

# Model Program Book



## SEMESTER INTERNSHIP

Designed & Developed by



**ANDHRA PRADESH  
STATE COUNCIL OF HIGHER EDUCATION**

(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

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PROGRAM BOOK FOR  
**SEMESTER INTERNSHIP**

Name of the Student: SAVARA NITHIN

Name of the College: Government Degree College (men) Srikakulam

Registration Number: 2022001049074

Period of Internship: 12/03/22 From: To: 16/03/23

Name & Address of the Intern Organization Fisheries Department office  
Elisapuram Srikakulam

Dr. B. Ambedkar University  
YEAR



# An Internship Report on

Fisheries

(Title of the Semester Internship Program)

Submitted in accordance with the requirement for the degree of

B.Sc. BZC (Em)

Under the Faculty Guideship of

S. Ravibabu

(Name of the Faculty Guide)

Department of

Zoology - Government Degree college (men) Srikakulam

(Name of the College)

Submitted by:

Savara Nithin

(Name of the Student)

Reg.No: 2022001049074

Department of Zoology

Govt. Degree College (men) Srikakulam

(Name of the College)

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## Instructions to Students

Please read the detailed Guidelines on Internship hosted on the website of AP State Council of Higher Education <https://apsche.ap.gov.in>

1. It is mandatory for all the students to complete Semester internship either in V Semester or in VI Semester.
2. Every student should identify the organization for internship in consultation with the College Principal/the authorized person nominated by the Principal.
3. Report to the intern organization as per the schedule given by the College. You must make your own arrangements for transportation to reach the organization.
4. You should maintain punctuality in attending the internship. Daily attendance is compulsory.
5. You are expected to learn about the organization, policies, procedures, and processes by interacting with the people working in the organization and by consulting the supervisor attached to the interns.
6. While you are attending the internship, follow the rules and regulations of the intern organization.
7. While in the intern organization, always wear your College Identity Card.
8. If your College has a prescribed dress as uniform, wear the uniform daily, as you attend to your assigned duties.
9. You will be assigned a Faculty Guide from your College. He/She will be creating a WhatsApp group with your fellow interns. Post your daily activity done and/or any difficulty you encounter during the internship.
10. Identify five or more learning objectives in consultation with your Faculty Guide. These learning objectives can address:
  - a. Data and Information you are expected to collect about the organization and/or industry.
  - b. Job Skills you are expected to acquire.
  - c. Development of professional competencies that lead to future career success.
11. Practice professional communication skills with team members, co-interns, and your supervisor. This includes expressing thoughts and ideas effectively through oral, written, and non-verbal communication, and utilizing listening skills.
12. Be aware of the communication culture in your work environment. Follow up and communicate regularly with your supervisor to provide updates on your progress with work assignments.

13. Never be hesitant to ask questions to make sure you fully understand what you need to do your work and to contribute to the organization.
14. Be regular in filling up your Program Book. It shall be filled up in your own handwriting. Add additional sheets wherever necessary.
15. At the end of internship, you shall be evaluated by your Supervisor of the intern organization.
16. There shall also be evaluation at the end of the internship by the Faculty Guide and the Principal.
17. Do not meddle with the instruments/equipment you work with.
18. Ensure that you do not cause any disturbance to the regular activities of the intern organization.
19. Be cordial but not too intimate with the employees of the intern organization and your fellow interns.
20. You should understand that during the internship programme, you are the ambassador of your College, and your behavior during the internship programme is of utmost importance.
21. If you are involved in any discipline related issues, you will be withdrawn from the internship programme immediately and disciplinary action shall be initiated.
22. Do not forget to keep up your family pride and prestige of your College.

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## Student's Declaration

I, S. Nithin a student of Internship  
Program, Reg. No. 2022001049074 of the Department of Zoology Govt. Degree College  
College do hereby declare that I have completed the mandatory internship  
from 12/12/2022 to 16/03/2023 in Frisheries Department (Name of  
the intern organization) under the Faculty Guideship of  
S. Ravibabu (Name of the Faculty Guide), Department of  
Zoology Government Degree College (men) Sri Kakulam.  
(Name of the College)

S. Nithin  
(Signature and Date)

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## Official Certification

This is to certify that S. Nithin (Name of the student) Reg. No. 2022001049074 has completed his/her Internship in Fisheries Development Office (Name of the Intern Organization) on Fisheries D (Title of the Internship) under my supervision as a part of partial fulfillment of the requirement for the Degree of BZC (Em) in the Department of Zoology - Govt - Degree College (Name of the College).

This is accepted for evaluation.



(Signature and Seal)  
K. GANESH RAO  
(Signatory)  
E.I.D. No. 6704 104  
Fisheries Development Officer  
Srikakulam Dist

Endorsements

Faculty Guide

Head of the Department

Principal

Page No

Government of Andrapradesh  
Department of Fisheries.

**Certificate from Intern Organization**

This is to certify that Sawara . Nithin (Name of the intern)  
Reg. No 202201049074 of Govt-Degree college (Name of the  
College) underwent internship in Department of fisheries (Name of the  
Intern Organization) from 12/12/2022 to 16/03/2023

The overall performance of the intern during his/her internship is found to be  
Very Good (Satisfactory / Not Satisfactory).



GANGADHARA RAO  
Authorized Signatory with Date and Seal  
E.I.D. No. 1111  
Fisheries Development Officer  
Srikakulam Dist



## Acknowledgements

I would like to thank all those people who helped me in successful completion of my internship programme with deepest sensors of gratitude. I acknowledge the inspiring guidance, positive criticism and encouragement rendered positive by Respectable FDO Sir. through the period of his investigation and preparation of the project. I am really indebted for his valid suggestions, advises and help in collecting the project.

## CHAPTER 1: EXECUTIVE SUMMARY

The internship report shall have a brief executive summary. It shall include five or more Learning Objectives and Outcomes achieved, a brief description of the sector of business and intern organization and summary of all the activities done by the intern during the period.

