



**AMRUT SEVABHAVI SANSTHA PARBHANI'S
LATE KU. DURGA K. BANMERU SCIENCE
COLLEGE LONAR, DIST.BULDHANA-443302**

E-BROCHURE

For

**CERTIFICATE COURSE/DIPLOMA
UNDER**

**National Skill Qualification Framework-
University Grant Commission
New-Dehli**

NSQF-UGC APPROVED

2021-2022



Late Ku. Durga K. Banmeru Science College is located at Lonar Dist. Buldana in Maharashtra. The College is run by Amrut Sevabhavi Sanstha Parbhani (M.S.). The main purpose of the society is to serve for the people and society through the social and

educational activities. One main agenda is to raise the standard of education in this area. Buldana district is nominated as educationally backward district by the UGC. Amrut Sevabhavi Sanstha Parbhani has established its science college in June-2000 at Lonar. Lonar is a world famous tourist place, well known for world's 3rd largest crater formed by meteorite impact in the basaltic rock. Fifteen years ago, there was no senior college for higher education in science at Lonar and surrounding 50 km premises. For higher education students have to migrate up to Washim, Chikhli, Jalna and Aurangabad. It was as expensive for the people of this area as most of the students belong to farmers and workers people. One special benefit of the college is for the girls, as they got higher education facility in their own town.

The main source of ideology and value framework of the college is “वे`रार्qfo|k !foKkua ;K ruqrs !!”(Knowledge is nectar, specialized knowledge promotes creativity). The main source of ideology and value framework of the college lies in the slogan “Be less curious about people and more curious about the ideas”. Thus we are always curious about our ideas and vision i.e. “Build the youth to build the nation with the help of innovation”

College goal is to achieve excellence in education, research and multi-dimensional development of student. It holds unique position in the rural area of Buldana district.

Dr. Prakash K. Banmeru as founder president given direction to college staff to establish Quality Enhancement Programme inculcating quality and value based science education among students. It was begun in 2005, right from the beginning of the academic year so as to implement it for the full year. Under this program various curricular, co-curricular and extra-curricular activities were held to give an overall development of the students. It proved right step towards attaining a promising future.

Real fortitude of the college came with the recognition of the college by the affiliating university. As Dr. Prakash K. Banmeru has joined as a principal from 1st June-2010, they have been playing a key role in for getting permanent affiliation to the college

from SantGadge Baba Amravati University, Amravati and success of college. The college got the status of the permanent affiliations in 2012.

College was on non granted basis for a long period due to state Government policy, only salaries of science faculty on 100% grant basis, started in academic year 2007-2008. Being Science College other than salary grants there is no other grants. In this respect within a short span of 7 years after facing many difficulties, the college has made a good progress. The college is recognized for its discipline and its regular involvement of academic activity. It aims at versatile development of students in academic, socio-cultural fields so as to make them responsible individual to contribute in the formation of better society.

The college has received UGC 2(f) and 12(B) status on 24 April. 2014 from the U.G.C. New Dehli and become eligible to get funding from the Government agencies. The college got only three years in XIIth plan of U.G.C. and allocated a total budget of Rs. 53,00,000/-under various Schemes like GDA, Women's hostel and establishing IQAC in the college and received a total Rs. 32,70,000/- to the college.

SCOPE AND IMPORTANCE OF CERTIFICATE COURSE IN ECONOMIC ZOOLOGY-FRESHWATER FISH FARMER

(6-MONTHS)

Today, fish provides more than one billion poor people with most of their daily animal protein. Fish provides nutrients and micronutrients that are essential to cognitive and physical development, especially in children, and are an important part of a healthy diet. As an affordable animal source of protein in some of the poorest countries, fish is the primary source of nutrition, creating growing demand for this staple. However, fish supplies are failing to meet demand and there are major shortages in some critically poor countries where they are needed most.

Globally, more than 250 million people depend directly on fisheries and aquaculture for their livelihoods and millions are employed in fisheries and aquaculture value chains in roles such as processing or marketing. The very poor often rely on fishing as a primary source of income. These small-scale fishers are particularly vulnerable as

fish stocks diminish. Increased productivity from sustainable fisheries and aquaculture can be a driver for rural development by mitigating risks to livelihoods and contributing to income generation and employment.

Improving the productivity of fisheries and aquaculture is vital to reducing hunger and poverty for millions in the developing world. Sustainable, productive fisheries and aquaculture improve food and nutrition security, increase income and improve livelihoods, promote economic growth and protect our environment and natural resources.

