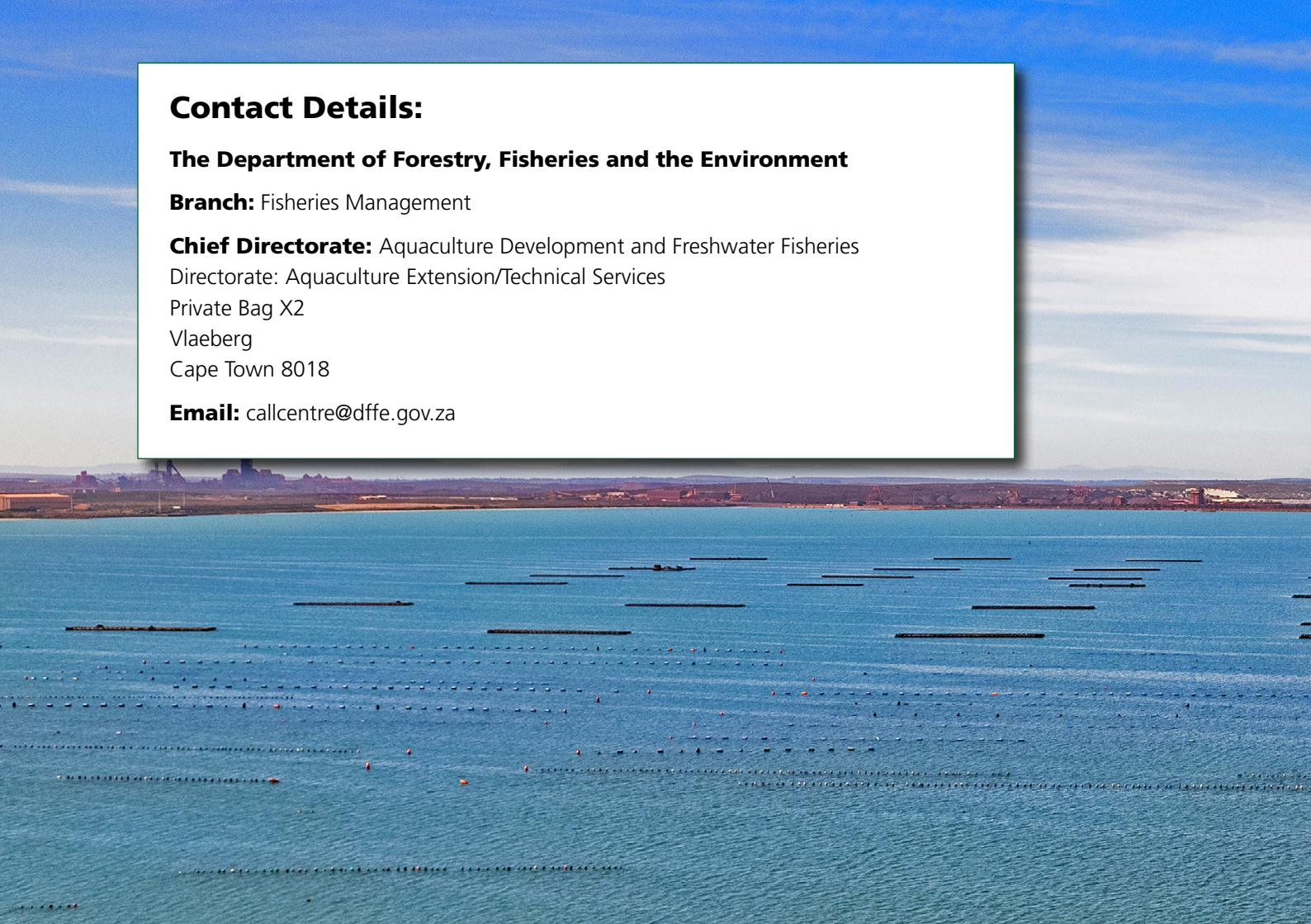
Aquaculture Skills Programmes

(Short Courses) Available in South Africa

forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA



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Background

Various aquaculture stakeholders have set ambitious targets in terms of job creation, production, contribution to gross domestic product (GDP), improving livelihoods in rural communities and inclusivity. To achieve these goals, nine Operation Phakisa aquaculture initiatives have been developed, namely, the implementation of catalyst projects, legislative reform, monitoring and certification, an interdepartmental permitting committee, an aquaculture development fund, capacity building and skills development, marketing efforts, preferential procurement and development of Aquaculture Development Zones (ADZ). In order to achieve these initiatives, it was recognized that it was essential to consider the skill needs of the existing and future aquaculture sector. To oversee the capability initiatives, the Aquaculture Skills Expert Group (ASEG) was established by the South African International Maritime Institute (SAIMI) and has been mandated by the Department of Higher Education and Training (DHET) to advance the Operation Phakisa Oceans Economy skills and capacity building initiative.

One of the main challenges is information and knowledge sharing around the aquaculture sector in general, including the availability of local training opportunities. The Department of Forestry, Fisheries and the Environment (DFFE) publishes annual careers brochures containing various diplomas and degrees related to aquaculture. However, this does not include short programmes, which are now included in this brochure.

This brochure therefore provides a guide to aquaculture skills short programmes currently available to the aquaculture sector in South Africa. This is the third edition of the Aquaculture Short Skills Programmes brochure.

Provision:

- The brochure provides the information on all known skills programmes available, but these programmes have not been accredited or vetted by the DFFE. When researching a potential course please enquire regarding its AgriSETA accreditation.
- Prices have not been included in the booklet please contact the institution directly.
- University degree opportunities are not provided in this brochure and are provided in the DFFE career booklet (*Careers in Fisheries pg. 26-34*).
- To enhance the readability of this booklet, a colour key has been incorporated, categorizing each province with its own distinct colour.

WC	**WC:** Western Cape Province
NC	**NC:** Northern Cape Province
EC	**EC:** Eastern Cape Province
LP	**LP:** Limpopo Province
MP	**MP:** Mpumalanga Province
NW	**NW:** North West Province
KZN	**KZN:** KwaZulu-Natal Province
FS	**FS:** Free State Province
GP	**GP:** Gauteng Province

AgriSETA

The Agricultural Sector Training Authority (AgriSETA) has been mandated to facilitate the skill development of the agricultural workforce and to promote opportunities for social, economic and employment growth for agricultural enterprises through relevant, quality, and accessible education, training, and development in both primary and secondary agriculture, in cooperation with other relevant role players in agriculture.

The AgriSETA facilitates the implementation of learning through learnerships, skills programmes, adult education and training, and tertiary studies or in-service training by allocating grants and bursaries. It also supports apprentices, internships, and mentorships. Furthermore, the scope of AgriSETA covers the agricultural sector from input services to the farm, activities on the farm and the first level processing activities from the farm.

To guarantee quality provision of education and training, AgriSETA is also responsible for accrediting sector-specific training providers and monitoring the standard of training presented.

AgriSETA provides grants for skill development and training, which can be claimed by submitting Workplace Skills Plans (WSP) and Annual Training Reports (ATR). AgriSETA strives to pursue comprehensive research to tackle skills shortages and demand within the agricultural sector, and implement the strategies identified in the Economic Reconstruction and Recovery Plan (ERRP). Moreover, the AgriSETA continues to promote collaboration among its existing strategic partners to support skills development within the sector. It should be noted that submission of WSP and ATRs not only contribute towards Mandatory Grants (up to 20% of levies paid), but they also contribute towards informing skills delivery and planning interventions such as scarce or critical skills. Additionally, companies can register to take on learnerships which will become increasingly relevant as the new aquaculture qualifications are rolled out.

