



**THE STANDARD FIREWORKS RAJARATNAM COLLEGE FOR WOMEN (AUTONOMOUS),
Sivakasi**

(Affiliated to Madurai Kamaraj University, Reaccredited with "A" Grade by NAAC,
College with Potential for Excellence by UGC & Mentor Institution under UGC PARAMARSH)

NAAC SSR Cycle IV (2015-2020)

1.3. CURRICULUM ENRICHMENT

**1.3.4. FIELD PROJECTS / INTERNSHIPS /
STUDENT PROJECTS**

FIELD VISIT



**THE STANDARD FIREWORKS RAJARATNAM COLLEGE FOR WOMEN (AUTONOMOUS),
SIVAKASI – 626 123.**

(Affiliated to Madurai Kamaraj University, Re-accredited with A Grade by NAAC,
College with Potential for Excellence by UGC and Mentor Institution under UGC PARAMARSH)

DEPARTMENT OF MICROBIOLOGY

FIELD VISIT TO NILA SEA FOODS

2019 -2020



THE STANDARD FIREWORKS RAJARATNAM COLLEGE FOR WOMEN (AUTONOMOUS)

Affiliated to Madurai Kamaraj University Reaccredited with 'A' Grade by NAAC
& College with Potential for Excellence by UGC

SIVAKASI

Mrs. A.Aruna, B.Sc.,
Secretary

Dr.(Mrs.)T.Palaneeswari, M.Com.,M.Phil.,Ph.D.
Principal

28.01.2020

To

The Managing Director,
Nila Sea Foods,
137, Pudur Pandiyapuram
Thothukudi- 628 002.

Sir,

Sub: Permission to visit Nila Sea Foods - reg.

53 students (with 3 staff members) of Microbiology Department of our Institution would like to visit Nila Sea Foods company to learn about the processing, packaging and storage of Marine products on 31.01.2020. Kindly permit them to visit the same.

Thanking you,

T. Palaneeswari
PRINCIPAL
PRINCIPAL
The Standard Fireworks
Rajaratnam College
for Women,
SIVAKASI

S. S. Aruna

* Enrichment with knowledge * Empowerment of women *

Phone : 04562 - 220389
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Website : www.sfrcollege.edu.in



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DEPARTMENT OF MICROBIOLOGY

FIELD VISIT TO NILA SEA FOODS

2019 -2020

28.01.2020

From
Dr.A.Karthika
Assistant professor in Department of Microbiology,
The Standard Fireworks Rajaratnam College for Women,
Sivakasi.

Through
Head in charge,
Department of Microbiology,
The Standard Fireworks Rajaratnam College for Women,
Sivakasi.

To
The Principal,
The Standard Fireworks Rajaratnam College for Women,
Sivakasi.

Respected Madam,

Sub: Seeking permission to going Industrial visit.

The following II PG, I PG and III UG students are going to visit Nila sea foods and Fisheries
College and Research Institute, Thoothukudi on 31.1.2020. So please grant us permission and on duty
for the same.

S.NO	ROLL NO	STUDENT NAME	CLASS
1.	1816101	PONLAKSHMIPRIYA M	II PG
2.	1816102	ABIRUBA S	
3.	1816103	MAHALAKSHMI G K	
4.	1816105	VEDHAVALLI K	

S.NO	ROLL NO	STUDENT NAME	CLASS
1.	1916101	ANANAJAMMAL P	I PG
2.	1916108	ABIRAMI V	
3.	1916103	VEERALAKSHMI S	
4.	1916104	NAKA RAJESHWARI P	
5.	1916105	MAHALAKSHMI M	
6.	1916106	THARANYA T	
7.	1916110	PRIYA B	
8.	1916113	LIJIDEVI J	
9.	1916109	JAYALAKSHMI M	
10.	1916107	MALA S	

S.NO	ROLL NO	STUDENT NAME	CLASS
1.	1716010	P.JAYAKALA	III UG
2.	1716009	S. MAHALAKSHMI	
3.	1716012	T. SOLAIMMAL	
4.	1716013	A. SELVA MEENA	
5.	1716014	S. RAMYA	



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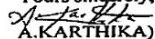
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DEPARTMENT OF MICROBIOLOGY
FIELD VISIT TO NILA SEA FOODS
2019 -2020