The sustainable fisheries management project will be identify innovative strengthening fisheries management. The goals of fisheries management is to produce sustainable biological environmental and exercise benefits from renewable aquatic resources. Research resource conservation food production generation of economic wealth preparation or generation of reasonable income for fisheries maintaining employment for fisheries maintain viability of fishing community are main objectives of fisheries management Do's and Don'ts. of fish culture, selection and stocking of carps, Introduction of some major crops.

## CHAPTER 2: OVERVIEW OF THE ORGANIZATION

### Suggestive contents

- A. Introduction of the Organization
- B. Vision, Mission, and Values of the Organization
- C. Policy of the Organization, in relation to the intern role
- D. Organizational Structure
- E. Roles and responsibilities of the employees in which the intern is placed.
- F. Performance of the Organization in terms of turnover, profits, market reach and market value.
- G. Future Plans of the Organization.

Department of fisheries Srikakulam is located at Kamarajanna street, Elisiparam, 8K1m, promotion and the development of fishing and fisheries and its associated activities including infrastructure development marketing, Export etc. welfare of fisherman and other fishes folk and strengthening of their livelihood are the main vision values of organisation, schemes include prime minister matrya sampadu yojana, govt. schemes will strive promote socio-economic welfare of fisheries and fish farmers by providing boats, nets, safety kets, nutritional support to fisherman families during fishing boats and lean periods.



### CHAPTER 3: INTERNSHIP PART

Description of the Activities/Responsibilities in the Intern Organization during Internship, which shall include - details of working conditions, weekly work schedule, equipment used, and tasks performed. This part could end by reflecting on what kind of skills the intern acquired.

The sustainable fishery management project, will be identify innovative, cost effective mechanisms for strengthening fishery management capacity accord with strategic centers to modernize the role of public sector in this we have learned about the pond management selection of shrimp fodder given to fish, Record maintenance water quantity of pond etc, major crops include carps, catla, Rohu, mrigal and about their rearing and feeding habits and management capacity of secretaries of agriculture, livestock, fisheries and food, particularly those functions required, local and foreign techniques for testing quality, salinity of water, skills acquired during project include management of fishes, lab equipment of fishery department -

### ACTIVITY LOG FOR THE FIRST WEEK

| Day & Date | Brief description of the daily activity                                        | Learning Outcome                                                   | Person In-Charge Signature |
|------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------|
| Day - 1    | pond preparation<br>the opt. size pond is rectangular size                     | Fish yield in pond can affected by various factors in pond         | BSJ                        |
| Day - 2    | Soil and water: The soil type of pond and its fertility is necessary           | It controls ponds stability, pH salinity of water                  | BSJ                        |
| Day - 3    | Aquatic weeds: They not only take away nutrients but also upset $O_2$ balance  | If left unchecked may choke water body posing to serious to fishes | BSJ                        |
| Day - 4    | unwanted fishes/predators<br>They may be unwanted fish and predator were there | They compete with culture fish for feeds nutrients                 | BSJ                        |
| Day - 5    | liming: liming should be done to ponds based on variety of culture             | liming includes $(CaCO_3)$ $(CaMg)$ $CO_2$                         | BSJ                        |
| Day - 6    | Fertilizers: plays a crucial role in fish culture                              | Ammonium phosphate $(20-30 \text{ Kg/he.})$                        | BSJ                        |

## WEEKLY REPORT

WEEK - 1 (From Dt 1.2.22... to Dt 1.2.22...)

Objective of the Activity Done:

Detailed Report:

Preparation of pond: opt size of the pond is rectangular with size varying from 0.1 - 2.0 hectares with dept range from 2.0 to 3.0 meters. the soil type of pond and its fertility status for fresh water fishes especially ~~crop~~ is alluvial soil with neutral pH range be/w 7.5 - 8.0 the pH has brought to neutral at the pond soil and water are saline alkaline.

The aquatic weeds in fish pond are undesirable they not take away nutrient but also upset oxygen balancing water by release  $O_2$  into pond during nights.

The unwanted fishes or predators may be predatory they can be eliminated through repeated netting of pond.

The type of lime to be used depend on water pH. it is recommended the lime /  $[CaCO_3]$  organic fertilizers such as  $(CaO \cdot Al)$  compounds fertilizers like ammonium phosphate  $(K_2O \cdot 20 \cdot 0)$  can be used as 20-30 Kg/ha.



# ACTIVITY LOG FOR THE SECOND WEEK

| Day & Date | Brief description of the daily activity                                          | Learning Outcome                                     | Person In-Charge Signature |
|------------|----------------------------------------------------------------------------------|------------------------------------------------------|----------------------------|
| Day - 1    | Selection: male and female fishes are introduced for breeding season             | Released egg known as Spawn                          | BSJ                        |
| Day - 2    | Spawn - (20-25 days) is called fry (30:40) - advanced fry                        | Fry should be shifted to rearing tank                | BSJ                        |
| Day - 3    | Stunted fingerlings: High amount of density culture called stunted fingerlings   | High priority given for this                         | BSJ                        |
| Day - 4    | Feeding: General feed should be given at morning and evening routine             | on 6th day food protein - egg feed                   | BSJ                        |
| Day - 5    | water management: measure should be taken to ensure adequate water (50l / quart) | measures should be adopted to prevention from stress | BSJ                        |
| Day - 6    | Kacha Nursery: advanced fry added to Kacha Nursery                               | For good management practices                        | BSJ                        |

## WEEKLY REPORT

WEEK - 2 (From Dt 9/12/22.... to Dt 26/12/22...)

Objective of the Activity Done: Selecting and stocking of crops

Detailed Report: Selection :- About 15-20 days after the initial manuring selected species of crops are introduced into pond when several species of fishes are reared together in pond in an intensive way.

