



# DHRUBA CHAND HALDER COLLEGE

( FORMERLY DAKSHIN BARASAT COLLEGE )

**ESTD.-1965**

**A NAAC Accredited Degree College Affiliated to University of Calcutta**

P. O. Dakshin Barasat • Dist. South 24-Parganas • West Bengal • Pin 743372

E-mail : dchcollege@yahoo.com, Website : www.dchcollege.org.

Phone : (03218)-222550 (Prin.) / 223-668 (Off.)

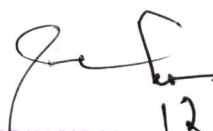
Ref. No. ....DCHC/-ZOO/ ADON12/ 2021

Date ..12//08/2021..20

## NOTICE

The Department of Zoology is organizing an Add on course in Apiculture through online mode. The duration of the course is 30hrs. Interested students can enroll their names to Dr. Subhasree Thakur on or before 19/08/2021. The course will commence from 28/08/2021. The classes will be held from 10 A.M. to 12 Noon every Saturday except holidays.

S. Thakur  
12/8/21

  
12-8-21  
PRINCIPAL  
Dhruba Chand Halder College  
P.O.-D. Barasat, P.S.-Jaynagar  
Dist.-South 24 Parganas





**DHRUBA CHAND HALDER COLLEGE**

**DEPARTMENT OF ZOOLOGY**

**OBJECTIVE**

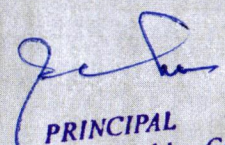
To Teach the basics of bee- keeping  
and how it can be used as a means of  
employment and earning.

**ADD ON COURSE  
ON  
APICULTURE**

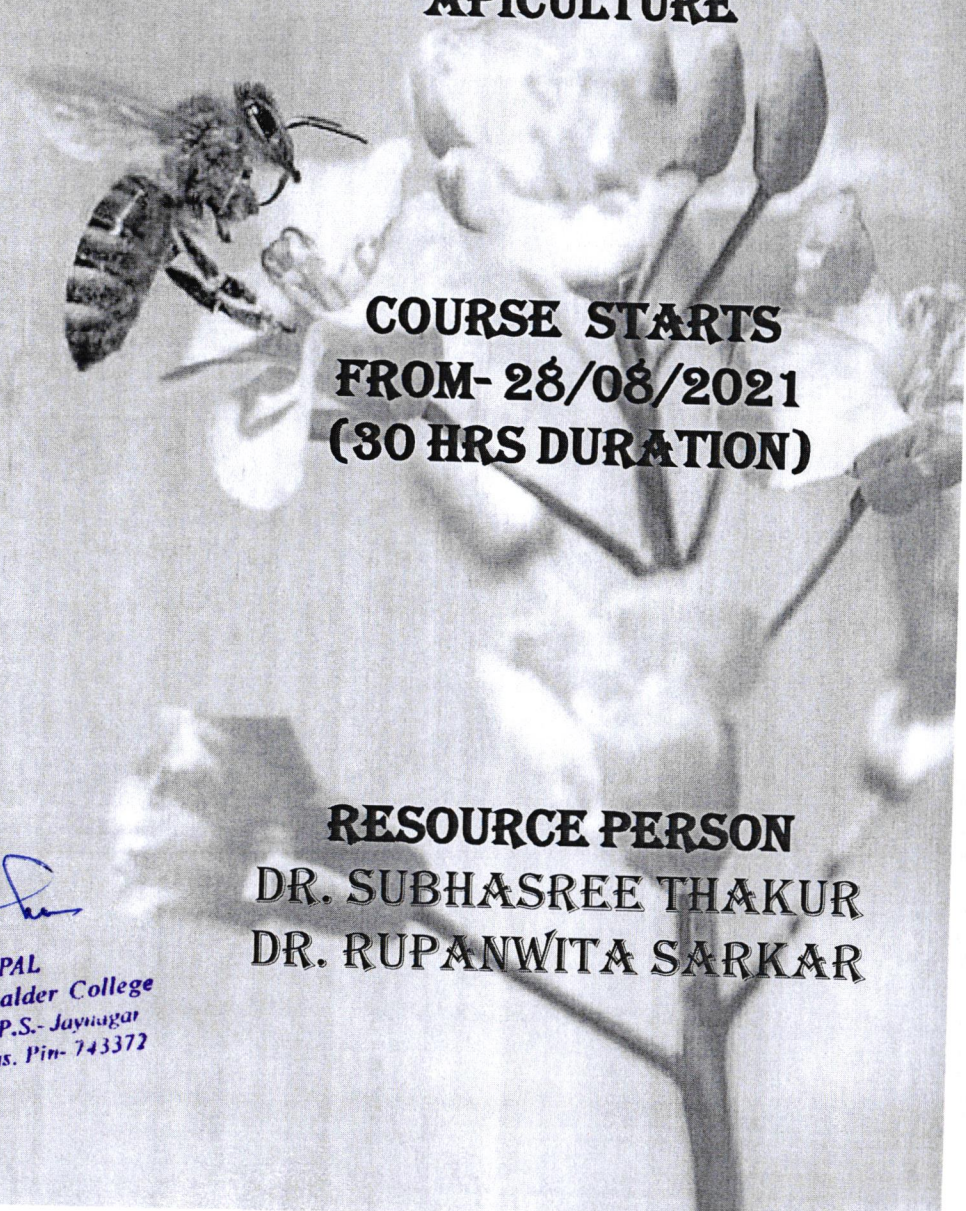
**COURSE STARTS  
FROM- 28/08/2021  
(30 HRS DURATION)**

