

Rayat Shikshan Sanstha's

**Rajarshi Chhatrapati Shahu College
Kolhapur**

Department of Botany

CAREER ORIENTED COURSE

BIODIVERSITY CONSERVATION

2019-2020



Career Oriented Course- Certificates Course in Biodiversity and it's Conservation.

1. Name of the Department: - Department of Botany

2. Course Name: - Certificates Course in Biodiversity and it's Conservation.

3. Course Coordinator Name & Contact Number: - Dr. Chopade V. B.

7972715415

4. Duration: -6 Months

5. Course Fee: - Rs- 300/-

6. Eligibility: - 12" passed students are eligible to take admission

7. Minimum intake Capacity: - 20

8. Objective :

The objective of this scheme is to introduce career and market skill enhancing add-on courses that have utility for job, self employment and empowerment of the students

9. Certificate Course:

The course will be of 30 credits. Each credit will have 15 hrs. of workloads out of which 10 credits should necessarily be assigned to fieldwork/project work/training (450)

10. Teaching programme:

Theory and Practicals is of -30 hrs — 20 credits.

Field Work /Project work /Training-15 hrs — 10 credits.

Theory Paper I — 100 marks

Theory Paper II — 100marks

Paper III 100marks

Chopade V. B.

Co-ordinator
COc in Biodiversity Conservation



Mangane

Head
Department of Botany
Rajarshi Chh. Shahu College, Kolhapur

RAYAT SHIKSHAN SANSTA'S
RAJARSHI CHHATRAPATI SHAHU COLLEGE KOLHAPUR

Department of Botany

Carrier Oriented Course: - Biodiversity Conservation

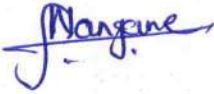
2019-2020

Notice

13/08/2019

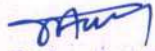
All the students of Arts, Science and Commerce are hereby informed that Department of Botany is going to start Carrier Oriented Course Certificate course in Biodiversity Conservation from next week. Those who are interested please contact to Head Department of Botany.

The Course fees is Rs.300/- and duration of Course is 6 Months.



Head
Department of Botany
Rajarshi Chh. Shahu College, Kolhapur.




Principal,
Rajarshi Chh. Shahu College
Kolhapur.

Rayat Shikshan Sanstha's

RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR

Career Oriented Course 2019-20

BIODIVERSITY CONSERVATION

List of Students Enrolled

Sr. No.	Roll Number	Name of the students	Class	Signature
1.	78	Pankaj Suresh Varekar	B.Sc. I	<u>P.Varekar</u>
2.	66	OnkarMahadevKamble	B.Sc. I	<u>OKamble</u>
3.	45	Vivek Arun Jadhav	B.Sc. I	<u>V.A.Jadhav</u>
4.	56	OnkarSnjayPowar	B.Sc. I	<u>O.S.Powar</u>
5.	88	BhagyashriSudhakar Patil	B.Sc. I	<u>B.Patil</u>
6.	90	ShubhamAnandaKamble	B.Sc. I	<u>SKamble</u>
7.	99	BhagyashriPrakash Patil	B.Sc. I	<u>B.Bhagyashri</u>
8.	123	Wasifahidayatulla Patel	B.Sc. I	<u>W.Patel</u>
9.	34	Pallavi Suresh Sutar	B.Sc. I	<u>P.Sutar</u>
10.	122	Omkar Kumar Jadhav	B.Sc. I	<u>O.K.Jadhav</u>
11.	121	SakshiRajendra Mane	B.Sc. I	<u>S.R.Mane</u>
12.	77	ShradhhaMadanTalekar	B.Sc. I	<u>S.Mulka</u>
13.	72	Shivani Rahul Gawade	B.Sc. I	<u>SRGawade</u>
14.	81	Sonal Sanjay Jadhav	B.Sc. I	<u>S.S.Jadhav</u>
15.	79	PoojaManohar Patil	B.Sc. I	<u>P.Patil</u>
16.	36	Pratiksha Vilas Patil	B.Sc. I	<u>P.Patil</u>
17.	104	FarheenJais MohammadChodhari	B.Sc. III	<u>F.mch</u>
18.	103	AlfajAinuddinPendhari	B.Sc. III	<u>AP</u>

Chopale U.B.