A sustainable approach to fisheries and aquaculture will help to protect our natural resources and ensure that fish stocks are available for future generations. Currently, overfishing, ineffective management practices, industrial development and agricultural pollution have reduced fish stocks. While sustainable fisheries management is a challenge, solid global and regional governance of these vital resources will ensure that we can produce enough fish for those living in poor regions.

Aquaculture, in particular, has tremendous potential to enhance food security and be environmentally sustainable. Small-scale aquaculture is especially important for meeting the world's growing demand for fish. As fish require a smaller environmental footprint than other animal source food, aquaculture is a more environmentally sustainable option for meeting the world's food needs than other animal source foods.

"Fish provides more than one billion poor people with most of their daily animal protein."



The Department of Fisheries is one of the two Departments under the Ministry of Fisheries, Animal Husbandry & Dairying. It came into existence with effect from 05.02.2019 through carving out Fishery Division from the erstwhile Department of Animal Husbandry, Dairying and Fisheries vide Cabinet Secretariat's Notification F.No. 1/21/21/2018-Cab dated 05.02.2019.

The Department is under the overall charge of **Shri Giriraj Singh, Hon'ble Minister for Fisheries, Animal Husbandry & Dairying** assisted by two Ministers of State for Fisheries, Animal Husbandry & Dairying namely Dr. Sanjiv Kumar Balyan and Sh. Pratap Chandra Sarangi. The administrative Head of the Department is Secretary Fisheries. Secretary Fisheries is assisted by two Joint Secretaries.

The Department is responsible for matters relating to formulation of policy and schemes relating to Development of Inland, Marine and Coastal Fisheries and Fishery Institutes namely Fishery Survey of India Mumbai, Central Institute of Fisheries Nautical and Engineering Training (CIFNET), Kerala, Central Institute of Coastal Engineering For Fishery (CICEF), Bangalore, National Institute of Fisheries Post Harvest Technology and Training (NIFPHATT), Kochi, National Fisheries Development Board (NFDB), Hyderabad, Coastal Aquaculture Authority, Chennai.

The list of subjects allocated to Department of Fisheries is as under:

- Fish seed production.
- Development of fish feed and fish products industry with regard to the formulation of the demand and fixation of targets.

- Promotion and development of Fishing and Fisheries (inland, marine and beyond territorial waters) and its associated activities, including infrastructure development, Marketing, Exports, and institutional arrangements, etc
- Welfare of Fishermen and other Fisher-folk and strengthening of their livelihoods.
- Liaison and cooperation with international organizations in matters relating to fisheries development
- Fisheries Statistics
- Matters relating to loss of fish stock due to natural calamities
- Regulation of fish stock importation, Quarantine and Certification
- Fishery Survey of India, Mumbai
- Legislation with regard to the Prevention of the extension from one State to another of infectious or contagious diseases or pests affecting fish
- Legislation with regard to Pattern of financial assistance to various State Undertakings, Fisheries Development Schemes through State agencies/Co-operative Unions

AMRUT SEVABHAVI SANSTHA PARBHANI'S
 LATE KU. DURGA K. BANMERU SCIENCE COLLEGE LONAR, DIST.BULDHANA
 DEPARTMENT OF ZOOLOGY
 RUNS
 NSQF-UGC APPROVED
 ECONOMIC ZOOLOGY CERTIFICATE COURSE-FRESHWATER AQUACULTURE FARMER
 SYLLABUS

Title of unit (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours: Theory)	Estimated size (learning hours: Practical)	Level
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Bridge Module (Introduction)	Mandatory	6	4	4
AGR/N4921 Perform pre culture activities	Mandatory	12	38	4
AGR/N4922 Perform post stocking culture activities	Mandatory	12	38	4
AGR/N4923 Perform harvesting and marketing activities for freshwater organisms	Mandatory	14	36	4
AGR/N4918 Ensure safety, hygiene and sanitation practices for culture operations	Mandatory	12	28	4

1. AGR/N4921 Perform pre-culture activities

1. AGR/N4921 Perform pre-culture activities	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
	PC1. identify varieties of organisms (carps, catfish, murels, freshwater prawn, etc.)suitable for culture in specific water bodies	100	9	3	6
	PC2. prepare pond for carp culture using appropriate methods for 1)removal of unwanted organisms 2) filling of water to requisite depth 3) eradication of predatory and weed fishes, 4) introducing preparatory dose of lime, manures and fertilizers		9	3	6

