COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: RURAL SOCIOLOGY AND EDUCATIONAL PSYCHOLOGY

COURSE CODE: AG19107
CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognize the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organization.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Describe the importance of rural sociology in agriculture extension.	**II (UNDERSTAND)**

CO2	Explain different concepts in rural sociology like social stratification, culture, social institutions, social change and social ecology.	**IV (ANALYSE)**
CO3	Explain the concept of rural development in India.	**II (UNDERSTAND)**
CO4	Explain the importance of educational psychology in agricultural extension with s pecial emphasis on leadership, personality and motivation.	**IV (ANALYSE)**
CO5	Apply various theories of motivation, intelligence, process of teaching and learning with special reference to extension teaching.	**II (UNDERSTAND)**

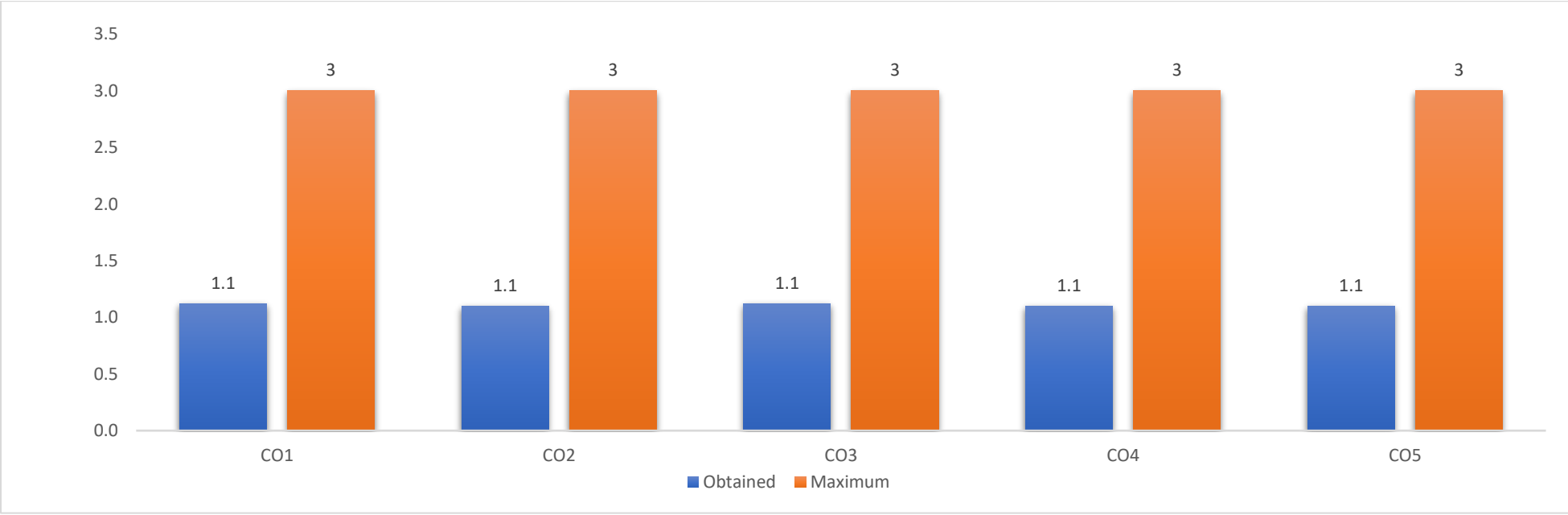
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H						H		H	
C02	H		H						H		H	
C03	H		H						H		H	
C04	H		H						S		H	
C05	H		H						H		H	

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.12		H 1.12					
CO2	H 1.1		H 1.1					
CO3	H 1.12		H 1.12					
CO4	H 1.1		H 1.1					
CO5	H 1.1		H 1.1					
AVERAGE OF COS FOR POS	1.108		1.108					
AVERAGE OF POS	1.1056		1.1056					

AVERAGE	1.1056



co	mid exam 1	mid exam 2	group discussion	assignment	viva	Attendence		External Exam	

	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
CO 1	96.1	3.0			100.0	3.0	100.0	3.0	100.0	3.0	84.3	2.0	2.8	35.3	0.0	0.0	1.1
CO 2	96.1	3.0			100.0	3.0			100.0	3.0	84.3	2.0	2.8	35.3	0.0	0.0	1.1
CO 3	96.1	3.0	98.0	3.0	100.0	3.0			100.0	3.0	84.3	2.0	2.8	35.3	0.0	0.0	1.1
CO 4			98.0	3.0	100.0	3.0			100.0	3.0	84.3	2.0	2.8	35.3	0.0	0.0	1.1
CO 5			98.0	3.0	100.0	3.0			100.0	3.0	84.3	2.0	2.8	35.3	0.0	0.0	1.1

AVERAGE	AVERAGE
0	1.108

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FUNDAMENTALS OF AGRICULTURAL EXTENSION EDUCATION

COURSE CODE: AG19408
CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognize the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organization.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Explain the importance of extension education in agriculture sector.	**II (UNDERSTAND)**
CO2	Organize different agricultural extension methods with reference to group contact methods.	**IV (ANALYSE)**
CO3	Organize different agricultural extension methods with reference to mass contact methods.	**IV (ANALYSE)**
CO4	Apply the principles of journalism in Agricultural extension and prepare different types of Audio-Visual aids	**IV (ANALYSE)**
CO5	Solving of the problems of villages by applying Participatory Rural Appraisal (PRA) technique	**IV (ANALYSE)**

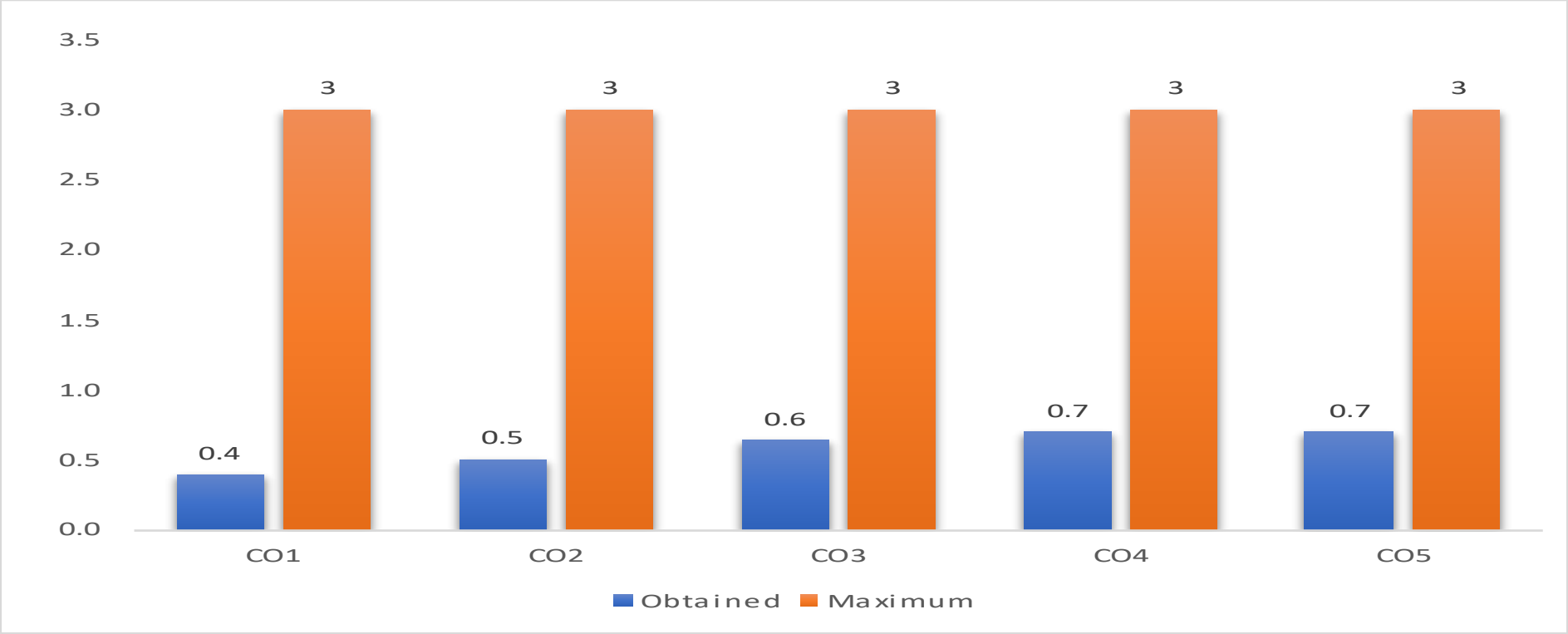
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H	S	H	S		H	H	H		S		H
C02	H	H	H	H		H	H	H		H		H
C03	H	H	S	H		H	H	H		H		H

C04	H	H	H	H		H	H	H		H		S
C05	H	H	H	H		H	H	H		H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.4		H 0.4			H 0.4	H 0.4	H 0.4
CO2	H 0.5	H 0.5	H 0.5	H 0.5		H 0.5	H 0.5	H 0.5
CO3	H 0.64	H 0.64		H 0.64		H 0.64	H 0.64	H 0.64
CO4	H 0.7	H 0.7	H 0.7	H 0.7		H 0.7	H 0.7	H 0.7
CO5	H 0.7	H 0.7	H 0.7	H 0.7		H 0.7	H 0.7	H 0.7
AVERAGE OF COS FOR POS	0.588	0.635	0.575	0.635		0.588	0.588	0.588
AVERAGE OF POS	0.6256	0.635	0.61875	0.635		0.6256	0.6256	0.6256
AVERAGE	0.627307143							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal	pass %	Attainment level	co wise external average	co wise total average

													average				
CO 1	68.5	1.0			77.2	2.0	52.2	0.0	67.4	1.0	67.4	1.0	1.0	44.6	0.0	0.0	0.4
CO 2	68.5	1.0			77.2	2.0			67.4	1.0	67.4	1.0	1.3	44.6	0.0	0.0	0.5
CO 3	68.5	1.0	87.0	3.0	77.2	2.0			67.4	1.0	67.4	1.0	1.6	44.6	0.0	0.0	0.6
CO 4			87.0	3.0	77.2	2.0			67.4	1.0	67.4	1.0	1.8	44.6	0.0	0.0	0.7
CO 5			87.0	3.0	77.2	2.0			67.4	1.0	67.4	1.0	1.8	44.6	0.0	0.0	0.7

AVERAGE	AVERAGE
0	0.588

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: ENTREPRENEURSHIP DEVELOPMENT & BUSINESS COMMUNICATION

COURSE CODE: AG20503
CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognize the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organization.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Describe the concepts of entrepreneur, entrepreneurship, agricultural entrepreneurship	**II (UNDERSTAND)**
CO2	characteristics of entrepreneur, achievement motivation & entrepreneurship, business management skills.	**IV (ANALYSE)**
CO3	Gain knowledge and skills in project formulation, project report preparation and evaluation of projects.	**IV (ANALYSE)**
CO4	Explain Entrepreneurship Development programmes, Government policies, schemes and incentives for promotion of entrepreneurship, supply chain management and total quality management	**IV (ANALYSE)**
CO5	Develop business communication skills- reading, writing, listening and presentation skills.	**IV (ANALYSE)**

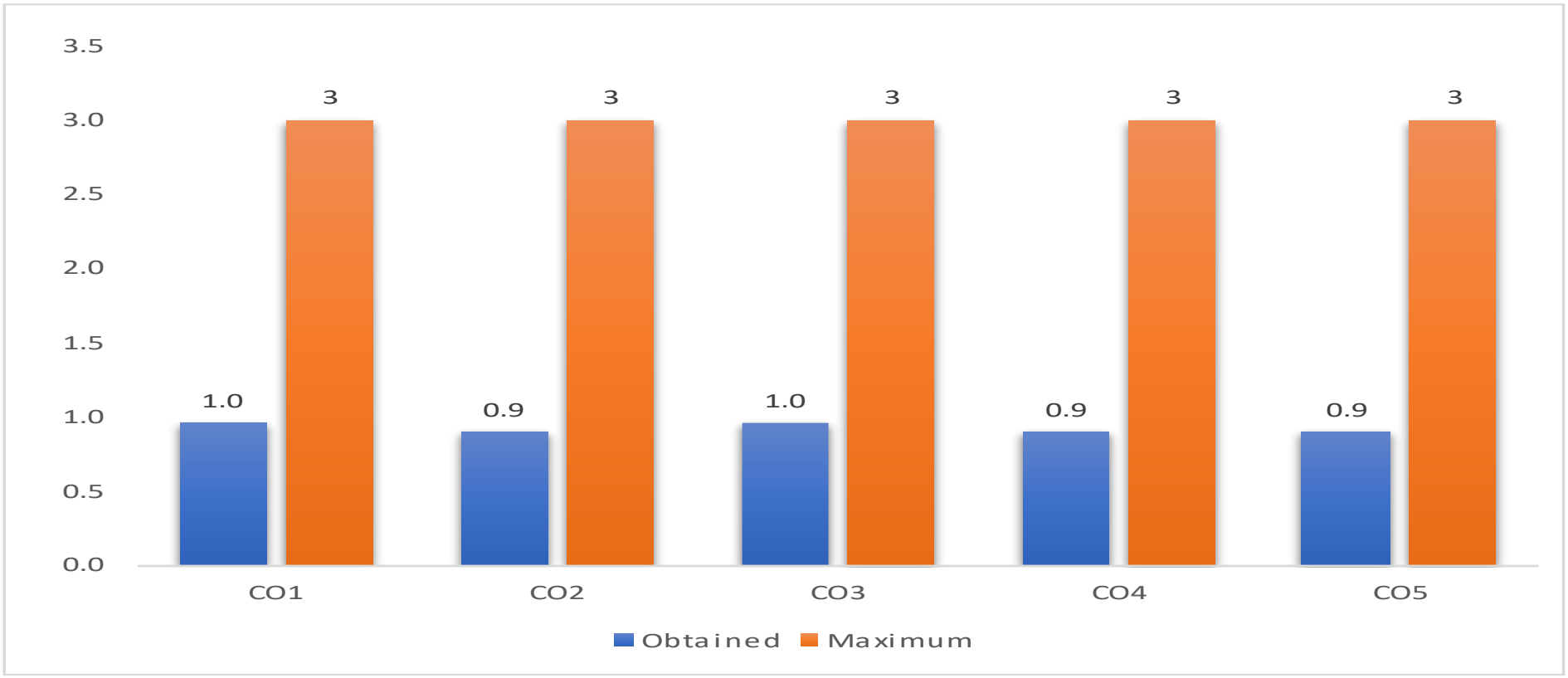
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			H	H		S		H
C02	H		H	H			H	H		H		H
C03	H		H	H	H		H	H		H		H

C04	H		H	H	S		H	H		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96				H 0.96	H 0
CO2	H 0.9		H 0.9	H 0.9			H 0.9	H
CO3	H 0.96		H 0.96	H 0.96	H 0.96		H 0.96	H 0
CO4	H 0.9		H 0.9	H 0.9			H 0.9	H
CO5	H 0.9		H 0.9	H 0.9				H
AVERAGE OF COS FOR POS	0.924		0.924	0.915	0.96		0.93	0.924
AVERAGE OF POS	0.9168		0.9168	0.915	0.96		0.9225	0.9
AVERAGE	0.92465							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass %	Attainment level	pass %	Attainment level	pass%	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal	pass %	Attainment level	co wise external average	co wise total average

													average				
CO 1	91.2	3.0			100.0	3.0	95.6	3.0	96.7	3.0	57.1	0.0	2.4	59.3	0.0	0.0	1.0
CO 2	91.2	3.0			100.0	3.0			96.7	3.0	57.1	0.0	2.3	59.3	0.0	0.0	0.9
CO 3	91.2	3.0	94.5	3.0	100.0	3.0			96.7	3.0	57.1	0.0	2.4	59.3	0.0	0.0	1.0
CO 4			94.5	3.0	100.0	3.0			96.7	3.0	57.1	0.0	2.3	59.3	0.0	0.0	0.9
CO 5			94.5	3.0	100.0	3.0			96.7	3.0	57.1	0.0	2.3	59.3	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FUNDAMENTALS OF CROP PHYSIOLOGY

COURSE CODE: AG19103
CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

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PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. To impart various plant metabolic processes occurring at different stages of plant growth which lead to development.