6.	1716015	M. KANAGA LAKSHMI	III UG
7.	1716019	K.GOWSALYA	
8.	1716020	M.GOWSALYA	
9.	1716021	A.NEVEDHIDA	
10.	1716024	S.GURU KARTHIGA	
11.	1716025	V.MUTHU PRIYA	
12.	1716007	M. PANDEESWARI	
13.	1716027	S.MUNEEESWARI	
14.	1716002	P.ANITHA	
15.	1716004	J. MAHESWARI	
16.	1716029	R.RAMAA	
17.	1716030	R.SANGEETHA	
18.	1716031	M.ROHINI	
19.	1716034	M.MAHALAKSHMI	
20.	1716035	V.SANTHANA DEVI	
21.	1716036	S.MONA DEEPSHIKA	
22.	1716037	M.MUTHU KAMATCHI	
23.	1716039	N.GEERTHANA MADUMITHA	
24.	1716040	P.SUVA LAKSHMI	
25.	1716043	M.ABINAYA DEVI	
26.	1716046	M. RAMALAKSHMI	
27.	1716047	G. DHARSHAN PRIYA	
28.	1716048	S. KARTHIKA	
29.	1716049	B. AANANTHI	
30.	1716051	R. KOWSALYA	
31.	1716052	T.KASTHURI KEERTHANA	
32.	1716054	R. DEEPALAKSHMI	
33.	1716038	M.KARTHIKA	
34.	1706018	M.D.SUJI BHARATHI	
35.	1706003	M.MANJULA DEVI	
36.	1716005	P.ALAGUMEENA	
37.	1716011	P.JOTHILAKSHMI	
38.	1716017	S.ABARNADEVI	
39.	1716028	M.RAMALAKSHMI	

Accompanying staff: Dr. S. Subha Ranjani
Dr. A. Karthika
K.Jeyadevi

Thanking you,

Yours sincerely,

A.KARTHIKA)


HOD


PRINCIPAL



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DEPARTMENT OF MICROBIOLOGY

FIELD VISIT TO NILA SEA FOODS

2019 -2020

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Excellence by UGC and Mentor Institution under UGC PARAMARSH Scheme)

DEPARTMENT OF MICROBIOLOGY

Field Visit

2019 -2020



Place of Visit: Nila sea foods and Fisheries College and Research Institute Thoothukudi

Date : 31.1.2020

Participants : III UG, I PG and II PG students



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DEPARTMENT OF MICROBIOLOGY

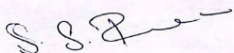
FIELD VISIT TO NILA SEA FOODS


2019 -2020

Industrial Visit Report

The institutional and industrial visit can be defined as the visit by students under guidance of teachers to certain industries/ institutes which are related to their field of study. It gives exposure to the students about the work environment and prevailing job opportunities related to their curriculum. It also enhances both the theoretical and practical knowledge of the students via the visualization of equipments present there and the supporting guidance given by the staff members of those industries.

This year (2019-2020) we planned the industrial visit to Nila sea foods, Thoothukudi. The student and staff members started from our campus nearly at 7.10 AM on 31.1.2020 and reached the Nila sea foods industries at 10.15 AM. About 52 members including 39 students from III UG, 9 students from I Pg, 4 students from II PG and 3 Staff members were participated in this visit. The students visited storage room, preservation room, quality control session in industries. They came to know that food items like Grains, Pulses, Dried chillies, Dry ginger were stored at 8.7°C. In frozen storage room sea foods like prawns, squid lobster, crabs, shrimp and fishes stored at -14°C The visit overall helps the students to gain knowledge about Food & dairy Microbiology through our curriculum.


Signature of HOD


Signature of Principal
Dr. T. Palaneeswarar
PRINCIPAL
The Standard Fireworks Rajaratnam
College for Women,
SIVAKASI.



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DEPARTMENT OF MICROBIOLOGY

FIELD VISIT TO NILA SEA FOODS

2019 -2020

CERTIFICATE

This is to certify that a batch of 53 Students of final year UG and 1st and 2nd PG Students accompanied by 3 Staff Members (Dr.S.Subharanjani, Dr.A.Karthika and Ms.K.Jeyadevi) from the Department of Microbiology visited our Nila Cold Storage Pvt.Ltd., Thoothukudi on 31st January 2020. This is for your kind information.

