



Australian Government

SFI40111 Certificate IV in Aquaculture

Release 5

SFI40111 Certificate IV in Aquaculture

Modification History

Release	TP Version	Comments
5	SFI11v2.2	<i>HLTFA311A Apply first aid</i> replaced with <i>HLTAID003 Provide first aid</i> Superseded HRM units from <i>BSB07 Business Services Training Package</i> updated
4	SFI11v2	<i>SFIAQUA412A Develop emergency procedures for on-land operations</i> replaced with <i>SFIAQUA413A Develop emergency procedures for an aquaculture enterprise</i>
3	SFI11v1.3	<i>HLTFA301B Apply first aid</i> replaced with <i>HLTFA311A Apply first aid</i> in response to regulatory changes
2	SFI11v1.1	Equivalent imported units updated
1	SFI11	Initial release

Description

This qualification specifies the competencies relevant to people working as aquaculturists in a supervisory or leadership capacity. A person operating at this level may be expected to comply with legislative requirements as well as implement a range of enterprise policies and procedures. They will also use their knowledge and skills to solve problems, plan for future work activities and take responsibility for others.

The qualification will have application for people working:

- on aquaculture farms or fishout/put-and-take operations
- in hatcheries and nurseries
- in live post-harvest holding facilities, such as processing plants, wholesalers or transporters
- in pet shops, public aquaria, zoos or other facilities with aquatic animals
- for companies providing contract specialist services for aquaculture operations
- for companies providing consultancy, advisory, equipment sale or other services.

Job role

A person operating at this level supervises or coordinates a broad range of duties appropriate to work in this sector of the seafood industry which may include:

- coordinating stock-related activities, such as:
 - feeding, handling, harvesting and controlling pests, predators and disease
- coordinating the monitoring and maintaining of stock and the aquaculture environment
- managing the installing, constructing and maintenance of stock holding and culture systems, and other farm structures
- ensuring safe and efficient procedures for production of quality product
- responsibility for:
 - use of mechanisation, automation or technology to improve production
 - training and induction of staff, including emergency procedures
 - compliance with occupational health and safety (OHS), environment, animal welfare and food safety regulations.

Work may vary between aquaculture and live holding enterprises.

Job role titles may include:

- harvest manager
- head supervisor
- gear supervisor
- safety officer
- senior or head technician
- shift leader
- quality assurance or environmental officer.

Pathways Information

Pathways into the qualification

Pathways for candidates considering this qualification include:

- direct entry with prior experience in aquaculture or related field
- SFI30111 Certificate III in Aquaculture
- vocational and tertiary studies related to environmental sustainability
- maritime skills, including certifications, such as Coxswain.

Pathways from the qualification

After achieving this qualification, candidates may undertake:

- SFI50111 Diploma of Aquaculture.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification considerations

Licences for operating motor vehicles, tractors, forklifts, vessels and other plant apply to some competencies. OHS, food safety, and environmental protection regulations apply to aquaculture enterprises.

Entry Requirements

Not Applicable

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

SFI40111 Certificate IV in Aquaculture

The following table contains a summary of the employability skills as identified by the aquaculture sector for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements and may vary from one agency to another.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none"> calculating perimeters, area, volume, angles and scientific concepts, such as concentration confirming production requirements and environmental monitoring requirements with senior personnel explaining roles and responsibilities to staff providing feedback on performance to staff writing and presenting reports to management.
Teamwork	<ul style="list-style-type: none"> identifying and using the strengths of other team members liaising with emergency agencies supporting staff to meet work schedules and production outcomes working with diverse individuals and groups.
Problem solving	<ul style="list-style-type: none"> applying a range of strategies in problem solving developing measurement methods for monitoring non-routine water quality and environment parameters diagnosing health problems identifying husbandry practices to solve stock health issues.
Initiative and enterprise	<ul style="list-style-type: none"> adapting to new situations assessing options for mechanisation or automation of process or activity evaluating the benefits of contracted specialist labour identifying improvements to the aquaculture enterprise, including efficiencies, productivity and systems, such as OHS, environmental management and quality assurance manipulating water chemistry to improve water quality reporting non-compliances and non-routine matters.
Planning and organising	<ul style="list-style-type: none"> developing routines for stock health management interpreting stock health and other production plans to develop yearly calendar of activities, monitoring schedules and performance benchmarks managing time and priorities organising personnel into an efficient aquaculture operation

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	<ul style="list-style-type: none"> sequencing activities for safe and efficient operation.
Self-management	<ul style="list-style-type: none"> being timely and effective in responding to enterprise needs within work role carrying a fair share of the workload managing personal stress prioritising work and related activities taking responsibility and being accountable for planning and work outcomes.
Learning	<ul style="list-style-type: none"> being open to learning, new ideas and techniques coaching staff within the enterprise to improve performance contributing to the learning of others learning in order to take up new opportunities participating in ongoing learning.
Technology	<ul style="list-style-type: none"> using high technology components for waste treatment in recirculating aquaculture systems (RAS) using technology and computer software to record and analyse data using technology to monitor environmental factors in culture or holding structures using technology to monitor expenses and budgets using technology to present information, such as graphs and tables.

Packaging Rules

Packaging Rules

A total of twenty (20) units of competency must be achieved.

- four (4) core units **plus**
- five (5) aquaculture specialist elective units (Group A) **plus**
- eleven (11) elective units that may be selected from a combination of:
 - Group A aquaculture specialist units not yet selected for this qualification
 - Group B elective units
 - imported units from this Training Package or from any other nationally endorsed Training Package or accredited course. A maximum of four (4) units can be imported, however, at least two (2) of those units must be aligned to Certificate IV or Diploma level. Units must be relevant to aquaculture operations and not duplicate units already selected.