**REGISTRATION FREE**

Interested Students Can Enroll Their  
Names To Dr. Subhasree Thakur On  
Or Before 19/08/2021.

  
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South 24 Parganas. Pin- 743372

**RESOURCE PERSON**  
**DR. SUBHASREE THAKUR**  
**DR. RUPANWITA SARKAR**

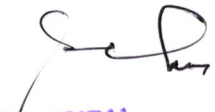


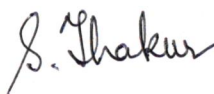


## ATTENDANCE SHEET OF ADD-ON COURSE: APICULTURE 2021-22

NAME OF STUDENT	ATTENDANCE														
	28/8	04/9	11/9	18/9	25/9	09/10	23/10	30/10	13/11	20/11	27/11	04/12	11/12	18/12	08/1
MASUMA MOLLA	P	P	P	P	P	P	P	P	P	P	A	P	P	A	P
AYAN NASKAR	P	P	A	P	A	P	P	P	A	P	P	P	A	P	P
MOULIK PRAMANIK	P	P	P	A	P	P	A	P	P	P	P	P	P	A	P
SAMIR KR MONDAL	P	P	P	P	A	P	A	P	A	A	A	P	P	P	P
RITIKA SAHA	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
SUDIPTA GHARAMI	P	P	A	P	A	P	A	P	A	A	A	P	P	P	P
SIRAJ HOSSAIN KHAN	A	A	P	P	P	A	P	A	P	P	P	A	P	P	P
SRACHI SAHA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
SUJATA MONDAL	P	P	A	P	P	P	A	P	P	P	P	P	A	P	P
SUCHITRA NASKAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
SAHADAT GHARAMI	P	A	P	P	P	A	P	A	P	P	P	A	P	P	A
SOUMI SAHA	P	P	P	P	P	P	P	A	A	P	P	P	P	A	P
SIMA SARDAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
JIAUL SHEAK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
MRINMOY HALDER	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
SUSMITA NASKAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
POULOMI MANDAL	P	A	P	P	P	A	P	A	P	P	P	A	P	P	P
TAHAMINA GAYEN	P	P	P	P	A	P	A	P	P	P	A	P	P	P	P
JAKIYA DHAL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
DURBA MONDAL	P	P	P	P	A	P	A	P	A	A	A	P	P	P	P
DIPMALYA BAIDYA	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P

Each class comprises of 2 hours.

  
**PRINCIPAL**  
 Dhruva Chand Halder College  
 P.O.-D. Barasat, P.S.-Jaynagar  
 Dist.-South 24 Parganas

  
 S. Shakur

## ADD- ON COURSE, 2021- 2022 IN ZOOLOGY

### Add-On Course Summary

**Name of the Course:** APICULTURE

**Course Coordinators:** Dr. Subhasree Thakur

**Syllabus covered:**

- Day 1 :** Introductory class
- Day 2-6 :** Biology of Bees - Types of Honey bees, Biology of Honey Bees. General Morphology of *Apis* Honey Bees. Social organization of Bee colony.
- Day 7-10 :** Rearing of Bees – Artificial Bee rearing, Beehives- Newton and Langstroth box, Bee Pasturage. Selection of Bee species for Apiculture.
- Day 11-15:** Rearing of Bees - Modern Bee Keeping Equipment, Methods of Extraction of Honey (Indigenous and Modern).
- Day 16-18:** Diseases and Enemies – Bee Diseases and Enemies. Control and preventive measures.
- Day 19-20:** Economy- Products of Apiculture and its Uses – Honey, Bees Wax, Propolis, Pollen etc.
- Day 21-23:** Entrepreneurship in Apiculture – Bee keeping Industry- Recent Efforts
- Day 24-27:** Entrepreneurship in Apiculture- Modern Methods in employing artificial Beehives for cross pollination in horticultural gardens.
- Day 28-29:** Doubt clearing.
- Day 30 :** Course Evaluation

