



(U/S 2(f) and 12B of the UGC Act 1956, NAAC Accredited)

DESH BHAGAT UNIVERSITY, MANDI GOBINDGARH

Faculty of Agriculture Science and Life Sciences

University School of Agriculture Science

B.Sc Agriculture Hons

Programme Outcomes (POs)

PO 1 Agriculture Knowledge: Apply the knowledge of horticulture, Agronomy, organic and sustainable agriculture, and integrating pest management to the solution of Agriculture related issues.

PO 2 Analysis of Complex Problems: To understand and analyze the current events and issues that are occurring in agriculture and how they affect futuristic agriculture. Able to demonstrate critical thinking and problem solving skills as they apply to a variety of animal and or plant production systems. To understand problem solving skills in crop production and animal husbandry.

PO 3 Modern Tool Usage: Select and apply advanced techniques, resources and IT tools for prediction weather. Knowledge of Weather codes and Symbols, Reading and Recording of weather and climatic data. To get trained for climatologically records, soil data and soil nutrition.

PO 4 The Agriculturist and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional Agricultural practice

PO 5 Environment and Sustainability: Understand the impact of the professional agricultural solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 6 Ethics: To demonstrate research based knowledge of the legal and ethical environment impacting agriculture organizations and exhibit an understanding and appreciation of the ethical implications of decisions. In accordance with high standards of academic integrity (ethics and moral) both in the profession and in society as a whole. To develop competence to work in Government, public and private sectors.

PO 7 Individual and Team Work: To demonstrate an ability to engage in critical thinking by analyzing situations and constructing and selecting viable solutions to solve problems. Abilities to work effectively with each other. To develops analytical ability and team work spirit.

PO 8 Communication: To demonstrate and understand the impact of globalization and diversity in modern agriculture organizations. Understanding working of SHG, NGO, Govt Extension service agencies. Communicate effectively with the farmer community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.

PO 9 Project Management and Finance: Demonstrate knowledge and understanding of Agriculture and Agri business management principles. Understand how all aspects of agriculture combine and are used by scientists, marketers, producers and understand how employer characteristics and decision-making at various levels enhance the success of an agricultural enterprise. To understand the components of agro business and the economics of the market.

PO 10 Entrepreneurship and Employability: Able to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions. To understand the mechanics of agriprenurship. This programme will also help students to enhance their employability for jobs in different sectors.

PO 11 Subject Specific Knowledge: Demonstrate knowledge and understanding in horticulture section: The breadth and depth of the profession of horticulture. Basic horticulture biology: taxonomy, anatomy, morphology, and physiology. The characteristics of the environment and their influence on plant growth and development, Current applications of horticultural principles and practices: propagation, pest management, production, maintenance, and business practices. Provide comprehensive knowledge of horticultural production.

PO 12 Life-Long Learning: To develop critical and self-critical opinion and approach aiming at solving the most important practical problems in the field of sustainable agriculture by applying gained competencies. The graduates will generate a culture of lifelong learning in an inclined environment to achieve personal enrichment and professional ethics.

Course Outcomes (CO)

Course Code : **BAGR - 101**
Title of the Course : **Principles of Agricultural Meteorology**

Course Outcomes:

CO1: The structure of atmosphere and weather elements like: radiation, temperature, air pressure, wind, humidity, condensation, precipitation, evaporation and evapo transpiration and use of Agro meteorological tools.

CO2: The impact of change in the weather on the crops and the livestock.

CO3: To study about the weather forecasting and its application in Agriculture.

CO4: To study about the Climate of Punjab and India and different Agro climatic zone of Punjab and India.

Course Code : **BAGR - 102**
Title of the Course : **Principles of Agricultural Meteorology Practical**

Course Outcomes:

CO1: The structure of atmosphere and weather elements like: radiation, temperature, air pressure, wind, humidity, condensation, precipitation, evaporation and evapo transpiration and use of Agro meteorological tools.

CO2: The impact of change in the weather on the crops and the livestock.

CO3: To study about the weather forecasting and its application in Agriculture.