PSO2. To study the growth and development of plants.

PSO3. To study the effect of nutrients and growth regulators and their applications in agriculture.

PSO4. To understand the physiology of seeds and fruit ripening.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the importance of crop physiology, crop water relations and seed germination	**II (UNDERSTAND)**
CO2	Apply the knowledge of photosynthesis and respiration in increasing crop productivity	**IV (ANALYSE)**
CO3	Apply the knowledge of nutrio-physiology and flowering physiology in increasing crop productivity	**IV (ANALYSE)**
CO4	Explains the role of plant growth regulators in agriculture and horticulture	**II (UNDERSTAND)**
CO5	Analyze growth and development of major crops	**II (UNDERSTAND)**

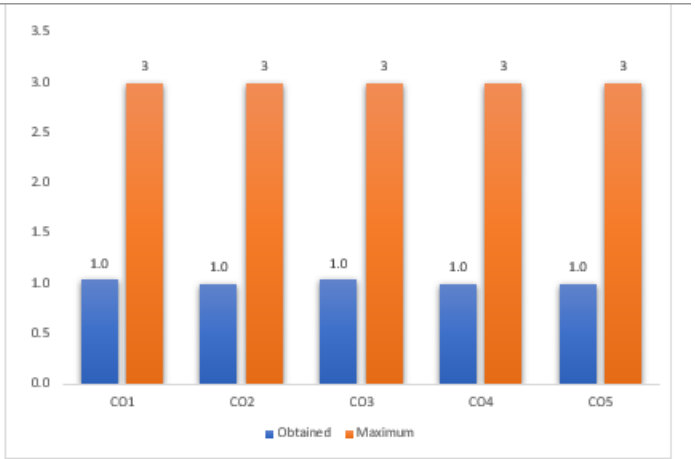
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	**S**		**H**						**H**		**H**	
C02	**H**		**H**						**H**		**S**	
C03	**H**		**H**						**H**		**H**	
C04	**H**		**S**						**H**		**H**	

C05	H		H						H		H	

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1			H 1.04					
CO2	H 1		H 1					
CO3	H 1.04		H 1.04					
CO4	H 1							
CO5	H 1		H 1					
AVERAGE OF COS FOR POS	1.01		1.02					
AVERAGE OF POS	1.01		1.015					
AVERAGE	1.0125							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	93.1	3.0	100.0	3.0	71.6	1.0	2.6	48.0	0.0	0.0	1.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	71.6	1.0	2.5	48.0	0.0	0.0	1.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	71.6	1.0	2.6	48.0	0.0	0.0	1.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	71.6	1.0	2.5	48.0	0.0	0.0	1.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	71.6	1.0	2.5	48.0	0.0	0.0	1.0

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FUNDAMENTALS OF HORTICULTURE

COURSE CODE: AG18106
CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

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PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. To impart knowledge on Fundamentals of Horticulture

PSO2. To impart knowledge on various cultural operations involved in raising of orchards.

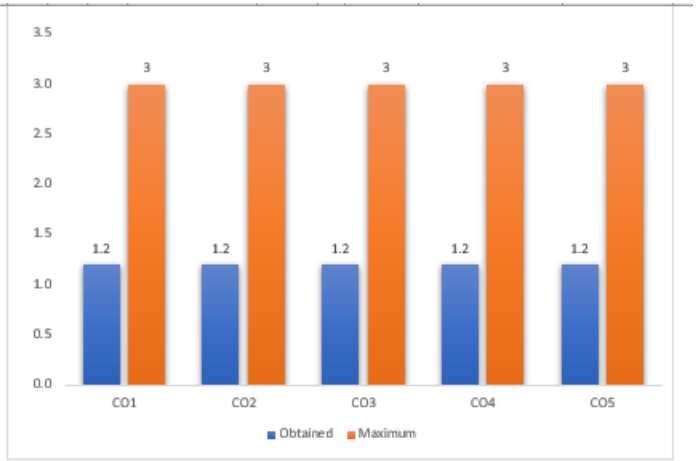
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Define various branches.	**II (UNDERSTAND)**
CO2	Distinguish methods of Propagation	**IV (ANALYSE)**
CO3	Identify and explain various vegetative propagation Method	**IV (ANALYSE)**
CO4	Distinguish and differentiate growth regulators and effects	**II (UNDERSTAND)**
CO5	Classify and compare irrigation and fertilizer application methods	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	**H**		**H**						**H**		**H**	
C02	**H**		**H**						**H**		**H**	
C03	**H**		**H**						**H**		**H**	
C04	**H**		**H**						**H**		**H**	
C05	**H**		**H**						**H**		**H**	

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.2		H 1.2					
CO2	H 1.2		H 1.2					
CO3	H 1.2		H 1.2					
CO4	H 1.2		H 1.2					
CO5	H 1.2		H 1.2					
AVERAGE OF COS FOR POS	1.2		1.2					
AVERAGE OF POS	1.2		1.2					
AVERAGE	1.2							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	99.0	3.0	100.0	3.0	89.2	3.0	3.0	51.0	0.0	0.0	1.2
CO2	100.0	3.0			100.0	3.0			100.0	3.0	89.2	3.0	3.0	51.0	0.0	0.0	1.2
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	89.2	3.0	3.0	51.0	0.0	0.0	1.2
CO4			100.0	3.0	100.0	3.0			100.0	3.0	89.2	3.0	3.0	51.0	0.0	0.0	1.2
CO5			100.0	3.0	100.0	3.0			100.0	3.0	89.2	3.0	3.0	51.0	0.0	0.0	1.2

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: GEO-INFORMATICS AND NANOTECHNOLOGY FOR PRECISION FARMING

COURSE CODE: AG20602

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

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PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT-WISE):

PSO1. To impart knowledge on GIS and GPS
PSO2. To impart Knowledge on Crop simulation models
PSO3. To impart Knowledge on Remote sensing in Precision Farming.

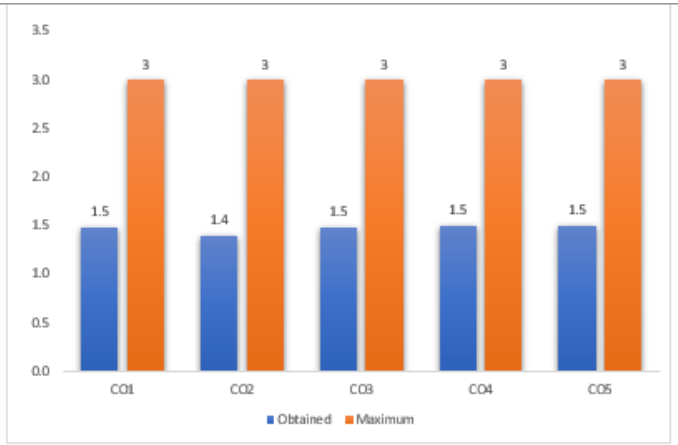
	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL

CO1	Explains the concepts of geo-informatics in precision agriculture	**II (UNDERSTAND)**
CO2	Illustrates GIS data modeling and graphic representation of spatial data	**IV (ANALYSE)**
CO3	Analyses Remote sensing and Global positioning system (GPS), concepts and application in Agriculture	**IV (ANALYSE)**
CO4	Distinguish Crop Simulation Models	**II (UNDERSTAND)**
CO5	Classify nano- particles and their applications in agriculture	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	**H**		**H**						**H**		**H**	
C02	**H**		**H**						**H**		**H**	
C03	**H**		**H**						**H**		**H**	
C04	**H**		**H**						**H**		**H**	
C05	**H**		**H**						**H**		**H**	

H: Highly Supportive **S: Supportive**



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	84.3	2.0			77.5	2.0	100.0	3.0	100.0	3.0	66.3	1.0	2.2	68.5	1.0	1.0	1.5
CO2	84.3	2.0			77.5	2.0			100.0	3.0	66.3	1.0	2.0	68.5	1.0	1.0	1.4
CO3	84.3	2.0	98.9	3.0	77.5	2.0			100.0	3.0	66.3	1.0	2.2	68.5	1.0	1.0	1.5
CO4			98.9	3.0	77.5	2.0			100.0	3.0	66.3	1.0	2.3	68.5	1.0	1.0	1.5
CO5			98.9	3.0	77.5	2.0			100.0	3.0	66.3	1.0	2.3	68.5	1.0	1.0	1.5

AVERAGE	AVERAGE
1	1.472

Activate

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.48		H 1.48					
CO2	H 1.4		H 1.4					
CO3	H 1.48		H 1.48					
CO4	H 1.5		H 1.5					
CO5	H 1.5		H 1.5					
AVERAGE OF COS FOR POS	1.472		1.472					
AVERAGE OF POS	1.4704		1.4704					
AVERAGE	1.4704							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: POST HARVEST MANAGEMENT AND VALUE ADDITION OF FRUITS AND VEGETABLES

COURSE CODE: AG20617

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental **context and for sustainable development**

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: To impart Knowledge on processing of various foods
PSO2: To impart Knowledge on preservation techniques of various foods
PSO3: To impart basic knowledge on Pre-& post-harvest factors affecting the quality and post- harvest shelf life of fruits and vegetables

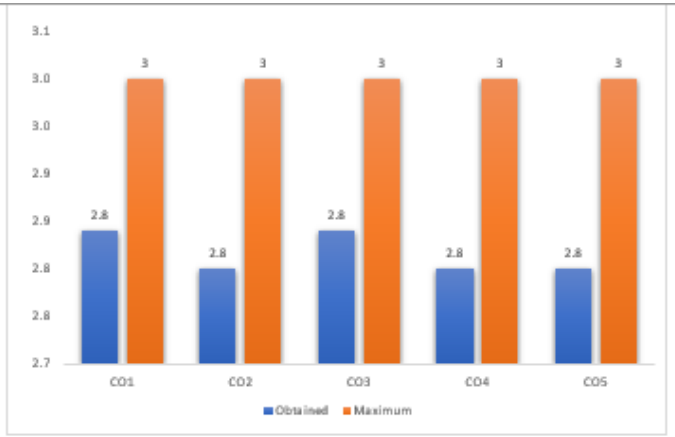
	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL

CO1	Define food processing and preservation, Classify foods for processing and preservation	**II (UNDERSTAND)**
CO2	List out methods of food preservation	**IV (ANALYSE)**
CO3	Explain processing methods of cereals, millets and legumes	**IV (ANALYSE)**
CO4	Explain processing methods of fruits and vegetables and oilseeds	**II (UNDERSTAND)**
CO5	Explain processing methods of spices and plantation crops	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	**H**		**H**						**H**		**H**	
C02	**H**		**H**						**H**		**H**	
C03	**H**		**H**						**H**		**H**	
C04	**H**		**H**						**H**		**H**	
C05	**H**		**H**						**H**		**H**	

H: Highly Supportive **S: Supportive**



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	96.6	3.0			100.0	3.0	100.0	3.0	100.0	3.0	70.8	1.0	2.6	88.8	3.0	3.0	2.8
CO2	96.6	3.0			100.0	3.0			100.0	3.0	70.8	1.0	2.5	88.8	3.0	3.0	2.8
CO3	96.6	3.0	95.5	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.6	88.8	3.0	3.0	2.8
CO4			95.5	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.5	88.8	3.0	3.0	2.8
CO5			95.5	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.5	88.8	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.84		H 2.84					
CO2	H 2.8		H 2.8					
CO3	H 2.84		H 2.84					
CO4	H 2.8		H 2.8					
CO5	H 2.8		H 2.8					
AVERAGE OF COS FOR POS	2.816		2.816					
AVERAGE OF POS	2.8112		2.8112					
AVERAGE	2.8112							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FARMING SYSTEMS AND ORGANIC FARMING FOR SUSTAINABLE AGRICULTURE

COURSE CODE: AG20601

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

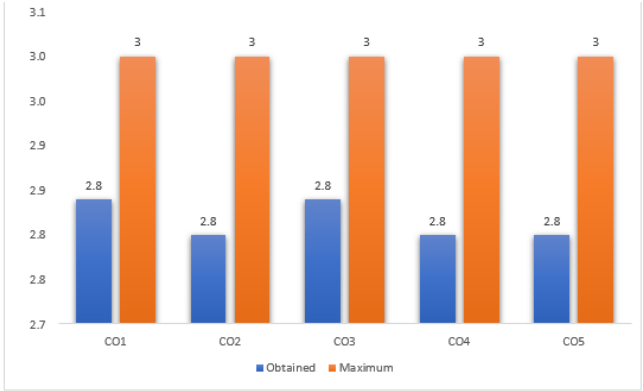
PO1: Students will be able to gain comprehensive knowledge on the fundamental principles of farming systems and organic farming.

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		

4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.84		H 2.84					
CO2	H 2.8		H 2.8	H 2.8			H 2.8	
CO3	H 2.84		H 2.84	H 2.84	H 2.84		H 2.84	
CO4	H 2.8		H 2.8	H 2.8			H 2.8	
CO5	H 2.8		H 2.8	H 2.8				H 2.8
AVERAGE OF COS FOR POS	2.816		2.816	2.81	2.84		2.813333333	2.8
AVERAGE OF POS	2.8112		2.8112	2.81	2.84		2.81333	2.8
AVERAGE	2.814288889							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	98.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	70.8	1.0	2.6	93.3	3.0	3.0	2.8
CO2	98.9	3.0			100.0	3.0			100.0	3.0	70.8	1.0	2.5	93.3	3.0	3.0	2.8
CO3	98.9	3.0	98.9	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.6	93.3	3.0	3.0	2.8
CO4			98.9	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.5	93.3	3.0	3.0	2.8
CO5			98.9	3.0	100.0	3.0			100.0	3.0	70.8	1.0	2.5	93.3	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: ENVIRONMENTAL STUDIES AND GENDER SENSITIZATION

COURSE CODE: ES23301

CREDITS: 3

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or Pos:

PO1: Students will gain knowledge on environmental aspects and involve themselves in acquiring a sustainable environment.