	PC3. prepare ponds for freshwater cat fish culture (i.e. magur – Clarias batrachus) by methods such as fencing to prevent escape of fish from culture ponds		9	2	7
	PC4. prepare ponds for crustacean culture (i.e. prawn) and provide hiding structures at the bottom of the pond		8	2	6
	PC5. find out the source of quality seed for the desired organisms		8	3	5
	PC6. perform seed transport with minimum stress		8	2	6
	PC7. identify the diversified carp species for freshwater aquaculture system		8	3	5
	PC8. ensure seed stocking with due acclimatisation		8	2	6
	PC9. monitor the culture methods for variety of organisms		8	2	6
	PC10. ensure availability of suitable environment for culture of specific organisms		9	3	6
	PC11. identify culture activities of each variety of organisms in culture system		8	3	5
	PC12. perform the culture activities in the desired manner		8	2	6
	TOTAL	100			

2. AGR/N4922 Perform post-stocking culture activities

2. AGR/N4922 Perform post-stocking culture activities	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
	PC1. identify suitable water level required in culture ponds for different varieties of		4	1	3

	organisms				
	PC2. perform periodic soil, water and fish sampling and netting operation to ensure proper management of the crop		5	2	3
	PC3. apply appropriate dosages of lime, manures, fertilizers and therapeutics to maintain suitable soil and water quality in the culture system		5	2	3
	PC4. identify plankton and benthic fauna in water		4	1	3
	PC5. apply appropriate methods for aeration of water		4	1	3
	PC6. apply suitable methods to control aquatic weeds and algae present in the culture system		4	1	3
	PC7. identify the type of fertilizers, herbicides and chemicals required for culture system and determine their appropriate dose		5	2	3
	PC8. apply the selected inputs with appropriate methods		4	1	3
	PC9. anticipate the type of diseases likely to affect the organisms and take preventive measures		5	2	3
	PC10. apply correct dose of medicines and know the mode of application for curing the organisms		4	1	3
	PC11. sample the cultured organisms at periodic interval to estimate the biomass		5	2	3
	PC12. identify the feed type and amount of daily feed ration		4	1	3
	PC13. deliver the feed with appropriate method and proper		4	1	3

	schedule				
	PC14. determine the quantum of feed and its application for carp culture pond		4	1	3
	PC15. monitor the feed consumption and modify the daily ration accordingly		5	2	3
	PC16. treat the pond area where feed is delivered to maintain the cleanliness, periodically		5	2	3
	PC17. modify the feed ration according to the environmental condition and season		4	1	3
	PC18. determine health parameters to judge the condition of organisms in culture system		4	1	3
	PC19. determine the correct dose of medicines / disinfectants required to cure diseases		4	1	3
	PC20. separate the diseased fish from the healthy fish and put them in a quarantine tank, in case of disease outbreak		5	2	3
	PC21. diagnose the problem/disease with the help of an expert/disease diagnosis laboratory		4	1	3
	PC22. treat as per prescription at recommended dose of the therapeutics		4	1	3
	PC23. monitor the condition of fish in the quarantine tank for signs of improvement		4	1	3
	TOTAL	100			

3. AGR/N4923 Perform harvesting and marketing activities for freshwater organisms

3. GR/N4923 Perform harvesting and marketing activities for freshwater organisms	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
	PC1. decide on the harvesting time and ensure timely harvesting of freshwater organisms	100	11	3	8
	PC2. use harvesting net with appropriate mesh size		11	3	8
	PC3. ensure harvest of only the marketable size organisms in case of partial harvesting		11	4	7
	PC4. estimate the approximate quantity to be harvested		11	3	8
	PC5. identify markets where harvested organisms can fetch reasonable price		11	3	8
	PC6. identify demand of organisms in the market to overcome situation compelling distress		12	4	8
	PC7. pack and transport harvested organisms in good condition		11	3	8
	PC8. maintain a record of harvest and sale proceeds		11	3	8
	PC9. record cost of inputs and other miscellaneous expenditures		11	4	7
	Total	100			