CO4:To study about the Climate of Punjab and India and different Agro climatic zone of Punjab

Course Code : **BAGR-103**
Title of the Course : **Introduction to Soil Science**

Course Outcomes:

CO1: Knowledge about soil forming rocks and minerals, their weathering and soil forming processes and climatic factors affect them

CO2: To be able about physical and chemical properties of soil and their effect on plant's health.

CO3: To study about the soil temperature and thermal properties; soil air and gaseous exchange.

CO4: To Knowledge about soil Organisms and organic matter-composition, decomposition, mineralization and humus and its fractionation

Course Code : **BAGR - 104**
Title of the Course : **Introduction to Soil Science Practical**

Course Outcomes:

CO1: Knowledge about soil forming rocks and minerals, their weathering and soil forming processes and climatic factors affect them

CO2: To be able about physical and chemical properties of soil and their effect on plant's health.

CO3: To study about the soil temperature and thermal properties; soil air and

gaseous exchange.

CO4: To Knowledge about soil Organisms and organic matter-composition, decomposition, mineralization and humus and its fractionation

Course Code : **BAGR-105**

Title of the Course : **Introduction to Computer Application**

Course Outcomes:

CO1: Understand the different types of hardware and software

CO2: Understand how computers, computer networks, and the Internet work so as to better utilize them in their lives and to the improvement of society.

CO3: Understand computer history and how it can relate to the future of computing and society

Course Code : **BAGR - 106**

Title of the Course : **Introduction to Computer Application Practical**

Course Outcomes:

CO1: Understand the different types of hardware and software

CO2: Understand how computers, computer networks, and the Internet work so as to better utilize them in their lives and to the improvement of society.

CO3: Understand computer history and how it can relate to the future of computing and society

Course Code : **BAGR-107**

Title of the Course : **Environmental Science**

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of Agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the Agriculture development and civilization era and instill the belief that subject is important for Agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: To study about the natural resources: renewable and non-renewable resources, forest, water, food, energy and land resources.

CO2: To study about the conservation, global warming and role of forestry in environment protection.

CO3: To study about the effects and management of municipal solid waste and industrial wastes, nuclear hazards and disaster management.

CO4: To study about the Legal and Social issues; The Environment Protection Act 1986 and Rules, The Air Act, 1981 students will be able to identify plant vegetative structure

Course Code : **BAGR - 108**

Title of the Course : **Environmental Science Practical**

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of Agriculture.

Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the Agriculture development and civilization era and instill the belief

that subject is important for Agricultural technology development. Upon completion of this course, the student will be able to:

CO1: To study about the natural resources: renewable and non renewable resources, forest, water, food, energy and land resources.

CO2: To study about the conservation, global warming and role of forestry in environment protection.

CO3: To study about the effects and management of municipal solid waste and industrial wastes, nuclear hazards and disaster management.

CO4: To study about the Legal and Social issues; The Environment Protection Act 1986 and Rules, The Air Act, 1981 students will be able to identify plant vegetative structure

Course Code : BAGR-109
Title of the Course : Fundamentals of Rural Sociology and Educational Psychology

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of rural sociology in Agricultural extension. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the factors of social change, psychology and educational psychology.

Upon completion of this course, the student will be able to:

CO1: Students will be able to understand concept of rural sociology, its importance in Agricultural extension, characteristics of Indian rural society.

CO2: Students will be able to understand social groups, social stratification, culture, social values, social control and attitudes, leadership and training.

CO3: Students will be able to understand concept of educational psychology, intelligence, personality, perceptions, emotions, frustration, motivation, teaching and learning

CO4: Students will be able to acquaint with characteristics of rural society, village institutions and social organizations. Select lay leaders and train them.

Course Code : BAGR- 110
Title of the Course : Introduction to Statistical Methods

Course Outcomes:

After completion of course students will be able to:

CO1: Calculate measure of central tendency and understand its applications.

CO2: Understand the concept of probability and its applications.

CO3: Understand the concept of correlation, its types, various methods for computation and Applications.

Course Code : BAGR-111
Title of the Course : Elementary Mathematics

Course Outcomes:

After completion of course students will be able to:

CO1: Understand types and operations of Sets.

CO2: Apply rules of permutation and combination in real world problems.