PO2: Students will be sensitized towards gender issues in the society and the laws enforced for their protection.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the importance of Environmental education, conservation of natural resources & understand the importance of ecosystems and biodiversity	**II (UNDERSTAND)**
CO2	Understand the pollution problems and apply the environmental science knowledge on	**IV (ANALYSE)**

	solid waste management, disaster management	
CO3	Apply the environmental science knowledge to improve the resources Evaluate and understand the sustainable environmental conditions and control methods.	**IV (ANALYSE)**
CO4	Identify the interactions and inter sections of identities (e.g., gender, race, ethnicity class, sexuality, and so on) and assess the ways in which they contribute to instances of privilege and power dynamics across cultures, space, and time. And their problems	**II (UNDERSTAND)**
CO5	Understand the gender problems and ways of addressing them, including interactions across local to global scales in communities and overcome inequalities with legislation	**II (UNDERSTAND)**

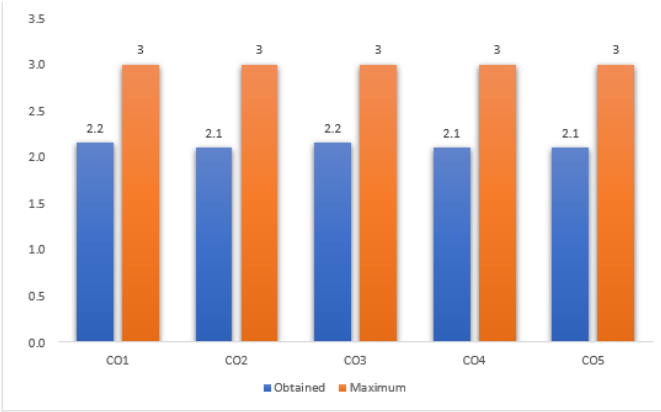
TABLE 1: CO, PO, PSO MAPPING

Course outcomes	**Programme Outcomes**								**Program Specific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		

2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.16		H 2.16					
CO2	H 2.1		H 2.1	H 2.1			H 2.1	
CO3	H 2.16		H 2.16	H 2.16	H 2.16		H 2.16	
CO4	H 2.1		H 2.1	H 2.1			H 2.1	
CO5	H 2.1		H 2.1	H 2.1				H 2.1
AVERAGE OF COS FOR POS	2.124		2.124	2.115	2.16		2.12	2.1
AVERAGE OF POS	2.1168		2.1168	2.115	2.16		2.12	2.1
AVERAGE	2.121433333							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	96.7	3.0			100.0	3.0	100.0	3.0	98.9	3.0	57.6	0.0	2.4	78.3	2.0	2.0	2.2
CO2	96.7	3.0			100.0	3.0			98.9	3.0	57.6	0.0	2.3	78.3	2.0	2.0	2.1
CO3	96.7	3.0	96.7	3.0	100.0	3.0			98.9	3.0	57.6	0.0	2.4	78.3	2.0	2.0	2.2
CO4			96.7	3.0	100.0	3.0			98.9	3.0	57.6	0.0	2.3	78.3	2.0	2.0	2.1
CO5			96.7	3.0	100.0	3.0			98.9	3.0	57.6	0.0	2.3	78.3	2.0	2.0	2.1

AVERAGE	AVERAGE
2	2.124

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: PRINCIPLES OF PLANT PATHOLOGY

COURSE CODE: AG18104

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**

CO1	Understand the Epidemiology and Diagnosis of Plant Diseases	II (UNDERSTAND)
CO2	Understand the principle of exclusion and avoidance	IV (ANALYSE)
CO3	Understand the principles of eradication of seed and planting material	III (APPLY)
CO4	Explain the principles of plant protection	IV (ANALYSE)
CO5	Analyse the biotechnological aspects in crop protection	II (UNDERSTAND)

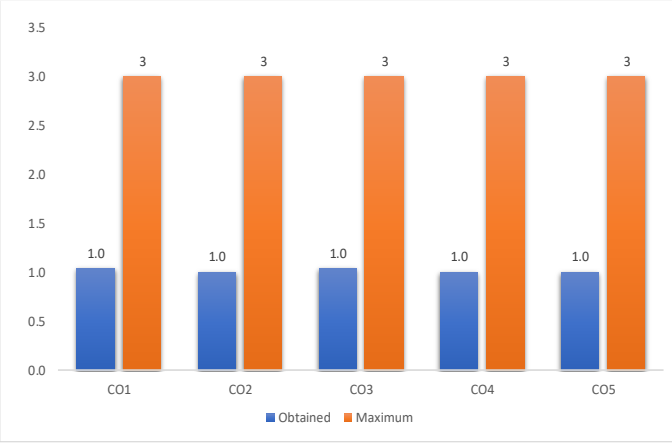
TABLE 1: CO, PO, PSO MAPPING

Course outcomes	**Programme Outcomes**								**Program Specific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		

2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.04		H 1.04					
CO2	H 1		H 1					
CO3	H 1.04		H 1.04					
CO4	H 1		H 1					
CO5	H 1		H 1					
AVERAGE OF COS FOR POS	1.016		1.016					
AVERAGE OF POS	1.0112		1.0112					
AVERAGE	1.0112							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	70.7	1.0	2.6	19.6	0.0	0.0	1.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	70.7	1.0	2.5	19.6	0.0	0.0	1.0
CO3	100.0	3.0	92.4	3.0	100.0	3.0			100.0	3.0	70.7	1.0	2.6	19.6	0.0	0.0	1.0
CO4			92.4	3.0	100.0	3.0			100.0	3.0	70.7	1.0	2.5	19.6	0.0	0.0	1.0
CO5			92.4	3.0	100.0	3.0			100.0	3.0	70.7	1.0	2.5	19.6	0.0	0.0	1.0

AVERAGE	AVERAGE
0	1.016

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: INTRODUCTION TO PLANT PATHOGENS

COURSE CODE: AG18104

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**

CO1	Illustrates pathogenic fungi and types of reproduction in fungi	II (UNDERSTAND)
CO2	Classify Kingdom Fungi into phylum, sub phylum and orders	IV (ANALYSE)
CO3	Recognizes phylum Ascomycota and Basidiomycota with examples	III (APPLY)
CO4	Differentiates Rust, Smut and Bunt Fungi	IV (ANALYSE)
CO5	Illustrates various plant parasitic viruses and nematodes	II (UNDERSTAND)

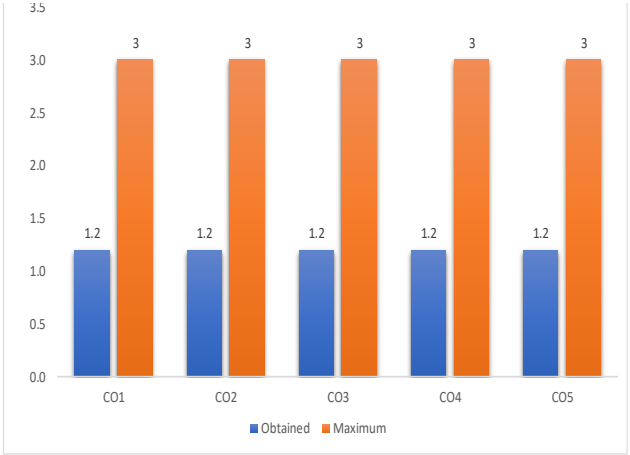
TABLE 1: CO, PO, PSO MAPPING

Course outcomes	**Programme Outcomes**								**Program Specific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		

2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.2		H 1.2					
CO2	H 1.2		H 1.2					
CO3	H 1.2		H 1.2					
CO4	H 1.2		H 1.2					
CO5	H 1.2		H 1.2					
AVERAGE OF COS FOR POS	1.2		1.2					
AVERAGE OF POS	1.2		1.2					
AVERAGE	1.2							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	99.0	3.0			100.0	3.0	100.0	3.0	98.0	3.0	90.2	3.0	3.0	7.8	0.0	0.0	1.2
CO2	99.0	3.0			100.0	3.0			98.0	3.0	90.2	3.0	3.0	7.8	0.0	0.0	1.2
CO3	99.0	3.0	100.0	3.0	100.0	3.0			98.0	3.0	90.2	3.0	3.0	7.8	0.0	0.0	1.2
CO4			100.0	3.0	100.0	3.0			98.0	3.0	90.2	3.0	3.0	7.8	0.0	0.0	1.2
CO5			100.0	3.0	100.0	3.0			98.0	3.0	90.2	3.0	3.0	7.8	0.0	0.0	1.2

AVERAGE	AVERAGE
0	1.2

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: P R O D U C T I O N T E C H N O L O G Y O F V E G E T A B L E S A N D S P I C E S

COURSE CODE: AG19308

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Life long learning: recognize the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Describe various production techniques in Solanaceous vegetables.	**II (UNDERSTAND)**
CO2	Apply various cultural operations to produce cruciferous and leguminous vegetables	**IV (ANALYSE)**
CO3	Explain different cultivation practices in Cole, bulb and root crops	**II (UNDERSTAND)**
CO4	Explain different cultivation practices in tuber crops, leafy vegetables and perennial vegetables	**III (APPLY)**
CO5	Explain different cultivation practices in Spice crops.	**II (UNDERSTAND)**

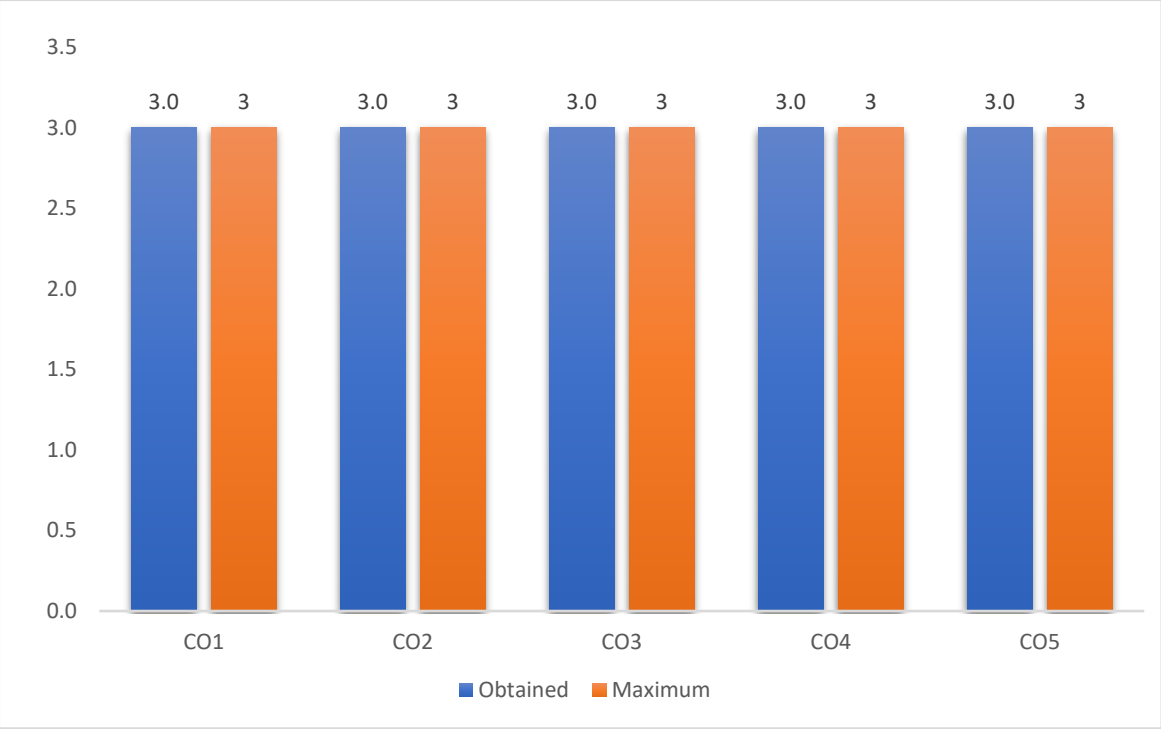
TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03
C01	H		H						H		H
C02	H		H						H		H
C03	H		H						H		H
C04	H		H						H		H
C05	H		H						H		H

H: Highly Supportive



co	mid exam 1	mid exam 2	group discussion	assignment	viva	Attendence		External Exam

	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average
CO1	87.4	3.0			98.9	3.0	98.9	3.0	100.0	3.0	100.0	3.0	3.0	95.8	3.0	3.0
CO2	87.4	3.0			98.9	3.0			100.0	3.0	100.0	3.0	3.0	95.8	3.0	3.0
CO3	87.4	3.0	97.9	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	95.8	3.0	3.0
CO4			97.9	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	95.8	3.0	3.0
CO5			97.9	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	95.8	3.0	3.0

AVERAG

BSC (HONS)AGRICULTURE

MANURES, FERTILIZERS AND SOIL FERTILITY MANAGEMENT

Subject code: AG19403

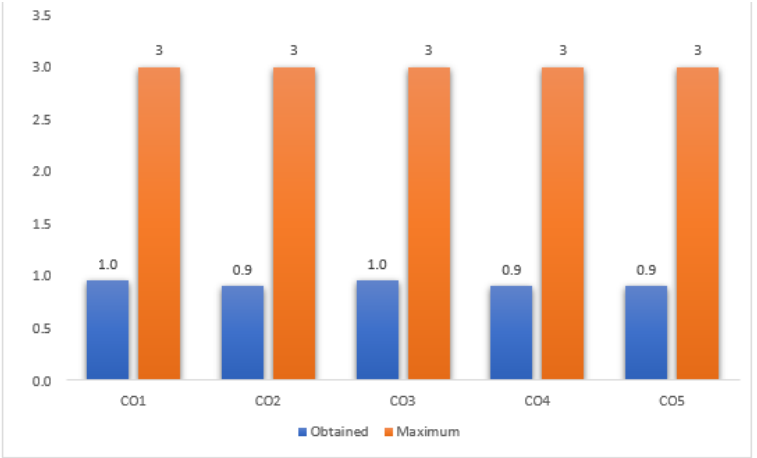
Course outcomes:

- Define and list out macro and micronutrient
- Differentiate and Classify Manures and Fertilizers and different composting methods
- Explain characteristics and manufacturing process of nitrogenous, phosphatic and potassic fertilizers.
- Differentiateand classify complex, mixed and bio-fertilizers

Compare and judge various methods of soil fertility evaluation

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	55.4	0.0	2.4	45.7	0.0	0.0	1.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	55.4	0.0	2.3	45.7	0.0	0.0	0.9
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	55.4	0.0	2.4	45.7	0.0	0.0	1.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	55.4	0.0	2.3	45.7	0.0	0.0	0.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	55.4	0.0	2.3	45.7	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96					
CO2	H 0.9		H 0.9	H 0.9			H 0.9	
CO3	H 0.96		H 0.96	H 0.96	H 0.96		H 0.96	
CO4	H 0.9		H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9				H 0.9
AVERAGE OF COS FOR POS	0.924		0.924	0.915	0.96		0.92	0.9
AVERAGE OF POS	0.9168		0.9168	0.915	0.96		0.92	0.9
AVERAGE	0.921433333							

BSC (HONS)AGRICULTURE

FUNDAMENTALS OF SOIL SCIENCE

Subject Code: AG19205

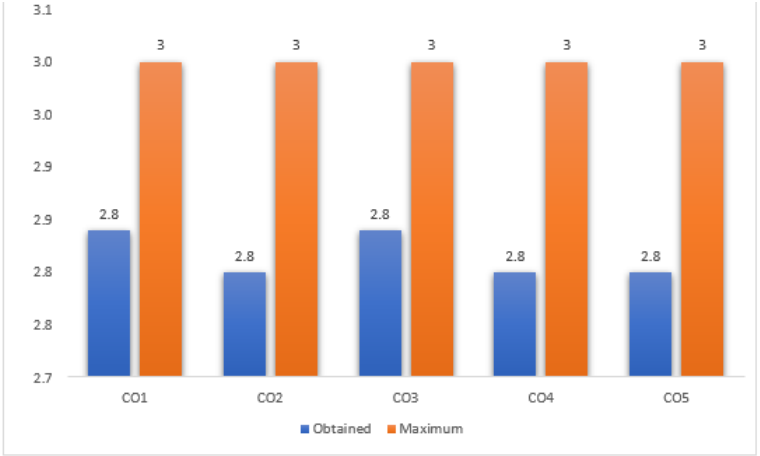
COURSE OUTCOMES:

- Defines soil and describes different soil forming processes, explains soil profile and differentiates surface soil and subsurface soil.
- Explain different Physical properties of soil and their influence on crop growth.
- Explain different chemical and biological properties of soil and its importance in agriculture.

  Differentiates and explains role of organic matter and humus. Describes carbon cycle and C:N ratio.
- Classify different soil groups of India, Telangana and A.P.

