GOVT. HOLKAR (MODEL AUTONOMOUS) SCIENCE COLLEGE, INDORE

(An ISO 9001:2015 & ISO 14001:2015 Certified Instituion)

SSR DOCUMENT

2017-18 to 2021-22

CRITERION –7

Institutional Values and Best Practices

Institutional Distinctiveness

Metric No. : 7.3.1

SURESH T SILAWAT

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Date: 2023.08.18 13:42:01 +05'30'

Document Title:

V. Value Added Courses reflecting the scientific attitude & Temperament

तमसो मा ज्योतिर्गमय

Organic Farming

1.1 Brochure: -

Govt. Holkar (Model Autonomous) Science College, Indore

ORGANIC FARMING
Value Added Course
(Deptt of Botany)

Value Added Course on Organic Farming" conducted by The Department of Botany from 12/4/22 to 29/4/22.

Don't miss this opportunity to learn about organic farming techniques and practices. Register today for the "Value Added Course on Organic Farming" conducted by the Department of Botany.

"WE ARE READY TO RE-GREEN FOR THE FUTURE OF OUR EARTH"

Key Benefits of the Course :

- Learn about organic farming techniques and practices.
- Gain practical knowledge on how to grow crops organically.
- Understand the importance of organic farming for the environment and health.
- Explore the economic benefits of organic farming.
- Receive a certification from a reputable institution upon successful completion of the course.

Objectives of the Course

The objective of this course is to provide participants with knowledge and skills in organic farming. The course will cover topics such as organic farming techniques, soil management, pest management, and crop rotation. Participants will also gain practical experience through hands-on training sessions.

Career Opportunities:

Upon completion of this course, participants will be equipped to pursue a variety of careers in organic farming, including:

- Organic farmer
- Farm manager
- Soil scientist
- Agricultural consultant

1.2 Permission: -

वनस्पतिशास्त्र विभाग, शा0 होलकर विज्ञान महाविद्यालय, इन्दौर,(म0प्र0)

कमांक 355B/ वनस्पतिशास्त्र / 2022 दिनांक: 06 / 04 / 2022

प्रति,

प्राचार्य महोदय,
शास0 होलकर विज्ञान महा0,
इन्दौर,(म0प्र0)

विषय :– **60 Hours Value added Course** करानें की अनुमति विषयक।

महोदय,

उपरोक्त विषयान्तगर्त अनुरोध है, कि महाविद्यालय के वनस्पतिशास्त्र विभाग द्वारा विद्यार्थियों हेतु **60 Hours** का **Value added Course "Organic Farming"** दिनांक 12 / 04 / 2022 से 29 / 04 / 2022 तक विभाग में आयोजित किया जाना प्रस्तावित हैं।

डॉ. संदीदा इकबाल
विभागाध्यक्ष
वनस्पतिशास्त्र विभाग

1.3 Notice: -

Govt. Holkar (Model Autonomous) Science College, Indore

Department of Botany

Value Added Course

60 Hours Training Program

On

"Organic Farming"

Value added courses are the types of courses which help a particular individual to develop their skills in their chosen field of the study. The Value-Added Courses aim to provide additional learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students. It is important for all institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes. Organic farming and Vermi-composting may be defined as the sum of the activities performed for Eco- friendly farming and to minimize the uses of pesticide and chemical.

Eligibility: As per course requirement: 10+2/Graduation

Prerequisites: As per course requirement: Basic knowledge of farming and medicinal plants.

Course Fee: 500/-

Course Duration information: 60 hrs

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1.4 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore

Department of Botany

Value Added Course

On

Organic Farming

Syllabus

Course Outcome: Standardized Organic Farming and Vermi-composting, Generation of knowledge towards cultivation practices will reduce the dependence on pesticides and chemicals, thereby conserving the soil ferlility. Knowledge regarding medicinal property and uses of eco-friendly tech. that conserve soil fertility and human health in our daily life. Student of Botany can start own business and become entrepreneur.

Module 1 (12 hours): Introduction and Importance of Organic Farming: -

- Overview of Organic Farming
- Importance of Organic Farming
- Benefits of Organic Farming over Conventional Farming
- Comparison of Organic and Conventional Farming
- Principles of Organic Farming
- Standards and Certification in Organic Farming
- Market Potential and Demand for Organic Products

Module 2 (12 hours): Various Methods of Organic Farming in India: -

- Organic Farming Methods - Crop Rotation, Green Manure, Companion Planting, Mulching, Intercropping, Biological Pest Control, etc.
- Advantages and Disadvantages of Different Organic Farming Methods
- Application of Organic Farming Methods in India
- Organic Farming Case Studies

Module 3 (12 hours): Introduction and Importance of Vermi-composting: -

- Overview of Vermi-composting
- Importance of Vermi-composting
- Advantages of Vermi-composting over Conventional Composting
- Comparison of Vermi-composting and Conventional Composting
- Vermi-composting Process
- Types of Worms Used in Vermi-composting

Module 4 (12 hours): Economies of Vermi-composting and Organic Farming: -

- Cost-Benefit Analysis of Organic Farming
- Market Potential for Organic Products

- Pricing and Marketing Strategies for Organic Products
- Profitability Analysis of Vermi-composting
- Sources of Funding for Organic Farming and Vermi-composting

Module 5 (12 hours): Hands-on Training and Practical Implementation: -

- Setting up an Organic Farm
- Planning and Execution of Vermi-composting
- Soil Management Techniques
- Crop Management Techniques
- Harvesting and Post-Harvest Techniques
- Quality Control Measures
- Hands-on Training in Organic Farming Techniques and Vermi-composting

Coordinator, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

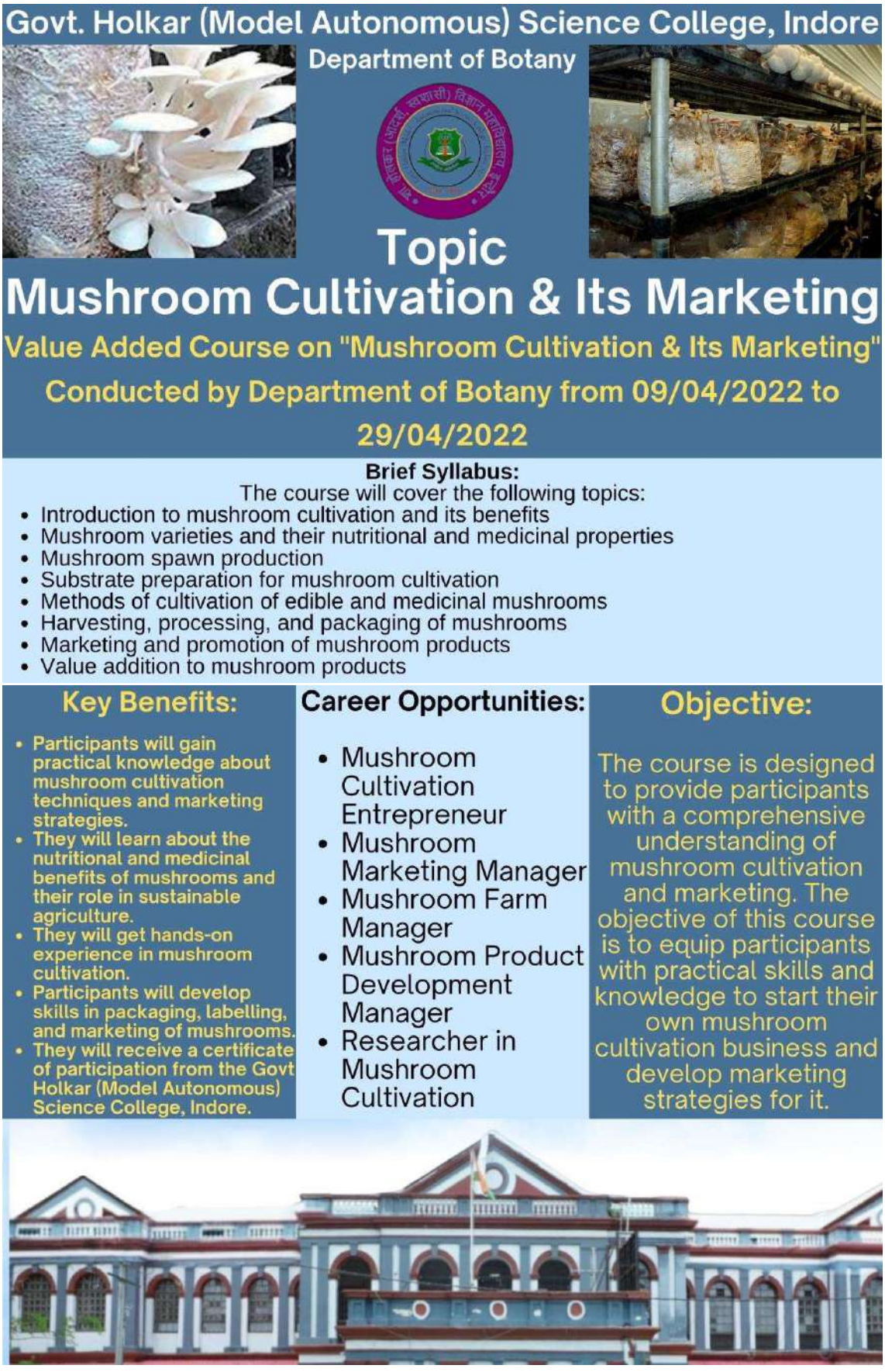
Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Mushroom Cultivation