Please note: An employer is exempted from paying Skills Development Levy (SDL) if the total leviable amount of all its employees over the next 12 months are less than R500 000.00. Employers who are exempted from paying SDL are also exempted from submitting an Annual Training Report (ATR) or Workplace skills plan (WSP). For more information on SDL exemption, please contact your closest SARS office. For updated information visit https://www.agriseta.co.za

Accredited Training Providers

1. Agricultural Research Council (ARC)

Contact Details:

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(+27) 0746865104
Telephone: Ms. Xolisile Sibiya
(+27) 12 672 9111
Email: sibiyax@arc.agric.za
Website: https://www.arc.agric.za/Pages/Home.aspx

GP

The Agricultural Research Council aims to enhance aquaculture through research, development, and technology transfer by building a sustainable aquaculture community in partnership with all stakeholders including producers, processors, communities, universities, and public agencies.

1.1 Course structure:
Training on basic principles of aquaculture (5 Days)

- Breeding
- Fish biology
- Nutrition
- Health Management
- Farming and production systems
- Economics and Marketing
- Water quality management
- Harvesting

1.2 Delivery mode:
Presentation and practicals.

1.3 Accreditation:
ARC is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at https://www.agriseta.co.za/accredited-training-providers-list/

2. Two-line Training Skills for Africa

Contact Details:

Mobile: Johan: (+27) 82 770 4262 / johan@skillsafrica.co.za
Herman: (+27) 84 738 8509 / hermanskillstech1.co.za
Telephone: (+27) 12 379 4920
Email: sfaup@mweb.co.za / isaac@skillsafrica.co.za
Website: http://skillsafrica.co.za/contact/
Address: 437 Ulundi Avenue
Mountain View,
Pretoria,
0082

Skills for Africa

WC
NC
EC
LP
MP
NW
KZN
FS
GP

Skills for Africa is an accredited training company focused on uplifting disadvantaged communities and improving productivity. Training is conducted on-site, catering to both literate and illiterate individuals, using SAQA-registered unit standards. The program develops aquaculture farming skills through instruction and practical experience. Clients receive support in business operations, including financial management, HR, and marketing. Training materials are regularly updated to ensure industry relevance.

2.1 Course Structure

Qualifications:

- Occupational Certificate: Aquaculture Farmer (NQF Level 4)
- Occupational Certificate: Aquaculture Farm Worker (NQF Level 2)

Key Learning Areas:

- Introduction to aquaculture & farmed species in South Africa
- Aquatic animal biology & husbandry practices
- Production systems & water quality management
- Juvenile rearing, breeding, nutrition & health management
- Equipment management, stock control, harvesting & handling

- Human resource management, budgeting & procurement
- Operational planning, resource management & environmental sustainability

2.2 Delivery Mode:

- Training duration: 16–20 weeks
- Combines theoretical instruction with practical on-the-job training
- Content and duration can be customized based on program objectives

2.3 Accreditation

Skills for Africa is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at https://www.agriseta.co.za/accredited-training-providers-list/

3. Aquaculture Innovations and Urban Aquaponics

Contact details:

Mobile: Neale Strauch
(+27) 82 551 0016.
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Website: www.Aquaafrica.co.za / www.urbanaquaponics.co.za
Address: Plot 107
30 Mimosa Avenue
Gerardsville
Pretoria

Aquaculture Innovations and Urban Aquaponics courses are presented at the commercial farming entity Urban Aquaponics in Pretoria, they are both owned by Neale Strauch who is passionate about aquaculture and aquaponics. Aquaculture Innovations offers a range of services including training courses and consulting services in both aquaponics and fish farming.

EC

3.1 Course Structure:

- **5-day Practical Aquaculture Course** – Covers fish farming fundamentals, water management, system design, filtration, dissection, biosecurity, and financial aspects. Practical demonstrations included.

- **3-day Aquaculture System Management Course** – Focuses on fish farm operations, management, and economics for investors and farm managers.
- **2-day Commercial Aquaponics Course** – Covers aquaponics theory and practical aspects, including plant growth methodologies and system layouts.
- **Customized Courses** – Dedicated training on topics like fish harvesting, packaging, solar aeration, and biogas usage.

3.2 Delivery Mode:

- Theory and hands-on practicals
- Minimum Delegates: 5 required per course (otherwise subject to postponement)

3.3 Accreditation

Aquaculture Innovations and Urban Aquaponics is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at https://www.agriseta.co.za/accredited-training-providers-list/

4. Aquapro Aquaculture and Aquaponic Training and Research Academy

La Pieus Aqua Holdings (Pty) Ltd

Sustainability through innovation.

Contact details:

Mobile: (+27) 83 765 8343
Email: aquaproacademy@lapieus.co.za / danier@lapieus.co.za
Website: www.lapieusaqua.co.za
Address: 137 Geelslang way
Kameelfontein Estates
Kameelfontein
Pretoria

GP

AquaPro Training and Research Academy is the only private aquaculture training and research facility in Southern Africa accredited by two universities. Part of La Pieus Aqua Holdings, it operates as a Living Lab for research and training. The academy offers courses, capacity building, cluster development, and business consulting. Training is conducted at its Pretoria facility and across Southern Africa, including Namibia, Zimbabwe, Democratic Republic of Congo, and Zambia.

4.1 Course Structure:

Aquaponics & Hydroponics:

- **1-day Workshop** – Introduction to aquaponics/ hydroponics, system setup, feasibility, and sustainability.
- **3-day Advanced Commercial Aquaponics Course (+1-day practical)** – Comprehensive training on commercial aquaponics, system management, financials, and marketing.
- **6-month Aquaponic Master Class** – Intensive program covering global industry insights, system design, crop production, water management, and economics.
- **2-day Plant Production & Crop Management** – In-depth training on plant species, health, and commercial aquaponics production.

Fish Farming:

- **1-day Fish Farming Workshop** – Introductory course on catfish and tilapia farming in South Africa.
- **3-day Advanced Fish Farming & Farm Management (+1-day practical)** – Covers aquaculture infrastructure, species, breeding, feeding, health, water quality, economics, and farm operations.

Technology & Biosecurity:

- **1-day Fishify & Technology Training** – Focused on the Fishify application for aquaculture and aquaponics management.
- **Biosecurity Course** – Essential training on disease prevention and farm biosecurity measures.

4.2 Delivery Mode:

- Theory and hands-on practical training
- Class Capacity: Up to 30 trainees per session
- Additional Offerings: Tea and lunch provided for multi-day courses
- Registration & Bookings: Available via the La Pieus Aqua website

4.3 Accreditation:

AquaPro is the only private institute and facility accredited by two universities, the University of Stellenbosch and the University of Ku Leuven, for graduate and postgraduate research, with collaboration agreements with the University of Ghent and the University of Pennsylvania. This ensures their standards and accredited skills training dedicated to raising and improving and increasing the principles and levels of productivity in the selected represented industries.

5. INMED Aquaponics Social Enterprise (IASE)

Contact details:

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Address: 15 Fuchia Street
Flora Gardens
Vanderbijlpark
1911

Since 2010, INMED South Africa NPC has specialized in aquaponics for development, partnering with academic institutions, government, and development organizations. It offers agri-aquaculture learnerships and courses through a social enterprise model.

5.1 Course Structure:

Two-Day Course: Basics of Aquaponics
Hands-on training at the INMED ASE training centre covering:

- Introduction to aquaponics and its advantages
- Fish care, water quality, and feeding
- Plant care, nutrients, and pest control
- Fish and plant health management
- System maintenance and monitoring

Five-Day Course: Aquaponics Enterprise
A hybrid course (online and onsite) covering technical aspects of aquaponics, business management, and marketing.

Online Course: An interactive introduction to aquaponics farming, business planning, and management ideal as a first step before hands-on training.

Agri-Aquaculture Learnership: Comprehensive training in climate-smart agriculture, aquaponics system development.

5.2 Delivery Mode:

- **Face-to-Face –** Two-day and five-day courses include hands-on training at the INMED ASE training centre.
- **Hybrid –** The five-day course combines online education, classroom instruction, and practical training.
- **Online –** Self-paced interactive modules on aquaponics farming and business management.
- **Learnership –** Structured, hands-on training integrating theory and practice in agri-aquaculture.