The survival of fingerlings introduced into particular pond depends very much on their size. bigger than size it should have size of 10-15 cm from the temperature point of view the best time of stock of pond will be when water in the pond is within the opt range of 20-30°C. obviously temperature below 30°C will affect the growth of fish. Feeds for the crops may be of 2 types. natural artificial feeds and probiotics also the natural growth of feeding in pond can be increased by regular measuring.

In water management all proper depth of water should be maintained. Harvesting can be done either by partially draining water out of ponds by repeated netting.

### ACTIVITY LOG FOR THE THIRD WEEK

| Day & Date | Brief description of the daily activity                                     | Learning Outcome                                | Person In-Charge Signature |
|------------|-----------------------------------------------------------------------------|-------------------------------------------------|----------------------------|
| Day -1     | Introduction of major crops 1. Catla: large and Broad Head, protruding      | Rearing: (U-column)                             | BS2                        |
| Day -2     | Feed: fingerlings consume some plankton algae, zooplankton.                 | Adults feed mainly on the surface.              | BS2                        |
| Day -3     | Rohu: coloured fish with scales on its upper body                           | Rearing: (M-column)                             | BS2                        |
| Day -4     | Feed: zooplankton, phytoplankton.                                           | Feedable growth<br>Booster helps in fast growth | BS2                        |
| Day -5     | Murghal: It was a ray formed fish, covered with cycloid scales, snout blunt | Rearing (B-column)                              | BS2                        |
| Day -6     | Feed: plankton feeds debris found on bottom                                 | Bottom feeders                                  | BS2                        |



## WEEKLY REPORT

WEEK - 3 (From Dt. 27/11/22... to Dt. 3/12/22...)

Objective of the Activity Done: Introduction of major carps

Detailed Report: Catla fish :-

Catla fish is a large and broad head, with a large protruding lower jaw and upturned mouth. It has large, greyish scales on its dorsal side and whitish on its belly. It reaches up to 182 cm in length and 38 kg weight. It is a surface and mid water feeder.

- Adults feed on zooplankton and phytoplankton

Rohu fish :-

Rohu fish has small head, sharp face, lower lip is full like, long circular body covered with scales. It has max length of 7m.

- Feed is in form of pellet, protein etc

Muringal fish :-

Muringal fish are long, upper lip curved to down pass at trunk, body is silver coloured. Avg body length about meter.

- Feed is bottom based feeders.

- Eat small insects, decomposed, organic elements.

# ACTIVITY LOG FOR THE FORTH WEEK

| Day & Date | Brief description of the daily activity                       | Learning Outcome                                                  | Person In-Charge Signature |
|------------|---------------------------------------------------------------|-------------------------------------------------------------------|----------------------------|
| Day -1     | Salinometer :-<br>Device used to measure salinity in solution | Read out the % of salt in solution                                | BSL                        |
| Day -2     | pH meter :- It measures hydrogen ion activity in water        | Neutral : $pH = 7$<br>Acidic : $pH < 7$<br>Basic : $pH > 7$       | BSL                        |
| Day -3     | Nitrate test :- Indicates high nitrate levels in pond         | low nitrate improves health of fish                               | BSL                        |
| Day -4     | Test: Sdrops of reagent A/B in a test tube and shake it well  | Red or pink : Nitrate reduction<br>Red-violet presence of nitrate | BSL                        |
| Day -5     |                                                               |                                                                   |                            |
| Day -6     |                                                               |                                                                   |                            |

## WEEKLY REPORT

WEEK - 4 (From Dt. 04/01/23... to Dt. 7/01/23....)

Objective of the Activity Done: Laboratory

Detailed Report: Salinometer;

It is a device used to measure salinity (or) dis content of solution.

It is specially calibrated hydrometer to read out % of salt in solution.

pH meter :-

A pH meter measures hydrogen ion activity in water based solutions.

Indicators acidity of Solution

Neutral Solution :  $pH = 7$

Acidic Solution :  $pH < 7$

Basic Solution :  $pH > 7$

Nitrate test :-

High nitrate levels in pond indicates build up of fish waste

Low nitrate : Improves health of fish

High nitrate : Increase of Algae & poor quality

Test :- Drops of reagent A/B in test tubes and shake

as well :- Red/pink - Nitrate reduction

Red/pinklet - presence of nitrite.



### ACTIVITY LOG FOR THE FIFTH WEEK

| Day & Date | Brief description of the daily activity                                                                 | Learning Outcome                                                    | Person In-Charge Signature                                                            |
|------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | selection of shrimp: Sampling is most important in selection of juveniles                               | Donts: stocking shouldnt be check quality of fry                    |    |
| Day - 2    | Fodder: Fresh fodder with good nutritional value should be selected and                                 | Donts: Fodder should not be fed without calculating FCR             |    |
| Day - 3    | water ownership: Before stock water quality should be test in lab                                       | Donts: without testing quality shrimp released                      |  |
| Day - 4    | Aeration: Additional aeration must be properly ranged because few shrimp require regularly of vital gas | Donts: High density cultivation should not be done with aeration.   |  |
| Day - 5    | Health ownership: Biosecurity arrangements should be regularly reviewed                                 | Donts: The fence around pond and bird net should not be form.       |  |
| Day - 6    | Harvest planning should be done based on market demand                                                  | Donts: Don't cough without proper planning caught on full moon days |  |

## WEEKLY REPORT

WEEK - 5 (From Dt. 9/1/23..... to Dt. 15/1/23....)

Objective of the Activity Done:

Do's and Don't's in Culture.

Detailed Report:

After stress-test, microscopic and PCR tests for shrimps quality seed is selected and stocked.

Don'ts: shrimp fry should not be purchased from hatcheries not licensed by CCA.

Fodder:- Fresh fodder with good nutrient value should be selected.

Don'ts :- Do not use cheap fodder.

water ownership:- Check standard range of pH should be checked every morning / evening.

Aeration :- Depending on no. of aerators should be arranged in a circle.