4. AGR/N4918: Ensure safety, hygiene and sanitation practices for culture operations

4. AGR/N4918: Ensure safety, hygiene and sanitation practices for culture operations	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
		100			
	PC1. ensure suitable measures for protection of from natural calamities such as flood, protect dyke from erosion or break		5	2	3
	PC10. apply effective systems and routines to ensure healthy and hygienic conditions during all stages of fish culture including transportation and marketing		5	2	3
	PC11. ensure that the fish culture premises are constantly monitored/inspected for breaches in the protection provided by health and hygiene measures		5	2	3
	PC12. undertake basic safety checks before operation of any equipments		5	2	3
	PC13. wear protective clothing and gear as and when required and ensure adherence to safety guidelines		5	1	4
	PC14. report potential hazards to the supervisor immediately		4	3	3
	PC15. follow standard procedures to deal with accidents and emergency situations		5	2	3

	PC16. use first aid kit as and when required and provide appropriate treatment in case of any injuries		5	1	4
	PC17. ensure maintenance of suitable soil and water quality parameters at all times with frequent tests		5	2	3
	PC18. ensure specified feed is provided to organisms at regular intervals and excess feeding is avoided		5	2	3
	PC19. carry out regular inspection of organisms for possible presence of parasites, pathogenic infections, any phenotypic disorder, spot, etc. which are usually the signs of ailments or disease outbreak		5	2	3
	PC20. ensure all nets, utensils and vessels used are decontaminated and clean		4	1	3
	PC21. implement effective security measures for prevention of theft/sabotage		5	1	4



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Central Marine fish research Center , Indian Major Carps and ChiniesHachery
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AmrutSevabhaviSansthaParbhani's
Late Ku.Durga K. Banmeru Science College Lonar Dist. Buldhana
National Skill Qualification Fromm work Union Grant Commission New Delhi
Approved-Certificate Course- Economic Zoology- Freshwater Fish Farmer-2021
Department of Zoology-Academic Calendar

SR. NO	MONTHS	PARTICULAR	REMARKS
1	Dec- Jan-2021	- Course approval - E –Boucher -Publicity -Students entry /Admission - Skill Assessment board meeting SAB	
2	Jan-Feb- 2021	- Commencement t of online classes - Orgnicana of Guest lecturer - Practical etc.	
3	Feb-March- 2021	- Guest Lectures -SAB – meeting for Department -Tour arrangement -Training of Students.	
4	March- April-2021	- Test -Exams - Result - Certificate	
5	March- April-2021	- Uploading of marks /Students data	

Result:2020-2021 Zoology

 ASCI Association of Science Colleges and Institutions		Grade Sheet		 महाराष्ट्र राज्य शिक्षण बोर्ड MAHARASHTRA STATE EDUCATION BOARD
College Name:- Late Ku. Durga K. Banmeru Science College Lonar		Location:- Late Ku. Durga K. Banmeru Science College Lonar, Dist. Buldhna M.S.		
Course Name:- Certificate Course in Freshwater Fish Culture		Semester:- 1 Level:- 4		
Date of Assessment :- 22-09-2021		Assessor Name :- Dr. Priya Dhabe		
Total Student:- 20		Present:- 20		Absent:- 0
S. No.	Name	Father Name	Grade	
1	SAGAR D. DAVHALE	Dattatrya	O	
2	Rachna S. Bodkhe	Surendra	O	
3	Valbhav P. Gadekar	Purushottam	A+	
4	Ruchita J. Kocher	Jaichand	O	
5	Peyal P. Sharma	Pravin	O	
6	Akasha G. Darade	Ganesh	O	
7	Savri K. Marathe	Kalish	O	
8	Kanchan S. Garikal	Sakharam	O	
9	Pawan J. Tanpure	Janardhan	O	
10	Shubhangi Enlawar	Prakash	O	
11	Valbhav S. More	Suresh	O	
12	Pawan G. Yewle	Gajanan	O	
13	Mufiz Ahmed Sk. Kabir	Kabir	A+	
14	Mohan G. Bhivande	Gajanan	O	
15	Aarti S. Chenge	Sureshta	O	
16	Snehal S. Deshpande	Surendra	O	
17	Valshnavi S. Sirsat	Suresh	O	
18	Amol A. Palve	Ashok	A+	
19	Valbhav R. Sanap	Ramdas	A+	
20	Rushikesh B. Tanpure	Bhagwat	O	

Grade	Meaning	
O	Outstanding	>=48
A+	Excellent	45-47
A	Very Good	42-44
B+	Good	39-41
B	Above Average	36-38
C	Average	33-35
P	Pass	30-32
F	Fail	
Ab	Absent	