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	72.0	1.0	2.6	87.0	3.0	3.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.6	87.0	3.0	3.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8
CO5			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.84		H 2.84					
CO2	H 2.8		H 2.8	H 2.8			H 2.8	
CO3	H 2.84		H 2.84	H 2.84	H 2.84		H 2.84	
CO4	H 2.8		H 2.8	H 2.8			H 2.8	
CO5	H 2.8		H 2.8	H 2.8				H 2.8
AVERAGE OF COS FOR POS	2.816		2.816	2.81	2.84		2.813333333	2.8
AVERAGE OF POS	2.8112		2.8112	2.81	2.84		2.81333	2.8
AVERAGE	2.814288889							

BSC(HONS)AGRICULTURE

PRINCIPLES OF FOOD SCIENCE AND NUTRITION

Subject code: AG 19307

Course outcomes:

Define food and explain the composition of food

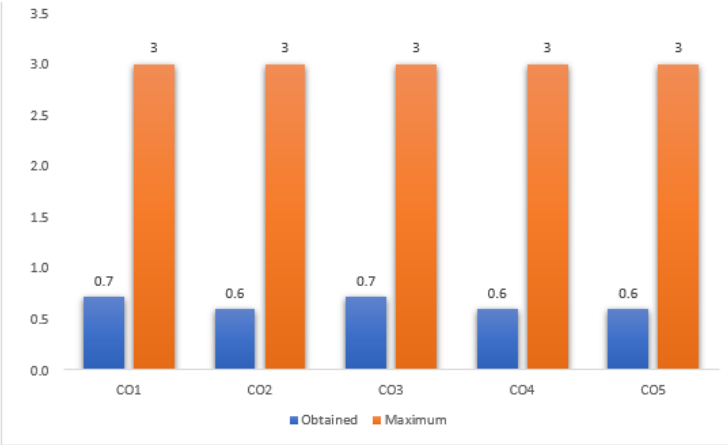
- Classify vitamins, minerals and other compounds
- Explain the concept of food microbiology

Explain preservation of food by various methods

- Analyze nutritional disorders

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	96.9	3.0			97.9	3.0	97.9	3.0	48.5	0.0	64.9	0.0	1.8	41.2	0.0	0.0	0.7
CO2	96.9	3.0			97.9	3.0			48.5	0.0	64.9	0.0	1.5	41.2	0.0	0.0	0.6
CO3	96.9	3.0	97.9	3.0	97.9	3.0			48.5	0.0	64.9	0.0	1.8	41.2	0.0	0.0	0.7
CO4			97.9	3.0	97.9	3.0			48.5	0.0	64.9	0.0	1.5	41.2	0.0	0.0	0.6
CO5			97.9	3.0	97.9	3.0			48.5	0.0	64.9	0.0	1.5	41.2	0.0	0.0	0.6

AVERAGE	AVERAGE
0	0.648

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.72		H 0.72					
CO2	H 0.6		H 0.6	H 0.6			H 0.6	
CO3	H 0.72		H 0.72	H 0.72	H 0.72		H 0.72	
CO4	H 0.6		H 0.6	H 0.6			H 0.6	
CO5	H 0.6		H 0.6	H 0.6				H 0.6
AVERAGE OF COS FOR POS	0.648		0.648	0.63	0.72		0.64	0.6
AVERAGE OF POS	0.6336		0.6336	0.63	0.72		0.64	0.6
AVERAGE	0.642866667							

BSC (HONS)AGRICULTURE

PROBLEMATIC SOILS AND THEIR MANAGEMENT

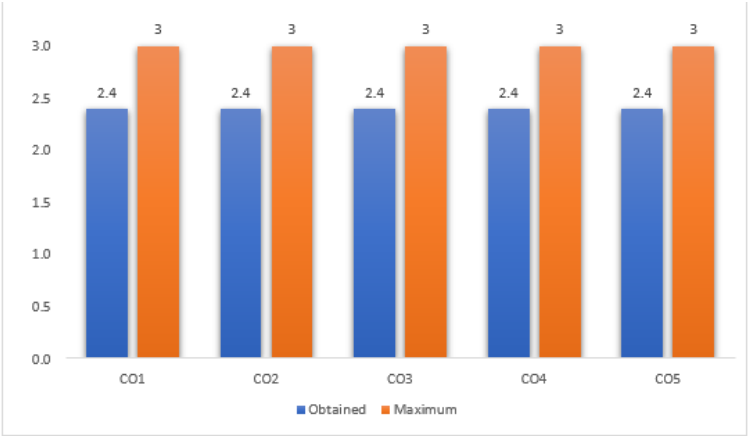
Subject code: AG20508.

Course outcomes:

- To understand the formation of problematic soils
- To understand the quality of irrigation water
- To formulate various management methods to reclaim problem soils
- To evaluate quality of irrigation water and management methods
- Application of technology to evaluate problem soils

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

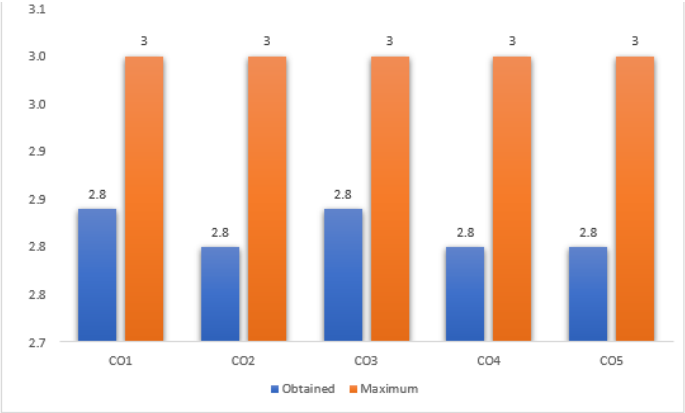
H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	98.9	3.0			98.9	3.0	98.9	3.0	98.9	3.0	91.4	3.0	3.0	77.4	2.0	2.0	2.4
CO2	98.9	3.0			98.9	3.0			98.9	3.0	91.4	3.0	3.0	77.4	2.0	2.0	2.4
CO3	98.9	3.0	98.9	3.0	98.9	3.0			98.9	3.0	91.4	3.0	3.0	77.4	2.0	2.0	2.4
CO4			98.9	3.0	98.9	3.0			98.9	3.0	91.4	3.0	3.0	77.4	2.0	2.0	2.4
CO5			98.9	3.0	98.9	3.0			98.9	3.0	91.4	3.0	3.0	77.4	2.0	2.0	2.4

AVERAGE	AVERAGE
2	2.4

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.4		H 2.4					
CO2	H 2.4		H 2.4	H 2.4			H 2.4	
CO3	H 2.4		H 2.4	H 2.4	H 2.4		H 2.4	
CO4	H 2.4		H 2.4	H 2.4			H 2.4	
CO5	H 2.4		H 2.4	H 2.4				H 2.4
AVERAGE OF COS FOR POS	2.4		2.4	2.4	2.4		2.4	2.4
AVERAGE OF POS	2.4		2.4	2.4	2.4		2.4	2.4
AVERAGE	2.4							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	72.0	1.0	2.6	87.0	3.0	3.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.6	87.0	3.0	3.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8
CO5			100.0	3.0	100.0	3.0			100.0	3.0	72.0	1.0	2.5	87.0	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816

BSC (HONS)AGRICULTURE

SOIL, WATER, PLANT AND SEED TESTING

Course code: AG22510B

COURSE OUTCOMES:

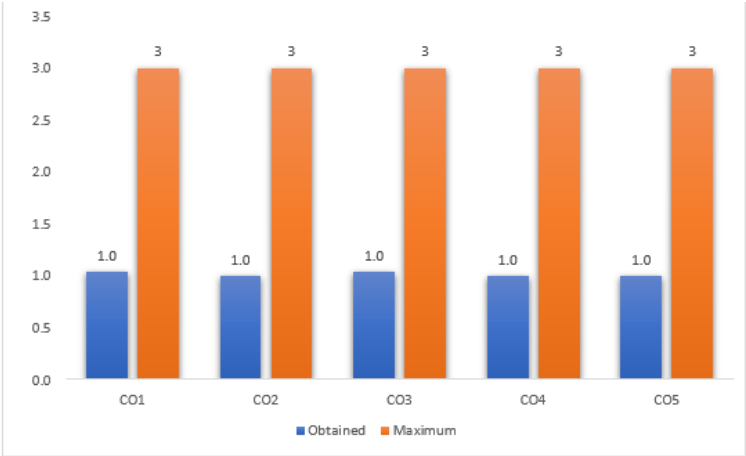
- Analyses chemical properties of soil and their importance on Plant growth

Analyses physical properties of soil and their importance on Plant growth

- Interprets analytical data of various chemical and physical properties of soils
- Demonstrates DRIS methods and its importance
- Explains significance of seed and its characters on crop productivity

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	92.3	3.0			98.1	3.0	98.1	3.0	98.1	3.0	67.3	1.0	2.6	61.5	0.0	0.0	1.0
CO2	92.3	3.0			98.1	3.0			98.1	3.0	67.3	1.0	2.5	61.5	0.0	0.0	1.0
CO3	92.3	3.0	96.2	3.0	98.1	3.0			98.1	3.0	67.3	1.0	2.6	61.5	0.0	0.0	1.0
CO4			96.2	3.0	98.1	3.0			98.1	3.0	67.3	1.0	2.5	61.5	0.0	0.0	1.0
CO5			96.2	3.0	98.1	3.0			98.1	3.0	67.3	1.0	2.5	61.5	0.0	0.0	1.0

AVERAGE	AVERAGE
0	1.016

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.04		H 1.04					
CO2	H 1		H 1	H 1			H 1	
CO3	H 1.04		H 1.04	H 1.04	H 1.04		H 1.04	
CO4	H 1		H 1	H 1			H 1	
CO5	H 1		H 1	H 1				H 1
AVERAGE OF COS FOR POS	1.016		1.016	1.01	1.04		1.013333333	1
AVERAGE OF POS	1.0112		1.0112	1.01	1.04		1.01333	1
AVERAGE	1.014288889							

Course outcome mapping

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: Principles of Seed Technology and IPR

COURSE CODE: AG19402

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Describes concepts of seed quality and genetic purity	**II (UNDERSTAND)**
CO2	Interpret the varietal and hybrid seed production techniques of various crops	**IV (ANALYSE)**
CO3	Generalize various techniques of hybrid seed production	**II (UNDERSTAND)**
CO4	Explains steps in seed processing and field inspection	**IV (ANALYSE)**

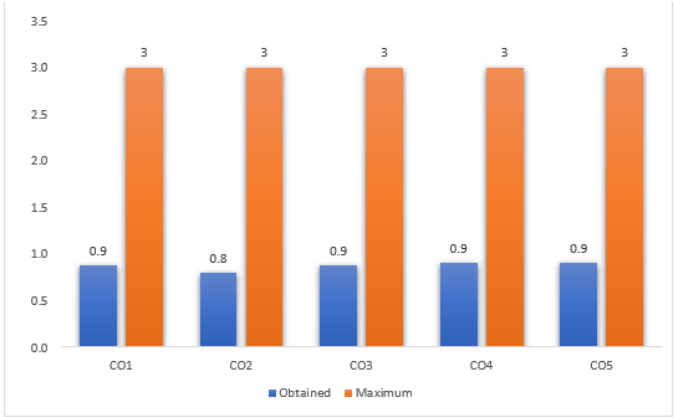
CO5	Judges IPRs and their relevance in seed industry	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.88		H 0.88					
CO2	H 0.8		H 0.8	H 0.8			H 0.8	
CO3	H 0.88		H 0.88	H 0.88	H 0.88		H 0.88	
CO4	H 0.9		H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9				H 0.9
AVERAGE OF COS FOR POS	0.872		0.872	0.87	0.88		0.86	0.9
AVERAGE OF POS	0.8704		0.8704	0.87	0.88		0.86	0.9
AVERAGE	0.875133333							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	84.8	2.0			100.0	3.0	100.0	3.0	100.0	3.0	57.6	0.0	2.2	55.4	0.0	0.0	0.9
CO2	84.8	2.0			100.0	3.0			100.0	3.0	57.6	0.0	2.0	55.4	0.0	0.0	0.8
CO3	84.8	2.0	97.8	3.0	100.0	3.0			100.0	3.0	57.6	0.0	2.2	55.4	0.0	0.0	0.9
CO4			97.8	3.0	100.0	3.0			100.0	3.0	57.6	0.0	2.3	55.4	0.0	0.0	0.9
CO5			97.8	3.0	100.0	3.0			100.0	3.0	57.6	0.0	2.3	55.4	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.872

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: COMMERCIAL PLANT BREEDING

COURSE CODE: AG205010B

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the types of reproduction and pollination	**II (UNDERSTAND)**
CO2	Analyze the advances in hybrid seed production of cereals	**IV (ANALYSE)**
CO3	Analyze the advances in hybrid seed production of oil seeds and pulses	**IV (ANALYSE)**
CO4	Appraise the alternate methods of developing a line	**II (UNDERSTAND)**

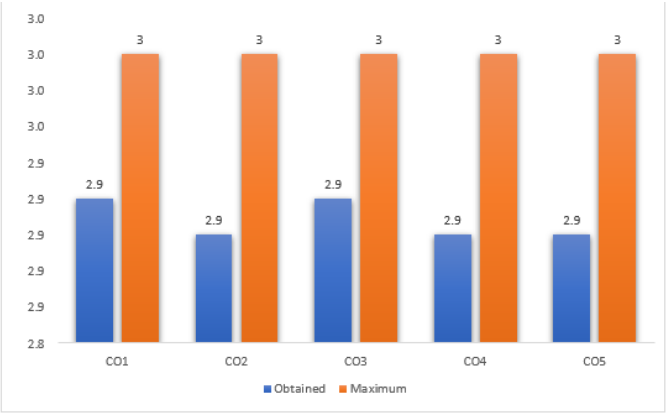
CO5	Understand the principles of seed quality	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92		H 2.92					
CO2	H 2.9		H 2.9	H 2.9			H 2.9	
CO3	H 2.92		H 2.92	H 2.92	H 2.92		H 2.92	
CO4	H 2.9		H 2.9	H 2.9			H 2.9	
CO5	H 2.9		H 2.9	H 2.9				H 2.9
AVERAGE OF COS FOR POS	2.908		2.908	2.905	2.92		2.906666667	2.9
AVERAGE OF POS	2.9056		2.9056	2.905	2.92		2.90667	2.9
AVERAGE	2.907144444							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	95.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	77.6	2.0	2.8	91.8	3.0	3.0	2.9
CO2	95.9	3.0			100.0	3.0			100.0	3.0	77.6	2.0	2.8	91.8	3.0	3.0	2.9
CO3	95.9	3.0	98.0	3.0	100.0	3.0			100.0	3.0	77.6	2.0	2.8	91.8	3.0	3.0	2.9
CO4			98.0	3.0	100.0	3.0			100.0	3.0	77.6	2.0	2.8	91.8	3.0	3.0	2.9
CO5			98.0	3.0	100.0	3.0			100.0	3.0	77.6	2.0	2.8	91.8	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FUNDAMENTALS OF PLANT BREEDING

COURSE CODE: AG19303

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	**Recognizes the benefits of plant breeding and crop genetic resources**	**II (UNDERSTAND)**
CO2	**Interpret the methods of breeding and to illustrate the methods**	**IV (ANALYSE)**
CO3	**Explain the importance of different breeding methods**	**II (UNDERSTAND)**
CO4	**Compare the methods of population improvement**	**IV (ANALYSE)**

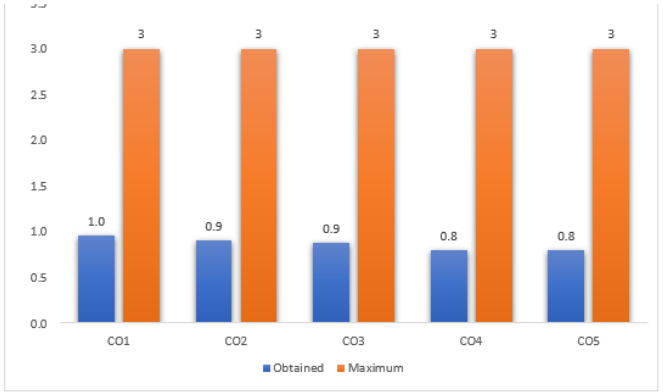
CO5	**Formulate special breeding methods**	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96					
CO2	H 0.9		H 0.9	H 0.9			H 0.9	
CO3	H 0.88		H 0.88	H 0.88	H 0.88		H 0.88	
CO4	H 0.8		H 0.8	H 0.8			H 0.8	
CO5	H 0.8		H 0.8	H 0.8				H 0.8
AVERAGE OF COS FOR POS	0.868		0.868	0.845	0.88		0.86	0.8
AVERAGE OF POS	0.8496		0.8496	0.845	0.88		0.86	0.8
AVERAGE	0.847366667							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	93.5	3.0			100.0	3.0	95.7	3.0	100.0	3.0	46.7	0.0	2.4	46.7	0.0	0.0	1.0
CO2	93.5	3.0			100.0	3.0			100.0	3.0	46.7	0.0	2.3	46.7	0.0	0.0	0.9
CO3	93.5	3.0	84.8	2.0	100.0	3.0			100.0	3.0	46.7	0.0	2.2	46.7	0.0	0.0	0.9
CO4			84.8	2.0	100.0	3.0			100.0	3.0	46.7	0.0	2.0	46.7	0.0	0.0	0.8
CO5			84.8	2.0	100.0	3.0			100.0	3.0	46.7	0.0	2.0	46.7	0.0	0.0	0.8