Co-ordinator
COc in Biodiversity Conservation



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Head
Department of Botany
Rajarshi Chh. Shahu College, Kolhapur.

11.Syllabus

Paper I — Fundamentals of biodiversity.

Section I

Unit I —Origin of life.	15
—Position of different organisms in living world.	
— Differentiation between prokaryotic and eukaryotic cell.	
1.3— Brief introduction to five kingdom classification system.	
Unit 2 —Concept of Evolution	12
— Theories of evolution, Darwinism, Concept of species formation.	
— Phylogeny	
Unit 3—Taxonomy and Classification	20
3.1- Introduction to major groups of plants.	
3.2- Introduction to major groups of animals and microbes.	
Unit 4 —Loss of Biodiversity	10
4.1- Causes of loss of Biodiversity.	
4.2- Effects of loss of Biodiversity.	
4.3 -Terminology- Red data book-concept.	

Section II

Unit I—Biodiversity introduction, concept and significance	7
Unit 2 —Levels of Biodiversity	15
2.1— Mega diversity in India	
2.2 -Bioreserves	
2.3 Hot spots in India with special reference to Himalaya and Western ghat(Maharashtra)	
2.4 —National parks,wildlife sanctuaries Botanical gardens and Zoological museums .	



Unit3-Climatic Change	7
3.1-Causes of Climatic change.	
3.2-Effects of Climatic change.	
Unit4-Earth Summits- Objectives and resolution passed.	12

Paper II-Ecology and Conservation Biology.

Section-I

Unit1-Ecology concept,biotic and abiotic component	12
Unit2-Ecosystem and Phytogeography of India	12
Introduction, components of Ecosystem.	
Food chains and Food webs	
Unit3	12
Environmental Pollution.	
Causes and effects of it on environment	
Unit4	10
Plant as Bioindicatos	
Role in environmental monitoring	

SectionII

Unit1-Biodiversity conservation strategies.	15
Insitu and Exsitu conservation	
Unit2-Research institute related to Conservation of Biodiversity	15
Bio-ethics,IPR and Patenting	
Unit3-Ecotourism and Biodiversity.	12
Communication, education and public awareness	
Unit4-Brief review of protocols given by various earth summits to various nations.	12



Paper-III

Practicals:-

30Periods

- Cultivation and isolation of micro-organisms.
- Morphology of major groups (Bryophyte, Pteridophyta, Gymnosperms and Angiosperms)
- Study of comparative diversity in Angiosperms.
- Classification of insects (All major orders) using Lee Study of wild species in crop improvement.
- Study of Red data book Species of Sahyadri belonging to Satara district.

Work experience:

60periods

- Assessment of Biodiversity of an area (Ajinkyatara, Yavateswar, Kas, Pateswar) by suitable sampling method (quadrate) species abundance, frequency, density



12.Suggested Reading for Biodiversity:

- 1.Veena Arora 202 Natraj Publishers ,Dehradun Publisher: The Biological
- 2.Diversity Act,Edt Heywood, V.H .: Global Biodiversity Assessment PartI
- 3.M.S.Prashanth: Environmental Studies
- 4.M.C.Dash:Fundamental of Ecology
- 5.D.K.Asthana,Meera Asthana:Environment: Problems&Solutions
- 6.D.K.Belsare: Introduction to Biodiversity
- 7.SurendraSingh:Geo morphology and Remote Sensing in Environmental Management
- 8.N.Das Gupta:Environmental Accounting
- 9.E rach Bharucha:Textbook of Environmental Studies
- 10.M.L.Narasaiah:Biodiversity & Sustainable Development
- 11.M.L.Narasaiah:Education & Biodiversity
- 12.R.L.Panigrahy,LingarajPatro:Biodiversity Conservation and Sustainable Development
- 13.John R.Jensen:Remote Sensing of the Enviroment
- 14.M.M.Anji Reddy.: Remote Sensing and Geographic alInformation
- 15.Systema Veer Bala Rastogi:Fundamentals of Biostatics
- 16.P.K.Banejee:Introduction to Biostatistics
- 17.Jadhav,H.and Bhosale, V.M. Environmental Protection and Laws
- 18.Principles of Biochemistry:Lehninger

Chopale V.B.

