



**PRANANATH COLLEGE (AUTONOMOUS) COLLEGE,
KHORDHA**

Contact No.:+91-6755-220264 Email.: pranath_college@rediffmail.com

**1.3.1 – Value-added courses imparting transferable and life skills offered
during the year 2016-17**

Name of the Course	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development	Year of introduction (during the last five years)
B.Sc (BOTANY)	HERBARIUM TECHNOLOGY	SMALL AND MICRO SECTOR EMPLOYABILITY	08-08-2016
B.Sc (Chemistry)	Preparation of sanitary chemical	SMALL AND MICRO SECTOR EMPLOYABILITY	14.09.2016
BSc (Chemistry)	Floor cleaner	SMALL AND MICRO SECTOR EMPLOYABILITY	14.09.2016
B.Sc (Chemistry)	Hand wash	SMALL AND MICRO SECTOR EMPLOYABILITY	14.09.2016
B.Sc (MATH)	MATLAB	SMALL AND MICRO SECTOR EMPLOYABILITY	2015-16 & ongoing
B.Sc (PHY)	LED BULB	SMALL AND MICRO SECTOR EMPLOYABILITY	2015-16 & ongoing
B.Sc (PHY)	Solar cell technology	SMALL AND MICRO SECTOR EMPLOYABILITY	2015-16 & ongoing
B-VOC	computer training	Basic Computer	2015-16
OSOU	Diploma in Odia language & communication	Language for business	2016-17
OSOU	Certificate in communication skill	language for business	2016-17
OSOU	Certificate course in geriatric care		2016-17
OSOU	Diploma in Management	training in Business management	2016-17
OSOU	Diploma in Functional Hindi and Translation	language for business	2016-17
OSOU	Diploma in Journalism & Mass communication	communication language	2016-17

Ranjita Sella

Principal
PRANANATH COLLEGE
(Autonomous)
KHORDHA

SYLLABUS

The certificate Course in Lighting & LED Technology imparts practical skills of different steps of LED Lighting Mechanical Assembly processes. This course deals with the fundamentals of Electronics, LED Technical Basics, Types of LED Lighting Products, processes of LED Product Assembly, Testing & inspections, material used in LED products, applicable standards for LED Products etc. The entire course is divided into 2 Parts. First part is Theory and second part is Practical.

Name Of Course : Lighting and LED Technology

Aim Of The Program : This program is aimed at training candidates for the job of a LED Light Technology in the electronics manufacturing sector. To get knowledge about mechanical assembly of any type of LED Lighting Product.

Course Duration

Theory – 30 hrs

Practical – 30 hrs

Total – 60 hrs

CONTENT	No. Of Hours
Unit – 1 : Basics of Electronics Components Basics of Electronics, Electronic Components, Integrated Circuits, Soldering Iron, Use of Soldering Iron, LED History, Working of LED, Types of LEDs, Factor affecting life of LED, Parameters of LED, Lumen Output, LED Power Sources, Measurement of LED parameters, Series and Parallel connection of LEDs	12 Hrs
Unit – 2 : LED Assembly Components of LED, LED Bulb Assembly, LED Street Light Assembly, LED panel Light Assembly, Burn in test for LED Luminary	12 Hrs
Unit – 3 : Thermal Management and Analysis Heat sink, Thermal Compound, Effect of Temperature on LED Junction. Analysis of different LED Circuits, Luminosity, Factors affecting Luminosity	6 Hrs

THEORY/PRACTICAL:

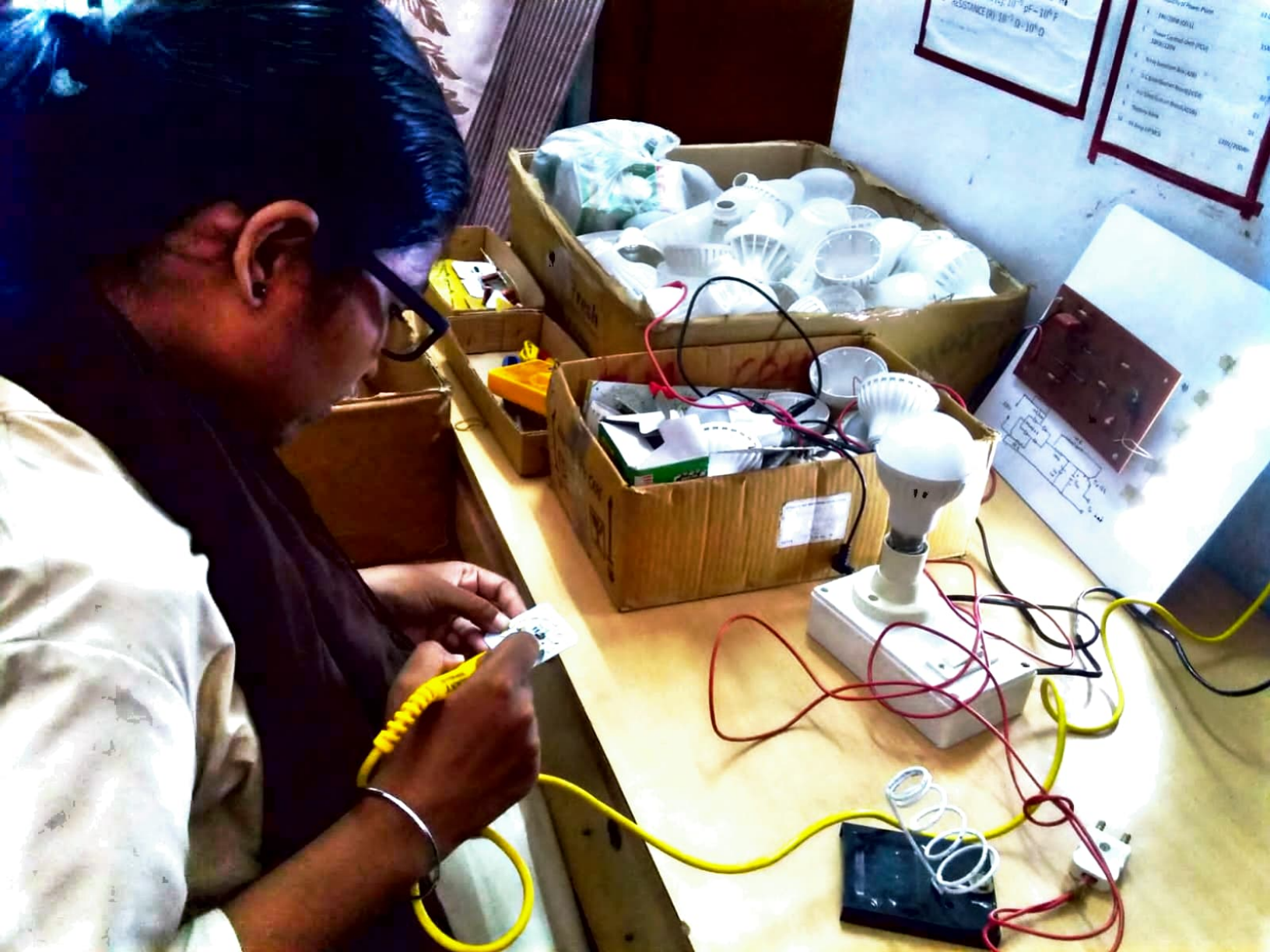
Sl. No.	UNIT	Theory (Hours)	Practical (Hours)
1	Basics of Electronics Components	12	12
2	LED Assembly	12	12
3	Thermal Management and Analysis	6	6
	Total	30	30

Co-ordinator

H.O.D

Principal







LCR METER (4200R)

(12 Hz TO 200 KHz) 0.05%
ACCURACY

DISPLAY RANGES:-

- INDUCTANCE (L): 10^{-9} mH - 10^6 mH
- CAPACITANCE (C): 10^{-9} pF - 10^6 pF
- RESISTANCE (R): 10^{-9} Ω - 10^6 Ω

SPECIFICATIONS	
Model	4200R
Frequency Range	12 Hz to 200 KHz
Accuracy	0.05%
Display	4.5 digit LCD
Power Supply	9V battery
Dimensions	100mm x 50mm x 20mm
Weight	50g
Warranty	1 year



To

The Principal,

Prananath College (Autonomous),

Khordha

Sub: - Opening of add on course on "Ornamental Fish Culture & Management" in Dept. of Zoology

Sir,

Permission may be accorded to introduce an add on course on "Ornamental Fish Culture & Management" in Dept. of Zoology for Honours students which will be beneficial to the students for self employment.

With regards

Yours faithfully

Chinmayee Mohanty
Chinmayee Mohanty

H.O.D., Zoology

Date:- 27.6.2016

Place:- Khordha.

Allowed
[Signature]

**Principal
PRANANATH COLLEGE
(Autonomous)
KHORDHA**

Add-on Course/Certificate Course

Department of Zoology

Prananath College (Autonomous), Khordha

Name of the Course: - **"Ornamental Fish Culture & Management"**

Duration of the Course: - **3 months**

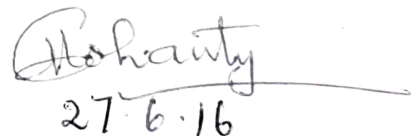
Duration of the Class: - **45 minutes class x 60 periods**

Commencement of Class: - **15th July 2016**

Tentative date of completion of Course: - **Last week of December**

Award giving Ceremony: - **2nd week of February**


Principal


27.6.16
H.O.D, Zoology

To

The Principal

Prananath College (Auto.)