Don'ts :- Don't use poor quality aerators.

Health ownership:- probiotics used instead of Antibiotics prawn in check tray should be checked

Don'ts :- Some tools used in pond should not be used in other pond.

### ACTIVITY LOG FOR THE SIXTH WEEK

| Day & Date | Brief description of the daily activity                                              | Learning Outcome                                                          | Person In-Charge Signature |
|------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------|
| Day - 1    | Complete fish farming: culture is taken up from the process of spawning to full size | Farms have breeding tanks hatcheries, nurseries rearing production ponds. | Log                        |
| Day - 2    | Restricted fish farming: culturing only one stage in life cycle of fish              | ponds are concerned only for production of spawn/seed/full size fish      | Log                        |
| Day - 3    | Extensive fish farming: fish depend upon the natural feed for growth                 | productivity is directly proportional to available natural feed.          | Log                        |
| Day - 4    | Intensive fish farming: fishes are provided with artificial seed                     | Achieving maximum productivity by providing artificial feed.              | Log                        |
| Day - 5    | Traditional fish culture is most common method of fish culture                       | Artificial constructed ponds where finfish and shell fish are raised.     | Log                        |
| Day - 6    | Semi intensive fish farming: Both natural and artificial feed supplied fish          | It requires inputs of fertilizers and supplementary feeding.              | Log                        |



## WEEKLY REPORT

WEEK - 6 (From Dt. 11/1/23..... to Dt. 25/01/23.)

Objective of the Activity Done: Different types of fish farming techniques

Detailed Report: Besides traditional ways fish is cultured in artificial ponds to meet internal and external demand by regulating nutritional needs, growth and breeding efforts are made to achieve high productivity. Complete fish farming culture is taken up from the process of Spawning to the stages of aftercoming. minimum size culture centers will have breeding tanks, hatcheries, nursery ponds, rearing ponds, production ponds etc. Restricted fish farming ponds may cover one of the stage in the life cycle of fish in the ponds concerned with high yield.

Extensive and intensive farming techniques are fish depends on natural feed and artificial feed for growth and survival respectively.

Traditional fish farming are common method of fish culture artificially constructed ponds where the aquatic animals such as the finfish and shell fish are raised, semi extensive fish farming requires a moderate levels of inputs and fish production is increased by use of fertilizers and supplementary feeding.

### ACTIVITY LOG FOR THE SEVEN WEEK

| Day & Date | Brief description of the daily activity                                     | Learning Outcome                                                                | Person In-Charge Signature                                                            |
|------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | Hatchery tanks :- cement tanks with an area of $5 \times 1.5 \text{ m}^3$ . | Tanks used for breeding the prawns and larval development                       |    |
| Day - 2    | Selection and transport of breeders : Prawn measuring about 18-20 cm        | fully grown and sexually mature breeder prawns are used.                        |    |
| Day - 3    | prevention from parasitic infection : By chemical Bath                      | Chemical bath & supply of sterilized feed prevents infections                   |   |
| Day - 4    | Feed : Green algal cells with out parasitic infection are provided          | Green algal cells are provided as feed.                                         |  |
| Day - 5    | Stocking : About 60 adult prawns are shocked for breeding in above tanks    | Ratio of male and female shrimps are 1:1 or 1:2                                 |  |
| Day - 6    | Breeding and spawning occurs during night line just 60cms above the bottom  | mating can be said to have occurred by presence of spermatocytes over the yolk. |  |



## WEEKLY REPORT

WEEK - 7 (From Dt 27/1/23... to Dt 2/2/23....)

Objective of the Activity Done: Management of hatchery tanks in  
Detailed Report: Prawn production.

Construction of hatchery tanks, selection and transport of breeders, feed and preventive measures for parasitic infection are discussed in this week as prime management criteria in prawn production.

Hatchery tanks are plastic tubes of 0.5 to 1 tonne capacity or cement tubes with an area of  $5 \times 1.5 \text{ m}^2$ . Fully grown and sexually mature breeder prawns measuring about 18-20 cm are selected from the sea water or culture centers. Selected breeders prawns measuring about 18-20 cm. Culture center selected breeders are transported in sealed polythene bags filled with  $1/3$  marine water and  $2/3$  oxygen.

Selected breeders are given chemical bath to prevent parasitic infections & provided with sterilized feed. Green algal cells without parasitic infection are provided as feed. Ratio between male and female prawns is maintained as 1:1 or 1:2 to facilitate the females release large number eggs mating can be said to have occurred by the presence of spermatophores over the thylum of the female.



### ACTIVITY LOG FOR THE EIGHTH WEEK

| Day & Date | Brief description of the daily activity                                       | Learning Outcome                                                       | Person In-Charge Signature |
|------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|
| Day - 1    | Reservoir or head pond<br>These are constructed near perennial water source   | It is the main pond supplying water to different ponds                 | W.S.L                      |
| Day - 2    | Hatching ponds : constructed near the main culture pond                       | fertilized egg develop into fry stage in these ponds.                  | W.S.L                      |
| Day - 3    | Nursery ponds : about 4 to 5 nursery ponds of 15x15x1.2m size are constructed | Fish fry of 3-4 days age is released into these ponds for growing them | W.S.L                      |
| Day - 4    | Rearing ponds :- are 25x10x1.5 m size 10-12 ponds are constructed             | Fish fry of 30 days are further grown on rearing ponds.                | W.S.L                      |
| Day - 5    | production ponds : These are perennial in nature 91x50 x 3.5 m in size        | small fisheries grown upto maximum size (marketable size)              | W.S.L                      |
| Day - 6    | Stocking ponds<br>Size 25m x 10m x 1.75 m                                     | Fully grown fishes & breeders are stocked till they are disposed       | W.S.L                      |

## WEEKLY REPORT

WEEK - 8 (From Dt. 3/02/23... to Dt: 09/2/23....)

Objective of the Activity Done:

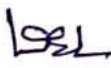
Various types of ponds.