2.1 Brochure: -


Govt. Holkar (Model Autonomous) Science College, Indore
Department of Botany
Topic
Mushroom Cultivation & Its Marketing
Value Added Course on "Mushroom Cultivation & Its Marketing"
Conducted by Department of Botany from 09/04/2022 to 29/04/2022
Brief Syllabus:
The course will cover the following topics:
• Introduction to mushroom cultivation and its benefits
• Mushroom varieties and their nutritional and medicinal properties
• Mushroom spawn production
• Substrate preparation for mushroom cultivation
• Methods of cultivation of edible and medicinal mushrooms
• Harvesting, processing, and packaging of mushrooms
• Marketing and promotion of mushroom products
• Value addition to mushroom products
Key Benefits:
• Participants will gain practical knowledge about mushroom cultivation techniques and marketing strategies.
• They will learn about the nutritional and medicinal benefits of mushrooms and their role in sustainable agriculture.
• They will get hands-on experience in mushroom cultivation.
• Participants will develop skills in packaging, labelling, and marketing of mushrooms.
• They will receive a certificate of participation from the Govt Holkar (Model Autonomous) Science College, Indore.
Career Opportunities:
• Mushroom Cultivation Entrepreneur
• Mushroom Marketing Manager
• Mushroom Farm Manager
• Mushroom Product Development Manager
• Researcher in Mushroom Cultivation
Objective:
The course is designed to provide participants with a comprehensive understanding of mushroom cultivation and marketing. The objective of this course is to equip participants with practical skills and knowledge to start their own mushroom cultivation business and develop marketing strategies for it.

2.2 Permission: -

वनस्पतिशास्त्र विभाग, शा0 होलकर विज्ञान महाविद्यालय, इन्दौर,(म0प्र0)

क्रमांक 354/ वनस्पतिशास्त्र / 2022 दिनांक: 06 / 04 / 2022

प्रति,

प्राचार्य महोदय,
शास0 होलकर विज्ञान महा0,
इन्दौर,(म0प्र0)

विषय :– **60 Hours Value added Course** करानें की अनुमति विषयक।

महोदय,

उपरोक्त विषयान्तगर्त अनुरोध है, कि महाविद्यालय के वनस्पतिशास्त्र विभाग द्वारा विद्यार्थियों हेतु **60 Hours** का **Value added Course "Mushroom Cultivation and its Marketing"** दिनांक 09 / 04 / 2022 से 29 / 04 / 2022 तक विभाग में आयोजित किया जाना प्रस्तावित हैं।

डॉ. रजिया इकबाल
विभागाध्यक्ष
वनस्पतिशास्त्र विभाग

वनस्पतिशास्त्र विभाग
शा. होलकर विज्ञान महा. इन्दौर

2.3 Notice: -

Govt. Holkar (Model Autonomous) Science College, Indore

Department of Botany

Value Added Course

60 Hours Training Program

On

"Mushroom Cultivation and its Marketing"

Value added courses are the types of courses which help a particular individual to develop their skills in their chosen field of the study. The Value-Added Courses aim to provide additional learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students. It is important for all institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes. Mushroom Cultivation and its Business may be defined as the sum of the activities performed for the successful production of Edible Mushrooms and marketing of Mushrooms in various hospitality industry and medicinal uses, etc.

Eligibility: As per course requirement: 10+2/Graduation

Prerequisites: As per course requirement: Basic knowledge of farming and medicinal plants.

Course Fee: 500/-

Course Duration information: 60 hrs

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2.4 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore

Department of Botany

Value Added Course on Mushroom Cultivation and its Marketing

Syllabus

Course Outcome: Standardized Mushroom cultivation practices and its business, will reduce the dependence on collection of raw material from wild to meet the market demand, thereby conserving the biodiversity. Knowledge regarding medicinal property and uses of medicinal mushrooms in our daily life. Student of Botany can start own business and become entrepreneur.

Module 1 (12 hours): Introduction and Importance of Mushroom Cultivation:

- Introduction to Mushroom Cultivation
- History and Evolution of Mushroom Cultivation
- Nutritional and Medicinal Value of Mushrooms
- Importance of Mushroom Cultivation
- Global and Indian Market for Mushrooms
- Challenges and Opportunities in Mushroom Cultivation

Module 2 (12 hours): Varieties of Cultivated Mushroom in India:

- Introduction to Different Mushroom Varieties
- Oyster Mushrooms
- Button Mushrooms
- Shiitake Mushrooms
- Reishi Mushrooms
- Other Popular Mushroom Varieties in India
- Characteristics and Requirements of Different Mushroom Varieties

Module 3 (12 hours): Methods of Mushroom Cultivation:

- Basic Concepts of Mushroom Cultivation
- Spawn Production
- Substrate Preparation
- Sterilization Techniques
- Inoculation Techniques
- Casing and Spawning
- Environmental Management
- Harvesting and Post-Harvest Management

Module 4 (12 hours): Business and Economics of Mushroom Cultivation:

- Market Analysis and Demand Estimation
- Cost-Benefit Analysis of Mushroom Cultivation
- Pricing Strategies and Marketing Techniques
- Business Plan Development
- Government Schemes and Subsidies for Mushroom Cultivation

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- Risk Assessment and Management
- Integration of Mushroom Cultivation with Other Farming Systems

Module 5 (12 hours): Hands-on Training and Practical Demonstration:

- Site Selection and Preparation
- Spawn Production
- Substrate Preparation
- Sterilization Techniques
- Inoculation Techniques
- Environmental Management
- Casing and Spawning
- Harvesting and Post-Harvest Management
- Quality Control and Assurance
- Value-Added Product Development
- Demonstration of Mushroom Cultivation Techniques

Coordinator, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Human Impact on Air Environment

6.1 Brochure: -

Value Added Course

10 Days Training Project

On

"Human Impact on Air Environment"

Organized By :

Department of Microbiology,

Govt. Holkar Science College, Indore

Dated: 01 December 2021 to 11 December 2021

Patron: Dr. Suresh T. Silawat,

Additional Director, Indore-Division &

Principal,

Govt. Holkar Science College, Indore

Convenor: Dr. Sanjay Vyas

Prof. & Head, Department of Microbiology

Venue

Department of Microbiology,

Govt. Holkar Science, College,

Registration: No Fee

Committee

Patron: Dr. Suresh T. Silawat, Additional Director,
Indore-Division & Principal,
Govt. Holkar Science College, Indore

Convenor: Dr. Sanjay Vyas, Prof. & Head,
Govt. Holkar Science College, Indore

Organizing Secretaries: Dr. Deepti Khare ,
Prof. Anuja Sharma

Committee Members: Dr. Radhika Waghmare
Prof. Nidhi Kibe
Mrs. Ranjeeta Prajapati
Mr. Dileep Jacob
Mrs. Neha Sharma

Speakers: Day 01 – Dr. Sanjay Vyas
Day 02 – Prof. Anuja Sharma
Day 03 – Dr. Deepti Khare

6.2 Permission: -

सूक्ष्मजैविकी विभाग, शा0 होलकर विज्ञान महाविद्यालय, इन्दौर,(म0प्र0)

क्रमांक ...../ सूक्ष्मजैविकी / 2021 दिनांक: 29 / 11 / 2021

प्रति,

प्राचार्य महोदय,
शास0 होलकर विज्ञान महा0,
इन्दौर,(म0प्र0)

विषय :– 10 दिवसीय ट्रेनिंग प्रोजेक्ट करानें की अनुमति विषयक।

महोदय,

उपरोक्त विषयान्तगर्त अनुरोध है, कि महाविद्यालय के सूक्ष्मजैविकी विभाग द्वारा विद्यार्थियों हेतु दस दिवसीय **Training Project "Human Impact on Air Environment"** दिनांक 01 / 12 / 2021 से 11 / 12 / 2021 तक विभाग में आयोजित किया जाना प्रस्तावित हैं।

कृपया **NAAC Visit** को दृष्टिगत रखते हुयें उक्त ट्रेनिंग प्रोजेक्ट को करवाने की अनुमति प्रदान करने का कष्ट करें।

डॉ.संजय व्यास
विभागाध्यक्ष
सूक्ष्मजैविकी विभाग

30/11/21

6.3 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Department of Microbiology
Session: 2021-22
Syllabus For Value Added Course
Title: Human Impact on Air Environment

Unit	Topics
1	Aerobiology: - Definition, branches of aero microbiology, history of aero- microbiology, composition of air, microorganism present in air. Air environments.
2	Aeroallergens, infection transfer, Droplet nuclei & aerosol.
3	Assessment of air quality-History, air quality, air pollutants, effects on biodiversity, air pollution control, methods of air quality of assessment.
4	Bacterial, fungal and viral diseases transmitted through air and their preventive measures.