AVERAGE	AVERAGE
0	0.868

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: CROP IMPROVEMENT-1

COURSE CODE: AG20502

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the objectives of breeding in different crops	**II (UNDERSTAND)**
CO2	Explain various approaches of hybrid seed production technology of different crops	**IV (ANALYSE)**
CO3	Identify origin and progenitors of different crops	**II (UNDERSTAND)**
CO4	Apply breeding methods for introgression of biotic stress	**IV (ANALYSE)**

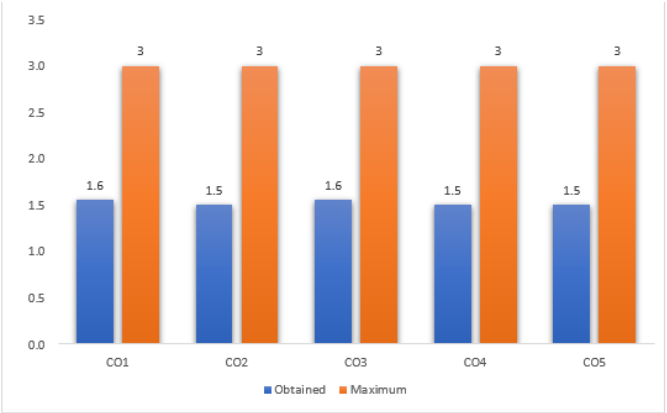
CO5	Apply breeding methods for introgression of abiotic stress	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.56		H 1.56					
CO2	H 1.5		H 1.5	H 1.5			H 1.5	
CO3	H 1.56		H 1.56	H 1.56	H 1.56		H 1.56	
CO4	H 1.5		H 1.5	H 1.5			H 1.5	
CO5	H 1.5		H 1.5	H 1.5				H 1.5
AVERAGE OF COS FOR POS	1.524		1.524	1.515	1.56		1.52	1.5
AVERAGE OF POS	1.5168		1.5168	1.515	1.56		1.52	1.5
AVERAGE	1.521433333							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	88.3	3.0			97.9	3.0	90.4	3.0	98.9	3.0	44.7	0.0	2.4	72.3	1.0	1.0	1.6
CO2	88.3	3.0			97.9	3.0			98.9	3.0	44.7	0.0	2.3	72.3	1.0	1.0	1.5
CO3	88.3	3.0	93.6	3.0	97.9	3.0			98.9	3.0	44.7	0.0	2.4	72.3	1.0	1.0	1.6
CO4			93.6	3.0	97.9	3.0			98.9	3.0	44.7	0.0	2.3	72.3	1.0	1.0	1.5
CO5			93.6	3.0	97.9	3.0			98.9	3.0	44.7	0.0	2.3	72.3	1.0	1.0	1.5

AVERAGE	AVERAGE
1	1.524

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: MICROPROPAGATION

COURSE CODE: AG21510A

CREDITS: **2**

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complexproblems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusionsusing first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science andtechnological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

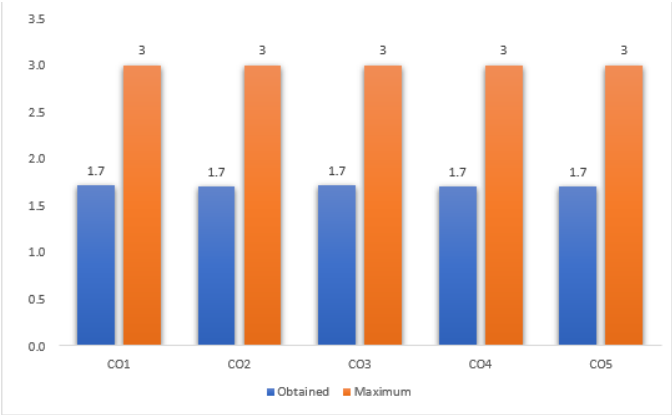
PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	**Recognizes the benefits of plant breeding and crop genetic resources Tissue culture techniques, micropropagation,**	**II (UNDERSTAND)**
CO2	**Interpret the methods of pollen culture, embryo culture, endosperm culture and illustrate the methods**	**IV (ANALYSE)**
CO3	**Explain the importance of artificial seed and synthetic seed production**	**II (UNDERSTAND)**
CO4	**Compare the methods of somatic hybridization.**	**IV (ANALYSE)**

CO5	**Formulate various methods of micropropagation**	**II (UNDERSTAND)**

Course outcomes	**Programme Outcomes**								**Program Specific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	86.4	3.0			100.0	3.0	100.0	3.0	100.0	3.0	79.5	2.0	2.8	75.0	1.0	1.0	1.7
CO2	86.4	3.0			100.0	3.0			100.0	3.0	79.5	2.0	2.8	75.0	1.0	1.0	1.7
CO3	86.4	3.0	97.7	3.0	100.0	3.0			100.0	3.0	79.5	2.0	2.8	75.0	1.0	1.0	1.7
CO4			97.7	3.0	100.0	3.0			100.0	3.0	79.5	2.0	2.8	75.0	1.0	1.0	1.7
CO5			97.7	3.0	100.0	3.0			100.0	3.0	79.5	2.0	2.8	75.0	1.0	1.0	1.7

AVERAGE	AVERAGE
1	1.708

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.72		H 1.72					
CO2	H 1.7		H 1.7	H 1.7			H 1.7	
CO3	H 1.72		H 1.72	H 1.72	H 1.72		H 1.72	
CO4	H 1.7		H 1.7	H 1.7			H 1.7	
CO5	H 1.7		H 1.7	H 1.7				H 1.7
AVERAGE OF COS FOR POS	1.708		1.708	1.705	1.72		1.706666667	1.7
AVERAGE OF POS	1.7056		1.7056	1.705	1.72		1.70667	1.7
AVERAGE	1.707144444							

PRODUCTION TECHNOLOGY OF FRUITS AND PLANTATION CROPS

Course Code: AG20506

COURSE OUTCOMES:

- Plan for laying out of orchard

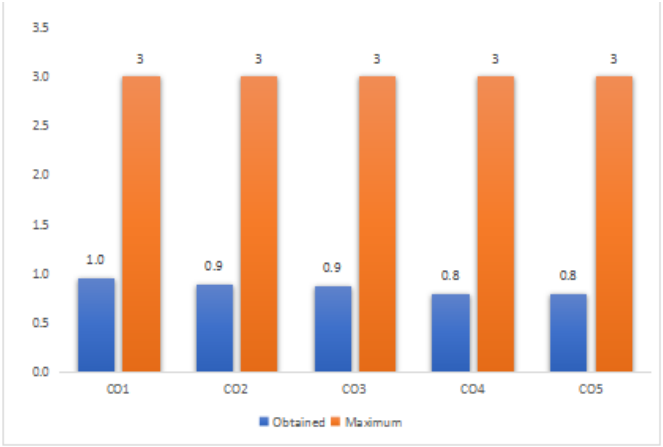
- Identify problems in raising of Mango, Banana, Sapota crops
- Demonstrate the methods of planting and regulating flowering and fruiting in citrus, Guava, Papaya and pineapple, to select suitable training and pruning methods for Grape, Pomegranate and Ber.
- Demonstrate Production and processing of plantation crops.

PROGRAMME OUTCOMES BSC Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering& Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3.Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6.Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H						H		H	
C02	H		H						H		H	
C03	H		H						H		H	
C04	H		H						H		H	
C05	H		H						H		H	

H: Highly Supportive
S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	86.7	3.0			100.0	3.0	92.2	3.0	95.6	3.0	61.1	0.0	2.4	43.3	0.0	0.0	1.0
CO2	86.7	3.0			100.0	3.0			95.6	3.0	61.1	0.0	2.3	43.3	0.0	0.0	0.9
CO3	86.7	3.0	78.9	2.0	100.0	3.0			95.6	3.0	61.1	0.0	2.2	43.3	0.0	0.0	0.9
CO4			78.9	2.0	100.0	3.0			95.6	3.0	61.1	0.0	2.0	43.3	0.0	0.0	0.8
CO5			78.9	2.0	100.0	3.0			95.6	3.0	61.1	0.0	2.0	43.3	0.0	0.0	0.8

AVERAGE	AVERAGE
0	0.868

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FARM POWER AND MACHINERY

COURSE CODE: AG 19306

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

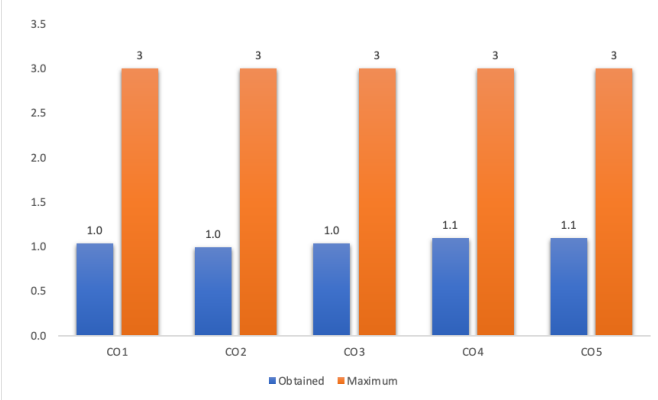
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Generalizes types of engines and solves problems related to mechanical power.	**III (APPLY)**
CO2	Explain fuel system, cooling system and solves problems on tractor power	**IV (ANALYSE)**
CO3	Differentiates types of ploughs and their parts	**VI (CREATIVE)**
CO4	Classify various harrows, cultivators and other implements	**III (APPLY)**
CO5	Sketches various fertilizer and seeding equipments	**III (APPLY)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**S**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**S**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**S**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.04		H 1.04					
CO2			H 1					
CO3	H 1.04		H 1.04					
CO4	H 1.1		H 1.1					
CO5	H 1.1							
AVERAGE OF COS FOR POS	1.07		1.045					
AVERAGE OF POS	1.0775		1.04625					
AVERAGE	1.061875							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	83.2	2.0			100.0	3.0	98.9	3.0	93.7	3.0	84.2	2.0	2.6	18.9	0.0	0.0	1.0
CO2	83.2	2.0			100.0	3.0			93.7	3.0	84.2	2.0	2.5	18.9	0.0	0.0	1.0
CO3	83.2	2.0	94.7	3.0	100.0	3.0			93.7	3.0	84.2	2.0	2.6	18.9	0.0	0.0	1.0
CO4			94.7	3.0	100.0	3.0			93.7	3.0	84.2	2.0	2.8	18.9	0.0	0.0	1.1
CO5			94.7	3.0	100.0	3.0			93.7	3.0	84.2	2.0	2.8	18.9	0.0	0.0	1.1

AVERAGE	AVERAGE
0	1.056

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96					
CO2	H 0.9		H 0.9					
CO3	H 0.88		H 0.88					
CO4	H 0.8		H 0.8					
CO5	H 0.8		H 0.8					
AVERAGE OF COS FOR POS	0.868		0.868					
AVERAGE OF POS	0.8496		0.8496					
AVERAGE	0.8496							

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: SOIL AND WATER CONSERVATION ENGINEERING

COURSE CODE: AG18206

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

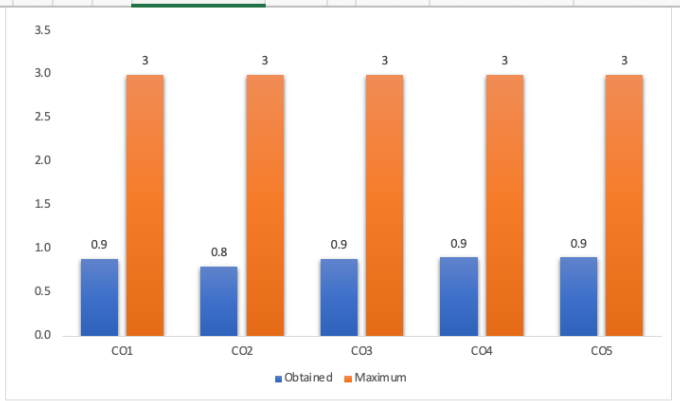
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Explain importance of soil and water conservation, water erosion	**II (UNDERSTAND)**
CO2	Explain erosion control measures	**IV (ANALYSE)**
CO3	Explain irrigation water measurement techniques	**VI (CREATIVE)**
CO4	Describe irrigation pumps and discharge calculation	**II (UNDERSTAND)**
CO5	Explain drip and sprinkler irrigation system	**II (APPLY)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**S**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**S**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.88		H 0.88					
CO2	H 0.8		H 0.8					
CO3	H 0.88		H 0.88					
CO4	H 0.9		H 0.9					
CO5	H 0.9		H 0.9					
AVERAGE OF COS FOR POS	0.872		0.872					
AVERAGE OF POS	0.8704		0.8704					
AVERAGE	0.8704							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	77.0	2.0			100.0	3.0	95.0	3.0	100.0	3.0	63.0	0.0	2.2	35.0	0.0	0.0	0.9
CO2	77.0	2.0			100.0	3.0			100.0	3.0	63.0	0.0	2.0	35.0	0.0	0.0	0.8
CO3	77.0	2.0	92.0	3.0	100.0	3.0			100.0	3.0	63.0	0.0	2.2	35.0	0.0	0.0	0.9
CO4			92.0	3.0	100.0	3.0			100.0	3.0	63.0	0.0	2.3	35.0	0.0	0.0	0.9
CO5			92.0	3.0	100.0	3.0			100.0	3.0	63.0	0.0	2.3	35.0	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.872

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: PROTECTED CULTIVATION AND SECONDARY AGRICULTURE

COURSE CODE: AG18604

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

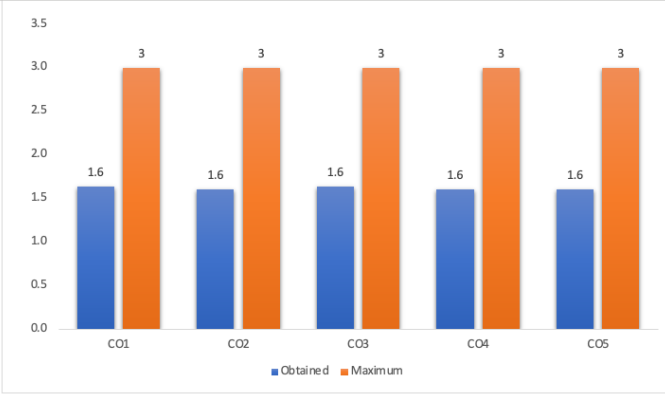
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Introduction to greenhouse technology and study of different types of greenhouses	**II (UNDERSTAND)**
CO2	Explain design criteria and constructional details of greenhouse.	**IV (ANALYSE)**
CO3	Explain environmental parameters to be controlled with-in greenhouse.	**IV (ANALYSE)**
CO4	Explain the cultivation of important horticultural crops, medicinal and aromatic plants.	**II (UNDERSTAND)**
CO5	Explain the attack of insect, pest and disease management factors in greenhouses.	**III (APPLY)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**S**		
3	**H**		**H**						**S**		**H**		
4	**H**		**H**						**H**		**S**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.64		H 1.64					
CO2	H 1.6		H 1.6					
CO3	H 1.64		H 1.64					
CO4	H 1.6		H 1.6					
CO5	H 1.6		H 1.6					
AVERAGE OF COS FOR POS	1.616		1.616					
AVERAGE OF POS	1.6112		1.6112					
AVERAGE	1.6112							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	94.4	3.0			100.0	3.0	100.0	3.0	86.5	3.0	67.4	1.0	2.6	67.4	1.0	1.0	1.6
CO2	94.4	3.0			100.0	3.0			86.5	3.0	67.4	1.0	2.5	67.4	1.0	1.0	1.6
CO3	94.4	3.0	98.9	3.0	100.0	3.0			86.5	3.0	67.4	1.0	2.6	67.4	1.0	1.0	1.6
CO4			98.9	3.0	100.0	3.0			86.5	3.0	67.4	1.0	2.5	67.4	1.0	1.0	1.6
CO5			98.9	3.0	100.0	3.0			86.5	3.0	67.4	1.0	2.5	67.4	1.0	1.0	1.6

