



# MAHATMA GANDHI COLLEGE

THIRUVANANTHAPURAM

POST GRADUATE DEPARTMENT OF BOTANY & RESEARCH CENTER

## NOTICE

### ADD-ON COURSE –MUSHROOM CULTIVATION

Dear students,

We are excited to announce the introduction of an Add-On course titled "Mushroom Cultivation" for the academic year 2020-2021. This course aims to provide students with an in-depth understanding of mushroom cultivation techniques and their practical applications.

#### **Details of the Add-On Course:**

Course Duration: 3 months

Start Date: 13/07/2020

End Date: 31/10/2020

Time: 0 hr

Venue: Room 55

#### **Registration Details**

Last Date for Registration: 30/06/2020

Seats are limited, and admission to the course will be on a first-come, first-served basis. Interested students are encouraged to register at the earliest to secure their spot.

For any queries or additional information, please contact the course coordinator, Head, Department of Botany at the department office between 10:00 AM to 4:00 PM on weekdays.

Warm regards,

Head, Department of Botany

# MAHATMA GANDHI COLLEGE

POST GRADUATE DEPARTMENT AND RESEARCH CENTRE OF BOTANY

THIRUVNANTHAPURAM

ADD ON COURSE –2020- 2021

## LIST OF STUDENTS-MUSHROOM CULTIVATION

SL.NO	NAME OF STUDENT	CLASS/ SEMESTER
1	GREESHMA G S	II PG
2	KAVYA VIJAYAN B	II PG
3	LEKSHMI S PRADEEP	II PG
4	AARCHA J S	I PG
5	ANJALI KRISHNAN A B	I PG
6	ANUPAMA A V	I PG
7	ARDRAJS	III UG
8	BKARTHIKAKRISHNAN	III UG
9	DHANAKRISHNA.R.R	III UG
10	G.GOPIKRISHNA	III UG
11	KARTHIKAMOCHAN	III UG
12	KRISHNAGADHAM	III UG
13	LEKSHMI.S.S	III UG
14	MEGHANATH.A	III UG
15	NAVYABS	III UG
16	SREELEKSHMIPS	III UG
17	SUFANANOUSHAD	III UG
18	ANAKHA.A.NAIR	III UG
19	ARYA.A.S	III UG
20	KAVYA.T.NAIR	III UG
21	KAVYASHAJI.C.S	III UG
22	PARAMESWAR V A	II UG
23	RESHMA BAIJU	II UG
24	SAINA SAIFUDEEN	II UG
25	SOORYA DUTT.S	II UG
26	SRUTHI RAJ L	II UG
27	SURAJ M	II UG
28	VISHNUMOHAN M . A	II UG

29	KRISHNA M R	II UG
30	APARNA .M . S	II UG
31	NEERAJA M R	II UG
32	PARVATHI M J	II UG
33	ABHIRAMIAR	II UG
34	AKHILABS	II UG
35	AMALV	II UG
36	ANJIMABINOJ	II UG
37	AMALDEVS	I UG
38	ANJANA.M.S	I UG
39	ANJITHAPRASAD.S.L	I UG
40	APARNA.A	I UG
41	CHANDHANANS	I UG
42	GOPIKA.J	I UG
43	KRISHNENDUA.P.	I UG
44	MPRAVEENAPRATHAPAN	I UG
45	NANDANAS.	I UG
46	SANDEEPS	I UG
47	SANDRAUSAJAN	I UG
48	VIJITHASU	I UG
49	AMALKRISHNAM	I UG
50	ANJALIBS	I UG