CO3: Calculate sum of finite and infinite terms in AP and GP series.

CO4: Formulate and solve linear programming problems by graphical method.

Course Code : BAGR-111

Title of the Course : Introductory Biology

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate students about gaining knowledge about the Plant and animal kingdom, Structural Organisation in Animals and Plants, their cell Structure and Function

Upon completion of this course, the student will be able to:

CO1: Students will study about the classification of plants into major groups - Algae, Bryophytes, Pteridophytes, Gymnosperm and Angiosperm

CO2: Students will analyze about the anatomy of plants

CO3: Students will be able to study about the functions of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed

CO4: Students will study about the animal tissues, morphology, anatomy and functions of different systems

Course Code : BAGR- 112

Title of the Course : Introductory Agriculture

Course outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture development and civilization era and instill the belief that subject is important for agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: Students will understand the structure of atmosphere and weather elements like: radiation, temperature, air pressure, wind, humidity, condensation, precipitation, evaporation and evapotranspiration.

CO2: Students will analyze impact of change in the weather on the crops and the livestock.

CO.3 Students will be able to study about the weather forecasting and its application in Agriculture.

CO4: Students will study about the Climate of Punjab and India and different Agro climatic zone of Punjab and India.

Course Code : BAGR-113

Title of the Course : Communication Skills in English

Course outcomes:

To make the students realize the importance of good oral and written communication skills in professional life.

CO1: To help students to acquaint with application of communication, understand the concept, process and importance of communication skills in the professional world.

CO2: To develop students writing & speaking skills in a managerial context as well as sharpen their critical skills.

CO3: To foster peak team performance and enhance student's communications as well as personality so that they may come up as per the demand in the market.

Course Code : BAGR - 114
Title of the Course : Communication Skills in English Practical

Course outcomes:

To make the students realize the importance of good oral and written communication skills in professional life.

CO1: To help students to acquaint with application of communication, understand the concept, process and importance of communication skills in the professional world.

CO2: To develop students writing & speaking skills in a managerial context as well as sharpen their critical skills.

CO3: To foster peak team performance and enhance student's communications as well as personality so that they may come up as per the demand in the market.

Course Code : BAGR – 201
Title of the Course : Principles of Agronomy

Course Outcomes:

CO1: Study about the different methods of sowing the field crops

CO2: knowledge about Indian Agriculture and importance, present status, scope and future prospect.

CO3: Study about the different cropping and farming system

CO4: Cropping seasons of India. Soil formation, classification, physical, chemical properties. Identification of important crops and crop seeds

Course Code : BAGR - 202
Title of the Course : Principles of Agronomy Practical

Course Outcomes:

CO1: Study about the different methods of sowing the field crops

CO2: knowledge about Indian Agriculture and importance, present status, scope and future prospect.

CO3: Study about the different cropping and farming system

CO4: Cropping seasons of India. Soil formation, classification, physical, chemical properties. Identification of important crops and crop seeds

Course Code : BAGR-203
Title of the Course : Biochemistry

Course Outcomes:

The course aims to shape the attitudes of learners regarding to understand role of cell organelles their functions and utility in cell. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about identification of structure and functions of bases and application of plant tissue culture in crop improvement

CO1. Student will be able to understand role of cell organelles, their functions and utility in cell

CO2. Student will be able to synthesis pathways of glycolysis and gluconeogenesis

CO3. Student will be able to identify general functions of proteins and enzymes

CO4. Student will be able to identification of structure and functions of bases and

application of plant tissue culture in crop improvement

Course Code : BAGR - 204
Title of the Course : Biochemistry Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding to understand role of cell organelles their functions and utility in cell. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about identification of structure and functions of bases and application of plant tissue culture in crop improvement

CO1. Student will be able to understand role of cell organelles, their functions and utility in cell

CO2. Student will be able to synthesis pathways of glycolysis and gluconeogenesis

CO3. Student will be able to identify general functions of proteins and enzymes

CO4. Student will be able to identification of structure and functions of bases and application of plant tissue culture in crop improvement

Course Code : BAGR-205
Title of the Course : Insect Morphology and Systematic

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture development and civilization era and instill the belief that subject is important for agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: To study about the insect history and classification of the insects.