Approved

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

An Introduction to Drugs & Medicine

7.1 Brochure: -

Govt, Holkar (Model, Autonomous) Science College, Indore , M.P.

An Introduction to Drugs & Medicines

(A value added course offered by the department of Pharmaceutical Chemistry)

Course Code-
Duration - 30 hrs.
Offered to- Students of all streams UG
Mode Online (LMS platform)

Learning Objectives: The course is intended

1. To familiarise the student about various dosage forms, components, categories and label of Medicines.
2. To sensitise the student about the buying, using, storing and side effects of Medicines
. 3. To gain insights about various stages of drug development and about current therapies.
4. To understand the concepts of traditional medicines, standards for medicines and regulation of medicines.
5. To gain the skill in extraction, evaluation and labelling of medicines.

Course Content

Know your Medicine: What are Medicines? Food/ Nutrition vs Medicine.
Using Medicines (Dosage Forms): Buying and storing medicines at home.
Drugs or Medicine Discovery: Some historical perspectives of drug discovery.
Herbal, Ayurvedic and Siddha Medicines: Basic concepts.
Standards, Quality and Regulation of Medicines: Basic concepts of quality with respect to medicinal products.

Course Planners

1. Dr. M. K. Dwivedi , HOD, Dept. of Pharmaceutical Chemistry
2. Dr. Rashmi Agarwal, Prof. , Pharmaceutical chemistry

7.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Department Of Pharmaceutical Chemistry
Value Added Course on An Introduction to Drugs and Medicines
Syllabus

Learning Objectives: The course is intended;

1. To familiarise the student about various dosage forms, components, categories and label of Medicines.
2. To sensitise the students about the buying, using, storing and side effects of Medicines.
3. To gain insights about various stages of drug development and about current therapies.
4. To understand the concepts of traditional medicines, standards for medicines and regulation of medicines.
5. To gain the skill in extraction, evaluation and labelling of medicines.

Course Outcomes: Upon completion of the course, the student will be able to;

1. Explain the various dosage forms, components, categories and labelling of Medicines.
2. Gain awareness about buying, using, storing and side effects of Medicines.
3. Understand about various stages of drug development and about current therapies.
4. Appreciate the concepts of traditional medicines, standards for medicines and regulation of medicines.
5. Extract, evaluate and label the medicines.

Theory (18 Hours)

Unit-I

Know your Medicine: What are Medicines? Food/ Nutrition vs Medicine. Brief description of some common Dosage forms of Medicines: Tablets, Capsules, Liquids, Suspensions, Injectables, Non-oral dosage forms etc. Components of a Medicine (Dosage form). Generic and Branded medicines. Therapeutic, Prophylactic and Nutritional supplement dosage forms. Dosage strength and how to read the label of Medicines. Idea of Batch, Manufacturing and Expiry Dates.

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Govt. Holkar (Model Autonomous)
Science College, Indore

Unit-II

Using Medicines (Dosage Forms): Buying and storing medicines at home. Concept of Dosage frequencies and its variation. Reasons for before or after food dose. Do's and Don'ts with special dosage forms (enteric or extended release etc). Handling sterile dosage forms and the relevant precautions. Antibiotics, and their responsible use. Concepts of adverse effects and its reporting. Do's and Don'ts on Medicines for chronic conditions such as Diabetes, Hypertension etc.

Unit-III

Drugs or Medicine Discovery: Some historical perspectives of drug discovery examples such as Aspirin, Penicillin, Quinine, etc. Natural drugs to Modern drugs. Outline of modern drug discovery process. Safety evaluation and Efficacy Evaluation etc. Some modern advances such as Gene Therapy, Stem cell therapy etc.

UNIT-IV

Herbal, Ayurvedic and Siddha Medicines: Basic concepts. Common Traditional Remedies and Illustrative examples of popular plant drugs used in the above systems of medicines, their therapeutic constituents and uses. Awareness about problems or quality issues associated with marketed herbal products and their reliability.

UNIT-V

Standards, Quality and Regulation of Medicines: Basic concepts of quality with respect to medicinal products and how it is ensured. Pharmacopoeias and Standards associated with medicine manufacture. Outline of structure and functions of Drug Control and other relevant Bodies such as NPPA, Scope and purpose of Drugs and Cosmetic Act etc.

Practicals: (12 Hours)

1. Preparation of labels for pharmaceutical dosage forms
2. Extraction of crude drugs
3. Evaluation of dosage forms
4. Evaluation of crude drugs.

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

References:

1. Allen, (2018), Ansel's Pharmaceutical Dosage Forms and Drug Delivery
2. System, Wolters Kluwer India Pvt. Ltd.
3. Mohantha G P, (2017), Textbook of Clinical Research, PharmaMed
4. Press/BSP Books
5. Wallis T E, (2005), Textbook of Pharmacognosy, CBS
6. Indian Pharmacoepia
7. Central Drugs Standard Control Organization (CDSCO): https://cdsco.gov.in/opencms/opencms/en/Home/

Approved

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Nursery Management of Medicinal Plants

18.1 Brochure: -

Value Added Course

10 Days Training Program

On

"Nursery Management of Medicinal plants"

Organized By:
Department of Botany,
Govt. Holkar Science College, Indore
Dated: 03 December 2021 to 13 December 2021

Patron: Dr. Suresh T. Silawat,
Additional Director, Indore-Division & Principal,
Govt. Holkar Science College, Indore

Convenor: Dr. Priti Chaturvedi
Prof., Department of Botany

Venue
Department of Botany,
Govt. Holkar Science, College,

18.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Department Of Botany
Value Added / Certificate Course on Nursery Management of Mediational Plants

Syllabus

Course Outcome: Standardized nursery practices and agrotechnology, Generation of knowledge towards cultivation practices will reduce the dependence on collection of raw material from wild to meet the market demand, thereby conserving the biodiversity. Knowledge regarding medicinal property and uses of medicinal plants in our daily life. Student of Botany can start own business and become entrepreneur.

Module 1: Introduction to Medicinal Plant Nursery Management:

- Fundamentals of Cultivation: Students will learn about the basic principles of growing medicinal plants in a nursery setting, including soil requirements, watering, sunlight, and temperature control.
- General Management: Students will learn about different management practices involved in nursery management of medicinal plants, such as propagation techniques, pest and disease management, and pruning.
- General Introduction: Students will be introduced to the different medicinal plants that can be grown in a nursery and their uses.
- Habit and Habitat: Students will learn about the natural habitats and growth patterns of medicinal plants, and how to create similar conditions in a nursery setting.

Module 2: Characteristics and Uses of Medicinal Plants in Nursery Management:

- Important Characters: Students will learn how to identify different medicinal plants based on their physical characteristics, such as leaf shape, color, texture, and odor.
- Flowering and Fruiting Season: Students will learn about the timing of flowering and fruiting of different medicinal plants, and how it relates to their growth and propagation in a nursery.
- Useful Parts and Time of Collection: Students will learn about the different parts of medicinal plants that are used in herbal remedies, such as roots, leaves, flowers, and seeds. They will also learn about the optimal time for harvesting these parts.
- Substitutes and Adulterants: Students will learn about the different plant species that can be used as substitutes for medicinal plants and how to avoid adulteration in the nursery setting.

Module 3: Propagation Techniques for Medicinal Plants in Nursery Management:

- Seed Propagation: Students will learn about the different seed propagation techniques for medicinal plants, including direct seeding and seedling transplanting.
- Vegetative Propagation: Students will learn about the different vegetative propagation techniques, such as cuttings, layering, and division.

- Tissue Culture Propagation: Students will be introduced to the concept of tissue culture and how it can be used for mass propagation of medicinal plants in a nursery setting.

Module 4: Nursery Design and Management:

- Nursery Design: Students will learn about the different factors to consider when designing a medicinal plant nursery, such as location, layout, and infrastructure.
- Inventory Management: Students will learn about inventory management techniques, such as record keeping, stocktaking, and forecasting.
- Marketing and Sales: Students will be introduced to marketing strategies for medicinal plants in a nursery setting, including branding, packaging, and distribution.

