility towards the environment.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Appreciate his/her own contribution where the environment is concerned.				
Improve his/her own environmental awareness.				

Date	Place	Instructor's signature

Quality and treatment of foodstuffs - from fishing to processing - level 1				
	1. Little knowledge/skills. 2. Some knowledge/skills. 3. Good knowledge/skills. 4. Substantial knowledge/skills.			
The student shall have acquired knowledge and understanding of:	1	2	3	4
Good practices in fishing and processing.				
The impact of good practices on the quality and safety of raw material.				
The importance of labelling at all stages for ensuring traceability from fishing to buyer.				
The impact of treatment, refrigeration/icing and hygiene on the quality of fish and fish products with regard to efficient use.				
The principal methods of assessing the quality of raw material.				
The manner in which housing is designed in order to prevent cross contamination in the processing and treatment of foodstuffs.				
The connection between hygiene and refrigeration and the effects thereof on storage life.				
How to assess the quality of whole fish with the quality factor method.				
The student shall have acquired skills at:	1	2	3	4
Organoleptic assessment of whole fish.				
Assessing the risk of cross contamination.				
The student shall be able to make use of the general knowledge and skills which he/she has acquired in order to:	1	2	3	4
Explain the purpose of preventive measures in the treatment of fish and fish products throughout the process from fishing to point of sale.				

Date	Place	Instructor's signature

Tree-table

		Fish processing – fishing, processing sectors and marketing	Work facilities and posture	Safety in the work place	Hygiene and bacterial proliferation	Internal controls in a fish processing company	The economy, personnel and the pay systems	Co-operation and interactions in the work	Intercultural society	First aid	Confidence Building	Environmental concerns and responsible fishing	Quality and treatment of foodstuffs - from fishing to	Vocational training
Knowledge	The basics of fishing and the processing and treatment of fish products.	X										X	X	X
	Work practices and work processes that apply to the job.					X						X	X	X
	The chief safety aspects of fish processing			X										X
	The rights and obligations in the labor market						X							X
	Environmental concerns and the importance of responsible fishing											X		X
	The importance of good self-confidence in communication							X			X			X
Skills	Following predetermined work processes and rules in the work place			X	X	X							X	X
	Working in accordance with hygiene and quality standards				X	X								X
	Maintaining proper posture when performing work tasks												X	X
	Providing first aid									X				X
	Applying correct work practices in the processing of seafood		X			X							X	X
	Interacting with co-workers in an effective manner							X	X		X			X
Competence	Improving one's own work skills with regard to fish processing	X		X	X	X	X	X	X	X	X	X	X	X
	Resolving the issues/tasks that are part of the student's work.	X			X	X								X
	Recognizing the importance of following predetermined work processes and rules in the work place.	X			X	X								X