CO2: To understand about the body segmentation and function of insects

CO3: To understand the reproductive system of the insect

CO4.: To understand the different classes of insects.

Course Code : BAGR - 206
Title of the Course : Insect Morphology and Systematic Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture development and civilization era and instill the belief that subject is important for agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: To study about the insect history and classification of the insects.

CO2: To understand about the body segmentation and function of insects

CO3: To understand the reproductive system of the insect

CO4.: To understand the different classes of insects.

Course Code : BAGR-207
Title of the Course : Fundamentals of Genetics

Course Outcomes:

Upon completion of this course, the student will be able to:

CO1: Understand basic cell structure and its cycles along with mendelian inheritance available to study genetics

CO2: Understand the inheritance and mutation along with its characteristic features

CO3: Understand DNA, RNA and Protein synthesis

CO4: Understand Gene expressions and evolution of different crop species.

Course Code : BAGR - 208

Title of the Course : Insect Morphology and Systematic Practical

Course Outcomes:

Upon completion of this course, the student will be able to:

CO1: Understand basic cell structure and its cycles along with mendelian inheritance available to study genetics

CO2: Understand the inheritance and mutation along with its characteristic features

CO3: Understand DNA, RNA and Protein synthesis

CO4: Understand Gene expressions and evolution of different crop species.

Course Code : BAGR-209

Title of the Course : Livestock Production and Management

Course Outcome:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: Students will describe the historical development in Agriculture.

CO2: Students will understand how to manage the natural resources in a sustainable manner.

CO3: Students will understand and analyze health management and animal farm waste management.

CO4: Students will describe the nutritional requirement of animals, and how to best maintain animals health and demonstrate management practices

Course Code : BAGR - 210

Title of the Course : Livestock Production and Management Practical

Course Outcome:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: Students will describe the historical development in Agriculture.

CO2: Students will understand how to manage the natural resources in a sustainable manner.

CO3: Students will understand and analyze health management and animal farm waste management.

CO4: Students will describe the nutritional requirement of animals, and how to best maintain animals health and demonstrate management practices

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and

methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To study about the different types of diseases by microorganisms.

CO2: To study about the role of microorganism in Agriculture and crop production

CO3: To understand how the microorganism help in Agriculture production.

Course Code : BAGR - 212

Title of the Course : Elementary Microbiology Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To study about the different types of diseases by microorganisms.

CO2: To study about the role of microorganism in Agriculture and crop production

CO3: To understand how the microorganism help in Agriculture production.

Course Code : BAGR-213

Title of the Course : Soil profiling and Nutrient Management

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To be able about the soil fertility and beneficial nutrient elements.

CO2: To study about the soil testing, critical levels of nutrients in soil and plant

CO3: Students understand the significance of organic manures.

CO4: To develop an ability to make their manures themselves

Course Code : BAGR - 214

Title of the Course : Soil profiling and Nutrient Management Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To be able about the soil fertility and beneficial nutrient elements.

CO2: To study about the soil testing, critical levels of nutrients in soil and plant

CO3: Students understand the significance of organic manures.

Course Code : BAGR-215

Title of the Course : Principles of Agricultural and Production Economics

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To develop an ability to increase the yield of crop and decrease the cost of cultivation

CO2: To study about the preparation of farm plans and budgets

CO3: Implementation of different laws of economics in daily life.

CO4: Understand the basic concepts and issues of national income.

Course Code : BAGR-216

Title of the Course : Communication Skills and Comprehension

Course Outcome:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: Understand doing self introspection and self-vigilance

CO2: To develop students writing & speaking skills in a professional context as well as sharpen their critical skills.

CO3: To foster peak team performance and enhance student's communications as well as personality so that they may come up as per the demand in the market.

Course Code : BAGR-301

Title of the Course : Soil, Water Conservation Engineering and Irrigation Water Management

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To be able about the methods of irrigation, irrigation water quality and its management.

CO2: To study about the drainage and methods of drainage

CO3: Students understand the significance of leveling and plotting procedure

CO4: To develop an ability to irrigation strategies under limited water conditions

Course Code : BAGR - 302

Title of the Course : Soil, Water Conservation Engineering and Irrigation

Water Management Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To be able about the methods of irrigation, irrigation water quality and its management.