Module 5: Certification and Quality Control in Medicinal Plant Nursery Management:

- Certification: Students will learn about the different certification programs available for medicinal plant nurseries, such as organic certification and Fair-Trade certification.
- Quality Control: Students will learn about the different quality control measures for medicinal plants, such as testing for purity, potency, and safety.
- Compliance: Students will be introduced to different compliance requirements for medicinal plant nurseries, such as environmental regulations and labor laws.

Approved

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Renewable Energy and Energy Efficiency & Conservation- Technologies, Application, Approaches, Treads and Policies

9.1 Brochure: -

GOVERNMENT HOLKAR (MODEL, AUTOMOMOUS) SCIENCE COLLEGE,INDORE, MP. INDIA
VALUE ADDED COURSE/ONLINE CERTIFICATE COURSE / ADD ON COURSE
ON
"RENEWABLE ENERGY AND ENERGY EFFICIENCY & CONSERVATION –
TECHNOLOGIES, APPLICATIONS, APPROACHES, TRENDS AND POLICIES"
ORGANIZED BY
DEPARTMENT OF PHYSICS

This Value added Course/Online Certificate Course / Add On Course introduces the student with the techniques used in Renewable Energy and Energy Efficiency . The purpose of this course is to impart knowledge on Renewable Energy, Energy Efficiency and Conservation. After completion of this course student will be to carry out their future endeavours in this field.

Patron
Dr. Suresh T. Silawat
Additional Director
Higher Education
Indore Division & Principal

Convener
Dr. G. D. Gupta
Head of Department
Department of Physics

DATE: :4TH -16TH Sep. 2020
PLATFORM : Google meeting App

9.2 Syllabus: -

Department of Physics
Government (Model Autonomous) Holkar Science College, Indore, MP, INDIA
CERTIFICATE COURSE
ON
Renewable Energy and Energy Efficiency & Conservation – technologies, applications, approaches, trends and policies
Mode: Online

Course Objective: To impart knowledge on renewable energy, energy efficiency and conservation, related government policies, techno-commercial aspects and its implementation in commercial and industrial application.

Course Duration: 30 Hours

Class	Subject	CCE	Min Marks	Term End Exam	Mini marks	Total	Mini. Marks
Certificate Course	Fundamentals of solar energy, solar thermal, PV and its applications	10	4	40	13	50	17
	Practical/Project /Assignment	-	-	-	-	50	17

UNIT	UNIT NAME	CONTENTS	Duration
1	Energy Efficiency and Conservation	1. Types of energy (primary, secondary and final). non-conventional and conventional sources of energy 2. Energy Efficiency and Conservation in buildings, appliances and industry	6 hrs
2		3. Bureau of Energy Efficiency, basics of energy audit, energy transition, energy access and energy security 4.World Energy overview, India energy overview, clean cooling, modern fuel and other related topics Standard and Labeling, Perform Achieve and Trade and other national schemes. Government schemes and policies.	6 hrs
3	Renewable Energy	1. Comparison of India with other countries in its ambition to reduce Green House Gases (GHG) emission and achieving Nationally Determined Contribution (NDC), non-conventional sources of energy 2. Solar thermal and solar Photo voltaic (PV)basics	6 hrs
4		3. Solar water heater, solar flat plate collector, trends and targets of renewable energy (RE) in India, solar-PV and thermal hybrid system 4.Potential of solar PV/thermal in industries and commercial sector. Government schemes and policies	6 hrs
5	Practical/Project/ Assignment	Related with the course content	6 hrs

Note: Classes will be held on weekend (Saturday & Sunday) Time from 12:00 to 2:30 PM

(Anant Shukla)

Food Manufacturing and Processing

10.1 Brochure: -

Government Holkar

(Model Autonomous)

Science College Indore

Swami Vivekanand career Guidance cell

Date: - 08/02/2021 to 09/03/2021

Food Manufacturing and Processing course

This Value-Added Course the Food Manufacturing and Processing course sponsored by the Vivekanand Career Guidance Cell and organized by the RCVP Noronha Academy. This course, which will be conducted from August 2, 2021, to September 3, 2021, is designed to provide participants with knowledge and skills in the field of food manufacturing and processing.

Key Benefits of the Course:

- Participants will gain a comprehensive understanding of food manufacturing and processing techniques, including food safety and quality control, packaging, and labeling.
- The course is taught by experienced and knowledgeable instructors, including a renowned Borocher in the field.
- Participants will have the opportunity to visit local food manufacturing and processing facilities to gain practical, hands-on experience.
- Upon completion of the course, participants will be equipped with the skills and knowledge necessary to succeed in the food manufacturing and processing industry..

Objectives of the Course

The objective of the Food Manufacturing and Processing course is to equip participants with the knowledge and skills necessary to succeed in the food manufacturing and processing industry. By the end of the course, participants will have a comprehensive understanding of food manufacturing and processing techniques, including food safety and quality control, packaging, and labeling.

Career Prospects: The Food Manufacturing and Processing course offers excellent career prospects in the industry. Graduates may be employed as supervisors, inspectors, technologists, or specialists in packaging and labeling. With the demand for processed foods on the rise, skilled professionals are needed. This course equips participants with the skills and knowledge to succeed in this exciting field..

Overview of the Syllabus

course syllabus covers a wide range of topics, including: Introduction to food manufacturing and processing• Food safety and quality control• Food processing techniques. The course is designed to be interactive and hands-on, with participants encouraged to actively engage in discussions and practical exercises

10.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Swami Vivekanand Career Guidance Cell
Value Added Course
On
"Food Manufacturing and Processing"
Syllabus

Module 1: Introduction to Food Manufacturing and Processing:

- Introduction to food manufacturing and processing
- Importance of food safety and quality in food manufacturing
- Basic principles of food processing and preservation
- Overview of food industry regulations and standards
- Food processing equipment and machinery

Module 2: Food Safety and Quality Management:

- Principles of food safety and quality management
- Food safety hazards and risk assessment
- HACCP (Hazard Analysis and Critical Control Points) principles
- Food safety regulations and compliance
- Quality control and assurance techniques

Module 3: Food Processing Technologies:

- Overview of common food processing technologies
- Thermal processing methods (pasteurization, sterilization, etc.)
- Non-thermal processing methods (high pressure processing, irradiation, etc.)
- Food packaging and preservation techniques
- Emerging food processing technologies (nanotechnology, biotechnology, etc.)

Module 4: Product Development and Marketing:

- Product development process in the food industry
- Consumer preferences and market research
- Marketing strategies and product promotion
- Packaging design and labelling regulations
- Product pricing and distribution channels

Module 5: Food Industry Trends and Challenges:

- Current trends and future prospects in the food industry
- Globalization and food supply chain management
- Sustainability and environmental concerns in food production
- Food waste reduction strategies
- Challenges in food manufacturing and processing (food fraud, workforce management, etc.)

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Animal Husbandry and Poultry, Sericulture and Fisheries

12.1 Brochure: -

Govt. Holkar (Model Autonomous) Science College, Indore

Date: -
08/02/2021
To
09/03/2021

Swami Vivekanand Career Guidance Cell

Value Added Course on Animal Husbandry and Poultry Sericulture and Fisheries

Brief Syllabus: The course will cover the following topics:

- Introduction to Animal Husbandry, Poultry, Sericulture, and Fisheries
- Breeding and Genetics
- Animal Nutrition and Feed Management
- Disease Control and Management
- Marketing and Value-Added Products
- Aquaculture and Fisheries Management
- Sericulture and Silk Production

Key Benefits of the Course:

- Gain a comprehensive understanding of animal husbandry, poultry, sericulture, and fisheries.
- Develop the necessary skills and knowledge to excel in the field of animal husbandry and related industries.
- Learn about the latest technologies and practices in the industry and stay ahead of the curve.
- Explore career opportunities in the industry and acquire the confidence to pursue them.
- Learn from experienced professionals and gain practical insights into the workings of the industry.
- Obtain a certification from a reputable institution that will enhance your resume and boost your career prospects.

Objectives of the Course:

The objective of this course is to provide participants with a comprehensive understanding of animal husbandry, poultry, sericulture, and fisheries. The course will cover topics such as breeding and genetics, nutrition, disease control, management practices, marketing, and value-added products. Participants will also gain an understanding of the challenges and opportunities in the industry and develop the skills and knowledge necessary to succeed in the field.

