

Applications are Invited for  
**CERTIFICATE COURSE IN AQUARIUM  
FABRICATION AND MANAGEMENT**  
**(COURSE CODE: CCAFM)**

2020 Admission

Organised by Department of Zoology, S N College  
Kollam

Duration: 6 Months

Total Learning Hours: 30

Contact Course Coordinator for more information:

Dr S. Jisha, Assistant Professor, Department of  
Zoology, S. N. College, Kollam

Phone Number: 9895066054

Email: [jishasooriya@gmail.com](mailto:jishasooriya@gmail.com)



SREE NARAYANA COLLEGE, KOLLAM

DEPARTMENT OF ZOOLOGY

SYLLABUS

2020 Admission

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Certificate Course in Aquarium Fabrication and Management

Course Code: ZO 01 CCAFM

Course Period: 6 Months

Total Hours: 30

Mode: Online and Asynchronous through google classroom

Course fee: In the context of Covid 19 pandemic & Lockdown, the course fee is waved off.

Aim of the course

To make the student aware of the vast potentials and vocational opportunities involved in aquarium fabrication and management

Objectives of the course

- To learn the scientific method of fabricating an aquarium
- To learn the common troubleshooting mechanisms in aquarium management

Relevance

An aquarium is a vivarium of any size having at least one transparent side in which aquatic plants or animals are kept and displayed. Fish keepers use aquaria to keep fish, invertebrates, amphibians, aquatic reptiles, such as turtles, and aquatic plants. During 1950s all fish kept in captivity were fed with live food. By the invention of flake foods, the hobby was revolutionised. From there on, the hobby flourished. Fuelled by easier and shorter transportation measures, more and more breeders and the enthusiasts helped the hobby to become more popular. The inventions and the understanding of water chemistry and aquarium flora and fauna within the past 30 years has enabled just about anyone to enjoy fish-keeping easiness. The ornamental fish industry is peaking annually and at the same time demand for aquarium is increasing. So in this context, there is ample scope for a certificate course which add more fuel in this area.

Outcome

The learners will be equipped with the skill of fabricating an aquarium independently. They can start a small-scale industry even at home. Students and women can easily involve in the aquarium fabrication techniques and can be opted as a good part-time job. The finished

aquarium can be supplied at pet shops or can be directly on market. Reducing the unemployment rate and financial freedom are the ultimate aims.

#### Module I (5 Hours)

Importance and history of aquarium fish keeping.

Design and construction of aquaria: aquarium fabrication- shape, size, volume, type of glass tank, cutting of glass, preparation of glass tank, strengthening and supporting of tank, fitting of tanks into room settings.

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#### Module II (5 Hours)

Aquarium floor setting type and size of pebbles, gravels, granites used for bed setting and its advantages, Filters, aquarium accessories, aquarium plants, freshwater and marine ornamental fishes.

#### Module III (5 hrs)

Water quality management in aquarium systems - sources of water, containers, storage, temperature, pH dissolve carbon dioxide, ammonia, hardness, turbidity and ozone in aquarium.

#### Module IV(5 hours)

Aquarium maintenance- Setting up of a freshwater aquarium and a marine aquarium and its maintenance, Food and feeding, Control of algal growth, snails and other predators, Common diseases, their symptoms and management.

#### Field study (10 hours)

Students have to visit ornamental fish hatchery/ pet shop and submit a report along with supporting evidences like photographs.

#### References

Ornamental Fishkeeping, K. Vijayakumaran Nair & K. G. Manju, Academica Publications (2020).

Ultimate Encyclopedia of Aquarium Fish & Fish Care, Mary Baily & Gina Sandford (2015).

