

Doctor of Philosophy Programs

Academic Programme Title	University compulsory requirements	Faculty compulsory requirements	Compulsory program requirements Coursec Graduation project		Optional Program Requirements	Total credit hours
Aquaculture	2	4	12	12	12	42
Aquatic products Processing & Preservation	2	4	12	12	12	42
Aquaculture Biotechnology	2	4	12	12	12	42

Kafrelsheikh University Faculty of Aquatic and Fisheries Science



Study plan for university requirements

Credit	Hourse				Course name	Course
hours	Total	Lab	Practical	lecture	Course name	code

Compulsory courses

2 Credit hours

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Study plan for college requirements

PhD requirements:

Credit	Hourse				Course name	Course
hours	Total	Lab	Practical	lecture	Course name	code

Compulsory courses

4 Credit hours

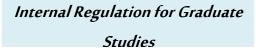
2	3	0	2	1	Writing and international publishing skills	110302
2	2	0	0	2	Sustainable management of water resources	110303



Study plan for doctoral programs

1-Aquaculture:

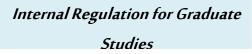
Course title	lecture	Practical	Credit hours	Course code			
PhD - compulsory courses							
Endocrinology	2	2	3	111301			
Nutrition and Energy	2	2	3	111302			
Molecular biology	2	2	3	111303			
Computer and its Application in Fisheries	2	2	3	111304			
PhD - elective cour	ses (sele	ect 4 cou	rses)				
Nanotechnology Applications in Aquaculture	2	2	3	111305			
Marine Larviculture	2	2	3	111306			
Formulation of Aquatic Diets – advanced	2	2	3	111307			
Physiology of fish diseases	2	2	3	111308			
Physiology of aquaculture digestion	2	2	3	111309			
Invertebrates physiology- advanced	2	2	3	111310			
Water quality management – advanced	2	2	3	111311			
Crustacean diseases - advanced	2	2	3	111312			
Fish parasitology – advanced	2	2	3	111313			
Zoonotic diseases in aquaculture	2	2	3	111314			
Aquaculture Economics and Marketing	2	2	3	111315			





2-Aquatic products Processing & Preservation:

Course title	lecture	Practical	Credit hours	Course code				
PhD - compulsory courses								
Safety evaluation of fisheries products	2	2	3	112301				
Nanotechnology applications in fish processing	2	2	3	112302				
Foodborne toxins and contaminants	2	2	3	112303				
Marine nutraceuticals and functional foods	2	2	3	112304				
PhD - elective co	PhD - elective courses (select 4 courses)							
Biotechnology in fish processing	2	2	3	112305				
Fish handling & transportation- advanced	2	2	3	112306				
Consumer preferences and advertising technology	2	2	3	112307				
Fisheries wastes processing technology	2	2	3	112308				
Bacterial and fungal toxicology	2	2	3	112309				
Fish cooling and freezing systems	2	2	3	112310				
Biotechnology applications in fish nutrition	2	2	3	112311				
Computer and its Application in Fisheries	2	2	3	112312				
Fishing technology	2	2	3	112313				





3-Aquaculture Biotechnology:

Course title	lecture	Practical	Credit hours	Course code				
PhD - con	PhD - compulsory courses							
Genetic improvement of fish	2	2	3	112305				
Molecular biology and bioinformatics	2	2	3	112306				
Molecular biotechnology	2	2	3	112307				
Microbial biotechnology	2	2	3	112308				
PhD - elective courses (select 4 courses)								
Genetic improvement of crustaceans	2	2	3	112314				
Fungal biotechnology	2	2	3	112315				
Aquaculture genetics and biotechnology	2	2	3	112316				
Biotechnology applications in fish nutrition	2	2	3	112317				
Computer and its Application in Fisheries	2	2	3	112318				
Techniques in Genetic Engineering	2	2	3	112319				
Biological control of Fish pathogens	2	2	3	112320				
Bioeconomics	2	2	3	112321				