Co-ordinator
COc in Biodiversity Conservation



Nangeve

Head
Department of Botany
Rajarshi Chh. Shahu College, Kolhapur

Rayat Shikshan Sanstha's

RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR

Career Oriented Course 2019-2020

BIODIVERSITY CONSERVATION

ATTENDANCE

Sr.No.	Name of Students	3/9/2019	4/9/2019	5/9/2019	9/9/2019	11/9/2019	12/9/2019	16/9/2019	17/9/2019	18/9/2019	19/9/2019	23/9/2019
1.	Pankaj Suresh Varekar	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
2.	Onkar Mahadev Kamble	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
3.	Vivek Arun Jadhav	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
4.	Onkar Snjay Powar	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
5.	Bhagyashri Sudhakar Patil	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
6.	Shubham Ananda Kamble	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
7.	Bhagyashri Prakash Patil	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
8.	Wasifa Hidayatulla Patel	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
9.	Pallavi Suresh Sutar	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
10.	Omkar Kumar Jadhav	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
11.	Sakshi Rajendra Mane	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present
12.	Shradha Madan Talekar	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present	Present



13.	Shivani Rahul Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade
14	Sonal Sanjay Jadhav	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade
15	Pooja Manohar Patil	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade
16	Pratiksha Vilas Patil	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade
17	Farheen Iais Mohammad Chodhari	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade
18	Alfaj Ainuddin Pendhari	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade	SR Gawade



Sr.No.	Name of Students	3/10/20 19	4/10/201 9	7/10/201 9	9/10/201 9	10/10/20 19	14/10/201 9	15/10/201 9	16/10/201 9	17/10/201 9	18/11/201 9	19/11/2019
1.	Pankaj Suresh Varekar	Wasekar	P.Naravkar	P.Naravkar	P.Naravkar	P.Naravkar	P.Naravkar	P.Naravkar	P.Naravkar	P.Naravkar	Naravkar	Naravkar
2.	OnkarMahadevKamble	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar
3.	Vivek Arun Jadhav	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.	V.A.S.
4.	OnkarSnjayPowar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar	Onkar
5.	Bhagyashri Sudhakar Patil	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.
6.	Shubham Ananda Kamble	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.	S.K.
7.	BhagyashriPrakash Patil	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.	B.P.
8.	Wasifahidayatulla Patel	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.
9.	Pallavi Suresh Sutar	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.	P.S.
10.	Omkar Kumar Jadhav	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.	O.K.
11.	SakshiRajendra Mane	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.	S.R.
12.	ShradhaMadanTalekar	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.	S.M.
13.	Shivani Rahul Gawade	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.	S.G.
14.	Sonal Sanjay Jadhav	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.	S.J.
15.	Pooja Manohar Patil	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.
16.	Pratiksha Vilas Patil	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.	P.V.
17.	FarheenJais MohammadChodhari	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.	F.J.
18.	AlfajAinuddinPendhari	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.	A.P.



Rayat Shikshan Sanstha'ss

Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Botany

CAREER ORIENTED COURSE: BIODIVERSITY CONSERVATION

2019-20

Question Paper Pattern,

PAPER- I

Time: 3 hours

Marks: 100

Que 1: Rewrite the following sentences by choosing alternative.

20 Marks

1

To

10

Que 2: Attempt any three of the following.

60 Marks

A

B

C

D

E

Que 3: Attempt any four of the following.