5.3 Accreditation:

INMED South Africa is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at: https://www.agriseta.co.za/accredited-training-providers-list/

6. Rhodes University

Contact Details:

Telephone: Mr Qurban Rouhani
(+27) 46 603 8111
Email: q.rouhani@ru.ac.za
Website: https://www.ru.ac.za/
Address: Department of Ichthyology and Fisheries Science, Makhanda

Rhodes University, located in Makhanda, South Africa, is a prestigious institution known for its strong research and academic excellence. It offers specialized courses in various fields, including aquaculture and aquatic animal health. The university is committed to advancing knowledge and skills through high-quality education and practical learning. Its programs are designed to meet industry and regional needs, equipping professionals with relevant expertise.

6.1 Course Structure:

Introduction to Fish Health provides an overview of aquatic animal health management in aquaculture, tailored for veterinarians and aquaculture specialists. Key topics include:

- Introductory Lectures: Anatomy and physiology of finfish and invertebrates, aquatic environment effects on health.
- Aquatic Animal Diseases: Non-infectious, nutritional, parasitic, bacterial, mycotic, viral, and zoonotic diseases, including notifiable diseases.
- Disease Management: Biosecurity, health programs, trade regulations, and risks in the ornamental fish industry.
- Diagnostics: Disease identification in finfish and invertebrates, sample collection, laboratory techniques, and surveillance planning.
- Treatment: Pharmacology, antimicrobial use, and veterinary involvement in disease management.
- Practical Component: Water quality assessment, fish dissection, microscopy, disease surveillance, certification, and import/export risk assessment.

6.2 Delivery Mode:

The course is delivered over five days through a mix of lectures, practical sessions, tutorials, discussions, and a field trip. Participants will engage in hands-on exercises such as water quality analysis, fish dissection, microscopy, and disease management planning.

6.3 Accreditation:

As a university, Rhodes university is governed by the Higher Education Act (101 of 1997)

7. South African International Maritime Institute

Contact details:

Mobile: Mrs Marlene Holland (+27) 84 608 2793
Telephone: (+27) 41 504 4038
Email: Marlene.Holland@mandela.ac.za
Website: https://saimi.co.za/
Address: Ocean Sciences Campus
Gomery Avenue
Summerstrand
Gqeberha
South Africa
6001

The Introduction to Ocean Matters Short Learning Programme (SLP) provides a foundation in scientific, legal, social, and economic aspects of the oceans. It explores challenges facing society and solutions for sustainable ocean management. The course covers the Oceans Economy (Blue Economy), focusing on economic growth, livelihoods, and ecosystem health. Learning is facilitated through presentations, discussions, and case studies.

7.1 Course Structure:

The Introduction to Ocean Matters Short Learning Programme (SLP) covers key aspects of the Oceans Economy and sustainable ocean management. The course includes:

- Introduction (1 hour)
- Section 1: Ocean Economy (7 hours)
- Section 2: Policy & Governance of Ocean Resources (8 hours)
- Section 3: Ocean Resources & Ecosystems (8 hours)
- Section 4: Social & Cultural Rights in the Blue Economy (8 hours)

Minimum Entry Requirements:

Applicants must have a National Senior Certificate (NSC), National Certificate (Vocational) Level 4 (NCV4), or an equivalent Further Education and Training Certificate. Proficiency in English, Mathematical Literacy, and relevant theoretical knowledge at NQF Level 4 is required.

Certification:

Students who Successfully complete the SLP will receive

a Nelson Mandela University Certificate of Compliance.

Assessment Overview:

- Formative Assessments (40%) – Includes individual and group work with feedback.
- Summative Assessments (60%) – Final projects, individual assessments, case studies, and presentations.
- A minimum of 50% is required to pass, with supplementary options available.

7.2 Delivery Mode:

The course is offered face-to-face or online, combining lectures, group discussions, case studies, and practical assessments. Participants engage in interactive sessions to develop sustainable ocean economy strategies.

7.3 Accreditation:

As a university, Nelson Mandela University is governed by the Higher Education Act (101 of 1997).

8. College Of Sustainable Agriculture (CSA)

College of Sustainable Agriculture

WC
NC
EC
LP

Contact details:

Mobile: (+27) 83 650 6252
Telephone: (+27) 21 855 2848/
(+27) 21 855 3854
Email: leonard@csaedu.co.za
Website: www.csaedu.co.za
Address: 83 Helderberg College Road,
Somerset West,
7130

The College of Sustainable Agriculture (CSA), soon to be renamed the College of Sustainable Education, has been providing training since 1996. It equips Southern Africans with skills in agriculture and aquaculture, focusing on commercial farm training aligned with NQF Levels 1 to 4 under AgriSETA. CSA is also developing an Aquaculture Farmer program for accreditation by QCTO.

8.1 Course structure:

This course offers aquaculture training for:

- Crayfish
- Abalone
- Oyster
- Salmon
- Trout
- Tilapia

8.2 Delivery Mode:

The course is offered face-to-face combining lectures, group discussions, case studies, and practical assessments.

8.3 Accreditation:

The College of Sustainable Agriculture (CSA) is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at:https://www.agriseta.co.za/accredited-training-providers-list/

9. Sound Interaxions

Contact Details:

Mobile: Dr Lizeth Botes
(+27) 83 2303 204
Email: Lizeth@soundinteraxions.co.za
Website: https://www.soundinteraxions.co.za/

WC

After 20 years in the aquaculture sector, Dr. Lizeth Botes (PhD) founded Sound Interaxions in 2011 to focus on fewer, high-impact areas. The company emphasizes honest, integrity-driven collaborations with clients. Services include aquaculture development, advisory, consulting, and training. Dr. Botes brings extensive developmental experience to her work.

9.1 Course structure:

Sound Interaxions holds accreditation for Animal production Level 1 and 2. Generally, training is conducted on the farm or location of choice and an attendance certificate is issued with a list of modules attended in either/or:

- Aquaculture Skills
- Money Management Skill
- Self-Management Skill

9.2 Delivery Mode:

The course is offered face-to-face combining lectures,

group discussions and practical assessments.

9.3 Accreditation;

As the learner progresses, accreditation is issued by Sound Interaxions with a list of the AgriSETA Animal production (with focus on aquaculture) unit standards obtained. Once the full NQF level 1 and/or 2 is completed the learner is issued with a full qualification certificate directly from the AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at: https://www.agriseta.co.za/accredited-training-providers-list/

10. Stellenbosch University

Contact Details:

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Dr Khalid Salie
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Website: http://www.sun.ac.za/
Address: Aquaculture Unit, Department of
Animal Sciences
Faculty of AgriSciences
Stellenbosch University
Private Bag X 1
Matieland
7602

WC

Aquaculture in Southern Africa faces a skills shortage, with limited local training opportunities. Stellenbosch University offers accredited programs, including a one-year Certificate in Aquaculture Production & Management and a Postgraduate Diploma in Aquaculture, both in Hybrid Format. Custom short courses and workshops are also available, tailored to different skill levels.

10.1 Course structure:

Certificate Programme In Aquaculture Production And Management

Course content is divided into the following sections:

- Applied Biology of Aquaculture
- Species: Marine and freshwater finfish, crustaceans, molluscs – Physiological systems and Applied Biology, Respiratory and Recirculatory systems; Digestive and Endocrine systems. Nerve, Skeletal and Muscle systems.
- Nutrition and Feeding of Aquaculture Species: Nutritional requirements; live feeds; formulation and manufacturing of artificial feed; feed management: application and monitoring.
- Water Ecology: Monitoring and Management: Water quality parameters monitoring and management of water quality.
- Production Systems: Design and Management: Site selection and system design; pond management and RAS
- Processing and Product Development: Processing, storage and quality control product development.
- Fish disease and Fish Health Management: Disease recognition and identification; disease treatment and prevention. Common diseases of fish and shellfish.

Entry qualification requirements: National senior certificate Grade 12 (matric certificate) or equivalent.