Career Opportunities:

Upon completion of this course, participants will be equipped to pursue a variety of careers in animal husbandry and related industries, including:

- Livestock and poultry farm manager
- Sericulture specialist
- Fisheries and aquaculture manager
- Animal health and nutrition consultant
- Value-added product developer

12.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Swami Vivekanand Career Guidance Cell
Value Added Course
On
"Animal Husbandry and Poultry, Sericulture and fisheries"
Syllabus

Module 1: Introduction to Agriculture and Animal Sciences:

- Overview of agriculture and animal sciences
- Key challenges and opportunities in animal husbandry, sericulture, and fisheries
- Sustainable agriculture practices
- Animal welfare and ethics

Module 2: Animal Husbandry and Poultry:

- Breeds of farm animals and poultry
- Animal and poultry production systems
- Animal nutrition and feed management
- Animal health and disease management
- Marketing and business management in animal and poultry production

Module 3: Sericulture:

- Types of silk and their characteristics
- Silkworm rearing and management
- Silk production and processing
- Sericulture and rural development
- Emerging trends and challenges in sericulture

Module 4: Fisheries:

- Fisheries resources and their utilization
- Fish biology and aquaculture
- Fisheries management and regulations
- Fish processing and preservation
- Emerging trends and challenges in fisheries

Module 5: Applied Skills in Animal Sciences:

- Practical skills for animal and poultry production
- Sericulture equipment and machinery
- Aquaculture systems and practices
- Quality control and assurance in animal sciences
- Entrepreneurship and innovation in animal sciences

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Solar Energy Plant Maintenance and Marketing

13.1 Brochure: -

Govt. Holkar (Model Autonomous) Science College, Indore

Date: -
08/02/2021
To
09/03/2021

Swami Vivekanand Career Guidance Cell

Value Added Course on Solar Energy Plant Maintenance & Marketing

Brief Syllabus: The course will cover the following topics:

- Introduction to Solar Energy Technology
- Solar Energy Plant Design and Installation
- Solar Energy Plant Maintenance
- Solar Energy Plant Performance Monitoring
- Marketing and Sales Strategies for Solar Energy
- Business Development in the Solar Energy Industry

Key Benefits of the Course:

- Gain a comprehensive understanding of solar energy plant maintenance and marketing.
- Develop the necessary skills and knowledge to maintain and market solar energy plants.
- Learn about the latest technologies and practices in the industry and stay ahead of the curve.
- Explore career opportunities in the industry and acquire the confidence to pursue them.
- Learn from experienced professionals and gain practical insights into the workings of the industry.
- Obtain a certification from a reputable institution that will enhance your resume and boost your career prospects.

Objectives of the Course:

The objective of this course is to provide participants with a comprehensive understanding of solar energy plant maintenance and marketing. The course will cover topics such as solar energy technology, maintenance practices, marketing strategies, and business development. Participants will also gain an understanding of the challenges and opportunities in the industry and develop the skills and knowledge necessary to succeed in the field.

Career Opportunities:

Upon completion of this course, participants will be equipped to pursue a variety of careers in the solar energy industry, including:

- Solar plant maintenance engineer
- Solar power plant manager
- Solar energy consultant
- Solar marketing and sales specialist
- Solar energy business developer
-

13.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Swami Vivekanand Career Guidance Cell
Value Added Course
On
"Solar Energy plant Maintenance and marketing"
Syllabus

Module 1: Introduction to Solar Energy Plant Maintenance:

- Overview of solar energy plant maintenance
- Importance of regular maintenance
- Basic components of a solar energy plant
- Common maintenance issues and their solutions

Module 2: Technical Maintenance of Solar Energy Plants:

- PV module maintenance
- Inverter maintenance
- Battery maintenance
- Monitoring and control system maintenance

Module 3: Preventive Maintenance of Solar Energy Plants:

- Inspection and cleaning procedures
- Preventive maintenance schedules
- Troubleshooting techniques
- Safety procedures

Module 4: Marketing of Solar Energy Plant Maintenance Services:

- Market analysis and research
- Business plan development
- Marketing strategies and tactics
- Customer relationship management

Module 5: Business Operations and Management:

- Financial management
- Human resources management
- Project management
- Legal and regulatory compliance

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Advance Agricultural Skills

14.1 Brochure: -

Govt. Holkar (Model Autonomous) Science College, Indore

Date: -
08/02/2021
To
09/03/2021

Swami Vivekanand Career Guidance Cell

Value Added Course on Advance Agricultural Skills

Brief Syllabus: The course will cover the following topics:

- Precision Agriculture
- Crop Management
- Soil Health and Fertility Management
- Irrigation Management
- Pest and Disease Management
- Post-Harvest Management

Key Benefits of the Course:

- Gain a deeper understanding of advanced agricultural skills and techniques.
- Learn about the latest trends and practices in the agriculture industry.
- Develop the necessary skills to improve agricultural productivity and profitability.
- Gain practical experience through hands-on training sessions.
- Enhance your resume and improve your career prospects in the agriculture industry.
- Receive a certification from a reputable institution upon successful completion of the course.

Objectives of the Course:

The objective of this course is to provide participants with a comprehensive understanding of advanced agricultural skills and techniques. The course will cover topics such as precision agriculture, crop management, soil health, irrigation management, pest management, and post-harvest management. Participants will also gain practical experience through hands-on training sessions and field visits.

Career Opportunities:

Upon completion of this course, participants will be equipped to pursue a variety of careers in the agriculture industry, including:

- Agricultural specialist
- Agricultural consultant
- Crop production manager
- Agricultural research scientist
- Farm manager

14.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Swami Vivekanand Career Guidance Cell
Value Added Course
On
"Advance Agricultural skills"

Syllabus

Module 1: Introduction to Advanced Agricultural Skills:

- Overview of advanced agricultural practices
- Importance of sustainable agriculture
- Basic concepts of precision farming
- Emerging technologies in agriculture

Module 2: Soil Management and Fertilizer Use:

- Soil sampling and analysis
- Soil fertility management
- Nutrient management strategies
- Organic and inorganic fertilizer use

Module 3: Crop Management and Production:

- Crop selection and planning
- Seed selection and planting techniques
- Irrigation management
- Pest and disease management

Module 4: Marketing and Business Management:

- Market analysis and research
- Business plan development
- Marketing strategies and tactics
- Customer relationship management

Module 5: Sustainable Agricultural Practices:

- Conservation agriculture
- Agroforestry
- Integrated crop-livestock systems
- Climate-smart agriculture

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Weaves, Block Printing and Textile Manufacturing

16.1 Brochure: -

Government Holkar

(Model Autonomous)

Science College Indore

Swami Vivekanand career Guidance cell

Date: - 08/02/2021 to 09/03/2021

Weavers, Block Printing, and Textile Manufacturing

This Value-Added Course course, sponsored by the Vivekanand Career Guidance Cell and organized by the RCVP Noronha Academy, is your ticket to a successful career in the textile industry. This course, conducted from August 2, 2021, to September 3, 2021, is designed to equip participants with the necessary knowledge and skills to succeed in the field of textile manufacturing..

Key Benefits of the Course:

- Comprehensive instruction and guidance from experienced instructors, including a renowned Borocher in the field.
- A comprehensive understanding of weaving, block printing, and dyeing techniques used in textile manufacturing.
- A certificate of completion that acknowledges the skills and knowledge gained throughout the course.

Upon completion of the course, participants will have a wealth of job opportunities available to them. The textile industry is one of the fastest-growing sectors in the world, with a wide range of job opportunities available in areas such as textile design, manufacturing, marketing, and retail.

Objectives of the Course

The objective of the Weavers, Block Printing, and Textile Manufacturing course is to equip participants with the knowledge and skills needed to succeed in the textile industry. This comprehensive course covers weaving, block printing, and dyeing techniques, and provides practical, hands-on experience. Upon completion, participants will be well-prepared to pursue a career in the industry.

Career Prospects: • Textile Designer• Weaving and Knitting Technologist• Textile Engineer• Quality Control Manager• Production Manager• Sales and Marketing Manager• Retail Manager

Overview of the Syllabus

The course syllabus covers a broad range of topics, including:• Introduction to textile manufacturing• Weaving techniques• Block printing techniques• Dyeing techniques• Emerging trends and developments in the textile industry

Join us for this exciting and informative course, and take the first step towards a successful career in the textile manufacturing industry. We look forward to welcoming you to the Weavers, Block Printing, and Textile Manufacturing course.