Khordha

Sub: Regarding approval of syllabus for the certificate course.

Sir,

It has been decided by the authority to open a 3 months duration certificate course on "Ornamental Fish Culture & Management" in the department of zoology. Permission may be accorded to convene the Board of Studies meeting to work out & approve syllabus for the above course.

Post-facto approval

Put up before
the academic council meeting on 23/10/16
for approval
P. S. N.
20/10/16

With regards

Yours faithfully

Chinnmayee Mohanty
1.7.2016
H.O.D. Zoology.

NOTICE

The Dept. of zoology will conduct examination for Add on course on Ornamental fish culture and management as per following programme

30/01/2017 – Theory paper (10AM to 1.00 PM)

31/01/2017 – Viva (10 AM to 1.00 PM)

P. S. N.
9/1/17

Mohanty
9/1/17
H.O.D. ZOOLOGY

Ornamental Fish Culture & Management

F.M-60 80+21

UNIT-1:- Introduction:-

Scope of ornamental fish culture, Types of ornamental fishes (marine & fresh water), Economic importance, World trade of ornamental fish and export potential varieties of exotic and indigenous fishes.

Aquarium & Accessories:-

Principle of balanced aquarium, setting of aquarium, Accessories, Aeration & filtration unit, Food/Feed production unit.

UNIT-2:- Fish breeding and application of biotechnology & genetics in fish breeding:-

Breeding and rearing of ornamental fish, Breeding of live bearer, breeding of egg layers, Pond fish keeping, Broodstocks management. Construction of tank, Stocking.

UNIT-3:- Food, Feeding & Diseases:-

Culture of live food organism (Collection & culture of infusoria, Daphnia, Tubifex, Blood worm), Preparation of artificial feed (Formulated feed & Types of feed), Common diseases & their control measure, Bacterial, Protozoan, Fungal & Parasitic diseases & their prophylactic measures.

UNIT-4:-Management & Marketing:-

Water quality management, water filtration system- biological, mechanical and chemical. Aquarium plant management, Management (conditioning, packing, transport and Quarantine methods, Co-operatives, Networking.

UNIT-5:-Project: - (30 marks)

Life cycle, breeding and feeding behaviour of commercially important live bearers, egg layers & ornamental fishes.

Visit to ornamental fish farm (10 marks).

Suggested readings:-

1. Aquarium fishes
2. Hand book of fresh water Ornamental fishes
3. Profitable fish keeping
4. Guide to fish Breeding
5. Aquarium fish keeping
6. Aquarium management
7. Aquarium Plants

Jena Burton
S.Mathur, L.L. Sharma & A.K.Mathur
Guy N. Smith
Chris Andrews
C.L.S. Srivastava
Amita Saxena
J. Schmidt

Shruti
12-7-16

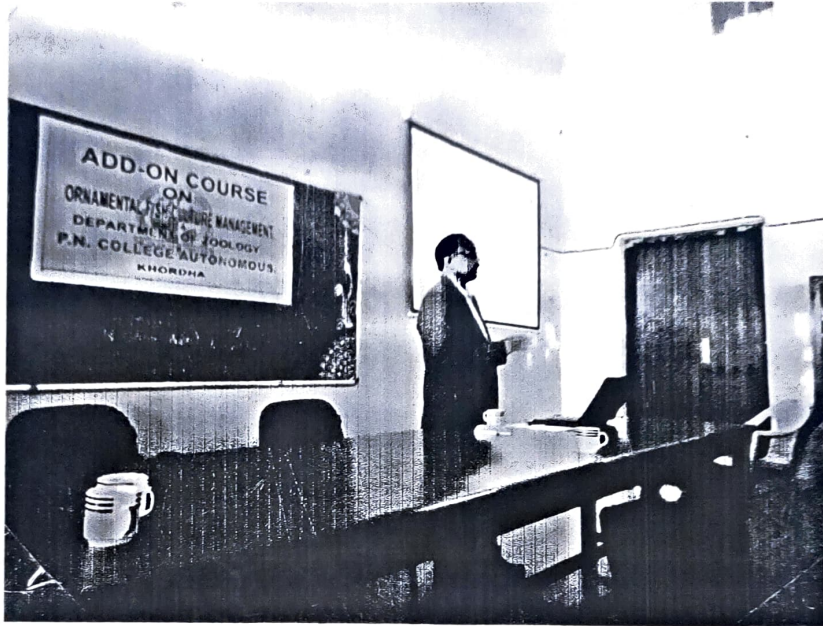
Donna
12-7-16

Th
12-7-16

ADD ON COURSE

Page 1

Talk delivered by Prof. (Dr.) Suroj Kumar Swain,
Principal Scientist, CIFA on "Ornamental fish culture
and management".



ONLY FOR
STAFF



SHOT ON REDMI Y3
AI DUAL CAMERA