*Thiruvalluvar*  
Principal  
Sree Narayana College  
Kollam



**BOARD OF STUDIES MEMBERS (2020-2021)**

**DEPARTMENT OF ZOOLOGY**

**SREE NARAYANA COLLEGE, KOLLAM**

Certificate Course in Aquarium Fabrication and Management (Course Code: CCAFMM)

2021 Admission

Course Co-ordinator: Dr S. Jisha, Assistant Professor, Department of Zoology, S. N. College, Kollam

**BOARD OF STUDIES FOR CERTIFICATE COURSE IN AQUARIUM  
FABRICATION AND MANAGEMENT**

Chairperson: Dr S. Jisha, Assistant Professor, Department of Zoology, S. N. College, Kollam

Members:

Dr A. Bijukumar, Professor, Department of Aquatic Biology & Fisheries, University of Kerala

Dr Benno Pereira, Assistant Professor, Department of Zoology, University of Kerala

Dr Mithun Sukumaran, Department of Aquatic Biology & Fisheries, University of Kerala

Dr Deepak J Pazhayamadom, Research Officer, Paspaley Pearling Company, Australia

Dr B. T. Sulekha, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr B. Hari, Assistant Professor, Department of Zoology, S. N. College, Kollam

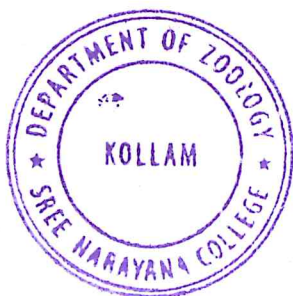
Dr S. Sheeba, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr Balamurali R. S., Assistant Professor, Department of Zoology, M. G. College, Thiruvananthapuram

Dr Divya T. Dharan, Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr Sheeja P. U., Assistant Professor, Department of Zoology, S. N. College, Kollam

Dr Divya P. S., Assistant Professor, Department of Zoology, S. N. College, Kollam

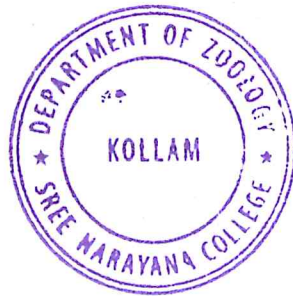


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**Dr. SULEKHA B.T**  
Associate Professor & Head  
P.G. & Research Dept. of Zoology  
S.N. College, Kollam-691001

## LIST OF TEACHERS HANDLED THE CLASSES- 2020-21

- Dr S Jisha
- Dr B Hari
- Dr A Bijukumar
- Dr Deepak J Pazhayamadom
- Dr Benno Perriera
- Dr Mithun Sukumaran



A handwritten signature in blue ink, appearing to read "Sulekha B.T.", written over a horizontal line.



**Dr. SULEKHA B.T**  
Associate Professor & Head  
P.G. & Research Dept. of Zoology  
S.N.College, Kollam-691001



Minutes of the Certificate Course  
(Aquarium Fabrication & Management)

Meeting for the Certificate Course Lay  
Department Committee (Aquarium Fabrication  
& Management), Department of Zoology,  
S.N. College, Kollam was held on 25/11/2019  
in the department staff room at  
3.45pm.

Members Attended:

- Dr. B.T. Sulekha  HOD, Dept. of Zoology
- Dr. B. Harini  Ass. Prof. Dept. of Zoology
- Dr. S. Sheeba  Associate Prof. Dept. of Zoology
- Dr. S. Jisha  Associate Prof. Dept. of Zoology
- Nisha. V.S  Assistant Prof. Dep. of Zoology

Agenda: Fixation of Date of Board of  
Studies Meeting

Decisions Taken: -> Members of the Board  
of Studies are fixed.  
-> Syllabus approval



  
Dr. SULEKHA B.T.  
Associate Professor & Head  
Research Dept. of Zoology  
Sree Narayana College, Kollam-691001

**NOTICE**

All Board of Studies members of Certificate Course in Aquarium Fabrication and Management are requested to attend a meeting on 25/11/19 ..... at 3.45 pm.

