

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

Subject Code: 16AS1401

Subject Short Name: Agron. 4.5

Subject Name: Crop Production Technology-II (*Rabi Crops*)

Objective:

1. To impart basic and fundamental knowledge on principles and practices of rabi crop production.
2. To impart knowledge and skill on scientific crop production and management.

Credits Earned: 3 Credits (1+2)

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

- Students will be able to understand crop husbandry of different rabi crops.
- Students will be able to identify good agricultural practices of rabi field crops.
- Students will be able to illustrate scientific approaches towards the management of different field crops.
- Students will be able to employ the distribution of the crops in different parts of country.
- Students will be able to identify new farming technologies that applicable for Rabi season crop production.

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)	
1	0	4	3	40	20	20	10	10	100

Theory Content:

Unit	Topics	Contact Hours
1	Origin, geographical distribution, economic importance, soil and climatic requirements, varieties, cultural practices and yield of Rabi crops.	1
2	Cereals- wheat and barley	2
3	Pulses- chickpea, lentil, peas, redgram and rajmash	2

4	Oilseed- rapeseed, mustard, sunflower, safflower and linseed	2
5	Sugar crops-sugarcane and sugar beet	1
6	Medicinal and aromatic crops- mentha, lemon grass and citronella	2
7	Forage crops –barseem, lucerne and oat	1
8	Potato, quinoa, tobacco	2
	Total	13

Practical Content:

Unit	Topics	Contact Hours
1	Sowing methods of wheat and sugarcane	4
2	Identification of weeds in <i>rabi</i> season crops	4
3	Study of morphological characteristics of <i>rabi</i> crops	4
4	Study of yield contributing characters of rabi season crops	4
5	Yield and juice quality analysis of sugarcane	4
6	Study of important agronomic experiments of rabi crops at experimental farms	4
7	Study of rabi forage experiments	4
8	Oil extraction of medicinal crops	4
9	Visit to research stations of related crops	4
	Total	36

Reference Books:

- B. Gurarajan, R. Balasubramanian and V. Swaminathan. Recent Strategies on Crop Production. Kalyani Publishers, New Delhi.
- Chidda Singh.1997. Modern techniques of raising field crops. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- Rajendra Prasad. Textbook of Field Crops Production - Commercial Crops. Volume II ICAR Publication.

- Rajendra Prasad. Textbook of Field Crops Production - Foodgrain Crops. Volume I ICAR Publication.
- S.R. Reddy. 2009. Agronomy of Field Crops. Kalyani Publishers, New Delhi.

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.