

PhD in Aquaculture and Fisheries Science

DEPARTMENT OF AQUACULTURE AND FISHERIES SCIENCE

www.luanar.ac.mw/aquafish

PROGRAMME DESCRIPTION

The PhD in Aquaculture and Fisheries Science program offers advanced research opportunities in aquatic sciences. Students gain expertise in aquaculture, fisheries management, and related disciplines through coursework and independent research. Guided by experienced faculty, candidates conduct original research projects contributing to field advancement. Graduates pursue careers in academia, research, government, and industry, addressing challenges in sustainable aquatic resource management and aquaculture.

CAREER PROSPECTS:

Research Scientist in Aquaculture or Fisheries, Fisheries Biologist, Aquatic Ecologist, Aquaculture Production Specialist, Aquatic Environmental Consultant, Aquaculture Policy Analyst, Aquaculture Nutritionist, Fisheries Conservation Specialist, Aquaculture Technology Developer, Aquatic Veterinary Specialist and Aquaculture Entrepreneur.

PROGRAMME STRUCTURE

The program consists of coursework and research. The coursework will be completed in two semesters (1 year), while research work will take on average four semesters (2 years). There will be 15 teaching weeks in each semester. Candidates sit for a comprehensive examination immediately after completing the coursework. Each candidate is required to have at least one published peer-reviewed journal paper as a requirement for PhD degree award.

PROGRAMME COURSES

Year 1 Courses

#	Course Code	Course Name Course	Type
	SEMESTER I COURSES		
1	AFS 81101	Seminars, Scientific Methods and Communication	Core
2	AFS 81102	Aquaculture Nutrition and Feed Technology	Core
3	AFS 81103	Multivariate Statistics and Research Methods	Core
4	AFS 81104	Philosophy of Science	Elective
5	AFS 81105	Aquaculture Production Systems and Engineering	Elective
6	AFS 81106	Bioinformatics	Elective
7	AFS 81107	Fish Breeding and Hatchery Management	Elective
8	AFS 81108	Fish Health, Welfare Management and Biosecurity	Elective
9	AFS 81109	Fish Physiology and Bioenergetics	Elective
10	AFS 81110	Fish Processing and Quality Management	Elective
11	AFS 81111	Fisheries and Aquaculture Policy & Planning	Elective
12	AFS 81112	GIS and Remote Sensing in Aquaculture and Fisheries	Elective
13	AFS 81113	Integrated Agriculture and Aquaculture Systems	Elective

PROGRAMME COURSES

Year 1 Courses

#	Course Code	Course Name Course	Type
14	AFS 81114	Integrated Coastal Resource Management	Elective
15	AFS 81115	Limnology and Oceanography	Elective
16	AFS 81117	Sustainable Fisheries and Ecosystems Management	Elective
	SEMESTER II COURSES		
1	AFS 81201	Seminars, Scientific Methods and Communication II	Core
2	AFS 81202	Molecular Biology and Genomic	Core
3	AFS 71203	Molecular Biology and Genomic	Core
2	AFS 81204	Biotechnology Applications in Aquaculture	Elective
3	AFS 81205	Data Science in Fisheries	Elective
4	AFS 81206	Fish Biodiversity and Conservation	Elective
5	AFS 81207	Fish Population Dynamics, Stock Assessment and Ecosystems	Elective
6	AFS 81208	Fish Taxonomy and Systematics	Elective
7	AFS 81209	Fisheries and Aquaculture Business Management	Elective
8	AFS 81210	Fisheries and Natural Resource Economics	Elective
9	AFS 81211	Fisheries Bio-economics, Theory Modeling and Management	Elective
10	AFS 81212	Fisheries Ecology	Elective
11	AFS 81213	Fisheries Value Chains and Marketing	Elective
12	AFS 81214	Population Genetics	Elective
13	AFS 81215	Water Quality Analysis and Management	Elective

Year 2 Ccourses

(The second year will be advocated to research and data analysis.)

#	Course Code	Course Name Course	Type
1	AFS 82196	Aquaculture and Fisheries Research I	Core
1	AFS 82197	Aquaculture and Fisheries Research II	Core

Year 3 Ccourses

The third year will be used for research, data analysis, publications, thesis writing, and final examinations.

#	Course Code	Course Name Course	Type
1	AFS 82298	Aquaculture and Fisheries Research III	Core
1	AFS 82299	Aquaculture and Fisheries Research IV	Core

Fees Structure

PhD (International)

Category	Item	Year I ($)	Year 2 ($)	Year 3 ($)	Total ($)
Administrative Fees	Application	20			20
	Registration	25	25	25	75
	Library	100	100	100	300
	Medical	245	245	245	735
	Examination	65	65	65	195
	Sub-Total	455	435	435	1325
Tuition fees	Tuition Fee (Average of Local and regional Universities)	2,685.00	2,705.00	2,705.00	8,095.00
	External and Internal examiner's fees and postage	210	210	210	630.00
	Supervisory Fees	250.00	250.00	250.00	750.00
	Sub-Total	**3,600.00**	**3,600.00**	**3,600.00**	**10,800.00**
Research cost	Research		4,400.00	4,400.00	8,800.00
Student Welfare (7)	Settling-in allowance	95			95
	Setting-out allowance		95	95	190
	Holiday Allowance	60	60	60	180
	Personal Allowance	2,835.00	2,835.00	2,835.00	8505
	Sub-Total	2,990.00	2,990.00	2,990.00	8970

PhD (Local)

Category	Item	Year I ($)	Year 2 ($)	Year 3 ($)	Total ($)
Administrative Fees	Application	20			20
	Registration	25	25	25	75
	Library	100	100	100	300
	Medical	245	245	245	735
	Examination	65	65	65	195
	Sub-Total	455	435	435	1325
	Tuition Fee (Average of Local and regional Universities)	2,085.00	2,105.00	2,105.00	6,295.00
	External and Internal examiners fees and postage	210	210	210	630.00
	Supervisory Fees	250.00	250.00	250.00	750.00
	Sub-Total	3,000.00	3,000.00	3,000.00	9,000.00
Research costs	Research		4,400.00	4,400.00	8,800.00
Student Welfare	Settling-in allowance	95			95
	Settling-out allowance		95	95	190
	Holiday Allowance	60	60	60	180
	Personal Allowance	2,835.00	2,835.00	2,835.00	8505
	Sub-Total	2,990.00	2,990.00	2,990.00	8970

ENTRY REQUIREMENTS:

Candidates to be considered for recruitment for the Doctor of Philosophy degree in Aquaculture and Fisheries Science program must have a minimum of a Master of Science degree in Aquaculture, Fisheries Science, Animal/Veterinary Science, or other relevant Biological Sciences, with a GPA of 2.65.

CURRICULUM DELIVERY:

The curriculum will be delivered through blended learning, that is, use of face-to-face mode of delivery and online teaching using the MOODLE and other platforms recommended by the University.

LOCATION OF PROGRAM:

LUANAR Bunda College

TECHNIQUES OF DELIVERY:

Several teaching methods will be employed via: lectures, demonstrations, research, seminars, industrial attachment, field excursions, and any other as recommended by the university. Students will participate in practicals outlined in the syllabus of each course. The practicals will be conducted in the dry and wet laboratories on campus and facilities at the Fish Farm. Students will also participate in field practical's at farmers' fields as well as government/private facilities.



a University with endless possibilities

Africa Center of Excellence in Aquaculture and Fisheries Science – LUANAR

aquaFish-project@luanar.ac.mw

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