Agenda: 1. Fixation of Date of Board of Studies

CO-Ordinator  
Certificate Course in Aquarium Fabrication and Management

Date: 25/11/19  
Kollam



no need to sign till 10 o'clock  
with signature

Faculty members till 10 o'clock  
no need to sign

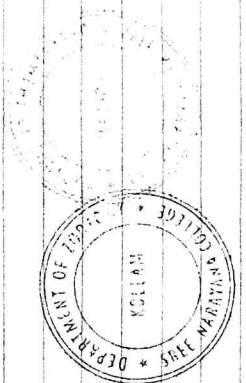
**NOTICE**

All Board of Studies members of Certificate Course in Aquarium Fabrication and Management are requested to attend a meeting on 26/11/2019 at 3:45 pm.

- 1. Application Invitation
- 2. Course Commencement

CO-Ordinator  
Certificate Course in Aquarium Fabrication and Management

Date: 26/11/2019  
Kollam



Minutes of the Certificate Course (Acquisition Fabrication & Management)

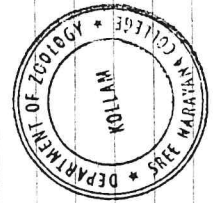
Meeting of the department committee of the Certificate Course in Acquisition Fabrication and Management of the Department of Zoology, S.N. College Kollam was held on 26/11/19 in the department staff room at 3:30pm.

Members:

- 1. Dr. B.F. Sulekha *MS* HOD Dept. of Zoology
- 2. Dr. B. Hari *MS* Asst. Prof. Department of Zoology
- 3. Dr. S. Sheeba *MS* Associate Prof. Dept of Zoology
- 4. Dr. Joke.S *MS* " "
- 5. Nisha.V.S *MS* Assistant Prof. Dept of Zoology

- Agenda: 1. Applications Inviting of Course
- 2. Commencement of Course.

Decisions Taken: 1. Announcement for inviting applications  
2. Date of Commencement of Course.



*S. Nisha*  
Dr. Sulekha P.T.  
Associate Professor & Head  
P.O. Research Dept. Zoology  
S.N. College, Kollam - 692011

Minutes of the Certificate Course  
in Aquarium Fabrication & Management  
Meeting of the Department Committee of the  
Certificate Course in Aquarium Fabrication &  
Management of the Department of Zoology, S.N.  
College, Kollam was held on 12/5/2020 in  
the department staff room at 3:45 pm.

**NOTICE**

All Board of Studies members of Certificate Course in Aquarium Fabrication and Management are requested to attend a meeting on 12/5/2020 at 3:45 pm.

- Agenda: 1. Examination Date fixation
- 2. Review of the Course.

CO-Ordinator

Certificate Course in Aquarium Fabrication and Management

Date: 12/5/2020

Kollam



**Minutes of the Certificate Course**

— Aquarium fabrication & Management

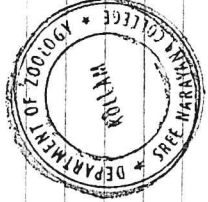
Meeting of the Department Committee of the Certificate Course in Aquarium Fabrication & Management of the Department of Zoology, S.N. College, Kollam was held on 15/10/20 in the department staff room at 3:45 pm.

Members Attended:

- 1. Dr. B. T. Sulekha *[Signature]* HOD Dept of Zoology
- 2. Dr. B. Hasi *[Signature]* Ass. Prof. Dept of Zoology
- 3. Dr. S. Sheeba *[Signature]* Associate Prof. Dept of Zoology
- 4. Dr. S. JISHA *[Signature]* "
- 5. Mrs Nisha V S *[Signature]* Assistant Prof. Dept of Zoology

Agenda: To Conduct examinations and issue certificates.

- 1. Review of the Course after examination
- 2. Certificate issue.



*[Signature]*  
Dr. SULEKHA B.T  
Associate Professor & Head  
P.G. & Research Dept of Zoology  
S.N. College, Kollam-691001



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**NOTICE**

All Board of Studies members of Certificate Course in Aquarium Fabrication and Management are requested to attend a meeting on 23/11/19 at 3.45 pm.

- Agenda: 1. Fixation of date for the next board of Studies  
 2. Approval of Syllabus.