AVERAGE	AVERAGE
1	1.616

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: RENEWABLE ENERGY AND GREEN TECHNOLOGY

COURSE CODE: AG20509

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

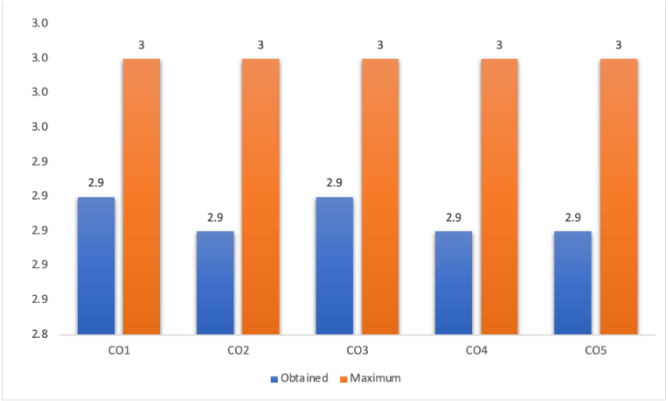
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Introduction to energy sources.	**II (UNDERSTAND)**
CO2	Explain different types of biogas plants, gasifiers, solar water and air heaters, solar cookers and solar dryers.	**IV (ANALYSE)**
CO3	Explain different parts and types of windmill.	**VI (CREATE)**
CO4	AExplain various practices of indigenous technology	**III (APPLY)**
CO5	Explain bio-diesel and ethanol production.	**III (APPLY)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92		H 2.92					
CO2	H 2.9		H 2.9					
CO3	H 2.92		H 2.92					
CO4	H 2.9		H 2.9					
CO5	H 2.9		H 2.9					
AVERAGE OF COS FOR POS	2.908		2.908					
AVERAGE OF POS	2.9056		2.9056					
AVERAGE	2.9056							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	88.9	3.0			100.0	3.0	94.4	3.0	100.0	3.0	81.1	2.0	2.8	86.7	3.0	3.0	2.9
CO2	88.9	3.0			100.0	3.0			100.0	3.0	81.1	2.0	2.8	86.7	3.0	3.0	2.9
CO3	88.9	3.0	97.8	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	86.7	3.0	3.0	2.9
CO4			97.8	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	86.7	3.0	3.0	2.9
CO5			97.8	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	86.7	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: METEOROLOGY&CLIMATE CHANGE

COURSE CODE: AG18201

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

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PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

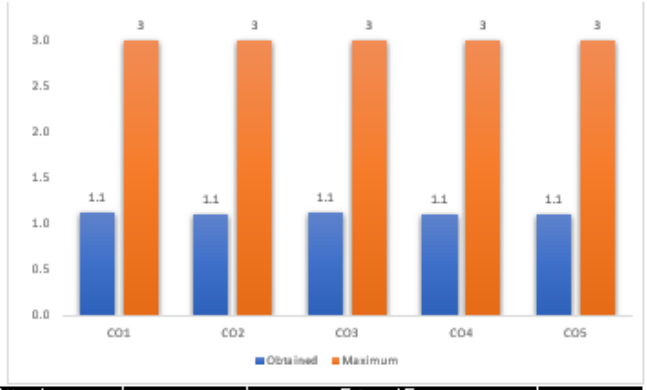
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the meteorology, climatology & agril meteorology, types of wind	**II (UNDERSTAND)**
CO2	Analyze the solar radiation, factors affecting distribution of solar radiation	**IV (ANALYSE)**
CO3	Analyze the precipitation and condensation and their different forms	**IV (ANALYSE)**
CO4	Appraise the characteristics of different clouds , southwest and northwest monsoons	**II (UNDERSTAND)**
CO5	Understand the weather hazards and categorize types of weather	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.12		H 1.12					
CO2	H 1.1		H 1.1	H 1.1			H 1.1	
CO3	H 1.12		H 1.12	H 1.12	H 1.12		H 1.12	
CO4	H 1.1		H 1.1	H 1.1			H 1.1	
CO5	H 1.1		H 1.1	H 1.1				H 1.1
AVERAGE OF COS FOR POS	1.108		1.108	1.105	1.12		1.106666667	1.1
AVERAGE OF POS	1.1056		1.1056	1.105	1.12		1.1067	1.1
AVERAGE	1.107144444							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	94.1	3.0			100.0	3.0	100.0	3.0	100.0	3.0	80.2	2.0	2.8	43.6	0.0	0.0	1.1
CO2	94.1	3.0			100.0	3.0			100.0	3.0	80.2	2.0	2.8	43.6	0.0	0.0	1.1
CO3	94.1	3.0	94.1	3.0	100.0	3.0			100.0	3.0	80.2	2.0	2.8	43.6	0.0	0.0	1.1
CO4			94.1	3.0	100.0	3.0			100.0	3.0	80.2	2.0	2.8	43.6	0.0	0.0	1.1
CO5			94.1	3.0	100.0	3.0			100.0	3.0	80.2	2.0	2.8	43.6	0.0	0.0	1.1

AVERAGE	AVERAGE
0	1.108

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: WEED SCIENCE AND THEIR MANAGEMENT

COURSE CODE: A G 2 0 5 1 0

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

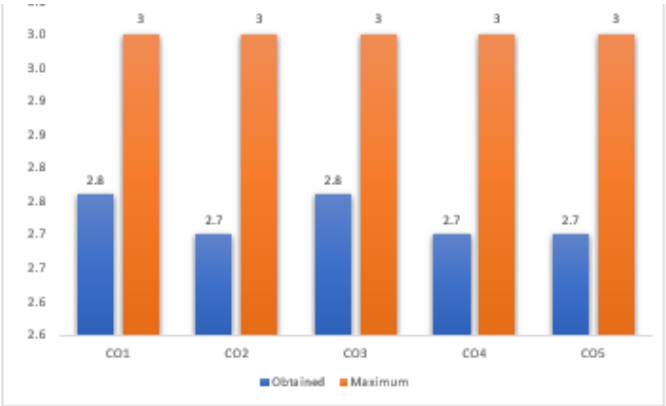
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the harmful and beneficial effects of weeds	**II (UNDERSTAND)**
CO2	Analyze the physical /mechanical ,cultural weed management practices	**IV (ANALYSE)**
CO3	Analyze the herbicide classification based on chemical nature-time and method of application	**IV (ANALYSE)**
CO4	Appraise the herbicide rotation , mixture and relevance in agriculture	**II (UNDERSTAND)**
CO5	Understand the new developments in herbicides-micro herbicides and nano herbicides	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76		H 2.76					
CO2	H 2.7		H 2.7	H 2.7			H 2.7	
CO3	H 2.76		H 2.76	H 2.76	H 2.76		H 2.76	
CO4	H 2.7		H 2.7	H 2.7			H 2.7	
CO5	H 2.7		H 2.7	H 2.7				H 2.7
AVERAGE OF COS FOR POS	2.724		2.724	2.715	2.76		2.72	2.7
AVERAGE OF POS	2.7168		2.7168	2.715	2.76		2.72	2.7
AVERAGE	2.721433333							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	87.2	3.0			100.0	3.0	94.9	3.0	100.0	3.0	59.0	0.0	2.4	97.4	3.0	3.0	2.8
CO2	87.2	3.0			100.0	3.0			100.0	3.0	59.0	0.0	2.3	97.4	3.0	3.0	2.7
CO3	87.2	3.0	100.0	3.0	100.0	3.0			100.0	3.0	59.0	0.0	2.4	97.4	3.0	3.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	59.0	0.0	2.3	97.4	3.0	3.0	2.7
CO5			100.0	3.0	100.0	3.0			100.0	3.0	59.0	0.0	2.3	97.4	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: W A T E R M A N A G E M E N T

COURSE CODE: AG19302

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

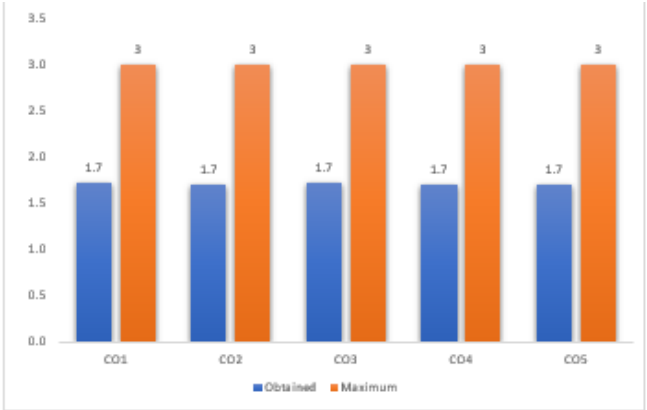
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the major, medium and minor irrigation projects	**II (UNDERSTAND)**
CO2	Analyze the problems on available soil moisture	**IV (ANALYSE)**
CO3	Analyze the net and gross irrigation requirements	**IV (ANALYSE)**
CO4	Appraise the different approaches of scheduling of irrigation	**II (UNDERSTAND)**
CO5	Understand the various micro irrigation methods and quality of water	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.72		H 1.72					
CO2	H 1.7		H 1.7	H 1.7			H 1.7	
CO3	H 1.72		H 1.72	H 1.72	H 1.72		H 1.72	
CO4	H 1.7		H 1.7	H 1.7			H 1.7	
CO5	H 1.7		H 1.7	H 1.7				H 1.7
AVERAGE OF COS FOR POS	1.708		1.708	1.705	1.72		1.706666667	1.7
AVERAGE OF POS	1.7056		1.7056	1.705	1.72		1.7067	1.7
AVERAGE	1.707144444							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	85.1	3.0			100.0	3.0	96.8	3.0	100.0	3.0	81.9	2.0	2.8	66.0	1.0	1.0	1.7
CO2	85.1	3.0			100.0	3.0			100.0	3.0	81.9	2.0	2.8	66.0	1.0	1.0	1.7
CO3	85.1	3.0	97.9	3.0	100.0	3.0			100.0	3.0	81.9	2.0	2.8	66.0	1.0	1.0	1.7
CO4			97.9	3.0	100.0	3.0			100.0	3.0	81.9	2.0	2.8	66.0	1.0	1.0	1.7
CO5			97.9	3.0	100.0	3.0			100.0	3.0	81.9	2.0	2.8	66.0	1.0	1.0	1.7

AVERAGE	AVERAGE
1	1.708

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: INTRODUCTION TO FORESTRY

COURSE CODE: A G 1 8 2 0 2

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

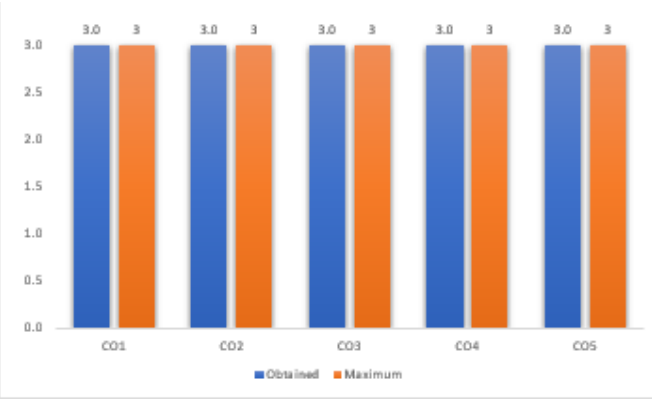
	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Understand the various branches of forestry, silviculture and its classification	**II (UNDERSTAND)**
CO2	Analyze the forest policies and types of regeneration	**IV (ANALYSE)**
CO3	Analyze the tending operations followed in forestry	**IV (ANALYSE)**
CO4	Appraise the importance of agro forestry in india	**II (UNDERSTAND)**
CO5	Understand the practices for raising subabul and eucalyptus	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**S**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**S**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 3		H 3					
CO2	H 3		H 3	H 3			H 3	
CO3	H 3		H 3	H 3	H 3		H 3	
CO4	H 3		H 3	H 3			H 3	
CO5	H 3		H 3	H 3				H 3
AVERAGE OF COS FOR POS	3		3	3	3		3	3
AVERAGE OF POS	3		3	3	3		3	3
AVERAGE	3							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	97.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO2	97.9	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO3	97.9	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	100.0	3.0	3.0	3.0

AVERAGE	AVERAGE
3	3

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSETITLE: MANAGEMENT OF BENEFICIAL INSECTS

COURSECODE:AG20603

CREDITS: 2

DEPARTMENT: B.Sc.(Hons.)AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOM and BBA) Or POs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage: create, select and apply appropriate techniques, resources, modern technology and ITtools to complex science and technological activities.

PO5.Environmentandsustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

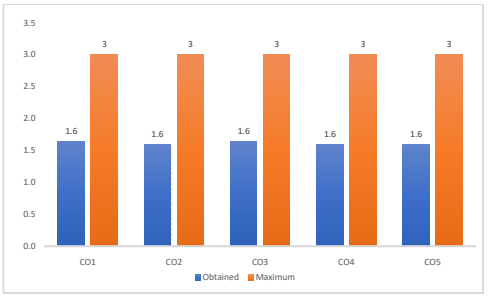
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explain importance of sericulture, Moriculture and grainage technology	**II (UNDERSTAND)**
CO2	Explain silkworm rearing types, rearing house, pests and disease management	**IV (ANALYSE)**
CO3	Explain post cocoon technology, types of reeling and importance of bee industry	**IV (ANALYSE)**
CO4	Explain honey bee rearing equipment, management and extraction of honey	**II (UNDERSTAND)**
CO5	Explain Lac culture, and important predators, parasitoids and pollinators develops ability to identify various insects	**II (UNDERSTAND)**

TABLE1: CO,PO,PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes			
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**
1	**H**		**H**						**H**		**H**	
2	**S**		**H**						**H**		**H**	
3	**H**		**H**						**H**		**H**	
4	**H**		**H**						**H**		**H**	
5	**H**		**H**						**H**		**S**	

H: Highly Supportive **S:Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.64		H 1.64					
CO2	H 1.60		H 1.60	H 1.60			H 1.60	
CO3	H 1.64		H 1.64	H 1.64	H 1.64		H 1.64	
CO4	H 1.60		H 1.60	H 1.60			H 1.60	
CO5	H 1.60		H 1.60	H 1.60				H 1.60
AVERAGE OF COS FOR POS	1.62		1.62	1.61	1.64		1.61	1.60
AVERAGE OF POS	1.61		1.61	1.61	1.64		1.61	1.60
AVERAGE	1.6143							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	97.8	3.0			98.9	3.0	100.0	3.0	100.0	3.0	73.0	1.0	2.6	70.8	1.0	1.0	1.6
CO2	97.8	3.0			98.9	3.0			100.0	3.0	73.0	1.0	2.5	70.8	1.0	1.0	1.6
CO3	97.8	3.0	100.0	3.0	98.9	3.0			100.0	3.0	73.0	1.0	2.6	70.8	1.0	1.0	1.6
CO4			100.0	3.0	98.9	3.0			100.0	3.0	73.0	1.0	2.5	70.8	1.0	1.0	1.6
CO5			100.0	3.0	98.9	3.0			100.0	3.0	73.0	1.0	2.5	70.8	1.0	1.0	1.6

AVERAGE	AVERAGE
1	1.616

COURSETITLE: INSECT ECOLOGY AND IPM

COURSECODE:AG20304

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.)AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOM and BBA)Or POs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage: create, select and apply appropriate techniques, resources, modern technology and ITtools to complex science and technological activities.