- CO2:** To study about the drainage and methods of drainage
CO3: Students understand the significance of leveling and plotting procedure
CO4: To develop an ability to irrigation strategies under limited water conditions

Course Code : BAGR-303
Title of the Course : Crop Production and Improvement Technology (Kharif Crops)

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: In the course study about origin, geographical distribution, and economic importance of Kharif crops

CO2: In the course study about Soil and climatic requirements, varieties, cultural practices and yield of Kharif crops.

CO3: Analysis of comparative benefits of the different Kharif crops

CO4: Constraints in production of oilseeds and pulses may be identified through course content.

Course Code : BAGR - 304
Title of the Course : Crop Production and Improvement Technology (Kharif Crops)
Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: In the course study about origin, geographical distribution, and economic importance of Kharif crops

CO2: In the course study about Soil and climatic requirements, varieties, cultural practices and yield of Kharif crops.

CO3: Analysis of comparative benefits of the different Kharif crops

CO4: Constraints in production of oilseeds and pulses may be identified through course content.

Course Code : BAGR-305
Title of the Course : Principles of Plant Breeding

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the

national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To study about the modes of reproduction and their classification

CO2: To study about the modes of pollination and hybridization

CO3: To study about the methods of handling of segregating generations

CO4: To study about the population improvement programme

Course Code : BAGR - 306

Title of the Course : Principles of Plant Breeding Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: To study about the modes of reproduction and their classification

CO2: To study about the modes of pollination and hybridization

CO3: To study about the methods of handling of segregating generations

CO4: To study about the population improvement programme

Course Code : BAGR-307

Title of the Course : Fundamentals of Horticulture

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: Students understand will Importance of vegetables & spices in human nutrition improved and national economy.

CO2: Students will understand practical knowledge on specialized production techniques of vegetables and spices

CO3: Students managing skills will be improved for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation

Course Code : BAGR - 308

Title of the Course : Fundamentals of Horticulture Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: Students understand will Importance of vegetables & spices in human nutrition improved

and national economy.

CO2: Students will understand practical knowledge on specialized production techniques of vegetables and spices

CO3: Students managing skills will be improved for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation

Course Code : BAGR– 309

Title of the Course : Plant Pathogens and Principles of Plant Pathology

Course Outcomes:

The course helps in gaining knowledge about important plant pathogenic organisms, objectives of plant pathology, phenomenon of infection, plant disease epidemiology; plant disease forecasting and remote sensing, General principles of plant diseases management and importance of integrated plant disease management

At the end of this course, students will be able to

CO1: Student will acquaint about concepts of plant pathogens, major disease causing organisms and their etiology

CO2 :To provide specific knowledge about host pathogen interactions.

CO3 :Recognition of plant disease is the first step in doing something about them.

CO4 : To give specific knowledge about environment and disease development

Course Code : BAGR - 310

Title of the Course : Plant Pathogens and Principles of Plant Pathology Practical

Course Outcomes:

The course helps in gaining knowledge about important plant pathogenic organisms, objectives of plant pathology, phenomenon of infection, plant disease epidemiology; plant disease forecasting and remote sensing, General principles of plant diseases management and importance of integrated plant disease management

At the end of this course, students will be able to

CO1: Student will acquaint about concepts of plant pathogens, major disease causing organisms and their etiology

CO2 :To provide specific knowledge about host pathogen interactions.

CO3 :Recognition of plant disease is the first step in doing something about them.

CO4 : To give specific knowledge about environment and disease development

Course Code : BAGR 311

Title of the Course : Agricultural Finance and Co-operation

Course Outcomes:

The course aims to shape the attitudes of learners regarding the importance of livestock in the national economy. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the different breeds of domestic animals, manage the farm and methods of feeding the animals.

Upon completion of this course, the student will be able to:

CO1: The Student will know about Agricultural finance their nature and scope.

CO2: Students should understand and gain knowledge about commercial banks like World Bank, Insurance and Credit

Guarantee Corporation of India and their working.

CO3: They will understand tools of financial management.