CO-Ordinator

Certificate Course in Aquarium Fabrication and Management

Date: 23/11/19

Kollam



Minutes of the Certificate Course in Aquarium Fabrication and Management

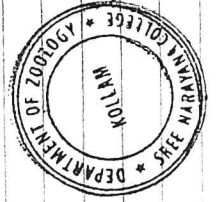
Meeting of the department Committee members of the Certificate Course in Aquarium fabrication and Management of the Department of Zoology, S.N. College Kollam was held on 23/11/19 in the Department Staff room at 3.45pm

**Members Attended:**

1. Dr. B. T. Sulekha <sup>110D Dept of Zoology</sup>
2. Dr. B. Han <sup>Asst. Prof. Dept of Zoology</sup>
3. Dr. S. Sheela <sup>"</sup>
4. Dr. S. Jisha <sup>Associate prof. Dept. of Zoology</sup>
5. Dr. Piyaz T. Dhanam <sup>Asst. Prof. Dept of Zoology</sup>
6. Dr. Sheeja V. V <sup>Asst. Prof. Dept of Zoology</sup>
7. Dr. Divya P. S <sup>"</sup>

Agenda: → Fixation of date for the board of Studies & Syllabus approval.

Discussions taken: 1) Decided the members of Board of Studies 2) Syllabus was approved.



*Handwritten signature of Dr. Sulekha B. T.*  
 DR. SULEKHA B. T.  
 Associate Professor & Head  
 P.G. & Research Dept. of Zoology  
 S.N. College, Kollam-691001

All Board of Studies members of Certificate Course in Aquarium Fabrication and Management are requested to attend a meeting on 4/12/20 ..... at 3:45 pm.

- Agenda: 1. Invitation of applications  
2. Date of start of the Course.

CO-Ordinator

Certificate Course in Aquarium Fabrication and Management

Date: 4/12/20

Kollam



Minutes of the Certificate Course in Aquarium Fabrication and Management

Meeting of the Department Committee of the Certificate Course in Aquarium Fabrication and Management, of the Dept. of Zoology, S.N. College, Kollam, was held on 04/12/20 in the Department Staff room at 3:45 pm.

Members:

Dr. B. T. Sulekha ~~Dr.~~

Dr. B. Hari ~~Dr.~~

Dr. S. Shreya ~~Dr.~~

Dr. S. Jisha ~~Dr.~~

Dr. Divya T. Dharan ~~Dr.~~

Dr. Shreya V U ~~Dr.~~

Dr. Divya P S ~~Dr.~~

Agenda: - Invite applications and Commencement of the Certificate Course.

Decisions: Taken:

1. Announcement for inviting applications
2. Course Commencement date was fixed.



*Emilyp*

Dr. SULEKHA B.T.  
Associate Professor & Head  
P.G.R. Research Dept. of Zoology  
S.N. College, Kollam-691001

# Sree Narayana College Kollam

Certificate courses 2020-2021

Name of Dept : ZOOLOGY

Name of Course: AQUARIUM FABRICATION & MAINTENANCE

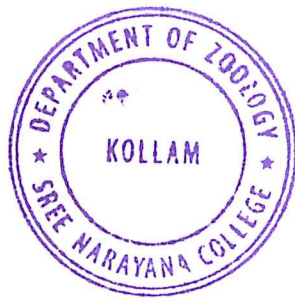
Sl No	Enrollment No:	Name of the student	Name of the dept of the student	Completed or not
1	CCAFM2020-001	KAVYA S	ZOOLOGY	YES
2	CCAFM2020-002	ANJANA A S	ZOOLOGY	YES
3	CCAFM2020-003	MANIKANDAN JAYAN	ZOOLOGY	YES
4	CCAFM2020-004	NITHIN S PRASAD	ZOOLOGY	YES
5	CCAFM2020-005	LEKSHMI S	ZOOLOGY	YES
6	CCAFM2020-006	KRISHNANUNNI	ZOOLOGY	YES
7	CCAFM2020-007	ABHIRAMI S	ZOOLOGY	YES
8	CCAFM2020-008	ASWANI SIVAN	ZOOLOGY	YES
9	CCAFM2020-009	SAJITH S	ZOOLOGY	YES
10	CCAFM2020-010	PARVATHY S	ZOOLOGY	YES
11	CCAFM2020-011	AKSH CHANDRAN	ZOOLOGY	YES
12	CCAFM2020-012	SAMBATH S	ZOOLOGY	YES
13	CCAFM2020-013	AMRUTHA P	ZOOLOGY	YES
14	CCAFM2020-014	ANILA S KUMAR	ZOOLOGY	YES
15	CCAFM2020-015	ABHIRAMI B	ZOOLOGY	YES
16	CCAFM2020-016	BINOY BENJAMIN	ZOOLOGY	YES
17	CCAFM2020-017	SURYANARAYANAN S S	ZOOLOGY	YES
18	CCAFM2020-018	DEVIKA ANIL	ZOOLOGY	YES
19	CCAFM2020-019	SARATH S	ZOOLOGY	YES