  
HEAD OF THE DEPARTMENT

  
PRINCIPAL

# MAHATMA GANDHI COLLEGE, THIRUVNANTHAPURAM

## POST GRADUATE DEPARTMENT AND RESEARCH CENTRE OF BOTANY

ADD ON COURSE – 2020 - 2021

### ATTENDANCE OF STUDENTS - MUSHROOM CULTIVATION

SL.NO	NAME OF STUDENT	CLASS/ SEMESTER	13-7-20	25-7-20	30-7-20	28-08-20	14-8-20	19-8-20	26-8-20	12-9-20	18-9-20	24-9-20
			Monday	Saturday	Thursday	Saturday	Friday	Wednesday	Wednesday	Saturday	Friday	Thursday
1	GREESHMA G S	II PG	x	x	x	x	Ab	x	Ab	x	x	x
2	KAVYA VIJAYAN B	II PG	Ab	x	Ab	x	Ab	x	Ab	x	Ab	x
3	LEKSHMI S PRADEEP	II PG	x	x	Ab	x	x	x	x	x	x	x
4	AARCHA J S	I PG	x	x	Ab	x	x	x	x	x	x	Ab
5	ANJALI KRISHNAN A B	I PG	x	x	x	x	x	Ab	x	x	x	x
6	ANUPAMA A V	I PG	x	x	x	x	x	Ab	x	Ab	x	x
7	ARDRA J S	III UG	x	Ab	x	x	x	x	x	x	x	x
8	B KARTHIKA KRISHNAN	III UG	x	x	x	Ab	x	x	x	x	x	x
9	DHANAKRISHNA .R.R	III UG	x	x	x	Ab	x	x	x	x	x	x
10	G.GOPIKRISHNA	III UG	x	x	x	x	x	x	x	x	x	x
11	KARTHIKA MOHAN	III UG	Ab	x	Ab	x	x	x	x	x	x	x
12	KRISHNAGADHA M	III UG	x	x	x	x	Ab	x	x	x	Ab	x
13	LEKSHMI.S.S	III UG	x	x	x	x	x	x	x	x	x	x
14	MEGHANATH. A	III UG	x	x	x	x	x	x	x	x	x	x
15	NAVYA B S	III UG	x	Ab	x	x	x	x	x	x	x	x
16	SREELEKSHMI P S	III UG	x	Ab	x	x	x	x	x	Ab	x	x
17	SUFANA NOUSHAD	III UG	Ab	x	x	Ab	x	Ab	x	x	x	Ab
18	ANAKHA .A. NAIR	III UG	Ab	x	x	x	x	x	x	x	x	x
19	ARYA.A.S	III UG	Ab	x	x	x	x	x	x	x	Ab	x
20	KAVYA.T.NAIR	III UG	x	x	Ab	x	Ab	x	x	x	x	x
21	KAVYA SHAJ.C.S	III UG	x	x	x	x	x	x	x	Ab	x	x
22	PARAMESWAR V A	II UG	x	Ab	x	x	x	Ab	x	x	x	x



23	RESHMA BAIJU	II UG	X	Y	X	Rb	X	Rb	X	X	X	X
24	SAINA SAIFUDEEN	II UG	X	Rb	X	X	X	X	X	X	X	X
25	SOORYA DUTT.S	II UG	X	X	Rb	X	Rb	X	X	Rb	X	X
26	SRUTHI RAJ L	II UG	Rb	X	X	X	X	X	X	X	X	X
27	SURAJ M	II UG	X	X	X	Rb	X	X	Rb	X	X	Rb
28	VISHNUMOHAN M. A	II UG	X	X	X	X	X	X	X	X	X	X
29	KRISHNA M R	II UG	X	X	Rb	X	X	Rb	X	X	X	X
30	APARNA . M . S	II UG	X	X	X	X	X	X	X	X	X	X
31	NEERAJA M R	II UG	X	X	X	X	Rb	X	X	X	X	X
32	PARVATHI M J	II UG	X	X	X	X	X	X	X	X	Rb	X
33	ABHIRAMI A R	II UG	X	X	X	X	X	X	X	X	X	X
34	AKHILA B S	II UG	X	X	Rb	X	X	X	X	Rb	X	X
35	AMAL V	II UG	X	Rb	X	X	X	X	X	X	X	Rb
36	ANJIMA BINOJ	II UG	Rb	X	X	X	X	X	X	X	X	X
37	AMAL DEV S	I UG	X	Y	X	Rb	X	X	X	X	X	X
38	ANJANA. M.S	I UG	X	Y	X	X	X	Rb	X	X	X	X
39	ANJITHA PRASAD.S.L	I UG	X	X	Rb	X	X	X	X	X	X	X
40	APARNA .A	I UG	X	Y	X	X	X	X	X	X	X	X
41	CHANDHANA N S	I UG	X	X	X	X	X	X	X	Rb	X	X
42	GOPIKA .J	I UG	X	X	X	Rb	X	X	X	X	Rb	X
43	KRISHNENDU A.P.	I UG	X	Rb	X	X	X	X	X	X	X	X
44	M PRAVEENA PRATHAPAN	I UG	X	X	X	X	Rb	X	X	X	X	X
45	NANDANA S.	I UG	X	Y	X	X	X	X	X	X	X	X
46	SANDEEP S	I UG	Rb	X	X	X	X	Rb	X	Rb	X	X
47	SANDRA U SAJAN	I UG	X	Y	Rb	X	X	X	X	X	X	Rb
48	VIJITHA S U	I UG	X	Y	X	X	X	X	Rb	X	X	X
49	AMAL KRISHNA M	I UG	X	X	X	X	X	X	X	X	X	X
50	ANJALI B S	I UG	X	Rb	X	X	X	Rb	X	Rb	X	X
SIGNATURE OF FACULTY ENGAGED THE CLASS												
SIGNATURE OF HOD												