Postgraduate Diploma In Aquaculture

Course content is divided into the following sections:

- Aquaculture Production and Management Systems
- Applied Biology, Water Ecology, Nutrition
- Aquaculture Production and Management Systems I
- Production Systems, Diseases, Processing
- Review, Assessment and Project Development I
- Marine and Freshwater Species – Ecology, Site Selection and Production
- Review, Assessment and Project Development
- Marine and Freshwater Species – Management Practices, Markets and Innovation
- Scientific skills & methods, writing and presentation
- Literature Reviews, Research Protocols, Scientific Designs, Data Analyses and Write-up
- Commission, design and conduct a research project on a candidate species
- Advanced Processing
- Fish Quality and Off-Flavours, New Product Development, Value-adding
- Advanced Ecology
- Environmental Impact and Mitigation, Ecological Risks and Biosecurity
- Advanced Nutrition
- Hatchery Management, Larviculture and Live Feeds

Introduction To Aquaponics

Basic Principles and Practices from Range of Disciplines

Advanced Aquaponics

Advanced Techniques on Aquaponics including Innovation and Cutting-edge Information

Entry qualification requirements: B-Degree with Science and 60% average in final year.

Course content: 7 modules

10.2 Delivery mode

The courses are offered in a hybrid Format, custom short courses and workshops.

10.3 Accreditation:

As a university, Stellenbosch University is governed by the Higher Education Act (101 of 1997). Postgraduate Diploma in Aquaculture at the University is accredited by SAQA at NQF level 8.

11. Aquaculture Solutions (Pty) Ltd

Contact Details:

Mobile: Leslie Ter Morshuizen – Coordinator
(+27) 83 4060 208
Email: leslie@aquaculturesolutions.org
Website: www.aquaculturesolutions.org

AQUACULTURE SOLUTIONS

WC

Aquaculture Solutions seeks to support the developing fish farming and aquaponics industries in Southern Africa through providing credible information and advice, based on personal, real-world experience. Aquaculture Solutions assist with design and construction of fish farms and aquaponics systems, training of the staff onsite to operate these efficiently, and offers mentorship support to assist the new farmer in becoming technically and economically successful.

11.1 Course Structure:

Aquaculture Solutions offers a 3-day training course:

- **Days 1 & 2:** Commercial fish farming (marketing, feeds, water quality, infrastructure, economics, stock management).
- **Day 3:** Commercial aquaponics (crop selection, system management).

11.2 Delivery Mode:

- Format: In-person or online presentations.
- Location: Various sites, including farms upon request.
- Schedule: Available on request.
- Materials Provided: Fish Farming Manual & Aquaponics Manual.

11.3 Accreditation:

Aquaculture Solutions is accredited for several qualifications and unit standards through AgriSETA. For a list of qualifications and unit standards please refer to AgriSETA website at: https://www.agriseta.co.za/accredited-training-providers-list/

Non-Accredited Training Providers

1. Mk Enterprise

Contact details:

Mobile: (+27) 63 161 5069
Email: mk.enterpprise@gmail.com
Address: 3082 Motsekoa Street
Phuthadithjaba
9866

EC
LP
FS
GP

MK Enterprise specializes in aquaculture training and skills development, drawing from the experience of its director and partners. Founded in 2016, the company addresses the need for honest project management, training, and advisory services. As a 100% black-owned business, it supports South Africa's aquaculture growth in food security, exports, and job creation. MK Enterprise is a member of (TAASA) Tilapia Aquaculture Association of South Africa; (AFASA) Abalone Farmers Association of South Africa.

1.1 Course Structure

- Introduction to aquaculture, systems, and operations
- Fish biology, physiology, and nutrition
- Water quality and fish health
- Production systems, marketing, and processing
- Aquaponics

1.2 Delivery Mode:

Blended learning (online and in-person) with practical demonstrations.

1.3 Accreditat on:

Not SETA-accredited: participants receive a certificate of attendance upon completion.

2. My Aquaponics

Contact details:

Mobile: (+27) 83 226 5599
Email: sales@myaquaponics.co.za
Website: www.myaquaponics.co.za
Venue: Valverde Country Hotel,
Lanseria/Cradle,
Gauteng, South Africa,

GP

Introduction to Aquaponics workshop

The workshop is an introduction to aquaponics and will cover subjects such as the nitrogen cycle, the fish (and what they eat), the plants, the grow media for the plants, bio filtration and the different types of systems that can be used.

2.1 Course structure:

- Introduction to aquaponics
- Nitrogen cycle, aerobic and anaerobic bacteria and their uses in aquaponics
- Sizing and proportions of aquaponics systems
- Happy fish environment (water quality, temperature and testing)
- The gear: tanks, planters, pumps and piping, siphon and timers, backup equipment and heating

2.2 Delivery Mode:

This course is delivered in person utilising both lectures with practical demonstrations.

2.3 Accreditation:

Not SETA-accredited: participants receive a certificate of attendance upon completion.

3. David Fincham Aquaculture (Provinces

Contact details:

Telephone: (+27) 11 678 1906/
(+27) 82 048 3382
Email: davidfincham@mweb.co.za
Website: https://www.tilapiafarming.co.za
Address: 17 Vosloo Street
Windsor Glen
2194

GP

David Fincham Aquaculture offers workshops to new and existing clients. The workshops can be held at a venue in Randburg, Johannesburg, government training centres or at the farmer's premises; as a one-on-one session or in group session depending on the client's needs. The entity runs sessions for students, government departments and farming groups. The training is conducted for 4 days from 9am to 4pm every day and includes a 10-module manual.

3.1 Course structure:

This course includes 10 module manuals and guides which include:

- Water quality

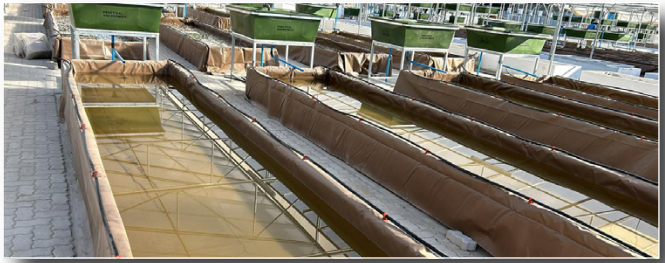
- Details on the tilapia species
- Working on a tank system to see how it works
- Marketing
- The business side – feed, labour, costs
- The trainee will be shown how to install an aquaculture production system if interested in purchasing one
- The trainee will receive a participation certificate at the end. A light lunch is served each day along with snacks and refreshments all day

3.2 Delivery mode:

The course is conducted using practical work practical experiences and "Wet Hands Skills Development". Upon completion a Certificate of Participation is issued to each delegate, and farmers will be selected from the communities.

3.3 Accreditation

Not SETA-accredited: participants receive a certificate of attendance upon completion.



4. Practical Aquaponics, South Africa (PA SA)

PRACTICAL AQUAPONICS
growing for life
www.practicalaquaponics.co.za

Contact Details:

Mobile: Martin Fick
(+27) 83 278 4201
Email: martin@practicalaqua ponics.co.za
Website: https://practicalaquaponics.co.za/training/
Instagram: https://www.instagram.com/martinfick/
Facebook: https://www.facebook.com/MartinFick1969
Address: 1 Kenton-on-Sea Road
Salem
Eastern Cape,
6150

EC

With over 20 years in sustainable agriculture, Martin Fick of Practical Aquaponics SA specializes in efficient, low-cost food security solutions. Through research and trials, he has developed aquaponics systems that produce high-quality food with minimal resources. His designs cater to high-end markets while supporting rural social and economic development.

4.1 Course Structure:

- 1-Day Homegrown Aquaponics Training: Introduction to aquaponics, system setup, and maintenance.
- 2-Day Intermediate Training: Small-scale/home aquaponics, system design, fish and plant care, and niche market access.

- 5-Day Comprehensive Training: Designed for commercial aquaponics, covering system optimization, production, financial planning, and market access. Includes excursions to operational facilities.