*(Handwritten Signature)*

**Dr. SULEKHA B.T**  
Associate Professor & Head  
P.O. & Research Dept. of Zoology  
Sree Narayana College, Kollam-691001

NOMINAL ROLL 2020-21		
Sl. No.	Name	Remarks
1	Kavya S.	
2	Anjana. A. S.	
3	Manikandan Jayan	
4	Nithin S. Prasad	
5	Lekshmi S.	
6	Krishnanunni	
7	Abhirami S.	
8	Aswani Sivan	
9	Sajith S.	
10	Parvathy S.	
11	Akash Chandran	
12	Sambath S.	
13	Amrutha P.	
14	Anila S. Kumar	
15	Abhirami B.	
16	Binoy Benjamin	
17	Suryanarayan S. S.	
18	Devika Anil	
19	Sarath S.	



*Sulekha B.T.*

**Dr. SULEKHA B.T**  
Associate Professor & Head  
P.G.& Research Dept.of Zoology  
S.N.College, Kollam-691001



LIST OF STUDENTS PASSED 2020-21		
Sl. No.	Name	Remarks / Marks
1	Kavya S.	98%
2	Anjana. A. S.	96%
3	Manikandan Jayan	88%
4	Nithin S. Prasad	89%
5	Lekshmi S.	91%
6	Krishnanunni	85%
7	Abhirami S.	84%
8	Aswani Sivan	91%
9	Sajith S.	83%
10	Parvathy S.	92%
11	Akash Chandran	90%
12	Sambath S.	83%
13	Amrutha P.	92%
14	Anila S. Kumar	91%
15	Abhirami B.	84%
16	Binoy Benjamin	95%
17	Suryanarayan S. S.	91%
18	Devika Anil	87%
19	Sarath S.	86%



*Sulekha B.T.*

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Associate Professor & Head  
P.G. & Research Dept. of Zoology  
S.N. College, Kollam-691001



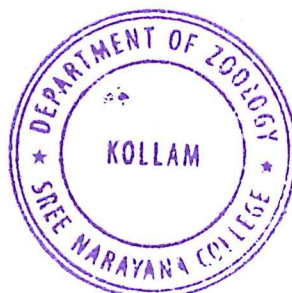


**CERTIFICATE COURSE: AQUARIUM FABRICATION & MAINTENANCE  
(ZO-01-CCAFM)**

**REPORT  
(2020-2021)**

- Applications were invited for the new course on 22/11/2020.
- 29 candidates applied for the course
- 25 of them were selected
- Selection list was published on 5/12/2020
- Classes were conducted in synchronised mode. Online mode was through google meet and google classroom. Classes were started on 18/12/2020.
- Exams were conducted online on 14/5/2021.
- Results were published on 21/5/2021.
- Certificates were distributed on 4/6/2021
- 100% of students passed the exam

*Turhalharajil*  
Principal  
Sree Narayana College  
Kollam



*Sulekha B.T*

**Dr. SULEKHA B.T**  
Associate Professor & Head  
P.G. & Research Dept. of Zoology  
S.N. College, Kollam-691001