Detailed Report:

Fish farm necessary for artificial culture should possess the following ponds for keeping up various stages seen in development of a fish each one of it has its own characters to be followed strictly to achieve good yield.

Reservoir ponds supply water to different ponds all through the year. Fertilized eggs are developed into fry stage in hatching boxes made up of mosquito net also used fish fry of 3-4 days age is released into nursery ponds for growing them for 30 days fish ponds of  $25 \times 10 \times 1.5$  m size. These are generally stocked in high density after 6 months or one year these fishes are introduced into production ponds up to attaining maximum market size these fishes & breeders are stocked in stocking ponds till they are disposed off for specific purposes.

### ACTIVITY LOG FOR THE NINETH WEEK

| Day & Date | Brief description of the daily activity                                            | Learning Outcome                                                                     | Person In-Charge Signature                                                            |
|------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | Temperature : fishes are poikilotherms organisms                                   | Temperature has influence on growth respiration & reproduction                       |    |
| Day - 2    | Depth of pond : physiochemical factors changes basing on depth of the pond         | light cannot penetrate too deep resulting in absence of procedure                    |    |
| Day - 3    | Turbidity : clay, sand & other floating particles reduce the transparency of water | prevents penetration of light, flood water is highly turbid.                         |  |
| Day - 4    | light : penetration of light into water depends upon intensity of light            | Aquatic plants & plankton sell etc prevent the penetration of light                  |  |
| Day - 5    | water currents : fishes generally breed only in flowing water                      | Hence waves & water currents formed due to the entry of water increases productivity |  |
| Day - 6    | shore conditions : around pond increases the area of water                         | Aquatic plants along the shore close to synthesized food                             |  |



## WEEKLY REPORT

WEEK - 9 (From Dt. 12/2/23... to Dt. 12/2/23...)

Objective of the Activity Done:

Influence of physical factors on  
Detailed Report: Fish ponds.

Prime physical factors of the pond influencing the productivity are temperature, depth of the pond, transparency of water, light and water movements.

Temperature has influence over respiration, growth and reproduction of fishes these are poikilothermous organisms whose body temperature changes in accordance with the temperature of the medium. Raise in temperature reduce the dissolved oxygen content. An ideal pond should have a depth of 2 weeks physico-chemical factors change basing on the depth. Turbid water containing soil & clay particles entangle between the gill filaments causing obstruction for respiration. Light is the most important factor for productivity. Waves and water currents formed due to the entry and exit of water contribute to the increased productivity due to availability high dissolved oxygen. If a pond has lengthy shore it is useful for growth aquatic plants due to more light availability it increases yield.

### ACTIVITY LOG FOR THE TENTH WEEK

| Day & Date | Brief description of the daily activity                                        | Learning Outcome                                                                            | Person In-Charge Signature                                                            |
|------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | Hydrogen ion concentration (pH) : it is based on dissolved substance           | pH of 6.8-9.0 result in high productivity of pond.                                          |    |
| Day - 2    | Dissolve oxygen :- Depleted oxygen is regenerated from photosynthesis          | productivity of pond depends upon availability & regeneration of oxygen                     |    |
| Day - 3    | Carbondioxide : it is released by aquatic organisms during respiratory process | CO <sub>2</sub> required for photosynthesis & over concentration kills fishes               |  |
| Day - 4    | Nutrients : Necessary for growth of organisms                                  | when nutrient are plenty yield will be very high.                                           |  |
| Day - 5    | Hardness of water : depends up on dissolved calcium and magnesium salts        | grows better at hardness of 15 ppm slows growth at less than 5 ppm                          |  |
| Day - 6    | Other chemicals : CaCO <sub>3</sub> , Nitrate, Ammonia sulphate & phosphate.   | CaCO <sub>3</sub> necessary for growth of bones<br>Remain nutrients enhance the phytoplant. |  |



## WEEKLY REPORT

WEEK - 10 (From Dt 28/2/23..... to Dt 5/3/23.....)

Objective of the Activity Done:

chemical factors in a fish pond

Detailed Report:

Hydrogen ion concentration, dissolved oxygen, carbon dioxide, nutrients, hardness of water and other minerals of the pond influence the growth and productivity of fish.

pH of 6.8-9.0 results in high productivity of the pond. Deficiency of water, or rain water, turbid water decreases the pH and increases acidity. A pH of less than 6.5 or more than 10.5 results in mortality of the organisms. Productivity of pond depends upon the availability and regeneration of oxygen. Oxygen content in this pond is increased by using aerators.  $\text{CO}_2$  is required for photosynthesis but over concentration of  $\text{CO}_2$  may result in causing mass mortality of aquatic organisms.

Nutrients are necessary for growth of organisms. Micro elements like Copper, Nickel, Magnesium, Zinc & Salts formed of Na, K, Mg, Ca, Fe, in the form of Sulphates, phosphates, nitrates and carbonates. Organisms grow better at a hardness of 15 ppm. Sulphate & phosphates are necessary for growth for the formation of chlorophyll. Magnesium salts are necessary.



# ACTIVITY LOG FOR THE ELEVENTH WEEK

| Day & Date | Brief description of the daily activity                                                                          | Learning Outcome                                                                       | Person In-Charge Signature                                                            |
|------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | Integrated fish farming & advantages: culturing fish in association with other agriculture & poultry             | Fish wastes fertilise the crop fields while waste from crops & poultry chicks are use  |    |
| Day - 2    | Fish-prawn culture: prawn can be cultured in ponds primarily meant for ap culture                                | excreta of Carps forms food for prawns extra income earn.                              |    |
| Day - 3    | Fish-poultry: here poultry farm is constructed over a flat farm built of bamboo sticks above water level of pond | this facilitates the direct fertilization of pond by droppings of chicks.              |  |
| Day - 4    | Rice-fish cultured simultane-ously: Rice varieties AOT6, A DT 7, Raja Rani are used.                             | Channa striata, clarius, catla are generally grown along with rice in fields           |  |
| Day - 5    | Rational Rice & fish culture: Rice fields are converted to fish culture ponds after harvesting                   | soil become fertile with excreta of fish improves rice yields.                         |  |
| Day - 6    | Coconut & banana: fish culture canal in between the rows of plants are utilized for fish culture.                | It provides continuous water to plants & utilized of space and gives additional income |  |

## WEEKLY REPORT

WEEK - 11 (From Dt 29/2/23... to Dt 27/2/23...)