Core units of competency

Unit code	Unit title
SFICORE101C*	Apply basic food handling and safety practices
SFICORE103C	Communicate in the seafood industry
SFICORE105B	Work effectively in the seafood industry
SFICORE106B	Meet workplace OHS requirements

* Note: SFICORE101C is not a required unit for operations that are growing or holding species not destined for human consumption. This includes ornamental or display species, stock for pearls, and stockers for conservation purposes. The unit FDFOP2063A Apply quality systems and procedures, is to be used in its place.

Elective units of competency

Group A: Aquaculture specialist units

Unit code	Unit title
SFIAQUA308C	Maintain water quality and environmental monitoring
SFIAQUA316A	Oversee the control of predators and pests
SFIAQUA317A	Oversee the control of diseases
SFIAQUA401C	Develop and implement a stock health program
SFIAQUA402C	Coordinate construction or installation of stock culture, holding and farm structures
SFIAQUA404C	Operate hatchery
SFIAQUA406C	Seed and harvest round pearls
SFIAQUA407C	Coordinate sustainable aquacultural practices
SFIAQUA408C	Supervise harvest and post-harvest activities
SFIAQUA409B	Implement, monitor and review stock production
SFIAQUA410B	Implement a program to operate, maintain or upgrade a system comprising high technology water treatment components
SFIAQUA411A	Manage water quality and environmental monitoring in enclosed systems

Unit code	Unit title
SFIAQUA413A	Develop emergency procedures for an aquaculture enterprise
SFIOHS301C	Implement OHS policies and guidelines
ACMCAS403A	Design, construct and maintain aquascapes
AHCWRK403A	Supervise work routines and staff performance
BSBRSK401A	Identify risk and apply risk management processes

Group B: Other elective units

Aquaculture operations

Unit code	Unit title
SFIAQUA309C	Oversee harvest and post-harvest activities
SFIAQUA314A	Support hatchery operations
SFIAQUA318A	Coordinate feed activities
SFIEMS301B	Implement and monitor environmentally sustainable work practices

Farm operations

Unit code	Unit title
AHCBUS402A	Cost a project
AHCBUS404A	Operate within a budget framework
AHCCHM401A	Minimise risks in the use of chemicals
AHCCHM402A	Plan and implement a chemical use program
AHCINF301A	Implement property improvement, construction and repair
AHCMOM402A	Supervise maintenance of property machinery and equipment

Ornamental operations

Unit code	Unit title
SIRXMER004A	Manage merchandise and store presentation

Occupational health and safety

Unit code	Unit title
HLTAID003	Provide first aid

Quality assurance, food safety and environmental management

Unit code	Unit title
SFIEMS302B	Act to prevent interaction with protected species
SFIEMS401B	Conduct an internal audit of an environmental management system
BSBAUD402B	Participate in a quality audit
MTMCOR402C	Facilitate Quality Assurance process
MTMPSR412A	Participate in product recall
MTMPSR414A	Establish sampling program
MTMPSR406B	Manage and maintain a food safety plan

Business services

Unit code	Unit title
BSBADM407B	Administer projects
BSBADM409A	Coordinate business resources
BSBCUS401B	Coordinate implementation of customer service strategies
BSBEBU401A	Review and maintain a website
BSBFIA302A	Process payroll
BSBFIA401A	Prepare financial reports

Unit code	Unit title
BSBITU203A	Communicate electronically
BSBITU305A	Conduct online transactions
BSBITU404A	Produce complex desktop published documents
BSBPUR401B	Plan purchasing
BSBPUR402B	Negotiate contracts
BSBRES401A	Analyse and present research information
BSBWOR301B	Organise personal work priorities and development
SITXMPR401	Coordinate production of brochures and marketing materials
TLIR4002A	Source goods/services and evaluate contractors

Frontline management

Unit code	Unit title
BSBATSIC411C	Communicate with the community
BSBINM401A	Implement workplace information system
BSBHRM404A	Review human resource functions
BSBHRM405A	Support the recruitment, selection and induction of staff
BSBINN301A	Promote innovation in a team environment
BSBLED401A	Develop teams and individuals
BSBMGT401A	Show leadership in the workplace
BSBMGT403A	Implement continuous improvement

Industry leadership Focus A - sector representation

Unit code	Unit title
SFILEAD401B	Develop and promote knowledge of the industry sector

Unit code	Unit title
SFILEAD402B	Negotiate effectively for the sector
SFILEAD403B	Demonstrate commitment and professionalism

Industry leadership Focus B - resource management group membership

Unit code	Unit title
SFILEAD407A	Provide expert information to a resource management group
SFILEAD408A	Analyse information to develop strategic seafood management options
SFILEAD409A	Negotiate collective outcomes within the resource management group process

Small business management

Unit code	Unit title
BSBINM201A	Process and maintain workplace information
BSBSMB301A	Investigate micro business opportunities
BSBSMB401A	Establish legal and risk management requirements of a small business
BSBSMB402A	Plan small business finances
BSBSMB403A	Market the small business
BSBSMB404A	Undertake small business planning
BSBSMB405B	Monitor and manage small business operations
BSBSMB406A	Manage small business finances
BSBSMB407A	Manage a small team

Training and assessment

Unit code	Unit title
-----------	------------

Unit code	Unit title
TAEASS401B	Plan assessment activities and processes
TAEASS402B	Assess competence
TAEASS403B	Participate in assessment validation
TAEDEL402A	Plan, organise and facilitate learning in the workplace