Senior Manager

S.JEEVA

M.S. NILA COLD STORAGE (P) LTD.
2,215, 2,216-B, Pudurpandiapuram
TUTICORIN 628 002.



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**DEPARTMENT OF MICROBIOLOGY
FIELD VISIT TO NILA SEA FOODS**

**2019 -2020
Course Syllabus**

THE STANDARD FIREWORKS RAJARATNAM COLLEGE FOR WOMEN
(Autonomous)
SIVAKASI
DEPARTMENT OF MICROBIOLOGY
M.Sc MICROBIOLOGY– SEMESTER II
CORE COURSE

HLMB23- FOOD & DAIRY MICROBIOLOGY

(For those admitted in June 2017 and later)

Contact hours per week 06
Total number of hours per semester 90
Number of credits 04

Course Outcomes (CO):

On successful completion of the course, the learners should be able to

CO1: outline the scope of food microbiology and summarize the diversified sources for food contamination.

CO2: apply modern physical and chemical techniques for food preservation and storage.

CO3: analyze food borne illness and intoxication caused by bacteria, fungi, protozoa.

CO4: interpret industrial standards to maintain a safe and hygiene conditions in food processing and production.

CO5: elaborate different types of food commodities and rationale use of food standards for benefits of society.

CO-PO Mapping table (Course Articulation Matrix)

Pos	PO1	PO2	PO3	PO4	PO5	PO6	PO7
COs							
CO1	9	-	-	-	-	-	-
CO2	9	3	3	-	-	-	-
CO3	9	9	3	-	-	-	-
CO4	9	9	9	3	-	-	3
CO5	9	9	9	3	-	-	3
Weightage of the course	45	30	24	6	-	-	6
Weighted percentage of Course contribution to POs	5.94	5.59	7.55	4.72	Nil	Nil	21.43

Unit -I

(18 Hrs)

Scope of Food Microbiology, Microorganisms and Food materials- Diversity of Habitat, Microorganism in atmosphere, soil water, plants, animal, Factors affecting the growth and survival of Microorganism in foods. Contamination of food and Spoilage of food.

Unit -II (18 Hrs)

Principles of Food preservation: Asepsis, Removal of Microorganisms, High temperature-factors affecting, Heat resistance of microorganism and their spores, TDT, heat treatments, Low temperature, Food additives, Drying- methods, factors and treatments and Radiation.

Unit -III

(18 Hrs)

Food borne illness- Bacterial agent- *Aeromonas*, *Brucella*, *Bacillus*, *Campylobacter*, *Clostridium*, Non bacterial agents- Helminths and nematodes, protozoa, toxigenic algae, toxigenic fungi, mycotoxins of other fungi.

Unit -IV

(18 Hrs)

Milk products – Introduction, definition, classification, Food and nutritive value, Physiochemical properties of milk, quality of milk – lactometer. Production, Packaging, storage and distribution: cream, butter, butter oil, ice cream, cheese.

Unit -V

(18 Hrs)

Milk: Composition, microbial flora of raw milk, Contamination, heat treatment of milk, product of milk Preservation and Spoilage of Milk and Milk products. Dried milk product: Butter milk powder, cream powder, Butter powder, Ice cream mix powder, cheese powder, Malted milk powder, Infant milk powder, Dry sodium caseinate.

Text Books

1. Adams MR & Moss MO. (2002) Food Microbiology, New age international (P) Ltd publications, New Delhi.
Unit I-1-45, Unit V- 156-180, 220-243, Unit V – 104-113
2. Frazier WC & Westhoff DC, Food Microbiology 5th edition, McGraw Hill publications, New Delhi.
Unit I: 59-67, Unit II- 81-170, Unit IV- 319-398, Unit V-276-297
3. Sukumar DE, Out lines of Dairy Technology, Oxford University, New Delhi Unit IV -1-26,117-132,143-159,174-177,224,227-230,174,182,183-186,193 Unit V-357,358,361-376

References

1. Banwart, G.J., (1989). Basic Food Microbiology, 2nd Edition CBS Publishers and Distributors, New Delhi.
2. Robinson R.K (1990) Dairy Microbiology, Elsevier Applied science, London.
3. Hobbs BC Roberts D (1993). Food Poisoning and Food Hygiene Edward Arnold, London.