Objective of the Activity Done:

Integrated fish farming technology:

Detailed Report:

Culturing the fish in association with agriculture or ducks or chickens or pigs or prawns is called integrated fish or mixed culture. Fish wastes are fertilizer the crops and poultry chicks are used as feed by fish individually these farming methods may yield low income but integrated farming technique yields multiple products of nutritional value and economic significance.

Prawn can be cultured in ponds primarily meant for crop culture, carps are not predators. Their excreta forms food for prawns. This facilitates additional income of Rs 10,000 per hectare. Fish poultry is also a better integrated farming as poultry wastes are used as food for fish.

Rice-fish culture can be done in two ways either both of them cultured simultaneously or alternatively canals or ditches are constructed in rice fields where fishes can be grown. The selected fish variety should withstand high temperatures and low depth conditions. The rice variety with withstanding flood conditions are generally selected. Some technique can also used in coconut or banana-fish culture where canals are constructed in between the rows of plants.



### ACTIVITY LOG FOR THE TWELVETH WEEK

| Day & Date | Brief description of the daily activity                                                       | Learning Outcome                                                                           | Person In-Charge Signature                                                            |
|------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Day - 1    | Cotton mouth disease is this is caused by infection of feni bacteria                          | characteristic growth of white cotton like filaments around the mouth                      |    |
| Day - 2    | Furunculosis is this is caused by infection of Aeromonas salmonicida.                         | blister with water or pus are formed at the site of infection such as skin                 |    |
| Day - 3    | Tuberculosis : This is due to infection by mycobacteria                                       | disease is identified by finrot wounds on body, blister, loss of appetite etc              |  |
| Day - 4    | Proper : Initially it is due to viral infection & secondary infection by bacteria pseudomonas | Swelling of belly due to accumulation yellow colour liquid in body cavity, scale protruded |  |
| Day - 5    | Columnaris : this is due to infection of bacteria chondrocy columnaris                        | Identified by formation of spots over body scales, falls of & mass mortality               |  |
| Day - 6    | prophylactic measures :- By using antibiotics & probiotic we can prevent infection            | Chemical bath of infected fish & using antibiotics fishes can be cured                     |  |



## WEEKLY REPORT

WEEK - 12 (From Dt. 7/3/23..... to Dt. 15/3/23...)

Objective of the Activity Done:

Bacterial diseases & prophylactic measures.

Detailed Report:

Bacteria, virus, protozoans are common parasites seen harboring the fishes. Infection by pathogens causes retardation of growth & some times death of fish which leads to loss for cultivators.

cotton mouth disease, furunculosis & fin rot tail rot disease, Tuberculosis, Dropsy, Columnaris are the various bacterial diseases of fishes. Their symptoms are like wounds on body, blisters over the internal organs, spots over the body, Broken fin rays & cotton moulds at mouth & mass mortality of fishes also sometimes seen due to these bacterial diseases. Their symptoms vary from different bacterial diseases.

prophylactic measures: General drugs used to cure the disease are sulphonamide, sulphadiazine, sulphamonomex etc. Infections can be promoted by mixing antibiotic like chloramphenicol, tetracycline, erythromycin etc. chemical bath of infected fishes cure the disease. maintaining personal clean water and obyring of pond frequently prevents many disease. use of probiotic also enhance immunity of fish.

## CHAPTER 5: OUTCOMES DESCRIPTION

Describe the work environment you have experienced (in terms of people interactions, facilities available and maintenance, clarity of job roles, protocols, procedures, processes, discipline, time management, harmonious relationships, socialization, mutual support and teamwork, motivation, space and ventilation, etc.)

Good environment very important for learning and doing job (or) any other work. Good environment is always boost up your interest. A working environment is the setting social features and physical features in which you perform your job. These elements can impact feelings of well being work place relationships, collaboration and efficiency and employee health. The office more comfortable and improving your communication. The work environment impacts my mood, drive, mental health and performances. my confidence is increased, overall environment is good at fishery dept through positively influence entire working environment. the office is more comfortable improve my communication. I feels there is a good interaction at dept. main facilities to learn there is enough. They fix time from morning to evening for classes and framed timetable accordingly.

Describe the real time technical skills you have acquired (in terms of the job-related skills and hands on experience)

Internship provided valuable personal experience and allow us to test theories concepts we have been introduced to throughout our college career skills we have picked up during course area is

### Real time skills

- ① Communication
- ② Collaboration
- ③ Time management
- ④ Critical thinking
- ⑤ patience.

### Technical Skills

- 1. Data collection
- 2. Harvest time
- 3. Data entry
- 4. Fish Health
- 5. Laboratory equipment
- 6. Fish culture.



Describe the managerial skills you have acquired (in terms of planning, leadership, team work, behaviour, workmanship, productive use of time, weekly improvement in competencies, goal setting, decision making, performance analysis, etc.

- Open communication and mutual support are 2 characteristic of good team work contribute to increased job satisfaction and active management of idea sharing among the people.
- A successful and qualified intern needs to have willingness to learn.
- Internship are introduction to career fields that have the capacity to teach really valuable lessons for an intern's future career path.
- It teaches up to be great listeners who know how to take decision.
- Showing willingness to learn work experiences at fields to offer the host employees.
- Every learning opportunities that comes our way familiarize ourself with various aspects of related areas.
- segregating ourself with other interns to hand out with other interns and make sure to establish a good work relationship with others.