PO5.Environmentandsustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

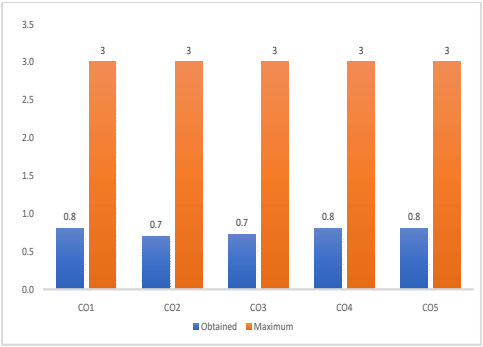
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Identify the importance of biotic and abiotic factors in the life of insects	**II (UNDERSTAND)**
CO2	Explain the concept of biological and chemical control	**IV (ANALYSE)**
CO3	Classify insecticides based on mode of action	**IV (ANALYSE)**
CO4	Describes the recent techniques of pest control	**II (UNDERSTAND)**
CO5	Explain other insect and non- insect pest control	**II (UNDERSTAND)**

TABLE1: CO,PO,PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2	PSO3	PSO4
1	H		H	S			S			S		H
2	H		H	H			S			H		H
3	H		H	H	H		S			H		H
4	H		H	H	S		S			H		S
5	H		H	H	S		H			H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.8		H 0.8					
CO2	H 0.7		H 0.7	H 0.7			H 0.7	
CO3	H 0.72		H 0.72	H 0.72	H 0.72		H 0.72	
CO4	H 0.8		H 0.8	H 0.8			H 0.8	
CO5	H 0.8		H 0.8	H 0.8				H 0.8
AVERAGE OF COS FOR POS	0.764		0.764	0.755	0.72		0.74	0.8
AVERAGE OF POS	0.7568		0.7568	0.755	0.72		0.74	0.8
AVERAGE	0.754766667							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	67.0	1.0			100.0	3.0	85.6	3.0	97.9	3.0	50.5	0.0	2.0	32.0	0.0	0.0	0.8
CO2	67.0	1.0			100.0	3.0			97.9	3.0	50.5	0.0	1.8	32.0	0.0	0.0	0.7
CO3	67.0	1.0	80.4	2.0	100.0	3.0			97.9	3.0	50.5	0.0	1.8	32.0	0.0	0.0	0.7
CO4			80.4	2.0	100.0	3.0			97.9	3.0	50.5	0.0	2.0	32.0	0.0	0.0	0.8
CO5			80.4	2.0	100.0	3.0			97.9	3.0	50.5	0.0	2.0	32.0	0.0	0.0	0.8

AVERAGE	AVERAGE
0	0.764

COURSETITLE: PRINCIPLES OF IPDM

COURSECODE:AG20505

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURALSCIENCE

PROGRAMME OUT COMES (BA/BSC/BCOM and BBA) Or POs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5.Environmentandsustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

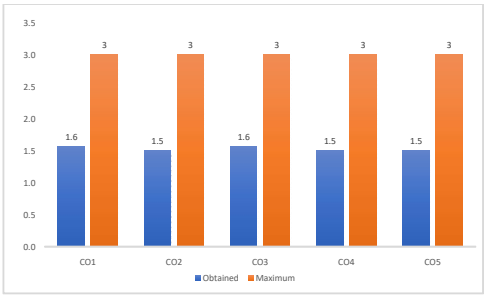
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explain introduction strategies and concepts of IPM with Examples	**II (UNDERSTAND)**
CO2	Explain host plant resistance and different cultural and mechanical control of IPM	**IV (ANALYSE)**
CO3	Explain other tools and limitations of IPM	**IV (ANALYSE)**
CO4	Explain different control methods of Integrated disease management	**II (UNDERSTAND)**
CO5	Explain different methods of disease forecasting and implementation of different IDM modules	**II (UNDERSTAND)**

TABLE1: CO,PO,PSOMAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2	PSO3	PSO4
1	H		H	S			S	S		S		H
2	H		H	H			H	S		H		H
3	H		H	H	H		H	S		H		H
4	H		H	H	S		H	S		H		S
5	H		H	H	S		S	H		H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.56		H 1.56					
CO2	H 1.50		H 1.50	H 1.50			H 1.50	
CO3	H 1.56		H 1.56	H 1.56	H 1.56		H 1.56	
CO4	H 1.50		H 1.50	H 1.50			H 1.50	
CO5	H 1.50		H 1.50	H 1.50				H 1.50
AVERAGE OF COS FOR POS	1.52		1.52	1.52	1.56		1.52	1.50
AVERAGE OF POS	1.52		1.52	1.515	1.56		1.52	1.50
AVERAGE	1.5214							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	89.2	3.0			100.0	3.0	95.7	3.0	96.8	3.0	55.9	0.0	2.4	72.0	1.0	1.0	1.6
CO2	89.2	3.0			100.0	3.0			96.8	3.0	55.9	0.0	2.3	72.0	1.0	1.0	1.5
CO3	89.2	3.0	94.6	3.0	100.0	3.0			96.8	3.0	55.9	0.0	2.4	72.0	1.0	1.0	1.6
CO4			94.6	3.0	100.0	3.0			96.8	3.0	55.9	0.0	2.3	72.0	1.0	1.0	1.5
CO5			94.6	3.0	100.0	3.0			96.8	3.0	55.9	0.0	2.3	72.0	1.0	1.0	1.5

AVERAGE	AVERAGE
1	1.524

COURSETITLE: PEST OF CROPS , STORED GRAINS AND THEIR MANGEMNT

COURSECODE:AG20507

CREDITS: 2

DEPARTMENT: B.Sc.(Hons.) AGRICULTURAL SCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOM and BBA) Or POs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex

problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5.Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

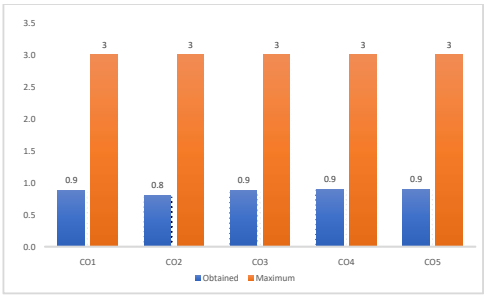
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explain identification marks, nature of damage, damaging symptoms and control measures of pest of cereal crops	**II (UNDERSTAND)**
CO2	Explain identification marks, nature of damage, damaging symptoms and control measures of pest of oil seed and fiber crops	**IV (ANALYSE)**
CO3	Explain identification marks, nature of damage, damaging symptoms and control measures of pest of fruit crops	**IV (ANALYSE)**
CO4	Explain identification marks, nature of damage, damaging symptoms and control measures of pest of vegetable crops	**II (UNDERSTAND)**
CO5	Explain identification marks, nature of damage, damaging symptoms and control measures of pest of flower crops and stored grain pests	**II (UNDERSTAND)**

TABLE1:CO,PO,PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2	PSO3	PSO4
1	H		H	S			S	S		S		H
2	H		H	H			H	S		H		H
3	H		H	H	H		H	S		H		H
4	H		H	H	S		H	S		H		S
5	H		H	H	S		S	H		H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.88		H 0.88					
CO2	H 0.80		H 0.80	H 0.80			H 0.80	
CO3	H 0.88		H 0.88	H 0.88	H 0.88		H 0.88	
CO4	H 0.90		H 0.90	H 0.90			H 0.90	
CO5	H 0.90		H 0.90	H 0.90				H 0.90
AVERAGE OF COS FOR POS	0.87		0.87	0.87	0.88		0.86	0.90
AVERAGE OF POS	0.87		0.87	0.87	0.88		0.86	0.90
AVERAGE	0.8751							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	82.8	2.0			100.0	3.0	94.6	3.0	96.8	3.0	59.1	0.0	2.2	16.1	0.0	0.0	0.9
CO2	82.8	2.0			100.0	3.0			96.8	3.0	59.1	0.0	2.0	16.1	0.0	0.0	0.8
CO3	82.8	2.0	94.6	3.0	100.0	3.0			96.8	3.0	59.1	0.0	2.2	16.1	0.0	0.0	0.9
CO4			94.6	3.0	100.0	3.0			96.8	3.0	59.1	0.0	2.3	16.1	0.0	0.0	0.9
CO5			94.6	3.0	100.0	3.0			96.8	3.0	59.1	0.0	2.3	16.1	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.872

COURSETITLE: FUNDAMENTALS OF ENTOMOLOGY

COURSECODE:AG18204

CREDITS: 3

DEPARTMENT: B.Sc.(Hons.) AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOM and BBA) Or POs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex

problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5.Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.

PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

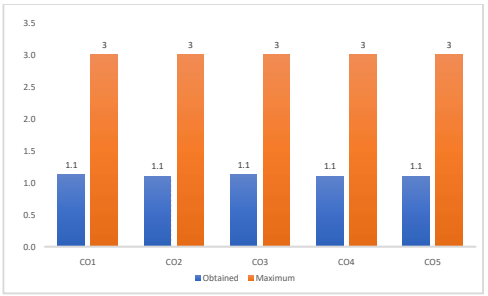
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explain the history, scope and importance of entomology and insect body wall and body segmentation	**II (UNDERSTAND)**
CO2	Identify and recognize various structures and functions of insect antenna, legs , wings and different types of larval and pupal forms of insect .	**IV (ANALYSE)**
CO3	Illustrate various physiological systems of insect body	**IV (ANALYSE)**
CO4	Describes the characteristics of insect belongs to the orders Orthoptera, Isoptera ,Thysanoptera, Lepidoptera and develops ability to identify various insects.	**II (UNDERSTAND)**
CO5	Identify the characters of insects belongs to the orders Coleoptera, Hymenoptera, Diptera, Hemiptera and develops ability to identify various insects.	**II (UNDERSTAND)**

TABLE1: CO,PO,PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2	PSO3	PSO4
1	H		H	S			S	S		S		H
2	H		H	H			H	S		H		H
3	H		H	H	H		H	S		H		H
4	H		H	H	S		H	S		H		S
5	H		H	H	S		S	H		H		H

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.12		H 1.12					
CO2	H 1.10		H 1.10	H 1.10			H 1.10	
CO3	H 1.12		H 1.12	H 1.12	H 1.12		H 1.12	
CO4	H 1.10		H 1.10	H 1.10			H 1.10	
CO5	H 1.10		H 1.10	H 1.10				H 1.10
AVERAGE OF COS FOR POS	1.11		1.11	1.11	1.12		1.11	1.10
AVERAGE OF POS	1.11		1.11	1.11	1.12		1.11	1.10
AVERAGE	1.1071							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	91.2	3.0			100.0	3.0	100.0	3.0	100.0	3.0	81.4	2.0	2.8	12.7	0.0	0.0	1.1
CO2	91.2	3.0			100.0	3.0			100.0	3.0	81.4	2.0	2.8	12.7	0.0	0.0	1.1
CO3	91.2	3.0	95.1	3.0	100.0	3.0			100.0	3.0	81.4	2.0	2.8	12.7	0.0	0.0	1.1
CO4			95.1	3.0	100.0	3.0			100.0	3.0	81.4	2.0	2.8	12.7	0.0	0.0	1.1
CO5			95.1	3.0	100.0	3.0			100.0	3.0	81.4	2.0	2.8	12.7	0.0	0.0	1.1

AVERAGE	AVERAGE
0	1.108

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: DISEASES OF FIELD CROPS, HORTICULTURAL CROPS-I AND THEIR MANAGEMENT

COURSE CODE: AG20504

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Identify different diseases of cereal crops and gain knowledge about their management	**II (UNDERSTAND)**
CO2	Identify different diseases of Sugarcane, Cotton, Tobacco, Castor, Groundnut and gain knowledge about their management	**IV (ANALYSE)**
CO3	Identify different diseases of oilseeds and gain knowledge about their management	**IV (ANALYSE)**
CO4	Identify different diseases of pulse crops and gain knowledge about their management	**II (UNDERSTAND)**

CO5	Identify different diseases of fruit crops and gain knowledge about their management	**II (UNDERSTAND)**

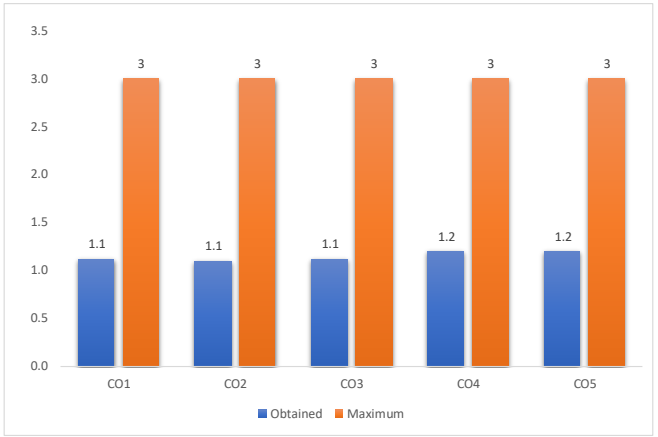
TABLE 1: CO, PO, PSO MAPPING

Course outcomes	**Programme Outcomes**								**Program Specific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		

5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.12		H 1.12					
CO2	H 1.1		H 1.1					
CO3	H 1.12		H 1.12					
CO4	H 1.2		H 1.2					
CO5	H 1.2		H 1.2					
AVERAGE OF COS FOR POS	1.148		1.148					
AVERAGE OF POS	1.1536		1.1536					
AVERAGE	1.1536							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	82.2	2.0			100.0	3.0	100.0	3.0	98.9	3.0	87.8	3.0	2.8	24.4	0.0	0.0	1.1
CO2	82.2	2.0			100.0	3.0			98.9	3.0	87.8	3.0	2.8	24.4	0.0	0.0	1.1
CO3	82.2	2.0	98.9	3.0	100.0	3.0			98.9	3.0	87.8	3.0	2.8	24.4	0.0	0.0	1.1
CO4			98.9	3.0	100.0	3.0			98.9	3.0	87.8	3.0	3.0	24.4	0.0	0.0	1.2
CO5			98.9	3.0	100.0	3.0			98.9	3.0	87.8	3.0	3.0	24.4	0.0	0.0	1.2

AVERAGE	AVERAGE
0	1.148

DEPARTMENT:	B.Sc. (Hons.) AGRICULTURAL SCIENCE

SUBJECT:	DISEASES OF FIELD CROPS, HORTICULTURAL CROPS-I AND THEIR MANAGEMENT

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H						H		H	
C02	H		H						H		H	
C03	H		H						H		H	
C04	H		H						H		H	
C05	H		H						H		H	

H: Highly Supportive
S: Supportive

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: DISEASES OF HORTICULTURAL CROPS-IIAND THEIR MANAGEMENT

COURSE CODE: AG20606

CREDITS: 2

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.

PO5. Environment and sustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Identify different diseases of Grapevine, Apple, Pomegranate, Crucifers, Cucurbits, Cucurbits and gain knowledge about their management	**II (UNDERSTAND)**
CO2	Identify different diseases of Brinjal, Chilli, Tomato, Bhendi and gain knowledge about their management	**IV (ANALYSE)**
CO3	Identify different diseases of Onion, Potato, Bean, Turmeric, Ginger and gain knowledge about their management	**IV (ANALYSE)**
CO4	Identify different diseases of Coconut, Tea, Rose, Marigold and gain knowledge about their management	**II (UNDERSTAND)**

CO5	Identify different diseases of Jasmine, Crossandra, Betelvine, Mulberry and gain knowledge about their management	**II (UNDERSTAND)**

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Program Specific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**H**		**H**		

H: Highly Supportive **S: Supportive**

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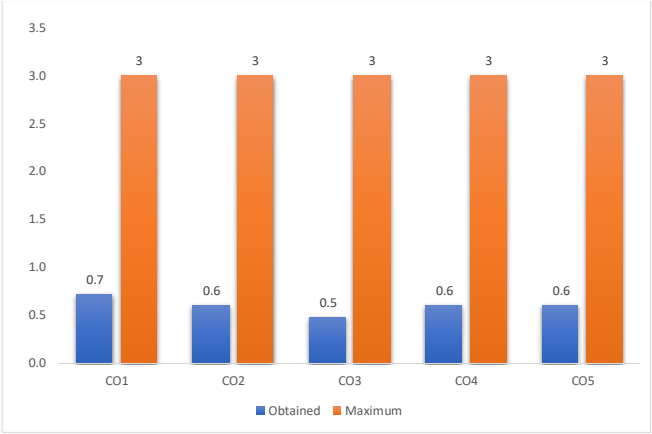


co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	0.0	0.0			100.0	3.0	100.0	3.0	100.0	3.0	4.5	0.0	1.8	16.9	0.0	0.0	0.7
CO2	0.0	0.0			100.0	3.0			100.0	3.0	4.5	0.0	1.5	16.9	0.0	0.0	0.6
CO3	0.0	0.0	0.0	0.0	100.0	3.0			100.0	3.0	4.5	0.0	1.2	16.9	0.0	0.0	0.5
CO4			0.0	0.0	100.0	3.0			100.0	3.0	4.5	0.0	1.5	16.9	0.0	0.0	0.6
CO5			0.0	0.0	100.0	3.0			100.0	3.0	4.5	0.0	1.5	16.9	0.0	0.0	0.6

AVERAGE	AVERAGE
0	0.6

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.72		H 0.72					
CO2	H 0.6		H 0.6	H 0.6			H 0.6	
CO3	H 0.48		H 0.48	H 0.48	H 0.48		H 0.48	
CO4	H 0.6		H 0.6	H 0.6			H 0.6	
CO5	H 0.6		H 0.6	H 0.6				H 0.6
AVERAGE OF COS FOR POS	0.6		0.6	0.57	0.48		0.56	0.6
AVERAGE OF POS	0.576		0.576	0.57	0.48		0.56	0.6
AVERAGE	0.560333333							

DEPARTMENT: B.Sc (Hons.) AGRICULTURAL SCIENCE

SUBJECT: DISEASES OF HORTICULTURAL CROPS-II & THEIR MANAGEMENT

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	H		H	H			H	S		H		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive
S: Supportive

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSETITLE: CROP PRODUCTION TECHNOLOGY -1 (Kharif crops)

COURSECODE:AG19301

CREDITS: 2

DEPARTMENT:B.Sc.(Hons.)AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOMandBBA)OrPOs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety , and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage:create, select and apply appropriate techniques,resources,modern technology and IT tools to complex science and technological activities.