4.2 Delivery Mode:

In-person training with hands-on practical sessions at HPA facilities, covering system design, water quality testing, fish handling, plant care, and harvesting. A mentorship WhatsApp group provides ongoing support.

4.3 Accreditation:

Not SETA-accredited; participants receive a certificate of attendance and completion.

5. Aquaculture Technology Demonstration Centre (ATDC)

Contact Details:

Mobile: Ms Pontsho Sibanda (+27) 66 471 1544
Email: psibanda@dffe.gov.za
Email: EL Nephale nephale.eva@gmail.com

agriculture, rural development and environmental affairs
Department of Agriculture, Rural Development and Environmental Affairs
FREE STATE PROVINCE

forestry, fisheries & the environment
Department: Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

FS

The ATDC, established over 30 years ago and upgraded in 2013, is a training and technology centre for freshwater aquaculture in Free State, South Africa. It promotes sustainable fish farming, provides hands-on training, and supports rural employment and food security. The centre focuses on technology transfer, farm management, and traditional practices. Key activities include training in fish production, research on aquatic health, and demonstrations of rearing systems. It also offers practical experience in hatchery and breeding techniques.

5.1 Course structure:

- Introduction to China-SA ATDC (General presentation)
- Fish biology and introduction of species
- Fish Agro processing
- Fish diseases and Health Management
- Fish breeding (Catfish and Common carp)

- Fish transportation
- Water quality management for fish farming
- Fish farm equipment
- Basic fish feeding practice and nutrition
- Aquaculture farming systems
- Fish rearing and stock management
- Record keeping in aquaculture
- Aquatic Food Safety
- Aquaculture economics
- Biosecurity in aquaculture operations
- Fish industry legislative environment

The practical work offered during training includes the following:

- Fish breeding
- Fish biology
- Fish parasites
- Pond management
- Hatchery and biosecurity management
- Aquaponic practise

5.2 Delivery Mode:

In-person training with hands-on practical sessions at the ATDC facilities in Gariep.

5.3 Accreditation:

Not SETA-accredited; participants receive a certificate of attendance and completion.

6. Western Cape Investment and Trade and Promotion Agency (WESGRO)

Contact Details:

Telephone: (+27) 21 487 8680
E-mail: vuyo@wesgro.co.za/
Website: https://www.wesgro.co.za/corporate/home

Wesgro's Export Advancement Programme (EAP) equips companies with tools to enhance competitiveness and expand into global markets. It supports job creation, boosts SMME participation, and broadens the export base in the Western Cape. The program targets high-growth potential businesses. Export training combines theory with practical assignments over five non-consecutive days.

6.1 Course Structure:

The Export Advancement Programme consists of five full-day workshops and a half-day module covering:

- Module 1: Orientation to export
- Module 2: Preparing to export and developing an export marketing plan
- Module 3: Finance – methods of payment
- Module 4: Cost and logistics
- Module 5: Incoterms 2010

Upon completion, participants will gain the expertise and tools to enhance their competitiveness in international markets.

6.2 Delivery Mode:
In-person training with hands-on practical sessions.

6.3 Accreditation:
Not SETA-accredited: participants receive a certificate of attendance upon completion.

7. Organic Fish Direct

Contact details:
Mobile: Anna-Marie Du Preez
(+27) 82 704 1883
Email: anna-marie@fishdirect.co.za
Website: www.ofdfarming.com

OFD offers Skills Development and Training in aquaculture and agriculture through Outcome-Based Education (OBE). They provide onsite training at client locations or OFD reference sites, covering basic to NQF Level 6 courses. Training duration ranges from one week to a year, with pricing based on request. Their Quality Management System (QMS) ensures effective auditing, and they comply with relevant legislative standards. OFD also collaborates with professionals to customize project teams when needed.

7.1 Course structure:
- Water and quality management
- Biosecurity
- Fish Nutrition
- Fish Health
- System Management
- Production Management
- Marketing
- Commercial management
- Reproduction – Genetic sex selection
- Species Recommendation
- Fish processing (slaughtering, packaging and quality control

7.2 Delivery Mode
- In-person workshops conducted over five full days and one half-day session
- One-on-one export mentorship available after completing the course
- Business Improvement Mentorship (PUM) for tailored guidance from Dutch-based experts
- Practical implementation support to develop and refine export strategies

7.3 Accreditation
Not SETA-accredited: participants receive a certificate of attendance upon completion.

8. Nutritionhub

Contact persons:

Mobile: Lourens de Wet and
Mighael van Schalkwyk
(+27) 82 888 1232/
(+27) 76 565 0622
Email: lourens@nutritionhub.co.za
Email: mighael@nutritionhub.co.za

Nutritionhub provides industry-focused courses based on 30 years of experience, emphasizing practical knowledge over academics. Courses are customizable, offered as full programs or modular combinations. Training is available online or in person at their Stellenbosch offices.

8.1 Course Structure:

Aquaculture Nutrition (Tilapia, Trout, Catfish, Abalone)

- Feeding physiology, nutrition basics, feed management, and nutritional pathology
- Feed ingredients, farm-made feeds, formulation, and manufacturing (theory & practical)
- Feed evaluation and R&D (experimental design, diet formulation, and manufacturing)

Aquaculture Management (Tilapia)

- Aquaculture systems, water quality, hatchery, and grow-out management
- Disease prevention, water quality control, and R&D (experimental design)

8.2 Delivery mode:

Courses are offered online or in person at Nutritionhub's Stellenbosch offices.

8.3 Accreditation:

Not SETA-accredited: participants receive a certificate of attendance upon completion.

Online Training Providers

1. Food and Agricultural Organisation (FAO) eLearning Academy

Contact details:
Mobile: +264 811 265 055
Email: elearning-support@fao.org
Website: https://elearning.fao.org/

The FAO eLearning Academy offers multilingual courses on food security, nutrition, development, and sustainable resource management to strengthen countries' capacity to achieve the 2030 Agenda for Sustainable Development. It provides free access to online courses, webinars, MOOCs, and face-to-face workshops. The academy focuses on transferring competencies, developing expertise, and promoting innovation to enhance human resources and institutions, ensuring sustainability and addressing global challenges.

System requirements:
The online version of all courses run on the latest versions of the major browsers, such as Chrome, Safari, Edge and Firefox. The downloadable version only runs on Windows PC's and no additional software is needed.

Certification:
All courses offer certification, and you will get your digital badge upon passing a final exam after completing the course and achieving a grade of at least 75%.

Delivery Mode
All courses are self-paced learning that is conducted online.

The following E-Learning courses are available:

1. International trade in fisheries and aquaculture product

This course is designed primarily for representatives from governments, for example Ministries of Agriculture, Trade, Economy and other entities directly involved in trade negotiations and in the formulation and implementation of agricultural policies and programmes.

Course structure:
This course covers key global and FAO instruments for fisheries and aquaculture, their impact, and compliance requirements. You will learn about the Harmonized System (HS) nomenclature for fisheries products, how to use the WTO-Tariff Ana

lysis Online (WTO-TAO) database, and the rules governing Regional Trade Agreements (RTAs) and tariff preferences. The course consists of two lessons (45–50 minutes each):

- Lesson 1: Global and FAO fisheries and aquaculture instruments.
- Lesson 2: HS nomenclature, tariff analysis, preferential access, and rules of origin.

2. Climate-smart fisheries and aquaculture

This course has been designed to support the inclusion of climate-smart agriculture (CSA) approaches in the fisheries and aquaculture sector. It provides technical knowledge on these concepts and examines how implementation of CSA practices can enhance mitigation and adaptation to climate change in the sector. This course is primarily intended for those who play a role in the inclusion of sustainable practices for the fisheries and aquaculture sector. This includes:

Course structure:
The course consists of 3 lessons, ranging from approximately 30 to 40 minutes duration each:

- Lesson 1 – The impact of climate change on fisheries and aquaculture
- Lesson 2 – Climate-smart approaches in fisheries and aquaculture
- Lesson 3 – Climate-smart case studies

3. Pathway to aquaculture biosecurity: managing disease risks in the value chain

This course introduces the Progressive Management Pathway for Aquaculture Biosecurity (PMP/AB).

