Africa Aquaculture Research and Training Center
Abbassa, Sharkia, Egypt

The WorldFish-run Africa Aquaculture Research and Training Center offers training courses to investors, farmers, government officials, students, faculty members and other people interested in aquaculture production and business activities. General and specialized courses are conducted throughout the year. These are:

General courses:

- Aquaculture technologies
- Hatchery technologies for Nile tilapia and African catfish
- Fish health management principles
- Fish genetics and fish breeding technologies
- Fish nutrition (fish feeds and feeding strategies)

Specialized courses that aim to advance other skills needed for aquaculture development, including:

- Water quality management
- Fish pond management
- Aquaculture systems
- Enhancing managerial capacity in fish farming
- Training of trainers (ToT) for academic staff
- Environmental impacts of aquaculture
- Design and construction of fish farms and hatcheries

Courses can also be tailored to your needs.
The training is focused on the practical components participants need to master in order to be successful in aquaculture.

Training methods: Hands-on trainings, workshops

Language of instruction: English

For more information about the course content, training fee and accommodation options, please contact Ms. Doaa Fawzy, HR & Training Manager (d.hanafy@cgiar.org).

### Training program 2019

<table>
<thead>
<tr>
<th>#</th>
<th>Training topics</th>
<th>Target groups</th>
<th>Training content</th>
<th>Proposed date</th>
<th>No. of days</th>
</tr>
</thead>
</table>
| 1. | Fish health management principles | • Fish farmers  
• Fish veterinarians  
• Hatchery managers and fish health biologists | By the end of this course, participants can expect to:  
• Be familiar with the anatomy of normal healthy fish  
• Be aware of the major diseases affecting fish, especially tilapia  
• Recognize the gross signs of the most common fish diseases  
• Identify mycotic, parasitic and bacterial diseases  
• Make a molecular diagnosis of fish bacterial and viral diseases  
• Be able to prescribe appropriate treatment for bacterial diseases depending on the sensitivity test  
• Calculate treatment doses for diseases  
• Understand the principles of biosecurity and disease prevention | March | 2 |
<table>
<thead>
<tr>
<th>No.</th>
<th>Course Title</th>
<th>Target Audience</th>
<th>Main Objective</th>
<th>Duration</th>
<th>Credits</th>
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</thead>
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<tr>
<td>2.</td>
<td>Aquaculture principles and technologies</td>
<td>Fish farm workers • Fish hatchery workers • Candidates for new fishery projects • University staff and research centers</td>
<td>The main objective of this course is to improve the capacity of aquaculture professionals working in any aquaculture field. The course covers the basics of aquatic animal farming and addresses new aquaculture trends as well as potential impacts of aquaculture projects.</td>
<td>April</td>
<td>10</td>
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<td>3.</td>
<td>Fish genetics and fish breeding technologies</td>
<td>Fish farm workers • Fish hatchery workers • Candidates for new fisheries projects • University staff and research centers</td>
<td>The main objective of this hands-on course is to improve theoretical and practical capacity in breeding programs that produce improved strains of fish.</td>
<td>June</td>
<td>5</td>
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<td>4.</td>
<td>Water quality management in aquaculture</td>
<td>Fish farm workers • Fish hatchery workers • Candidates for new fishery projects • University staff and research centers • Extension officials</td>
<td>• Understand water quality in aquaculture systems • Conduct quantitative water analysis • Recognize the link between pond productivity, public health and the environment</td>
<td>July</td>
<td>3</td>
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<td>5.</td>
<td>In-pond raceway system (advanced course)</td>
<td>Fish farm workers • Fish hatchery workers • Candidates for new fishery projects • University staff and research centers</td>
<td>• Increase the productivity of aquaculture in existing pond units by culturing fish in aerated raceways and removing solid wastes. • Improve profitability of tilapia farming using methods to achieve high levels of production, feed performance and efficiency in a commercial farm setting</td>
<td>August</td>
<td>3</td>
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<td>6.</td>
<td>Hatchery technologies for Nile tilapia and African catfish</td>
<td>Aquaculture hatchery and farm operators • Managers, researchers, technicians and extension workers who seek hands-on training in modern aquaculture research and management techniques especially relating to Nile tilapia and African catfish</td>
<td>• Get up-to-date information on production methods shown to be reliable in the field and recent technology for mass production of tilapia and catfish seed as well as farming under different conditions</td>
<td>September</td>
<td>5</td>
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</table>
| 7. | Postharvest technologies in relation to quality and safety of fish and fish products | - Fish farm workers  
- Fish hatchery workers  
- Candidates for new fishery projects  
- University staff and research centers | - Apply farm practices to achieve a product with national and international specifications  
- Recognize types of fish corruption and methods of diagnosis  
- Examine fish products and determine their validity and quality  
- Understand common diseases between fish and humans  
- Review food poisoning bacteria  
- Examine major fish transactions in Egypt (refrigeration – freezing – salting – smoking) | October | 5 |
| 8. | Fish nutrition and feed preparation | - Fish farm workers  
- Fish hatchery workers  
- Candidates for new fishery projects  
- University staff and research centers  
- Extension workers | - Make optimal use of plant waste in fish feeding to ensure that the environment is cleared of this waste and converted into a feed material of nutritional value for the fish  
- Understand how to manufacture feed and measure its quality  
- Understand stability of pellet fish feed in water | November | 5 |
| 9. | Fish nutrition (fish feeds and feeding strategies) | - Fish farm workers  
- Fish hatchery workers  
- Candidates for new fishery projects  
- University staff and research centers | - Receive up-to-date information on fish nutrition and feeding strategies to optimize yield, increase profit and minimize the impact of fish farming on the surrounding environment | December | 5 |