**MAHATMA GANDHI COLLEGE  
THIRUVANANTHAPURAM**

**DEPARTMENT OF BOTANY  
SEMESTER V**

**VALUE ADDED COURSE- MUSHROOM CULTIVATION**

**(Academic year 2020-2021)**

**QUESTION PAPER**

**Total marks: 25**

**Duration: 1 hr**

**Answer the following questions**

**(5x1=5)**

1. The poisonous compound produced by Amanita
2. Mushroom showing anti cholesterol activity
3. Scientific name of Oyster mushroom
4. Names of any two Mushroom cultivating in India / Kerala
5. Name of two poisonous mushroom

**Answer any 5 questions from the following**

**(5x2=10)**

6. Name the nutritional compound seen in mushroom
7. How to avoid mushroom poisoning
8. Explain the morphology of button mushroom
9. Name the essential amino acids present in mushrooms
10. Spawn making
11. Major steps in mushroom cultivation
12. Explain medicinal value of mushrooms
13. Polythene bag method of mushroom cultivation

**Write an essay on any one of the following questions**

**(10x1=10)**

14. Different methods of paddy straw mushroom cultivation
15. Nutritive value of mushrooms
16. Write an essay on preservation techniques of mushrooms
17. Explain the organisations meant for mushroommarketing

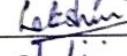
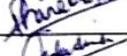
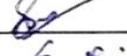
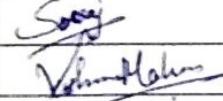
# MAHATMA GANDHI COLLEGE

POST GRADUATE DEPARTMENT AND RESEARCH CENTRE OF BOTANY

THIRUVNANTHAPURAM

ADD ON COURSE - 2020 - 2021

## MARK LIST OF STUDENTS - MUSHROOM CULTIVATION

SL.NO	NAME OF STUDENT	CLASS/ SEMESTER	MARK	SIGNATURE
1	GREESHMA G S	II PG	18	
2	KAVYA VIJAYAN B	II PG	24	
3	LEKSHMI S PRADEEP	II PG	26	
4	AARCHA J S	I PG	20	
5	ANJALI KRISHNAN A B	I PG	21	
6	ANUPAMA A V	I PG	19	
7	ARDRA J S	III UG	26	
8	B KARTHIKA KRISHNAN	III UG	21	
9	DHANAKRISHNA .R.R	III UG	17	
10	G.GOPIKRISHNA	III UG	18	
11	KARTHIKA MOHAN	III UG	24	
12	KRISHNAGADHA M	III UG	28	
13	LEKSHMI.S.S	III UG	20	
14	MEGHANATH. A	III UG	22	
15	NAVYA B S	III UG	19	
16	SREELEKSHMI P S	III UG	21	
17	SUFANA NOUSHAD	III UG	23	
18	ANAKHA .A. NAIR	III UG	18	
19	ARYA.A.S	III UG	26	
20	KAVYA.T.NAIR	III UG	25	
21	KAVYA SHAJI.C.S	III UG	22	
22	PARAMESWAR V A	II UG	20	
23	RESHMA BAIJU	II UG	08	
24	SAINA SAIFUDEEN	II UG	28	
25	SOORYA DUTT S	II UG	20	
26	SRUTHI RAJ L	II UG	21	
27	SURAJ M	II UG	06	
28	VISHNUMOHAN M . A	II UG	18	