Course structure:
The course consists of 5 lessons, ranging from approximately 25 minutes to 45 duration each:

- Lesson 1 – Introduction to the PMP/AB
- Lesson 2 – Introduction to risk analysis
- Lesson 3 – Import risk analysis
- Lesson 4 – Risk analysis along the aquaculture value chain
- Lesson 5 – Application of risk analysis along the aquaculture value chain

4. Fisheries and aquaculture response to emergencies (FARE)

An understanding of how the different areas of this sector relate to each other and to food security and livelihoods is critical for planning prior to emergencies, mounting an integrated emergency response, immediately after emergencies, and implementing the longer-term recovery and reconstruction phase that follows.

Course structure:
The course consists of 4 lessons, ranging from approximately 30 to 45 minutes duration each:

- Lesson 1 – Overview of fisheries and aquaculture sector and emergencies

- Lesson 2 – Conducting a post-disaster needs assessment – Using the FAO Guidance
- Lesson 3 – Using best practice to plan an emergency response – The FAO Guidance
- Lesson 4 – Ensuring an integrated response

5. Aquatic food by-products valorization

This course introduces bioeconomy with a focus on sustainable development using biological resources. It covers bio-based goods, the '4R approach' (reduce, reuse, recycle, recover), and the importance of biomass. Emphasizing aquatic food value chains, the course highlights converting fish food by-products into valuable resources, addressing challenges, and strategies to reduce food loss and waste. Additionally, it teaches fish silage production as a cost-effective preservation method.

Course structure:
This course is organized into three lessons of approximately 30 minutes duration each:

- Lesson 1 – Bioeconomy in the aquatic food value chains
- Lesson 2 – By-products utilization and application
- Lesson 3 – Fish silage from processing by-products

6. International trade in fisheries and aquaculture products

This course introduces the Harmonized System (HS) nomenclature for fisheries and aquaculture products,

presenting global and FAO international trade instruments in fisheries, such as Preferential Access and the Rule of Origin.

Course structure:
The course consists of 2 lessons, ranging from approximately 45 to 50 minutes duration each:

- Lesson 1 – Global and FAO fisheries and aquaculture instruments
- Lesson 2 – HS nomenclature for fisheries and aquaculture products, Preferential Access and Rules of Origin

7. Climate change adaptation and mitigation in fisheries and aquaculture

This course provides an overview of adaptation and mitigation strategies that can be implemented in response to climate change impacts on the fisheries and aquaculture sector.

Course structure:
The course consists of 5 lessons, ranging from approximately 10 to 60 minutes duration each:

- Lesson 1 – Introduction
- Lesson 2 – Understanding climate change
- Lesson 3 – Adaptation
- Lesson 4 – Mitigation
- Lesson 5 – Takeaway messages

8. Emergency preparedness for aquatic disease outbreaks

This course provides an overview of disease in aquatic organisms. In doing so, it highlights the importance of preparedness for effective prevention, management and control of disease in in aquatic organisms.

Course structure:
This course consists of five lessons of approximately 35-45 minutes duration each:

- Lesson 1 – Understanding diseases of aquatic organisms
- Lesson 2 – Disease outbreak investigation
- Lesson 3 – Aquatic disease diagnostics
- Lesson 4 – 12-point checklist for active surveillance of diseases in aquatic organisms
- Lesson 5 – Contingency planning for mass mortality events in aquatic populations

9. Agreement on Port State Measures and the framework to fight illegal, unreported and unregulated fishing

This course conceptualizes illegal, unreported and unregulated (IUU) fishing and explores the international responsibilities of flag, coastal and port States in carrying out effective measures to combat it. It also details the Agreement on Port State Measures (PSMA), which is the first internationally binding instrument focused on preventing, deterring and eliminating IUU fishing.

Course structure:
The course is composed of three lessons of approximately 30-35 minutes each:

- Lesson 1: Concepts and implications of IUU fishing for States
- Lesson 2: International instruments and responsibilities to combat IUU fishing
- Lesson 3: Agreement on Port State Measures to prevent, deter and eliminate IUU fishing

10. Recognizing other effective area-based conservation measures in marine fisheries

This course provides guidance on the other effective area-based conservation measure (OECM) recognition process for Fisheries – which includes identifying, evaluating and reporting OECMs in marine fisheries.

Course structure:
This course consists of five lessons of approximately 20-45 minutes duration each:

- Lesson 1: Introduction to FAO's process
- Lesson 2: Launching
- Lesson 3: Initial screening
- Lesson 4: Full evaluation
- Lesson 5: Recognizing and reporting

11. Introduction to other effective area-based conservation measures in marine fisheries

This course provides the background and context on other effective area-based conservation measures (OECMs) in marine fisheries.

Course structure:
The course consists of 4 lessons of approximately 30 mins duration each:

- Lesson 1: What are OECMs?
- Lesson 2: Opportunities and challenges of Fisheries OECMs
- Lesson 3: Principles of OECMs
- Lesson 4: Area-based management measures in marine fisheries

12. Bivalve mollusc sanitation: Growing area risk profile

This course is part of a series of four e-learning courses on" Bivalve Mollusc Sanitation for growing areas".
This first course in the e-learning series introduces the technical guidance framework for the development of growing areas for bivalve mollusc sanitation programmes. It describes the potential hazards present with live or raw consumption of bivalve molluscs and provides guidance on the completion of a Growing Area Risk Profile (GARP).

Course structure:
The course consists of 6 lessons, ranging from approximately 15 to 45 minutes duration each:

- Lesson 1 – Introduction to bivalve mollusc risks and standards
- Lesson 2 – Area, species and industry characteristics
- Lesson 3 – Legal framework, responsible authorities and agencies
- Lesson 4 – Contamination sources, impact and pathogen matrix
- Lesson 5 – Public health, consumption and intended use data
- Lesson 6 – Programme resources, conclusions and recommendations

13. Bivalve mollusc sanitation: Growing area assessment and review

This course is part of a series of four e-learning courses on" Bivalve Mollusc Sanitation for growing areas".
This second course in the e-learning series details the Growing Area Assessment and review process for establishing a bivalve mollusc growing area sanitation programme. The course provides a framework for data gathering, analysis, assessment and review of potential hazards in the growing area for bivalves intended for human consumption.

Course structure:
The course consists of 8 lessons, ranging from approximately 20 to 70 minutes duration each:

- Lesson 1 – Introduction to the Growing Area Assessment
- Lesson 2 – Data gathering on contamination sources
- Lesson 3 – Gathering data on environmental factors
- Lesson 4 – Shoreline, indicator and hazard surveys
- Lesson 5 – Data analysis and assessment
- Lesson 6 – Types of quantitative assessments
- Lesson 7 – Outcomes of the growing area assessment
- Lesson 8 – Growing area review

14. Bivalve mollusc sanitation: Growing area monitoring

This course is part of a series of four e-learning courses on "Bivalve Mollusc Sanitation for growing areas".

This third course in the e-learning series details the

Growing Area Monitoring activity in a bivalve mollusc sanitation programme. The course describes sample plans, how to conduct sampling and the laboratory analysis of microbiological hazards in a growing area for bivalve molluscs intended for human consumption.

Course structure:
This course consists of four lessons of approximately 15-45 minutes each:

- Lesson 1 – Primary and ongoing monitoring
- Lesson 2 – Sampling plans
- Lesson 3 – Sample collection and transport
- Lesson 4 – Quality, methods and laboratories

15. Bivalve mollusc sanitation: Growing area classification and management

This course is part of a series of four e-learning courses on bivalve mollusc sanitation for growing areas. The fourth course in the e-learning series details "Growing area classification" and "Growing area management" in a bivalve mollusc sanitation programme. The course describes the process of risk categorization for a growing area as well as the overall management of a growing area in a bivalve mollusc sanitation programme.