**Resource Person(s):** Dr. Subhasree Thakur,

Dr. Rupanwita Sarkar

**Participants:** 21 nos.

**Duration:** 30 days

**Focal Theme of the Course:** Teaching the basics of bee- keeping and how it can be used as a means of employment and earning.

**Evaluation:** Through Online MCQ Examination

*S. Thakur*

*[Signature]*  
12-8-22

PRINCIPAL

Dhruva Chand Halder College  
P.O.-D. Baraset, P.S.-Jaynagar  
Dist.-South 24 Parganas



**Result Details (No. of Students taking up the Course vs No. of Students completing the Course):**

No. of students taking up the course- 21 nos.

No. Of students completing the course- 21 nos.

**Outcome:**

The honey bees occur all over India. These are social insects and live in large colonies. Since 1928, Union Government Agricultural Department has developed bee-keeping as a cottage industry all over India. It is the agro-industrial small scale management which deals with the bee keeping (Apiary). In recent days, it is widely adapted by large number of people in most o the part of the world. People are earning money by developing their projects in rural areas and also many people acquire self-employment. It is also helpful in increasing the yield of cultivated crops as the bees are the best pollinators. The prime commercial products are the honey and bees wax.

The Khadi and Village Industries Commission (KVIC) promoted the traditional forest beekeeping industry. The people of rural areas trained with modern bee keeping management, methods of collection and processing of honey, pollen, wax and other bee products and their marketing. Now local people and farmers are acquainted with the seasonal management, flow management death management, provision of feeding, and control and cure of bee disorders, bee diseases, pests and enemies of bee colonies according to their environmental conditions and beside these management strategies some special management techniques like queen rearing, migration of honey production or for colony multiplication, to make them in handling bee colonies properly. Now-a-days, apiaries are earning a large part of income from production and supply of package bees, queen bees and nucleus colonies. State governments have come forward to grant subsidiary financial assistance to popularize the apiculture among rural population and it is now a sustainable source of income for the farmers and rural people.

We in our college adopted the topic 'Apiculture' as our Add-on course for students of Non-Science subjects to give them an idea of how it can be used for earning revenue both from honey and other bee products by selling them through cooperatives or in the market. Ours' being a rural college, where most of the students come from families whose main source of income is agriculture, the produce mainly comprising of fruits, mustard, etc, honey bee rearing also increases the yield of such crops as bees are the most important pollinators.

*S. Thakur*

*[Signature]*

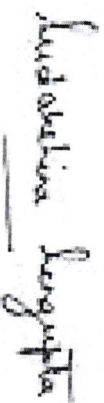


# CERTIFICATE OF PARTICIPATION

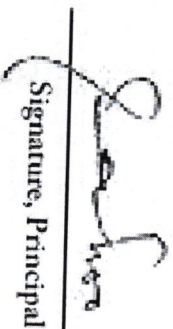


## DHRUBACHAND HALDER COLLEGE


This is to certify that Smt. / **Sri Suchitra Naskar** of the Department of **B. Sc.(Bio)**,  
Dhruba Chand College, Dakshin Barasat, South 24 Parganas, attended an Add on  
Course on **Apiculture** of 30 hours duration, conducted by the Department of **Zoology**  
and has successfully completed this short course in the Academic session 2021-22.



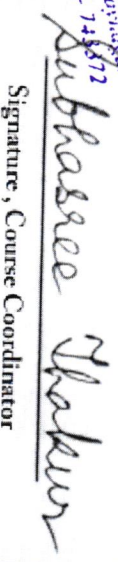
Signature, IQAC Coordinator



Signature, Principal

  
PRINCIPAL

Dhruba Chand Halder College  
P.O.- D. Barasat, P.S.- Dakshin Barasat  
South 24 Parganas, Pin- 743672



Signature, Course Coordinator