Syllabus for B.Sc. (Hons) Agriculture Year – I (Sem. I)

Subject Code: 16AS1107

Subject Short Name: Hort. 1.1

Subject Name: Fundamentals of Horticulture

Objective:

1. To provide knowledge on different branches of horticulture viz. pomology, olericulture, floriculture and landscaping, spices and medicinal plants
2. To provide knowledge on orchard management, propagation methods, cultural operations and nutrient management of horticultural crops
3. To provide knowledge on different physiological aspects of horticultural crops

Credits Earned: 3 Credits (2+1)

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

- Establish a new orchard, kitchen garden and lawn making.
- Select the horticultural crops according to type of soil and climatic conditions of a particular area.
- Understand basic principles and methods of plant propagation, training and pruning.
- Gain information on fertilizer usage, irrigation methods and hormonal treatment.
- Gain knowledge about, fertilization, juvenility, pollination and unfruitfulness.
- Take knowledge about Horticultural crops and its classification.

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial/ Practical Marks		Total Marks
Theory	Tutorial	Practical		ESE (E)	Mid Sem. (M)	Progressive Assessment (PA)	Viva (V)	Term work (TW)	
2	0	2	3	40	20	20	10	10	100

Theory Content:

Unit	Topics	Contact Hours
1	Horticulture: Its different branches, importance and scope	**2**

2	Soil and Climate for Horticultural Crops	**2**
3	Plant Propagation: Methods and Structures	**3**
4	Stock-scion relationship	**2**
5	Principles of orchard establishment	**3**
6	Training and Pruning	**2**
7	Pollination, pollinizers and pollinators	**2**
8	Unfruitfulness	**2**
9	Plant Growth Regulators	**3**
10	Fertilizer application and Irrigation methods in horticultural crops	**3**
	Total	**24**

Practical Content:

Unit	**Topics**	**Contact Hours**
1	Identification and nomenclature of fruits	**2**
2	Layout of orchard	**2**
3	System of planting	**2**
4	Propagation techniques for horticultural crops	**2**
5	Nursery raising techniques	**2**
6	Media: classification and preparation	**2**
7	Preparation of fertilizer mixture and its application	**2**
8	Preparation and Application of PGR	**2**
9	Layout of irrigation systems	**2**
10	Harvesting and post-harvest practices	**2**
	Total	**20**

Reference Books:

- Basics of Horticulture, Jitendra Singh, Kalyani Publishers, 2014
- Fundamentals of Horticulture, Jitendra Singh, Kalyani Publishers, 2018
- Handbook of Horticulture, ICAR, 2001

Suggested Theory distribution:

The suggested theory distribution as per Bloom's taxonomy is as per 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	Understand	Apply	Analyze	Evaluate	Create
25%	25%	20%	10%	10%	10%

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