



SKILL ENHANCEMENT COURSE (SEC): ENTREPRENEURIAL PLANT SCIENCE

Open for First Year Graduate Student w.e.f. 2023-24

**RECOMMENDED BY THE BOARD OF STUDIES IN BOTANY
AND**

APPROVED BY THE ACADEMIC COUNCIL

Devrukh Shikshan Prasarak Mandal's

Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and
Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh.
Tal.Sangmeshwar, Dist. Ratnagiri-415804, Maharashtra, India

Academic Council Item No: 3 dated 08/07/2023

| | | |
|-----------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of the Implementing Institute | : | Nya. Tatyasaheb Athalye Arts, Ved. S. R. Sapre Commerce, and Vid. Dadasaheb Pitre Science College (Autonomous), Devrukh. Tal. Sangmeshwar, Dist. Ratnagiri-415804, |
| Name of the Parent University | : | University of Mumbai |
| Name of the Programme | : | Bachelor of Science |
| Name of the Class to Which the course is Open | : | First Year, Semester First |
| No. of Credits | : | 02 |
| Title of the Course | : | Entrepreneurial Plant Science |
| Course Code | : | BTSE101 |
| Passing Marks | : | 40% |
| Nature of Course | : | Skill Enhancement Course (SEC) |
| Level | : | UG |
| Pattern | : | 60:40 |
| Status | : | Multidisciplinary- Open to all in the First Year |
| To be implemented from Academic Year | : | 2023-2024 |

**Syllabus for Skill Enhancement Course (SEC) in
Entrepreneurial Plant Science**

(With effect from the academic year 2023-2024)

SEMESTER-I

Paper No.– I

Course Title: Entrepreneurial Plant Science

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

C.CODE:BTSE101

Learning Outcomes Based on BLOOM's Taxonomy:

| After completing the course, the learner will be able to... | | |
|-------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| Course Learning Outcome No. | Blooms Taxonomy | Course Learning Outcome |
| CLO-01 | Remember | Remember processes of preparation of business Plan, marketing strategies and product branding. |
| CLO-02 | Understand | Explain process of herbal cosmetics, designing of bio jewellery, making of eco-friendly articles |
| CLO-03 | Apply | Apply the knowledge to make aroma candles, incense sticks, Jam, Jelly, Squash, herbal teas. |
| CLO-04 | Analyse | Analyse the changing patterns of various cultivation practices |
| CLO-05 | Evaluate | Evaluate use of plant sciences in daily life |
| CLO-06 | Create | Prepare business plan based on his/her own idea related to plant sciences. |

**Syllabus for Skill Enhancement Course (SEC) in
Entrepreneurial Plant Science**

(With effect from the academic year 2023-2024)

SEMESTER-I

Paper No.– I

Course Title: Entrepreneurial Plant Science

No. of Credits - 02

Type of Vertical: Skill Enhancement Course

C.CODE:BTSE101

| COURSE CONTENT | | | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Module No. | Content | Credit | Lectures (1 Hr.) |
| I | 1. Preparation of face mask, gel, lotion using botanicals 2. Designing of jewellery using natural material. (Bio jewellery) 3. Making of Aroma candles. 4. Making of incense sticks. 5. Making of eco-friendly articles. 6. Vegetable and Fruit Carving techniques. 7. Preparation of Jam, Jelly, Squash. 8. Preparation of herbal teas. | 01 | 30 |
| II | 9. Preparation of natural dyes. 10. Preparation of organic pesticides. 11. To study the process of composting. 12. To study the process of Mushroom Cultivation. 13. To study the techniques of Spirulina Farming. 14. To study the technique of growing Microgreens. 15. Preparation of Business Plan. 16. Marketing strategies and product branding. | 01 | 30 |
| Total | | 02 | 60 |

Required Previous Knowledge

Basic Knowledge of plants, fundamentals processing and farming is necessary before starting to learn the course

Access to the Course

The course is available for all the students admitted for Bachelor Degree as Skill Enhancement Course. The students seeking admission to this course considering the terms and conditions laid down by the University of Mumbai, the Government of Maharashtra, and the college, from time to time.

Forms of Assessment

The assessment of the course will be of Diagnostic, Formative and Summative type. At the beginning of the course diagnostic assessment will be carried out. The formative assessment will be used for the Continuous Internal Evaluation whereas the summative assessment will be conducted at the end of the term. The weightage for formative and summative assessment will be 60:40. The pattern will be followed as decided by Academic Council of the college.

Grading Scale

The grading scale used is O to F. Grade O is the highest passing grade on the grading scale, and grade F is a fail. The Board of Examinations of the college reserves the right to change the grading scale.

Reference Books:

Hui, Y H and Associate Editors; Hand Book of Food Products Manufacturing Vol I and II, Wiley- Interscience, New Jersey 2007.

Brian E. Grimwood, Coconut Palm Products: Their Processing in Developing Countries, 1979.

Srilakshmi, B. Food Science (3rd edition), New Age International (P) Limited Publishers, New Delhi, 2003.

Bhutani RC. 2003. Fruit and Vegetable Preservation. Biotech Books.

Fruit and Vegetable Preservation: Principles and Practices” –Dr. R. P. Shrivastava and Dr. Sanjeev Kumar, IBDC, New Delhi.

Borkar S, G, and Patil N.M. 2016. Mushroom, A nutritive food and its cultivation. Astral International Pvt. Ltd. New Delhi.

Biswas S., Datta M. and Ngachan S.V. (2012) Mushrooms: A Manual for Cultivation, PHI.

Selvendran D. (2015) Large Scale Algal Biomass (Spirulina) Production in India. In: D. Das (Ed.) Algal Biorefinery: An Integrated Approach, Springer.

Zadrazil F. and Grabbe K. (1983) Edible Mushroom, Biotechnology Vol. 3, Weinheim: Verlag Chemie, Berlin.

Pathak Yadav Gour (2010) Mushroom Production and Processing Technology, Agrobios (India).

S.K. Pandey C.S. Pandey Fundamentals of Horticulture (Practical Manual), College of
Agriculture, Jabalpur Jawaharlal Nehru Krishi Vishwavidyalaya Jabalpur, Madhya
Pradesh