PO5.Environmentandsustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explains various crop production techniques from sowing to harvest for Rice and wheat	**II (UNDERSTAND)**
CO2	Explains various crop production techniques from sowing to harvest for maize and sorghum	**II (UNDERSTAND)**
CO3	Explains various crop production techniques from sowing to harvest for pearl millet, Finger millet, foxtail millet, Kodo millet, proso millet, little millet	**IV (ANALYSE)**
CO4	Explains various crop production techniques from sowing to harvest for Red gram, Bengal gram, green gram, black gram, cowpea, horse gram	**IV (ANALYSE)**

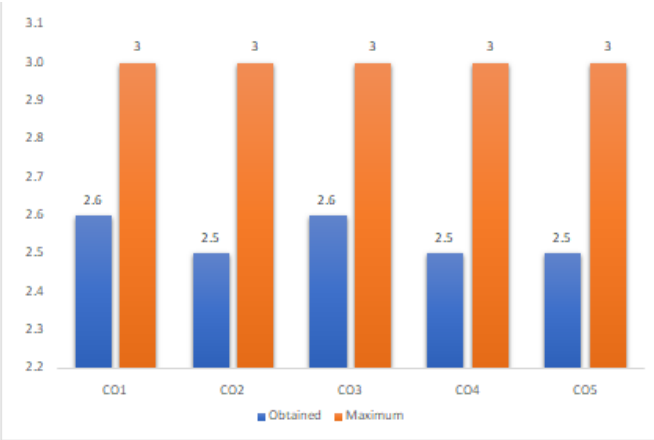
CO5	Explains various crop production techniques from sowing to harvest for different forage crops	**II (UNDERSTAND)**

TABLE1:CO,PO,PSOMAPPING

Courseo utcomes	**ProgrammeOutcomes**								**ProgramSpecific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**S**		**H**		

H:HighlySupportive **S:Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.6		H 2.6					
CO2	H 2.5		H 2.5					
CO3	H 2.6		H 2.6					
CO4	H 2.5		H 2.5					
CO5	H 2.5		H 2.5					
AVERAGE OF COS FOR POS	2.54		2.54					
AVERAGE OF POS	2.528		2.528					
AVERAGE	2.528							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	90.5	3.0			100.0	3.0	87.4	3.0	67.4	1.0	64.2	0.0	2.0	91.6	3.0	3.0	2.6
CO2	90.5	3.0			100.0	3.0			67.4	1.0	64.2	0.0	1.8	91.6	3.0	3.0	2.5
CO3	90.5	3.0	94.7	3.0	100.0	3.0			67.4	1.0	64.2	0.0	2.0	91.6	3.0	3.0	2.6
CO4			94.7	3.0	100.0	3.0			67.4	1.0	64.2	0.0	1.8	91.6	3.0	3.0	2.5
CO5			94.7	3.0	100.0	3.0			67.4	1.0	64.2	0.0	1.8	91.6	3.0	3.0	2.5

AVERAGE	AVERAGE
3	2.54

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSETITLE: CROP PRODUCTION TECHNOLOGY -2 (Rabi crops)

COURSECODE:AG19401

CREDITS: 2

DEPARTMENT:B.Sc.(Hons.)AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOMandBBA)OrPOs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety , and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

PO4.Moderntoolusage:create, select and apply appropriate techniques,resources,modern technology and IT tools to complex science and technological activities.

PO5.Environmentandsustainability: understand the impact of professional science and technological solutions in societal and environmental

context and for sustainable development

PO6. Individual and teamwork: function objectively as an individual and as a member in diverse teams

PO7. Communication: communicate effectively on complex science and technology activities with society at large and able to write effective reports on documentation.
PO8. Lifelong learning: recognise the need and ability to engage in independent and lifelong learning in then context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

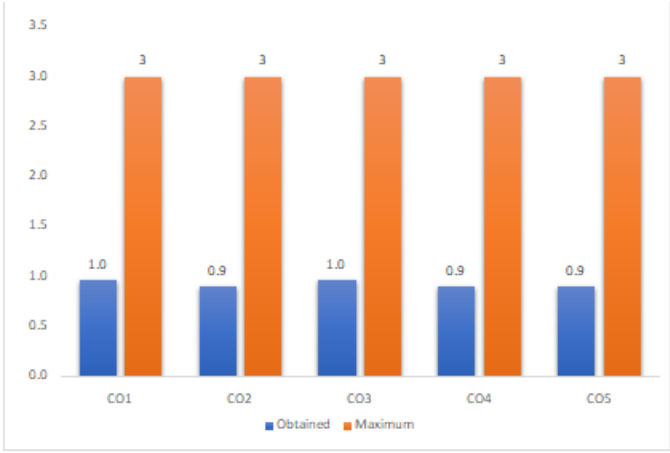
	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Explains various crop production techniques from sowing to harvest for various oil seeds	**II (UNDERSTAND)**
CO2	Explains various crop production techniques from sowing to harvest for various cereal crops	**II (UNDERSTAND)**
CO3	Explains various crop production techniques from sowing to harvest for various legume crops	**IV (ANALYSE)**
CO4	Explains various crop production techniques from sowing to harvest for fibre crops	**IV (ANALYSE)**
CO5	Explains various crop production techniques from sowing to harvest for commercial crops	**II (UNDERSTAND)**

TABLE1:CO,PO,PSOMAPPING

Courseo utcomes	ProgrammeOutcomes								ProgramSpecific outcomes				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**H**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**S**		**H**		

H:HighlySupportive **S:Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96		H 0.96					
CO2	H 0.9		H 0.9					
CO3	H 0.96		H 0.96					
CO4	H 0.9		H 0.9					
CO5	H 0.9		H 0.9					
AVERAGE OF COS FOR POS	0.924		0.924					
AVERAGE OF POS	0.9168		0.9168					
AVERAGE	0.9168							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	93.5	3.0			82.6	2.0	98.9	3.0	98.9	3.0	71.7	1.0	2.4	55.4	0.0	0.0	1.0
CO2	93.5	3.0			82.6	2.0			98.9	3.0	71.7	1.0	2.3	55.4	0.0	0.0	0.9
CO3	93.5	3.0	93.5	3.0	82.6	2.0			98.9	3.0	71.7	1.0	2.4	55.4	0.0	0.0	1.0
CO4			93.5	3.0	82.6	2.0			98.9	3.0	71.7	1.0	2.3	55.4	0.0	0.0	0.9
CO5			93.5	3.0	82.6	2.0			98.9	3.0	71.7	1.0	2.3	55.4	0.0	0.0	0.9

AVERAGE	AVERAGE
0	0.924

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSETITLE: FUNDAMENTALS OF AGRONOMY & AGRICULTURAL HERITAGE

COURSECODE:AG18101

CREDITS: 2

DEPARTMENT:B.Sc.(Hons.)AGRICULTURALSCIENCE

PROGRAMMEOUTCOMES(BA/BSC/BCOMandBBA)OrPOs:

PO1.Scientificknowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complex problems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety , and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusions using first principles of mathematics of natural sciences and engineering sciences

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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

PSO2. Knowledge on farm management economics, various agricultural extension methods and communication techniques to serve farming community and industries

PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSEOUTCOMES	**BLOOM'STAXONOMYLEVEL**
CO1	Classify agro climatic zones of India and Telangana, explain various methods of sowing and tillage.	**III (APPLY)**
CO2	List of various methods of weed control and irrigation	**VI (CREATE)**
CO3	Classify manures and fertilizers and explain plant ideotypes	**VI (CREATE)**
CO4	Explain various practices of indigenous technology	**III (APPLY)**

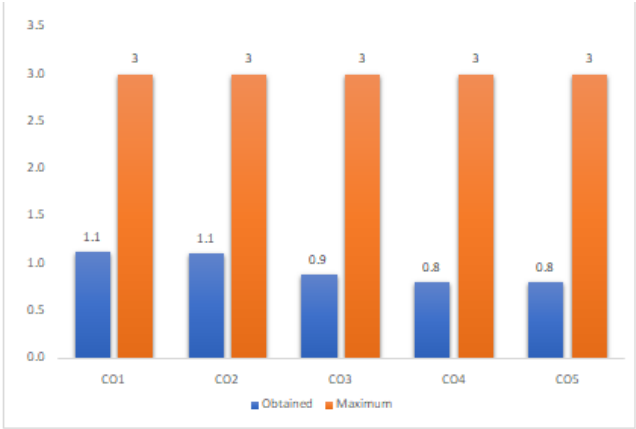
CO5	Describe agricultural heritage, different civilizations and history of agriculture development	**III (APPLY)**

TABLE1:CO,PO,PSOMAPPING

Courseo utcomes	**ProgrammeOutcomes**								**ProgramSpecific outcomes**				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**P08**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	
1	**H**		**H**						**H**		**H**		
2	**H**		**H**						**S**		**H**		
3	**H**		**H**						**H**		**H**		
4	**H**		**H**						**H**		**H**		
5	**H**		**H**						**S**		**H**		

H:HighlySupportive **S:Supportive**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.12		H 1.12					
CO2	H 1.1		H 1.1					
CO3	H 0.88		H 0.88					
CO4	H 0.8		H 0.8					
CO5	H 0.8		H 0.8					
AVERAGE OF COS FOR POS	0.94		0.94					
AVERAGE OF POS	0.904		0.904					
AVERAGE	0.904							



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	81.2	2.0	2.8	29.7	0.0	0.0	1.1
CO2	100.0	3.0			100.0	3.0			100.0	3.0	81.2	2.0	2.8	29.7	0.0	0.0	1.1
CO3	100.0	3.0	64.4	0.0	100.0	3.0			100.0	3.0	81.2	2.0	2.2	29.7	0.0	0.0	0.9
CO4			64.4	0.0	100.0	3.0			100.0	3.0	81.2	2.0	2.0	29.7	0.0	0.0	0.8
CO5			64.4	0.0	100.0	3.0			100.0	3.0	81.2	2.0	2.0	29.7	0.0	0.0	0.8

AVERAGE	AVERAGE
0	0.94

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: RAINFED AGRI AND WATERSHED MANAGEMENT

COURSE CODE: AG20501

CREDITS: 1

DEPARTMENT: B.Sc. (Hons.) AGRICULTURAL SCIENCE

PROGRAMME OUTCOMES (BA/BSC/BCOM and BBA) Or POs:

PO1. Scientific knowledge: Apply the knowledge of science, mathematics, engineering and technology, fundamentals to solve the complexproblems

PO2. Design/development of solutions: design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate considerations for the public health and safety, and the cultural, societal and environmental considerations

PO3. Problem analysis: identify, formulate, research literature and analyse complex scientific problems reaching substantiated conclusionsusing first principles of mathematics of natural sciences and engineering sciences

PO4. Modern tool usage: create, select and apply appropriate techniques, resources , modern technology and IT tools to complex science andtechnological activities.

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context and for sustainable development

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PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Knowledge on crop production and crop improvement techniques

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PSO3. TO develop scientific, technical and practical skills related to lab and field in various plant and animal related courses with critical thinking and strong ethical foundation

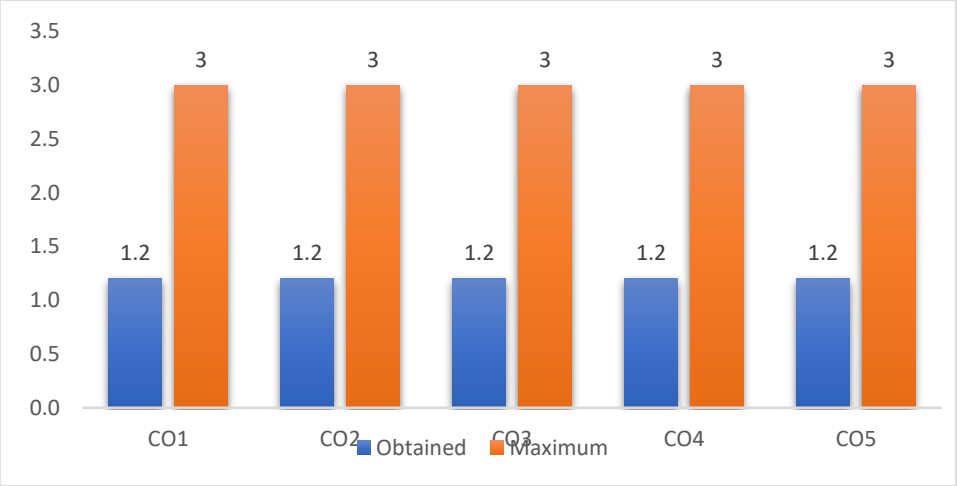
PSO4. Develops entrepreneurship qualities at various levels by taking apt decisions top enhance the success of an agricultural enterprise or an organisation.

	COURSE OUTCOMES	**BLOOM'S TAXONOMY LEVEL**
CO1	Describe watershed concepts and classify drought	**II Understanding**
CO2	Explain problems of crop production in drylands	**IV Analysing**
CO3	Explain fertilizer use in dry land agriculture and contigent crop planning	**I Remembering**
CO4	Explain water harvesting techniques and watershed management	**II Understanding**
CO5	Classify alternate land use systems	**I Remembering**

TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01	PS02	PS03	PS04
C01	H		H	S			S	S		S		H
C02	S		H	S			H	S		S		H
C03	H		H	H	H		H	S		H		H
C04	H		H	H	S		H	S		H		S
C05	H		H	H	S		S	H		H		H

H: Highly Supportive S: Supportive



co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendence			External Exam			
	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	pass %	Attainment level	co wise internal average	pass %	Attainment level	co wise external average	co wise total average
CO 1	93.3	3.0			98.9	3.0	97.8	3.0	100.0	3.0	100.0	3.0	3.0	50.0	0.0	0.0	1.2
CO 2	93.3	3.0			98.9	3.0			100.0	3.0	100.0	3.0	3.0	50.0	0.0	0.0	1.2
CO 3	93.3	3.0	97.8	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	50.0	0.0	0.0	1.2
CO 4			97.8	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	50.0	0.0	0.0	1.2
CO 5			97.8	3.0	98.9	3.0			100.0	3.0	100.0	3.0	3.0	50.0	0.0	0.0	1.2

AVERAGE	AVERAGE
0	1.2

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.2		H 1.2					
CO2			H 1.2				H 1.2	
CO3	H 1.2		H 1.2	H 1.2	H 1.2		H 1.2	
CO4	H 1.2		H 1.2	H 1.2			H 1.2	
CO5	H 1.2		H 1.2	H 1.2				H 1.2
AVERAGE OF COS FOR POS	1.2		1.2	1.2	1.2		1.2	1.2
AVERAGE OF POS	1.2		1.2	1.2	1.2		1.2	1.2
AVERAGE	1.2							