Course structure:
This course consists of three lessons of approximately 30-60 minutes each:

- Lesson 1 – Classification principles
- Lesson 2 – Classification in practice
- Lesson 3 – Growing area management

16. Small and Medium Enterprises and Nutrition – making the business case

This is the first of a series of two e-learning courses on small and medium enterprises (SMEs) and nutrition. In this course, you will discover the business case for leveraging SMEs – and particularly those engaged in the post-production stages of the value chain – to make food systems more nutrition-sensitive.

Course structure:
The course consists of 2 lessons, ranging from approximately 45 – 60 minutes duration each:

- Lesson 1 – SMEs, nutrition and food system transformation
- Lesson 2 – The business case for nutrition-sensitive investments

17. Small and medium enterprises and nutrition – upgrading business models

This is the second of a series of two e-learning courses on Small and Medium Enterprises (SMEs) and Nutrition. In this course, you will learn an approach to integrate nutrition into SME business models, in order to make food systems more nutrition sensitive.

Course structure:
The course consists of 7 lessons, ranging from approximately 45 – 60 minutes duration each:

- Lesson 1 – Designing a nutrition-sensitive strategy
- Lesson 2 – Identifying customers
- Lesson 3 – Developing a value proposition
- Lesson 4 – Integrating nutrition in business activities
- Lesson 5 – Marketing nutritious foods
- Lesson 6 – Building partnerships
- Lesson 7 – Getting access to finance

18. Legal and policy considerations for sustainable small-scale fisheries

This five-lesson course provides guidance on how to assess existing legal and policy frameworks for fisheries in a specific country, explains how to legislate for small-scale fisheries, and outlines the main components of small-scale fisheries-specific legislation.

Course structure:
The course consists of 5 lessons:

- Lesson 1 – The SSF Guidelines and FAO's additional policy and legal guidance
- Lesson 2 – International framework for small-scale fisheries
- Lesson 3 – Assessing relevant national legal and policy frameworks
- Lesson 4 – Legislating for small-scale fisheries: Elements of legislation
- Lesson 5 – Key elements of national policy and legal frameworks

19. Governance in small-scale fisheries

This course aims to contribute towards creating an enabling environment for implementing the FAO Voluntary Guidelines for Securing sustainable Small-scale Fisheries (SSF Guidelines) in the Context of Food Security and Poverty Eradication, by strengthening the capacity of government officials and fisheries practitioners at local, national and regional levels, and promoting the development of good governance frameworks.

Course structure:
The course consists of 5 lessons, ranging from approximately 30 minutes to 45 duration each:

- Lesson 1 – An introduction to small-scale fisheries
- Lesson 2 – International and legal policy frameworks and the SSF Guidelines
- Lesson 3 – Principles, concepts and approaches to small-scale fisheries governance
- Lesson 4 – Promoting human rights in the small-scale fisheries sector
- Lesson 5 – Creating an enabling environment for inclusive and collaborative governance

20. Strengthening deep-sea fisheries management in areas beyond national jurisdiction

This e-learning course provides introductory level knowledge necessary to sustainably manage deep-sea fisheries (DSF) in areas beyond national jurisdiction (ABNJ). It covers both the policy and legal, as well as the operational aspects of management, and outlines the roles and responsibilities of States at both national and regional levels.

Course structure:
The course is composed of five lessons:

- Lesson 1 – Introduction to deep-sea fisheries
- Lesson 2 – International obligations and responsibilities for the management of deep-sea fisheries
- Lesson 3 – Regional approach to fisheries management
- Lesson 4 – Role of States in DSF management – National legal and policy considerations
- Lesson 5 – Role of States in DSF management – MCS and enforcement

21. Gender-responsive, disability – and socially inclusive water resource management

This course provides an understanding of key concepts, terminology, practical tools and processes for incorporating gender equality, disability and social inclusion (GEDSI) in your projects, to make them more inclusive and effective.

Course structure:
This course consists of three lessons of approximately 30-60 minutes duration each:

- Lesson 1 – Introduction to GEDSI in water resource management
- Lesson 2 – Transformative GEDSI approaches
- Lesson 3 – GEDSI in the project cycle – The analysis phase
- Lesson 4 – GEDSI in the project cycle – The design phase
- Lesson 5 – GEDSI in the project cycle – Implementation and MEL

22. Food loss and waste in fish value chains

Food loss and waste (FLW) in the fisheries sector is a complex issue with multiple causes at different levels. Solutions should be economically beneficial and socially sustainable. This course covers key definitions, causes, solutions, and three assessment methods to help inform decision-making on FLW prevention and reduction in fish value chains.

Course structure:
The course consists of 3 lessons, ranging from approximately 20 to 45 minutes duration each:

- Lesson 1 – Introduction to food loss and waste in fish value chains
- Lesson 2 – Causes and solutions of food loss and waste in fish value chains

- Lesson 3 – Overview of methodologies to assess food loss and waste in fish value chains

23. Rules of the road at sea for small-scale fishers

This course covers maritime traffic rules for small-scale fishers in coastal and inland waters, offering guidance for day-to-day situations at sea, both day and night. Fishing is one of the most dangerous jobs globally, with 32,000 fatalities and hundreds of thousands of injuries annually, mostly on small-scale vessels. Understanding and applying maritime traffic rules is crucial for improving safety and reducing accidents at sea.

Course structure:
The course consists of the following lessons ranging from 15 to 40 minutes duration each:

- Lesson 1: Rules of the Road – General considerations
- Lesson 2: Vessels in Sight of One Another
- Lesson 3: Day-time Vessel Recognition: Shapes
- Lesson 4: Night-time Vessel Recognition: Lights
- Lesson 5: Navigation Light Combinations
- Lesson 6: Channel Markers and Buoys

24. Ecosystem approach to fisheries – Introduction

This first course provides a comprehensive overview of the world fisheries and goes on explaining fisheries management, its objectives, mechanisms and challenges. Subsequently Ecosystem Approach to Fisheries (EAF) is introduced, explaining its underlying principles and key elements.

Course structure:
The course consists of 4 lessons, ranging from approximately 20 to 40 minutes duration each:

- Lesson 1 – World Fisheries
- Lesson 2 – Fisheries Management – Part I
- Lesson 3 – Fisheries Management – Part II
- Lesson 4 – Overview of the Ecosystem approach to fisheries

25. Ecosystem approach to fisheries – Planning

The second course focuses on the steps needed to begin an Ecosystem Approach to Fisheries (EAF) process, including building the project team, understanding the key actors and institutions who comprise the stakeholders, and developing a Baseline report. The course also explores how, upon approval of the Baseline report, to identify and prioritize elements of the fishery and from this, how to set objectives and develop an EAF Management Plan.

Course structure:
The course consists of 3 lessons, ranging from approximately 20 to 35 minutes duration each:

- Lesson 1 – Initiation and scoping
- Lesson 2 – Identify and prioritize elements
- Lesson 3 – Develop the EAF management system

26. Ecosystem Approach to fisheries – Implementation

The third course focuses on how to implement a Fishery Management Plan (FMP), including consideration of whether and how to formalize the plan, and development of an Operational Plan.

Course structure:
The course consists of 2 lessons of approximately 25 minutes duration each:

- Lesson 1 – Formalize the Fishery Management Plan
- Lesson 2 – Develop an operational plan and monitor its progress

27. Ecosystem approach to fisheries – Monitoring and review

The fourth course explains the need to regularly monitor and assess the outcomes of the Ecosystem Approach to Fisheries (EAF) implementation, then review and, if necessary, adapt the Fisheries Management Plan, and report on performance. This

course was designed to provide guidance on the key aspects related to the monitoring and review process of an EAF.

Course structure:

- Why EAF plans need to be reviewed.
- The process to monitor and review an EAF.
- The importance of involving all key stakeholders in the process.
- The analysis of current measures in relation to the objectives and assessment of whether correct measures are necessary.
- Communication and reporting on performance.

