MAHATMA GANDHI UNIVERSITY, KERALA

Abstract

Bachelor of Science (Honours) Aquaculture - Fourth Semester - Modifications to the Course Outcomes and Course Content - Approved - Orders Issued.

ACA 16

No. 410/ACA 16/2026/MGU Priyadarsini Hills,Dated: 13.01.2026

Read:-1. U.O.No.5797/AC A16/2024/MGU, dated.27.06.2024.

2. Minutes of the meeting of the Expert Committee on Aquaculture (UG)

4. Orders of the Vice Chancellor under Section 10 (17), Chapter III of the Mahatma Gandhi University Act 1985, dated 09.01.2026.

ORDER

The syllabi of various Honours Under Graduate Programmes coming under The MGU-UGP (Honours) Regulations, 2024, have been approved vide paper read as (1) above and published on the website of the University.

The Expert Committee on Aquaculture (UG), deliberated on modifying the **Course Outcomes and Course Content of DSC, DSE and SEC** type courses in the **Fourth Semester** syllabus of **Bachelor of Science (Honours) Aquaculture** programme and has submitted recommendations, vide paper read as (2) above.

(Recommendations are attached as Annexure).

Considering the urgency of the matter, sanction has been accorded by the Vice Chancellor, in exercise of the powers of the Academic Council vested upon him under Section 10(17), Chapter III of the Mahatma Gandhi University Act 1985, vide paper read as (3) above, to approve the aforementioned recommendations.

Hence, the **Course Outcomes** and **Course Content** of the said courses in the **Fourth Semester syllabus of Bachelor of Science (Honours) Aquaculture programme** stands modified to this extent.

Orders are issued accordingly.

SUDHA MENON J

ASSISTANT REGISTRAR III

(ACADEMIC)

For REGISTRAR

Copy To

1. PS to VC
2. PA to Registrar/CE
3. Convenor, Expert Committee, Aquaculture (UG)
4. JR 2 (Admin)/DR 2, AR 3 (Academic)
5. JR/DR/AR (Exam)
6. Tabulation/Academic Sections concerned
7. AC C1/AC C2 Sections
8. IT Cell 3/OQPM1Sections
9. PRO/IQAC/Records Sections
10. Stock File/File Copy

File No. 68242/AC A16-1/2025/AC A16

Forwarded / By Order

Section Officer

ANNEXURE

SEMESTER IV

Course Name : Nutrition and Feeding of Fishes
Course Code : MG4DSCAQC200

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
2	2.1	No Change	No Change	3	82
4	4.1			1,6	
	4.2			3	83
	4.3			3	
	4.4			3	
	4.5			3	
	4.6			3	
	4.7			5	
	4.8			4	
	4.9			3	
	4.10			4	

Course Name : Taxonomy and Morphology of Shellfishes
Course Code : MG4DSCAQC201

		Page No.
Pre-requisites (Modified)	Basic understanding of biological classification and invertebrate anatomy is essential. Familiarity with general zoology concepts particularly in relation to crustaceans and molluscs will provide a strong foundation for studying taxonomy, morphology and the ecological roles of shell fish.	85

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No.	Page No.
4	Understand and develop fundamental skills in identification of gastropod and cephalopod molluscs	No Change		86

5	Understand and develop fundamental skills in identification of economically important shellfishes	No Change	86

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
2	2.1	No Change	No Change	3	86
	2.2			2,3	
	2.5			3	87
	2.6			5	
3	3.1			4	
	3.2			4	
	3.3			5	
4	4.1			5	
	4.2			5	88

Course Name : Reproductive Physiology, Endocrinology and Induced Breeding Techniques
Course Code : MG4DSCAQC202

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No.	Page No.
1	Understanding of the reproductive systems, sexual dimorphism, modes of reproduction and various reproductive techniques in finfishes and shellfishes and the factors controlling reproduction	No Change	No Change	90
3	Develop skill on the techniques of induced breeding of finfishes and shellfishes			91
4	Choose different hormones, its analogs and aesthetics used in fish reproduction	K	No Change	
5	Understand the basics of fish	No Change	No Change	

	embryology and larval development			

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
4	4.1	No Change	No Change	1,6	93
	4.2			1,6	
	4.3			1,6	
	4.4			1,6	
	4.5			5	
	4.6			5	
	4.7			5	

Course Name : Advanced Aquaculture Production Systems
Course Code : MG4DSEAQC200

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
3	3.5	No Change	No Change	6	97
4	4.3			4	

Course Name : Fishing Craft and Gear Technology
Course Code : MG4DSEAQC201

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No.	Page No.
4	No Change	K	No Change	102
6	Understand the role of fish finding devices and fish aggregating devices in fishing	No Change		

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
3	3.2	No Change	No Change	6,3	103, 104
	3.3			6	
4	4.5			6	
	4.6			6	

Course Name : Physiology and Internal Organisation of Finfishes and Shellfishes
Course Code : MG4DSEAQC202

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No.	Page No.
3	Utilize the knowledge on excretory, reproductive system, nervous system and sense organs of finfishes and shellfishes	No Change		106
4	Compare the food and feeding habits of fin fishes and shell fishes; migratory and social behaviour			107
5	Estimate the maturity stages, age and growth of fishes by various methods			

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
1	1.4	No Change	No Change	2,4	107-108
2	2.2			6	

Course Name : Seed Production and Hatchery Management of Shellfishes
Course Code : MG4DSEAQC203

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No.	Page No.
2	Plan the brood stock selection and conditioning of shellfish for optimal seed production to enhance production efficiency.	No Change		111
3	Develop skills in induced maturation, seed production and larval rearing including identification and management of larval diseases			
4	Construct and develop techniques for live feed culture unit and assess seed quality including packaging and transport			

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description (Modified)	Hours	CO.No. (Modified)	Page No.
2	2.1	No Change	No change	2	113
	2.2			2	
	2.3	Transport, captive rearing and maturation of broodstock		2	
3	3.1	No change		6	
	3.3			3	
	3.4			5	
	3.5			3	
	3.7			4	

Course Name : Aquafarm Management
Course Code : MG4SECAQC200

Programme Name	BSc (Hons) Aquaculture	Page No. 116

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No.	Page No.
6	Mastery on hatchery operation and harvesting methods, familiarity with equipment operation and handling and transportation of seeds	A	No Change	117

Course Content
(Content for classroom transaction (units))

Module	Units	Course Description	Hours	CO.No. (Modified)	Page No.
3	3.1	No Change	No Change	4	118