INSTITUTE	**FACULTY OF AGRICULTURE**
PROGRAM	**BACHELOR OF SCIENCE (Hons.) AGRICULTURE**
SEMESTER	**4**
COURSE TITLE	**PRODUCTION TECHNOLOGY FOR ORNAMENTAL CROPS, MAP AND LANDSCAPING**
COURSE CODE	**16AS0411**
COURSE CREDITS	**2**

Objective:

1 To impart knowledge about importance of ornamental gardening, medicinal and aromatic plants (maps) cultivations.

2 To know more about the landscaping with their significance in human life.

Course Outcomes: After completion of this course, student will be able to:

1 Students will learn about importance of ornamental crops, MAP and landscaping.

2 Students will Identify various ornamental, medicinal and aromatic plants.

3 Students will apply the knowledge of cultivation techniques for planting of ornamental, medicinal and aromatic plants.

4 Students will justify the importance of value addition in flower crop or MAP.

5 Students will able to prepare project report on cultivation of high value flower crop or MAP.

Pre-requisite of course: Students will know the production technology of ornamental crops and will also learn about landscaping.

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
1	0	2	50	30	20	25	25

Contents : Unit	Topics	Contact Hours
1	**1** Importance and scope of ornamental crops, medicinal and aromatic plants and landscaping. Principles of landscaping. Landscape uses of trees, shrubs and climbers.	3
2	**2** Production technology of important flower crops major- rose, gladiolus, tuberose, chrysanthemum under open conditions.	2
3	**3** Package of practices for loose flowers major like marigold, jasmine, gaillardia and spider lily under open conditions.	2

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Contents : Unit	Topics	Contact Hours
4	**4** Production technology of major medicinal plants like ashwagandha, isabgol, guggle and senna with minor like asparagus, aloe, periwinkle, and major aromatic plants like rose with minor like mint, lemongrass, citronella, palmarosa, ocimum, rose, geranium, vetiver.	4
5	**5** Processing and value addition in ornamental crops and MAPs produce.	2
Total Hours		**13**

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**1** Identification of ornamental plants	2
2	**2** Identification of seasonal annuals plants	2
3	**3** Identification of medicinal and aromatic Plants	2
4	**4** Garden adornments & features	2
5	**5** Training and pruning of ornamental plants	2
6	**6** Planning and layout of garden	2
7	**7** Special practices of ornamental plants, Intercultural operations in flowers and MAP	2
8	**8** Harvesting and post-harvest handling of cut and loose flowers	2
9	**9** Processing of MAP	2
10	**10** Visit to commercial flower/MAP unit	2
Total Hours		**20**

Textbook :

1 NA, NA, NA, NA

References:

1 Text Book of Floriculture and Land scaping, Text Book of Floriculture and Land scaping, N. Roychowdhury and H.P. Mishra, Allied Publishers, 2000

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References:

2 Complete Gardening in India, Complete Gardening in India, K.S.G. Gopalswami, Oxford, India , 1990

3 Floriculture in India, Floriculture in India, G. S. Randhawa and A. Mukopadhyay, Allied Publishers , 1998

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	**Understand**	**Apply**	**Analyze**	**Evaluate**	**Higher order Thinking**
25.00	25.00	20.00	10.00	10.00	10.00

Instructional Method:

1 The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by white board may also use any of tools such as demonstration, role play, quiz, brain storming, MOOCs etc.

2 The internal evaluation will be done on the basis of continuous evaluation of students in the class-rooms.

3 Practical examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

4 Students will use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory.

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