20 Marks

A

B

C

D

E



Rayat Shikshan Sanstha's

Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Botany

CAREER ORIENTED COURSE: BIODIVERSITY CONSERVATION

2019-20

Question Paper Pattern,

PAPER- II

Time: 3 hours

Marks: 100

Que 1: Rewrite the following sentences by choosing alternative.

20 Marks

1

To

10

Que 2: Attempt any three of the following.

60 Marks

A

B

C

D

E

Que 3: Attempt any four of the following.

20 Marks

A

B

C

D

E



Rayat Shikshan Sanstha's

Rajarshi Chhatrapati Shahu College, Kolhapur

Department of Botany

CAREER ORIENTED COURSE: BIODIVERSITY CONSERVATION

2019-20

Question Paper Pattern,

PRACTICAL EXAMINATION

Time: More than 4 hours

Marks: 100

Que 1: Identify and show important structures observed in given specimen.

20 Marks

A

B

C

D

E

Que 2: Identify and show important structures observed in given specimen.

20 Marks

A

B

Que 3: Identify and show important structures of

20Marks

A

B

Que 4: Demonstrate the technique

20 Marks

A

B

Que5: Demonstrate the technique

20 Marks

A

B



Rayat Shikshan Sansthas
Rajarshi Chhatrapati Shahu College Kolhapur
 Carrier Oriented Course Examination 2019-2020
 Name of Exam - COC-Certificate Course in Biodiversity Conservation
Results

Sr. No	Name of Students (Mother' Name)	Paper I (100 M)	Paper II (100 M)	Practical (100 M)	Total (300)	Percentage (%)	Class
1	Chaudhari Farheen J. Mohmmad (Tahera)	65	67	90	222	74	I st
2	Gawade Shivani Rahul (Sagita)	80	75	92	247	82	I st
3	Jadhav Omkar Kumar(Shobha)	60	65	90	215	71	I st
4	Jadhav Sonal Sanjay (Savita)	60	68	89	217	72	I st
5	Jadhav Vivek Arun (Shalini)	70	69	89	228	76	I st
6	Kamble Omkar Mahadev (Suvarna)	78	67	87	232	77	I st
7	Kamble Shubham Ananda(Shobha)	70	64	92	226	75	I st
8	Mane Sakshi Rajendra (Ashwini)	60	67	92	220	73	I st
9	Patel Wasifa Hidayatulla (Ayesha)	78	66	87	231	77	I st
10	Patil Bhagyashri Prakash (Jyoti)	60	65	83	214	71	I st
11	Patil Bhagyashri Sudhakar (Shobha)	65	68	85	218	72	I st
12	Patil Pratiksha Vilas (Surekha)	60	65	89	214	71	I st
13	Patil Pooja Manohar (Manisha)	65	68	89	222	74	I st
14	Pendhari Alfaj Ainuddin (Yasmin)	80	75	92	247	82	I st
15	Powar Onkar sanjay (Geeta)	65	69	87	221	73.66	I st



16	Sutar Pallavi Suresh (Swati)	72	70	89	231	77	I st
17	Talekar Shraddha Madan (Rupali)	65	67	89	221	73.66	I st
18	Varekar Pankaj Suresh (Sumitra)	60	67	91	218	72.66	I st

J. N. K. S.

Head
Department of Botany
Rajarshi Chh. Shahu College, Kolhapur.



OA

Principal,
Rajarshi Chh. Shahu College
Kolhapur.

"Education through self-help is our motto"-Karmaveer



Rayat Shikshan Sanstha's,

RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR.

NAAC Reaccredited 'A' Grade (with CGPA 3.07) 3rd Cycle

CERTIFICATE

This is to certify that, Shri/Smt: Alfaj Ainuddin Pendhavi

Mother's Name Yasmin

Class B.Sc. III of Rajarsi Chhatrapati Shahu College Kolhapur

has successfully completed the Career Oriented/Certificate Course in Biodiversity Conservation
organized by **Rajarsi Chhatrapati Shahu College, Kolhapur.**

Course organized academic year 2019 - 2020

Chopale v.B
Course Coordinator



Principal
Principal