Describe how you could improve your communication skills (in terms of improvement in oral communication, written communication, conversational abilities, confidence levels while communicating, anxiety management, understanding others, getting understood by others, extempore speech, ability to articulate the key points, closing the conversation, maintaining niceties and protocols, greeting, thanking and appreciating others, etc.,)

Think before you speak :-

Always pause before you speak, not saying the 1<sup>st</sup> thing that comes to mind. Take a moment and pay close attention to what you say and how you say it.

written things down :-

Take a note while you are talking to another person or when you are in a meeting in the internship.

Body language matters :-

This is important for face to face meeting and for also video conference make sure that appearance accessible so have open body language keep an eye contact.

maintain a positive attitude :-

Your positive attitude will shine through and other person will know it and helps in people will respond positively to you.

Describe how could you could enhance your abilities in group discussions, participation in teams, contribution as a team member, leading a team/activity.

The participating candidates will be assessed in terms of clarity of the thought, expression and aptness of languages.

Importance of Interpersonal skills :-

Interpersonal skills reflect ability of individual to interact with other members of group in a brief situation.

- Emotional maturity and balance promotes good inter personal relationship.
- The person has to be more centric and less self centered

Importance of presentation skills :-

presentation of an effective way to communicate a large no. of people at same skill.

Leadership skill :-

Ability to take leadership roles and lead, inspire/carry team along to help them achieve groups objectives.

Analytical skill :-

Ability to analyze and persuade others to see problems from multiple perspectives without hurting group members.



Describe the technological developments you have observed and relevant to the subject area of training (focus on digital technologies relevant to your job role)

Technological developments includes equipment and practices used for ponding harvesting, handling processing and distributing of aquatic resources and their products. processing technology helps reduce food loss and waste, thus reducing pressure on fisheries resources and fostering sustainability of sector, processing of turn result in quantity of by products. Harvesting of aquatic resources and production is done either in wild or in controlled environments estimates can be made quicker meanings fish spend less time out of water, increasing their survival rate. technology & techniques like Genomic and genetic analysis are useful technologies for improving productivity and the quality of aquaculture products. SNPs have been emerged as genotyping technology which is widely used. Lab equipment like salinometer pH meter helps in maintain the equality, salinity of water before introduction of fishes in pond for culture. test include Nitrate test will help to identify nitrate levels in ponds or in culture.

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### Student Self Evaluation of the Short-Term Internship

|                                                                                                 |                                       |
|-------------------------------------------------------------------------------------------------|---------------------------------------|
| Student Name: <i>Sankar . Nithin</i>                                                            | Registration No: <i>2022001049074</i> |
| Term of Internship: From: <i>12/12/2022</i>                                                     | To: <i>16/03/2023</i>                 |
| Date of Evaluation: <i>16-03-2023</i>                                                           |                                       |
| Organization Name & Address: <i>Fisheries Department office Srisaparam</i><br><i>Srikakulam</i> |                                       |

Please rate your performance in the following areas:

Rating Scale: Letter grade of CGPA calculation to be provided

|    |                                    |   |   |   |   |   |
|----|------------------------------------|---|---|---|---|---|
| 1  | Oral communication                 | 1 | 2 | 3 | 4 | 5 |
| 2  | Written communication              | 1 | 2 | 3 | 4 | 5 |
| 3  | Proactiveness                      | 1 | 2 | 3 | 4 | 5 |
| 4  | Interaction ability with community | 1 | 2 | 3 | 4 | 5 |
| 5  | Positive Attitude                  | 1 | 2 | 3 | 4 | 5 |
| 6  | Self-confidence                    | 1 | 2 | 3 | 4 | 5 |
| 7  | Ability to learn                   | 1 | 2 | 3 | 4 | 5 |
| 8  | Work Plan and organization         | 1 | 2 | 3 | 4 | 5 |
| 9  | Professionalism                    | 1 | 2 | 3 | 4 | 5 |
| 10 | Creativity                         | 1 | 2 | 3 | 4 | 5 |
| 11 | Quality of work done               | 1 | 2 | 3 | 4 | 5 |
| 12 | Time Management                    | 1 | 2 | 3 | 4 | 5 |
| 13 | Understanding the Community        | 1 | 2 | 3 | 4 | 5 |
| 14 | Achievement of Desired Outcomes    | 1 | 2 | 3 | 4 | 5 |
| 15 | OVERALL PERFORMANCE                | 1 | 2 | 3 | 4 | 5 |

Date:

*S. Nithin*  
Signature of the Student

*Evaluation by the Supervisor of the Intern Organization*

Page No



Student Name: Sawara Nithin

Registration No: 2022001049074

Term of Internship:

From: 12/12/2022

To: 16/03/2023

Date of Evaluation: 16/3/2023

Organization Name & Address: Fisheries Development office Elisapuram SKM

Name & Address of the Supervisor K. Gangadharao FDO, Srikakulam  
with Mobile Number

9866089765

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

|    |                                    |   |   |   |   |   |
|----|------------------------------------|---|---|---|---|---|
| 1  | Oral communication                 | 1 | 2 | 3 | 4 | 5 |
| 2  | Written communication              | 1 | 2 | 3 | 4 | 5 |
| 3  | Proactiveness                      | 1 | 2 | 3 | 4 | 5 |
| 4  | Interaction ability with community | 1 | 2 | 3 | 4 | 5 |
| 5  | Positive Attitude                  | 1 | 2 | 3 | 4 | 5 |
| 6  | Self-confidence                    | 1 | 2 | 3 | 4 | 5 |
| 7  | Ability to learn                   | 1 | 2 | 3 | 4 | 5 |
| 8  | Work Plan and organization         | 1 | 2 | 3 | 4 | 5 |
| 9  | Professionalism                    | 1 | 2 | 3 | 4 | 5 |
| 10 | Creativity                         | 1 | 2 | 3 | 4 | 5 |
| 11 | Quality of work done               | 1 | 2 | 3 | 4 | 5 |
| 12 | Time Management                    | 1 | 2 | 3 | 4 | 5 |
| 13 | Understanding the Community        | 1 | 2 | 3 | 4 | 5 |
| 14 | Achievement of Desired Outcomes    | 1 | 2 | 3 | 4 | 5 |
| 15 | OVERALL PERFORMANCE                | 1 | 2 | 3 | 4 | 5 |