28. Mitigating the impact of irrigation infrastructure on fish migration

This course explores how to assist migratory fish populations impacted by irrigation infrastructure. The course details migratory fish ecology and how river development such as dams and weirs impact fish, biodiversity and food security. It also looks at practical solutions to modernize irrigation through policy and engineering tools that can mitigate the impacts of river development on fish populations.

Course structure:

This course consists of three lessons of approximately 35-60 minutes duration each:

- Lesson 1 – Migratory fish ecology
- Lesson 2 – Barriers to fish migration
- Lesson 3 – Mitigating fish migration barriers

29. Ecosystem approach to fisheries – Policy and legal implementation

This course aims to support the implementation of an Ecosystem Approach to Fisheries (EAF) through policy and legal frameworks. It offers guidance in all the steps of implementing an EAF through policy and legal frameworks, also supporting the development of an EAF Implementation Roadmap that aims to foster national inter-sectoral collaboration for the effective implementation of an EAF at national level.

Course structure:

- EAF legal requirements
- International and national policy and legal instruments relevant for an EAF
- How to assess the alignment of the policy and legal instruments with an EAF
- Designing an EAF implementation roadmap

30. Ecosystem approach to fisheries – Implementation monitoring tool

This course features the Ecosystem Approach to Fisheries Implementation Monitoring Tool (EAF-IMT), a simple method to monitor progress in implementation of the EAF in fisheries management, that aims to support fisheries management planning and decision-making. This course was designed to explain why and how to use the EAF-IMT and associated material.

Course structure:

- Why, when and how to use the EAF-IMT.
- EAF-IMT related material, such as the EAF-IMT Manual, Scoring tables, scoring rationale template and dashboard.
- How to recognize strengths and weaknesses of assessed fisheries.
- Formulations of recommendations to address the gaps identified.

31. Fish loss assessment methods

This course presents the set of methods available for assessing losses in the fish value chain. It provides practical guidance and assistance for conducting fish loss assessment, including both qualitative and quantitative methods, and explains when they can be used and how to use them to collect reliable data, be it for planning an intervention to reduce losses in a particular area, or at country level.

Course structure:

The course consists of 3 lessons, ranging from approximately 35 to 65 minutes duration each:

- Lesson 1 – Fish loss assessment planning
- Lesson 2 – Exploratory and Gender-Responsive Fish Loss Assessment Methods
- Lesson 3 – Load Tracking and Questionnaire Loss Assessment Method

32. Resilient rivers: Watershed-based management of forests, freshwater, and inland fisheries

Focusing on freshwater systems, this course inspires managers, scientists, and community members to work across disciplines and watersheds.

Course structure:

This course consists of five lessons of approximately 20-45 minutes duration each:

- Lesson 1 – Watersheds as interconnected units
- Lesson 2 – Forests impact freshwater and people
- Lesson 3 – Freshwater links forests, fish, and people
- Lesson 4 – Fish are essential for people and forests
- Lesson 5 – Management at watershed scales

33. Compiling data on the contributions of small-scale fisheries to sustainable development

This course, adapted from the Illuminating Hidden Harvests (IHH) country case study approach, has been designed to support countries in their collection of national and sub-national level secondary data on the contributions of small-scale fisheries to sustainable development.

Course structure:

The course consists of 4 lessons of approximately 20-45

minutes duration each:

- Lesson 1 – Illuminating Hidden Harvests (IHH)
- Lesson 2 – Overview of the IHH approach
- Lesson 3 – Data compilation approach
- Lesson 4 – Application and troubleshooting

34. SDG Indicator 14.b.1 – Securing sustainable small-scale fisheries

This course provides tools, methods and processes to support countries in monitoring and reporting on SDG Indicator 14.b.1 for securing sustainable small-scale fisheries.

Course structure:

The course consists of 4 lessons, ranging from approximately 25 to 60 minutes duration each:

- Lesson 1 – Introduction
- Lesson 2 – Creating an enabling environment for sustainable small-scale fisheries
- Lesson 3 – Gathering data and compiling the 14.b indicator
- Lesson 4 – Managing and using the estimated results of 14.b indicator

35. SDG Indicator 14.4.1 – Fish stocks sustainability

This course focuses on SDG Indicator 14.4.1 – Fish stocks sustainability: "Proportion of fish stocks within biologically sustainable levels". It introduces basic fisheries concepts and definitions, illustrates some technical aspects of classical and data-limited stock assessment and provides detailed guidance on process and tools for the analysis and reporting of the indicator.

Course structure:

The course consists of 5 lessons, ranging from approximately 30 to 60 minutes duration each:

- Lesson 1 Introduction to SDG Indicator 14.4.1

- Lesson 2 Concepts and process behind the estimations of SDG Indicator 14.4.1
- Lesson 3 Estimation of SDG Indicator 14.4.1 from classical stock assessment outputs
- Lesson 4 Estimation of SDG Indicator 14.4.1 from data-limited methods
- Lesson 5 Guidelines for national reporting of SDG Indicator 14.4.1

36. The Fisheries Performance Assessment Toolkit

This course introduces the fisheries performance assessment toolkit, that will allow fisheries officers and managers to assess and monitor the environmental, social, economic and governance performance of their fisheries.

Course structure:
The course consists of 3 lessons, ranging from approximately 20 to 30 minutes duration each:
- Lesson 1 – Introduction to the Coastal Fisheries Initiative (CFI)
- Lesson 2 – Zooming in on the FPAT
- Lesson 3 – Project development key milestones

37. Evaluating fisheries co-management effectiveness

This course offers a process and method to evaluate the performance of a fisheries co-management system, in order to enhance its effectiveness in delivering benefits and contributing to environmental, social and economic sustainability and good governance.

Course structure:
The course consists of 4 lessons:
- **Lesson 1** – What is fisheries co-management?
- **Lesson 2** – Why evaluate fisheries co-management?
- **Lesson 3** – How to evaluate fisheries co-management
- **Lesson 4** – Post-evaluation and adaptive management

38. Introduction to other effective area-based conservation measure in marine fisheries

This course provides the background and context on other effective area-based conservation measures (OECMs) in marine fisheries.

Course Structure:
The course consists of 4 lessons of approximately 30 mins duration each:
- Lesson 1: What are OECMs?
- Lesson 2: Opportunities and challenges of Fisheries OECMs
- Lesson 3: Principles of OECMs
- Lesson 4: Area-based management measures in marine fisheries

2. AquaVitae

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AquaVitae is an EU-funded project aimed at developing sustainable aquaculture of low trophic species such as algae, shellfish, sea cucumbers, and freshwater fish. It promotes environmentally friendly practices by improving production systems and value chains. The project spans Europe, Africa, and the Americas, encouraging innovation, research, and collaboration. AquaVitae also supports knowledge sharing through training and education. Additionally, AquaVitae has developed various training activities, including industry apprenticeships, student exchanges, and webinars, to support capacity building in sustainable aquaculture.
System requirements:

The online version this course run on the latest versions of the major browsers, such as Chrome, Safari, Edge and Firefox.
Certification:

A certificate of completion is awarded to participants who achieve a minimum pass rate of 60%.

The following E-Learning course is available:

1. Sustainable Aquaculture for Low Trophic Species (SALTS)

This online course is offered by The Arctic University of Norway, in collaboration with the EU-funded AquaVitae project.

You will learn about:
This interdisciplinary course provides a comprehensive understanding of low trophic aquaculture, focusing on:

- Biology and cultivation of molluscs, echinoderms, macroalgae, and freshwater fish.
- Design and operation of cultivation practices, including Integrated Multi-Trophic Aquaculture (IMTA).
- Environmental impacts and sustainability considerations.
- Economic and social aspects of aquaculture.
- Governance, policies, and regulations affecting the industry.

Course structure:
This course consists of 11 modules comprising of 103 educational videos and over 400 assessment questions over a duration of approximately 12 weeks.

- Study Time: 6–10 hours per week.
- Format: Self-paced online learning.
- Language: English.
- Level: Intermediate; suitable for advanced undergraduates, graduate students, and professionals in aquaculture, sustainable development, biology, and related fields.

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forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA