



**Royal College of Arts Science and Commerce
(Autonomous)**

Affiliated to University of Mumbai

Program: UG First Year Programme

Course: OPEN ELECTIVE OF BOTANY

Syllabus for Semester: II

Syllabus for Undergraduate Programme as per
National Education Policy (NEP-2020) with effect from the
academic year 2025-2026

Semester II

Course/ Paper Title	THE ROLE OF MEDICINAL AN HOUSE PLANTS IN ENVIRONMENT AND SUSTAINABILITY.
Course offered as	Open Elective
Course Code	RUSBOOE202
Semester	2
No. of Credits	2
No. of lecture Hours/week	2

NAME OF THE COURSE: THE ROLE OF MEDICINAL AN HOUSE PLANTS IN ENVIRONMENT AND SUSTAINABILITY.

Course Learning Objectives (CLOs):

By the end of this course, students will be able to:

1. Understand the medicinal, cultural, and ecological significance of common plants in daily life and sustainable living.
2. Identify and classify medicinal, culinary, and house plants along with their traditional and modern uses.
3. Explore the environmental, psychological, and cultural benefits of indoor and outdoor plants in personal and community settings.
4. Apply sustainable practices such as indoor gardening, composting, and eco-friendly reuse of plant materials.

5. Engage in experiential, creative, and reflective activities that foster environmental awareness and personal connection to plants.

Course Outcomes (COs):

Upon successful completion of the course, students will be able to:

1. Describe the medicinal properties and everyday uses of household and culinary plants in natural healing and nutrition.
2. Explain the role of houseplants in air purification, water conservation, indoor aesthetics, and mental well-being.
3. Demonstrate practical skills in sustainable gardening practices such as terrarium-making, herb cultivation, and composting.
4. Create eco-conscious botanical art and awareness projects using natural, biodegradable materials.
5. Reflect on personal interactions with plants through creative journals, photos, or multimedia presentations highlighting sustainability.
6. Advocate greener lifestyles by promoting community-based plant practices and sustainable plant-based solutions.

Module 1: Plants for sustainable future: Health, Environment & Conservation. (15 Lectures)

1.1 Medicinal Plants for Everyday Healing

- Role in natural remedies for common ailments: cold, cough, digestion, inflammation, etc.
- **Examples:** Turmeric, Chamomile, Mulethi, Aloe Vera, Tulsi, Neem

1.2 Culinary Plants with Medicinal Value

- Spices and herbs as health enhancers in daily cooking
- **Examples:** Basil, Rosemary, Mint, Coriander, Ginger

1.3 Houseplants for Clean Air and Eco-Friendly Living

- Role in indoor air purification, humidity control, and psychological well-being
- **Examples:** Spider Plant, Snake Plant, Peace Lily, Areca Palm
- Low-maintenance, drought-resistant plants for water conservation

1.4 Cultural and Traditional Uses of Medicinal Plants

Examples: Ayurveda, herbal teas, folk remedies, sacred plants in rituals.

Module 2: Nature at your finger tips (15 Lectures)

2.1 Sustainable Indoor Gardening Techniques

- projects: creating a terrarium, growing herbs from kitchen scraps, vertical gardens.
- Use of recycled containers, eco-friendly soil and compost

2.2 Green Waste Management and Soil Enrichment

- Composting kitchen waste and leaf litter
- Creating natural fertilizers for home gardens

2.3 Botanical Crafts and Awareness Projects

- Pressed flower bookmarks, Eco-art with leaves (leaf printing), seed art, seed balls for reforestation, sand dried, resin art of dried plant etc.
- Using plant parts to create sustainable, biodegradable art

2.4 Personal Reflections and Projects on Plants for Sustainability

- Multimedia presentation: "How Plants Enhance My Life and Environment", proposal of business model, etc
- Reflections on personal practices using photos, journal entries, and creative outputs

References

1. Koul, O., & Walia, S. (2009). *Herbs and Spices: Their Effects on Human Health*. CAB International.

2. Warriar, P. K., Nambiar, V. P. K., & Ramankutty, C. (1995). *Indian Medicinal Plants: A Compendium of 500 Species*. Orient Blackswan.
3. Bhattacharya, A. (2021). *Medicinal Plants and Traditional Medicine in India*. Oxford & IBH Publishing.
4. Bhat, R., & Vyas, D. (2019). *Urban Gardening for Beginners*. Penguin Random House India.
5. Wolverton, B. C. (1997). *How to Grow Fresh Air: 50 House Plants that Purify Your Home or Office*. Penguin Books.
6. Kumar, R. (2020). *Sustainable Living with Environmental Plants*. Green Earth Publications.
7. Arora, A. (2018). *Composting Made Easy: A Beginner's Guide*. EcoLiving India Press.
8. Royal Horticultural Society. (n.d.). *Gardening with Houseplants*. Retrieved from <https://www.rhs.org.uk>
9. National Medicinal Plants Board, Government of India. (n.d.). *Database of Medicinal Plants*. Retrieved from <https://www.nmpb.nic.in>
10. The Energy and Resources Institute (TERI). (n.d.). *Plant-based Solutions for Sustainable Living*. Retrieved from <https://www.teriin.org>

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Examination Pattern

Internal Assessment	25 Marks
Assignment/ Project/ Presentation/Book or research paper Review	15 Marks
Active Participation, Overall performance	10Marks

QUESTION PAPER PATTERN

(Internal theory)

Format of Question Paper: External Theory (Mandatory) 25 marks

Time:- 45 min

Q 1 Answer the following: (any 2) 10Marks

A

B

C

D

Q 2 Answer the following: (any 2) 10 Marks

A

B

C

D

Q3 Answer the following in one sentence: (any 5) 05 Marks

A

B

C

D