16.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Swami Vivekanand Career Guidance Cell
Value Added Course
On
"Weaves, block printing and textile manufacturing"
Syllabus

Module 1: Introduction to Weaves and Textile Manufacturing:

- Overview of weaving and textile manufacturing
- Types of looms and their uses
- Basic weaving techniques
- Introduction to textile manufacturing processes

Module 2: Fabric Printing Techniques:

- Overview of block printing
- Block printing tools and materials
- Types of fabrics used for printing
- Printing techniques for different fabrics

Module 3: Dyeing Techniques:

- Overview of fabric dyeing
- Types of fabric dyes
- Dyeing techniques for natural and synthetic fabrics
- Fabric preparation and finishing after dyeing

Module 4: Textile Design and Trends:

- Textile design techniques
- Trend analysis in the textile industry
- Sustainable and eco-friendly textile production
- Market analysis and research for textile products

Module 5: Business Management and Marketing:

- Business plan development for textile manufacturing and printing
- Marketing strategies and tactics for textile products
- Supply chain management in textile production
- Financial management for textile businesses

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Advance Agro Techniques for Entrepreneurship Devlopment

1.1 Brochure: -

Value Added Course

60 Hours Training Program

On

"Advanced Agro Techniques for Entrepreneurship Development"

Organized by:

Department of Botany,

Govt. Holkar Science College, Indore

Dated: 22nd Jan. 2020 to 14th Feb. 2020

Patron: Dr. Suresh T. Silawat,

Additional Director, Indore-Division &

Principal,

Govt. Holkar Science College, Indore

Convenor: Dr. Sanjeeda Iqbal

Co – Convenor: Dr. Priti Chaturvedi

Department of Botany

Venue

Department of Botany,

Govt. Holkar Science, College,

Committee

Patron: Dr. Suresh T. Silawat, Additional Director,
Indore-Division & Principal,
Govt. Holkar Science College, Indore
Dr. Sanjeeda Iqbal (Prof., & Head, Dept. of Botany)

Organizing Secretaries: Dr. Kamla Shivani ,
Prof. Amiya Pahare

Committee Members:

Dr. Kislaya Pancholi

Dr. N.K. Jain

Dr. Smita Dubey

Dr. Uday Chitnis

Dr. Seemawati Sisodiya

Dr. Pramila Sadhav

Dr. Sandhya Parihar

Dr. Shagufta Khan

Value Added Course

60 Hours Training Program

On

"Advanced Agro Techniques for Entrepreneurship Development":

1.2 Syllabus: -

Govt. Holkar (Model Autonomous) Science College, Indore
Department of Botany
Course Title: Advance Agro Techniques
Syllabus

Course Description:
This course is designed to provide students with the knowledge and skills to improve their agricultural practices and techniques. It will cover a range of topics related to modern agricultural techniques, including sustainable farming practices, commercial crop production, innovations in agriculture, and emerging trends in agro techniques. The course will consist of lectures, demonstrations, and hands-on activities to help students understand the practical aspects of these topics. By the end of the course, students will have the skills and knowledge needed to improve their farming practices and increase their yields.

Module 1: Introduction to Modern Agro Techniques;
- Ultra-High Density Mango Plantation
- E-Agriculture Services

Module 2: Sustainable Farming Practices;
- Organic Farming and Employment Generation
- Visit of Kasturba Gram Compost System

Module 3: Commercial Crop Production;
- Commercial Vegetable Production
- Sweet Orange Production
- Value Addition of Post-Harvest Crops

Module 4: Innovations in Agriculture;
- Invention in Micro Irrigation
- Qualitative Production of Ginger and Turmeric
- Bank Policies for Loan and Subsidies to Establish New Ventures
- Biofertilizers – Production and Marketing
- Biopesticides – Production and Utilization
- Schemes of Loan Facilities by MSME – Govt. of India

Module 5: Emerging Trends in Agro Techniques;
- Hydroponics and Its Commercialization
- Soil-less Cultivation on a Commercial Scale
- Vertical Farming and Its Uses
- Compost Management – Vermiculture and Vermicompost
- Tissue Culture and Commercial Production
- Tour and Visit of MRSC, Indore

Coordinator, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

1.3 Schedule: -

Government Holkar (Model Autonomous) Science College, Indore
Department of Botany
Value Added Course on Advanced Agro Techniques for Entrepreneurship Development

Value added courses are the types of courses which help a particular individual to develop their skills in their chosen field of the study. The Value-Added Courses aim to provide additional learner centric graded skill oriented technical training, with the primary objective of improving the employability skills of students. It is important for all institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes. For example, one of the speakers suggested that "Agrobacterium as an agricultural tool" may be defined as the sum of the activities performed for pesticide resistant plants.

Eligibility: As per course requirement: 10+2/Graduation

Prerequisites: As per course requirement: Basic knowledge of Botany, Seed Tech, Horticulture, Agriculture.

Course Duration information: 60 hrs

Activity and plan of the program

Date: 22nd Jan. 2020 to 14th Feb. 2020

S. No.	Name of Prof. Incharge	Date	Guest Speaker	Topics
1	Dr. Kamla Shiwani Dr. Uday Chitnis Dr. Sandhya Parihar Prof. Shagufta Khan	22-01-2020	Mr. Murli Iyer (Agronomist)	Ultra-High Density Mango Plantation
2	Dr. Pramila Sadhav Dr. Navin Kumar Jain Dr. Sandhya Parihar Prof. Shagufta Khan	23-01-2020	Mayank Patel Samadhan Agro InfoTech	e-Agriculture Services
3	Dr. Smita Dubey Dr. Navin Kumar Jain Dr. Sandhya Parihar	24-01-2020	Ms. Vaishali Malviya and Shri Rahul Malviya	Organic Farming and Employment Generation

	Prof. Shagufta Khan			
4	Dr. Navin Kumar Jain Dr. Preeti Chatuvedi Dr. Uday Chitnis Dr. Amiya Pahare	25-01-2020	Dr. D.K. Mishra Senior Scientist KVK, Indore	Visit of Kasturba Gram Compost System
5	Dr. Kamla Shivani Dr. Pramila Sadhav Dr. Sandhya Parihar Prof. Shagufta Khan	27-01-2020	Mr. Murli Iyer (Agronomist)	Commercial Vegetable production
6	Dr. Uday Chitnis Dr. Pramila Sadhav Dr. Sandhya Parihar Prof. Shagufta Khan	28-01-2020	Mr. Murli Iyyer (Agronomist)	Sweet Orange Production
7	Dr. Kamla Shivani Dr. Pramila Sadhav Dr. Sandhya Parihar Prof. Shagufta Khan	29-01-2020	Dr. Swati Barche Prof. Agriculture College, Indore	Value Addition of Post-Harvest Crops
8	Dr. Preeti Chaturvedi Dr. Navin Kumar Jain Dr. Sandhya Parihar Prof. Shagufta Khan	30-01-2020	Mr. Murli Iyer (Agronomist)	Invention in micro irrigation
9	Dr. Preeti Chaturvedi Dr. Navin Kumar Jain Dr. Sandhya Parihar Prof. Shagufta Khan	31-01-2020	Mr. Murli Iyer (Agronomist)	Qualitative production of Ginger and Termaric
10	Dr. Smita Dubey Dr. Preeti Chaturvedi Dr. Uday Chitnis Dr. Sandhya Parihar	01-02-2020	Mr. Uday Pandey Manager SBI	Bank Policies for loan and Subsidies to Establish new Ventures
11	Dr. Seemavati Sisodiya Dr. Kamla Shivani Dr. Sandhya Parihar	03-02-2020	Mr. Nitesh Patidar	Bio fertilizers – Production and Marketing

	Prof. Shagufta Khan			
12	Dr. Seemavati Sisodiya Dr. Uday Chitnis Dr. Sandhya Parihar Prof. Shagufta Khan	04-02-2020	Mr. Nitesh Patidar	Bio pesticides – Production and Utilization
13	Dr. Seemavati Sisodiya Dr. Pramila Sadhav Dr. Sandhya Parihar Prof. Shagufta Khan	05-02-2020	Mr. Nilesh Trivedi	Shemes of loan facilities by MSME – Govt. of India
14	Dr. Navin Kumar Jain Dr. Pramila Sadhav Dr. Sandhya Parihar Prof. Shagufta Khan	06-02-2020	Mr. Nilesh Trivedi	Shemes of loan facilities by MSME – Govt. of India
15	Dr. Navin Kumar Jain Dr. Smita Dubey Dr. Sandhya Parihar Prof. Shagufta Khan	07-02-2020	Mr. Tejram Nagar (Agronomist) Dehradun	Hydroponics- its Commercialization
16	Dr. Navin Kumar Jain Dr. Smita Dubey Dr. Sandhya Parihar Prof. Shagufta Khan	08-02-2020	Mr. Tejram Nagar (Agronomist) Dehradun	Soil Less Cultivation on Commercial Scale
17	Dr. Amiya Pahare Dr. Uday Chitnis Dr. Sandhya Parihar Prof. Shagufta Khan	10-02-2020	Mr. Tejram Nagar (Agronomist) Dehradun (Utrakhand)	Vertical Farming and its uses
18	Dr. Navin Kumar Jain Dr. Uday Chitnis Dr. Sandhya Parihar Prof. Shagufta Khan	11-02-2020	Mr. Tejram Nagar (Agronomist) Dehradun (Utrakhand)	Compost Management – Vermi Culture and Vermi Compost
19	Dr. Amiya Pahare Dr. Uday Chitnis Dr. Sandhya Parihar	12-02-2020	Dr. Monika Jain (MRSC, Indore)	Tissue Culture and Commercial Production

	Prof. Shagufta Khan			
20	Dr. Preeti Chaturvedi Dr. Uday Chitnis Dr. Sandhya Parihar Prof. Shagufta Khan	13-02-2020	Dr. Monika Jain (MRSC, Indore)	Tissue Culture and Commercial Production
21	Dr. Preeti Chaturvedi Dr. Navin Kumar Jain Dr. Sandhya Parihar Prof. Shagufta Khan	14-02-2020	Dr. Monika Jain (MRSC, Indore)	Tour and Visit of MRSC, Indore

Mobile Repairing and DTH Installation & TV Repairing

1.1 Notice: -

GOVT HOLKAR (MODEL AUTONOMOUS) SCIENCE COLLEGE INDORE

DEPARTMENT OF ELECTRONICS

NOTICE

Department of Electronics is conducting the following workshop / value-Added Certificate course in

Mobile Repairing and DTH Installation & TV Repairing

The classes shall be conducted by the faculty of the Department of Electronics, Government Holkar (Model Autonomous) Science College, Indore.

Duration: 36 Hrs.

Date: September 04,2018 to September 25, 2018

Time: 2.00 to 4.00PM

Strength: 35

शासकीय होलकर विज्ञान महाविद्यालय, इन्दौर

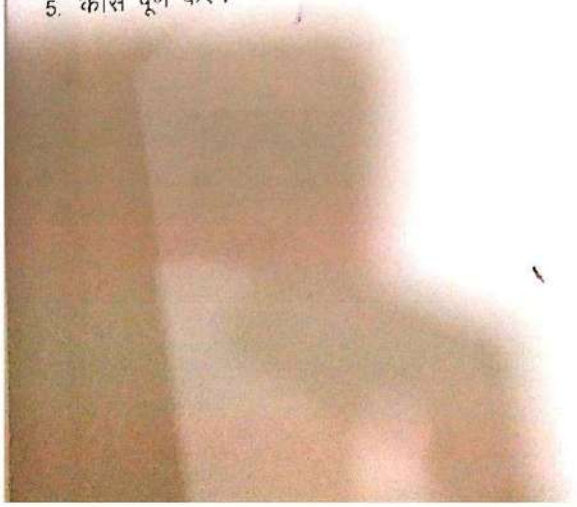
इलेक्ट्रॉनिक्स विभाग

वर्ष 2018

होलकर विज्ञान महाविद्यालय का इलेक्ट्रॉनिक्स विभाग इलेक्ट्रॉनिक्स एवं कम्प्यूटर साइंस के विद्यार्थियों हेतु मोबाईल रिपेरिंग, डी.टी.एच. स्थापना एंव टी.वी. रिपेरिंग आदि पर एक 18 दिवसीय वर्कशाप महाविद्यालय में आयोजित कर रहा है।

कार्यशाला का विषय	:	मोबाईल रिपेरिंग, डी.टी.एच. स्थापना एंव टी.वी. रिपेरिंग
कार्यशाला की अवधि	:	18 दिन
प्रस्तावित तिथि	:	04.09.2018 मंगलवार से 25.09.2018 मंगलवार तक (कार्यदिवस)
कार्यशाला का समय	:	दोपहर 2 से 4 बजे तक
कार्यशाला स्थल	:	इलेक्ट्रानिक्स विभाग – फैराडे लेब

1. विद्यार्थी को रजिस्ट्रेशन फॉर्म इलेक्ट्रॉनिक्स विभाग से प्राप्त करके एव आवश्यक जानकारी भरकर इलेक्ट्रानिक्स विभाग में जमा करना होगा। (27.8.18 – 4.09.18)
2. न्यूनतम विद्यार्थियों की संख्या 15 रहेगी। इस संख्या से कम आवेदन प्राप्त होने पर कार्यशाला संचालित नही की जा सकेगी।
3. अधिकतम विद्यार्थियों की संख्या 30 रहेगी। कार्यशाला में संलग्न पत्र के अनुसार मोबाईल रिपेरिंग पर सैध्दांतिक एवं प्रायोगिक जानकारी दी जावेगी।
4. कार्यशाला के अन्त में विद्यार्थियों का एक टेस्ट आयोजित किया जावेगा।
5. कोर्स पूर्ण करने पर महाविद्यालय द्वारा इस विषयक प्रमाण पत्र दिया जावेगा।



1.2 Syllabus: -

Approved

Govt. Holkar (Model Autonomous) Science College, Indore

Dept. of Electronics

Mobile Repairing and DTH Installation & TV Repairing

Syllabus 2018-19

Unit 1

Basics of mobile communication. Study of Digital Electronics.Assembling and disassembling of various models of mobile phones. Study of various tools and equipment used in mobile phone repairs. Study of parts inside a mobile phone. Using a multimeter. Use of DC Power Supply.

Unit 2

Introduction and study of Printed Circuit Board (Motherboard). Details of various components on the PCB. Testing of various parts and components. Study of different ICs (chips) used on the motherboard.

Unit 3

Introduction to DTH . Process of installation. Techniques to install and working method of DTH.

Unit 4

Study of TV panel, CRT description, IPS panel display, How to recognize various ICs. Soldering & desoldering of components by using a soldering iron.

Coordinator, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

Applied Zoology for Entrepreneurs

2.1 Notice: -

शासकीय होलकर (आदर्श, स्वशासी) विज्ञान महाविद्यालय, इंदौर
(मध्य प्रदेश)

आवश्यक सूचना

महाविद्यालय के समस्त छात्र छात्राओं को सूचित किया जाता है कि प्राणी शास्त्र विभाग द्वारा "**Applied Zoology for Entrepreneurs**" विषय पर एक वैल्यू एडेड कोर्स दिनांक 01 सितम्बर 2017 से प्रारंभ किया जा रहा है। जो भी छात्र–छात्र उक्त पाठ्यक्रम के संबंध में कोई जानकारी चाहते हैं आथवा इस पाठ्यक्रम में पंजीयन करवाना चाहते हैं, प्राणी शास्त्र विभाग में दिनांक 28 अगस्त 2017 तक अपना पंजीयन करावें।

RSha

Coordinator Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

संयोजक समन्वयक
प्राणी शास्त्र

शास. होलकर (आदर्श, स्वशासी)
विज्ञान महा., इंदौर (म. प्र.)

GOVT HOLKAR (MODEL AUTONOMOUS) SCIENCE COLLEGE INDORE

DEPARTMENT OF ZOOLOGY

NOTICE

Department of ZOOLOGY is conducting following Certificate course on

Applied Zoology for Entrepreneurs

The classes shall be conducted by the faculty of the Department of Zoology & Fisheries, Government Holkar (Model Autonomous) Science College, Indore

Duration: 30 Hrs.

Date: September 1 ,2017 to September 27,2017

Time:4.00 to 5.20PM

Strength: 35

For

Rsharma

Head
Dept. of Zoology
Govt. Holkar Sc. College, Indore

2.2 Syllabus: -

Applied Zoology for Entrepreneurs

Syllabus

Course objectives:

1. Gain knowledge about silkworms, Bee keeping and insect pests.
2. Students will understand dairy animal management, the breeds and diseases of cattle and learn the testing of milk quality.
3. Learn various concepts about Vermiculture and gain basic information about aquaculture and poultry

Course Outcomes:

1. Students can start their own business i.e. self-employment.
2. Get employment in different applied sectors of Zoology
3. Students should be able to design an appropriate management strategy with consideration for sustainability

Course Content

Module 1.

Sericulture History and status of sericulture in India, Silkworm rearing techniques: Processing of cocoon, reeling, Silkworm diseases and pest control.

Module 2.

Apiculture Introduction, Species of honey bees in India, life cycle of Apis indica, division of labour and communication, Bee keeping as an agro based industry, extraction of honey from the comb and processing, Bee pasturage, honey, bees wax and their uses, pests and diseases of bees and their management

Module 3.

Pest management Structural organization of an insect, Categories and types of insect pests, Agricultural pests (pests of crops and stored food products), Veterinary insects, Pests of public health importance (Mosquito, House fly, Louse, Bed bugs), urban pests (cockroach), Basics of pest control

Module 4

Vermiculture: Scope of vermiculture, Types of earthworms, Methodology of vermicomposting: containers for culturing, raw materials required, preparation of bed, environmental pre-requisites, feeding, harvesting and storage of vermicompost. Advantages of vermicomposting.

Module 5.

Aquaculture: Introduction, Types of aquaculture: Pond culture; carp culture, shrimp culture, shellfish culture, composite fish culture and pearl culture. Common fishes used for culture. Construction and maintenance of aquarium - materials used, aquarium plants, ornamental objects, cleaning the aquarium. Culture of fresh and marine water prawns. Preparation of farm. Preservation and processing of prawn, export of prawn

EVALUATION Assignments & multiple choice test

WHO SHOULD DO IT? Zoology Undergraduate and PG students

Rohan

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

2.3 Schedule: -

Govt. Holkar Science College Indore

Department of Zoology

Time Table for Value added course "Applied Zoology for Entrepreneurs"

Module	Description	Date	Time	Name of Resoursce person
Moodule1	**Sericulture** History and status of sericulture in India, Silkworm rearing techniques: Processing of cocoon, reeling, Silkworm diseases and pest control	**1/9/2017 to 5/9/2017**	**4.00to 5.20**	**Dr.Vipul k Sharma**
Module 2	**Apiculture** Introduction, Species of honey bees in India, life cycle of Apis indica, division of labour and communication, Bee keeping as an agro based industry, extraction of honey from the comb and processing, Bee pasturage, honey, bees wax and their uses, pests and diseases of bees and their management .	**6/9/2016 to 11/09/2017**	**4.00to 5.20**	**Dr Rekha Sharma**
Module 3	**Pest management** Structural organization of an insect, Categories and types of insect pests, Agricultural pests (pests of crops and stored food products), Veterinary insects, Pests of public health importance (Mosquito, House fly, Louse, Bed bugs), urban pests (cockroach), Basics of pest control	**12/09/2017 to 17/09/2017**	**4.00to 5.20**	**Dr Santosh Geharwal**

Module 4	**Vermiculture:** Scope of vermiculture, Types of earthworms, Methodology of vermicomposting: containers for culturing, raw materials required, preparation of bed, environmental pre-requisites, feeding, harvesting and storage of vermicompost. Advantages of vermicomposting.	**18/09/2017 to 23/09/2017**	**4.00to 5.20**	**DR. Kiran Billore**
Module 5	**Aquaculture:** Introduction, Types of aquaculture: Pond culture; carp culture, shrimp culture, shellfish culture, composite fish culture and pearl culture. Common fishes used for culture. Construction and maintenance of aquarium - materials used, aquarium plants, ornamental objects, cleaning the aquarium. Culture of fresh and marine water prawns. Preparation of farm. Preservation and processing of prawn, export of prawn	**24/09/2017 to 27/09/2017**	**4.00to 5.20**	**Dr Ruchi Shivale**
On the last day of every module, there will be an assessment test				

RSharma

Head
Deptt. of Zoology
Govt. Holkar Sc. College, Indo...

Food Adulteration: Legal Aspects and Complaint Redressal System

10.1 Notice: -

GOVT HOLKAR (MODEL, AUTONOMOUS) SCIENCE COLLEGE, INDORE

DEPARTMENT OF CHEMISTRY

NOTICE

Department of Chemistry is conducting the following Value added Certificate course in

FOOD ADULTERATION: LEGAL ASPECTS AND COMPLAINT REDRESSAL SYSTEM

The classes will be conducted by the faculty of the Department of Chemistry, Government Holkar (Model, Autonomous) Science College, Indore.

Duration: 36 hrs.

Date: September 25, 2018 to October 27, 2018

Holidays: All Sundays, 2nd October, 19th October & 24 October, 2018.

Time: 4:00 to 5:30 PM

Strength: 50

Professor And Head
Department of Chemistry
Govt. Holkar Sc. College,INDORE

10.2 Syllabus: -

FOOD ADULTERATION: LEGAL ASPECTS AND COMPLAINT REDRESSAL SYSTEM

(Value added Certificate Course in Chemistry)

Syllabus

Course Learning Out Comes:

On completion of this Value added Certificate Course, The student will be able to enhance their knowledge and Skills in following areas:

- **Understand the concept of Food Adulteration.**
- **Supplement their knowledge of laws against Food Adulteration.**
- **Know about the mechanism of complaint redressal regarding food adulteration.**

Course Content:

Module 1: Introduction to Food Adulteration:

- What do you understand by Food adulteration?
- History of Food Adulteration
- Sources of Food Contamination
- Types of Food adulteration

Module 2: General overview of types of food adulteration:

- In food grains
- In dairy products
- In spices
- Others

Module 3: Detection of Food Adulteration:

- Methods of detection of Food Adulteration
- Detect Adulteration with Rapid test (DART)

Module 4: Laws for prevention of food adulteration in India:

- Laws in India against Adulteration of Food
- The Prevention of Food Adulteration (PFA) Act 1954,

Professor And Head
Department of Chemistry
Govt. Holkar Sc. College,INDORE

- The Food safety and Standards Acts, 2006,
- Role of Food Safety and Standards Authority of India (FSSAI)

Module 5 :Complaint Redressal System against Food Adulteration in India:

- Where to complain if a food article is found to be adulterated?
- 3-Tier Complaint Redressal System:

a. The local shop-keeper from where the consumer has purchased the product.
b. Local health authority of district or Commissioner of food safety of the State Union Territory
c. Consumer Forum

- Filing Complaint through Online portal "The Advertising Standards Council of India"
- Punishment given under law for guilty for food adulteration.

EVALUATION METHOD: Modular Assignments & MCQ based test

ELIGIBILITY: UG and PG students

Coordinator, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

10.3 Schedule: -

Government Holkar (Model, Autonomous) Science College Indore

Department of Chemistry

Time Table for Value added course

"FOOD ADULTERATION: LEGAL ASPECTS AND COMPLAINT REDRESSAL SYSTEM"

Module	Description	Date	Time	Name of Resource person
Module 1	Introduction to Food Adulteration	25/09/2018 to 29/9/2018	4.00 to 5.30	Dr. Anamika Jain &Dr. Bijendra Rai
Module 2	General overview of types of food adulteration	1/10//2018 to 07/10/2018	4.00 to 5.30	Dr. Meenal Shrivastava & Dr. Namita Bende
Module 3	Detection of Food Adulteration	8/10/2018 to 12/10/2018	4.00 to 5.30	Dr.Aparna Gandhe & Dr. Pushpa Makwana
Module 4	Laws for prevention of food adulteration in India	13/10/2018 to 18/10/2018	4.00 to 5.30	Dr. S. K. Choure &Dr. Rajshree Somani
Module 5	Complaint Redressal System against Food Adulteration in India	20/10/2018 to 26/10/2018	4.00 to 5.30	Dr. Namrata Pathak & Dr. M. K. Dwivewdi
On the last day of every module, there will be a MCQ based assessment test				

Professor And Heaa
Department of Chemistry
Govt. Holkar Sc. College,INDORE

Applied Zoology for Entrepreneurs

2.1 Notice: -

शासकीय होलकर (आदर्श, स्वशासी) विज्ञान महाविद्यालय, इंदौर
(मध्य प्रदेश)

आवश्यक सूचना

महाविद्यालय के समस्त छात्र छात्राओं को सूचित किया जाता है कि प्राणी शास्त्र विभाग द्वारा "**Applied Zoology for Entrepreneurs**" विषय पर एक वैल्यू एडेड कोर्स दिनांक 01 सितम्बर 2017 से प्रारंभ किया जा रहा है। जो भी छात्र–छात्र उक्त पाठ्यक्रम के संबंध में कोई जानकारी चाहते हैं आथवा इस पाठ्यक्रम में पंजीयन करवाना चाहते हैं, प्राणी शास्त्र विभाग में दिनांक 28 अगस्त 2017 तक अपना पंजीयन करावें।

RSha

Coordinator Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

संयोजक समन्वयक
प्राणी शास्त्र

शास. होलकर (आदर्श, स्वशासी)
विज्ञान महा., इंदौर (म. प्र.)

GOVT HOLKAR (MODEL AUTONOMOUS) SCIENCE COLLEGE INDORE

DEPARTMENT OF ZOOLOGY

NOTICE

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Applied Zoology for Entrepreneurs

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Duration: 30 Hrs.

Date: September 1 ,2017 to September 27,2017

Time:4.00 to 5.20PM

Strength: 35

For

Rsharma

Head
Dept. of Zoology
Govt. Holkar Sc. College, Indore

2.2 Syllabus: -

Applied Zoology for Entrepreneurs

Syllabus

Course objectives:

1. Gain knowledge about silkworms, Bee keeping and insect pests.
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Course Content

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EVALUATION Assignments & multiple choice test

WHO SHOULD DO IT? Zoology Undergraduate and PG students

Rohan

Chairperson, Board of Studies
Govt. Holkar (Model Autonomous)
Science College, Indore

Approved

Member Secretary, Academic Council
Govt. Holkar (Model Autonomous)
Science College, Indore

2.3 Schedule: -

Govt. Holkar Science College Indore

Department of Zoology

Time Table for Value added course "Applied Zoology for Entrepreneurs"

Module	Description	Date	Time	Name of Resoursce person
Moodule1	**Sericulture** History and status of sericulture in India, Silkworm rearing techniques: Processing of cocoon, reeling, Silkworm diseases and pest control	**1/9/2017 to 5/9/2017**	**4.00to 5.20**	**Dr.Vipul k Sharma**
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