(K. GANGADHARA RAO)  
E.O. No: 0104/01  
Signature of the Supervisor  
Fisheries Development Officer  
Srikakulam Dist

Page No



## Internal & External Evaluation for Semester Internship

### Objectives:

- Explore career alternatives prior to graduation.
- To assess interests and abilities in the field of study.
- To develop communication, interpersonal and other critical skills in the future job.
- To acquire additional skills required for the world of work.
- To acquire employment contacts leading directly to a full-time job following graduation from college.

### Assessment Model:

- There shall be both internal evaluation and external evaluation
- The Faculty Guide assigned is in-charge of the learning activities of the students and for the comprehensive and continuous assessment of the students.
- The assessment is to be conducted for 200 marks. Internal Evaluation for 50 marks and External Evaluation for 150 marks
- The number of credits assigned is 12. Later the marks shall be converted into grades and grade points to include finally in the SGPA and CGPA.
- The weightings for Internal Evaluation shall be:
  - Activity Log 10 marks
  - Internship Evaluation 30 marks
  - Oral Presentation 10 marks
- The weightings for External Evaluation shall be:
  - Internship Evaluation 100 marks
  - Viva-Voce 50 marks
- The External Evaluation shall be conducted by an Evaluation Committee comprising of the Principal, Faculty Guide, Internal Expert and External Expert nominated by the affiliating University. The Evaluation Committee shall also consider the grading given by the Supervisor of the Intern Organization.
- Activity Log is the record of the day-to-day activities. The Activity Log is assessed on an individual basis, thus allowing for individual members within groups to be assessed this way. The assessment will take into consideration



the individual student's involvement in the assigned work.

- While evaluating the student's Activity Log, the following shall be considered -
  - a. The individual student's effort and commitment.
  - b. The originality and quality of the work produced by the individual student.
  - c. The student's integration and co-operation with the work assigned.
  - d. The completeness of the Activity Log.
- The Internship Evaluation shall include the following components and based on Weekly Reports and Outcomes Description
  - a. Description of the Work Environment.
  - b. Real Time Technical Skills acquired.
  - c. Managerial Skills acquired.
  - d. Improvement of Communication Skills.
  - e. Team Dynamics
  - f. Technological Developments recorded.



## INTERNAL ASSESSMENT STATEMENT

Name Of the Student: Suvarna . Nithin

Programme of Study: Internship

Year of Study: 2022 to 2023

Group: III BSc (B2C) Em

Register No/H.T. No: 2022001049074

Name of the College: Government Degree College (mum) Srikakulam

University: Dr. B. Ambedkar University

| Sl.No | Evaluation Criterion  | Maximum Marks | Marks Awarded |
|-------|-----------------------|---------------|---------------|
| 1.    | Activity Log          | 10            |               |
| 2.    | Internship Evaluation | 30            |               |
| 3.    | Oral Presentation     | 10            |               |
|       | GRAND TOTAL           | 50            |               |

Date:

Signature of the Faculty Guide

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## EXTERNAL ASSESSMENT STATEMENT

Name Of the Student: Sawara .Nithin

Programme of Study: Internship

Year of Study: 2022 to 2023

Group: III BSc. CBZ EM

Register No/H.T. No: 2022001049074

Name of the College: Government Degree College (men) Srikakulam

University: Dr. B.R. Ambedkar University.

| Sl.No                               | Evaluation Criterion                                                | Maximum Marks | Marks Awarded |
|-------------------------------------|---------------------------------------------------------------------|---------------|---------------|
| 1.                                  | Internship Evaluation                                               | 80            | 75            |
| 2.                                  | For the grading giving by the Supervisor of the Intern Organization | 20            | 19            |
| 3.                                  | Viva-Voce                                                           | 50            |               |
|                                     | TOTAL                                                               | 150           |               |
| GRAND TOTAL (EXT. 50 M + INT. 100M) |                                                                     | 200           |               |

Signature of the Faculty Guide

Signature of the Internal Expert

Signature of the External Expert

Signature of the Principal with Seal



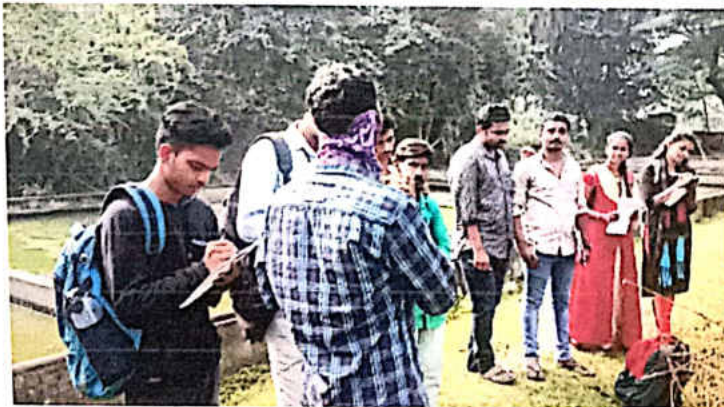
  
(K. GANGADHAR)  
E.I.D. No: 0104 104  
Fisheries/Development Officer  
Srikakulam Dist

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THE

# BEST THING

TO HOLD ONTO IN LIFE IS EACH OTHER







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Atmakur (V)Mangalagiri (M), Guntur, Andhra Pradesh, Pin - 522 503  
[www.apsche.ap.gov.in](http://www.apsche.ap.gov.in)