29	KRISHNA M R	II UG	28	Krishna
30	APARNA . M . S	II UG	18	Aparna
31	NEERAJA M R	II UG	20	Neeraja
32	PARVATHI M J	II UG	19	Parvathi
33	ABHIRAMI A R	II UG	24	Abhirami
34	AKHILA B S	II UG	26	Akhila
35	AMAL V	II UG	20	Amal
36	ANJIMA BINOJ	II UG	24	Anjima
37	AMAL DEV S	I UG	23	Amal
38	ANJANA. M.S	I UG	21	Anjana
39	ANJITHA PRASAD.S.L	I UG	18	Anjitha
40	APARNA .A	I UG	24	Aparna
41	CHANDHANA N S	I UG	19	Chandana
42	GOPIKA .J	I UG	20	Gopika
43	KRISHNENDU A.P.	I UG	25	Krishnendu
44	M PRAVEENA PRATHAPAN	I UG	25	Praveena
45	NANDANA S.	I UG	20	Nandana
46	SANDEEP S	I UG	19	Sandeep
47	SANDRA U SAJAN	I UG	16	Sandra
48	VIJITHA S U	I UG	22	Vijitha
49	AMAL KRISHNA M	I UG	24	Amal
50	ANJALI B S	I UG	20	Anjali

  
HEAD OF THE DEPARTMENT

  
PRINCIPAL



# MAHATMA GANDHI COLLEGE

THIRUVANANTHAPURAM

Re-accredited with B+ Grade by NAAC

## DEPARTMENT OF BOTANY

### CERTIFICATE

This is to certify that ..... of  
..... has successfully completed Add on  
Course in “.....” offered by  
Department of Botany, Mahatma Gandhi College, TVPM during the  
academic year .....

  
Head of the Department

  
Principal

# **Report on the Add-on Course in Mushroom Cultivation**

**Academic Year: 2020-2021**

Aiming to amalgamate traditional pedagogy with pragmatic experiences, the Department of Botany introduced an auxiliary course centered on mushroom cultivation. Tailored to cater to both Undergraduate and Post Graduate students, this 30-hour program transcended mere academic learning. It was formulated to foster scientific curiosity and instill civic responsibility in students, epitomizing the department's dedication to comprehensive education. Dr. Preetha T S, an esteemed Assistant Professor from the Department of Botany at University College, Thiruvananthapuram, championed the course. She was ably supported by a cadre of faculty members, each contributing their distinct expertise to the course modules.

Kicking off on a Saturday, the course was structured across multiple working days. Sessions were judiciously timed either pre or post the usual college hours. In her inaugural address, Dr. Preetha T S elucidated the expansive world of mushroom cultivation, encompassing the latest research trends. Her dynamic and interactive teaching style resonated with the students, sparking lively discussions. The ensuing curriculum delved into the nuances of mushroom cultivation, from techniques and tools to terminologies. Fresh, avant-garde methodologies were introduced alongside discussions on the cultural significance of mushroom farming. With a focus on promoting dialogue, students were encouraged to seek clarifications, with many expressing interest in personal mushroom cultivation endeavors.

Embedded within the course were periodic review sessions. These interactive meetups played a pivotal role in strengthening students' grasp on the subject matter. On culminating the course, students were felicitated with certificates, a testament to their dedication and successful course completion. In conclusion, this add-on course on mushroom cultivation exemplifies the Botany Department's commitment to melding theoretical instruction with practical insights.

# **MAHATMA GANDHI COLLEGE THIRUVANANTHAPURAM**

Re-accredited with B+ Grade by NAAC

## **ADD ON COURSE MUSHROOM CULTIVATION COURSE STRUCTURE AND SYLLABUS**

BY

**POST GRADUATE DEPARTMENT &  
RESEARCH CENTRE OF BOTANY**



(2018 onwards)

## OBJECTIVES OF THE COURSE

- **Understanding Mushroom Biology:** Studying mushroom cultivation involves gaining a deep understanding of the biology, life cycle, and growth requirements of different mushroom species.
- **Cultivating Edible Mushrooms:** One of the main objectives of studying mushroom cultivation is to produce edible mushrooms for consumption and commercial purposes. This involves learning about the specific cultivation techniques, substrate preparation, spawn production, and environmental conditions required for different mushroom species.
- **Disease Management:** Studying mushroom cultivation includes researching and developing strategies for the prevention and management of diseases that can affect mushroom crops. This objective focuses on understanding common pathogens, identifying disease-resistant strains, implementing proper sanitation practices, and exploring alternative disease control methods.
- **Economic Viability and Market Development:** This objective includes conducting market research, evaluating consumer preferences, analyzing production costs, and exploring value-added product development to support successful commercialization and entrepreneurship in the mushroom industry.

## EXPECTED OUTCOMES OF THE COURSE

- **Increased Knowledge and Understanding:** Studying mushroom cultivation leads to a deeper understanding of mushroom biology, cultivation techniques, and the factors influencing mushroom growth and development.
- **Improved Cultivation Techniques:** Through research and study, new and improved cultivation techniques can be developed. Improved techniques can result in higher yields, better quality mushrooms, and more efficient production processes.
- **Enhanced Disease Management Strategies:** Research on mushroom cultivation helps in identifying and developing effective strategies for disease prevention, early detection, and management.
- **Sustainable Cultivation Practices:** Studying mushroom cultivation promotes the development and adoption of sustainable practices. This includes exploring alternative and renewable substrates, implementing recycling and waste management strategies, minimizing the use of synthetic inputs, and reducing the environmental footprint of mushroom cultivation.
- **Increased Commercial Viability:** By improving cultivation techniques, optimizing production processes, and developing marketable products, the profitability and competitiveness of mushroom farming can be enhanced. This benefits farmers, entrepreneurs, and the overall mushroom industry.
- **Training and Education Opportunities:** Studying mushroom cultivation creates opportunities for training programs, workshops, and educational resources.

## **COURSE STRUCTURE**

**DURATION** : **30 Hrs**

**ASSESSMENT & CERTIFICATION** : The trainee will be tested for his skill, knowledge and attitude during the period of training and at the end of the training programme including practical examinations.

# MUSHROOM CULTIVATION

## SYLLABUS

(Total 30 hrs)

### MODULE-I

(10 hrs)

- History and introduction of Edible and Poisonous mushrooms.
- Common Indian mushrooms.
- Systematic position, morphology, distribution, structure of *Agaricus* and *Pleurotus*.

### MODULE- II

(5 hrs)

- Nutritional value, medicinal value and advantages- types- milky, straw, button and poisonous mushrooms
- Production level, economic return, Foreign exchange from Mushroom cultivating countries and international trade.

### MODULE- III

(10 hrs)

- Cultivation of Paddy straw mushroom, Oyster mushroom, white button mushroom and milky mushrooms
- Spawn making, Substrate preparation, Maintenance and Harvesting
- Composting

### MODULE- IV

(5 hrs)

- Diseases- Common pests, disease prevention and control measures- *Agaricus*, *Pleurotus* and *Volverilla*.
- Processing and storage of mushrooms

**Field Study: Visit to a mushroom cultivating Laboratory and handson training for processing.**