CO4: They should be able to estimate the credit needs and determine unit cost, prepare and analyze loan proposals and types of repayment loans.

Course Code : BAGR– 312

Title of the Course : Problematic Soil and their Management (Elective)

Course Outcomes:

CO1: To provide knowledge about waste land and problematic soils in India and management of the soils.

CO2: Knowledge of different reclamation and management practices for the development of the soils.

CO3: To Understand different factors responsible for saline , sodic and acidic soils and their

CO4: Irrigation water – quality and standards and sampling techniques

Course Code : BAGR - 313

Title of the Course : Problematic Soil and their Management Practical

Course Outcomes:

CO1: To provide knowledge about waste land and problematic soils in India and management of the soils.

CO2: Knowledge of different reclamation and management practices for the development of the soils.

CO3: To Understand different factors responsible for saline , sodic and acidic soils and their

CO4: Irrigation water – quality and standards and sampling techniques.

Course Code : BAGR 314

Title of the Course : Production Technology of Spices, Medicinal, Aromatic and Plantation Crops (Elective)

Course Outcomes:

CO1: Students understand will Importance of spices in human nutrition improved and national economy.

CO2: Students will understand practical knowledge on specialized production techniques of spices medicinal and aromatic crops

CO3: Students Managing skill for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation.

Course Code : BAGR - 315

Title of the Course : Production Technology of Spices, Medicinal, Aromatic and Plantation Crops Practical

Course Outcomes:

CO1: Students understand will Importance of spices in human nutrition improved and national economy.

CO2: Students will understand practical knowledge on specialized production techniques of spices medicinal and aromatic crops

CO3: Students Managing skill for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation.

Course Code : BAGR 401
Title of the Course : Weed Management

Course Outcomes:

CO1 : Students will be acquainted about why to undertake environmental weed control and their effect on the crop growth.

CO2: To develop the ability to control the weeds by different approaches of weedmanagement

CO3: To understand the about harmful and beneficial effects of weeds in Agriculture

CO4: Students will be acquainted planning for weed management and weed management processes

Course Code : BAGR - 402
Title of the Course : Weed Management Practical

Course Outcomes:

CO1 : Students will be acquainted about why to undertake environmental weed control and their effect on the crop growth.

CO2: To develop the ability to control the weeds by different approaches of weedmanagement

CO3: To understand the about harmful and beneficial effects of weeds in Agriculture

CO4: Students will be acquainted planning for weed management and weed management processes

Course Code : BAGR 403
Title of the course : Insect Ecology and Integrated Pest Management Including Beneficial Insects

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture insect ecology, pest surveillance and pest forecasting for agriculture crops, integrated Pest Management and beneficial insects parasites and predators used in pest control in agriculture.

CO1: Students will understand about the nature and habitat of insects

CO2:Students will understand the different categories of the insect and pest

CO3: Students will understand the IPM and its effect in Agriculture.

CO4: Students will able to study the different method of the reproduction of insect and pests.

Course Code : BAGR - 404
Title of the course : Insect Ecology and Integrated Pest Management Including Beneficial Insects Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture insect ecology, pest surveillance and pest forecasting for agriculture crops, integrated Pest Management and beneficial insects parasites and predators used in pest control in agriculture.

CO1: Students will understand about the nature and habitat of insects

CO2:Students will understand the different categories of the insect and

pest

CO3: Students will understand the IPM and its effect in Agriculture.

CO4: Students will be able to study the different methods of the reproduction of insects and pest.

Course Code : BAGR-405

Title of the Course : Agricultural Extension: Dimensions, Methodologies for

Transfer of Agricultural Technology

Course Outcomes:

The course aims to shape the attitudes of learners regarding the effects of communication such as to inform, to entertain, to aggravate and to persuade. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about an integral and important dimension of our culture's rational value orientation.

Upon completion of this course, the student will be able to:

CO1: Students will understand education; Extension Program planning Meaning, Process, Principles and Steps in program Development.

CO2: Students will have knowledge about extension systems in India: Extension efforts in Pre-independence era.

CO3: Students will understand new trends in Agriculture extension: privatization extension.

CO4: Students will be able to monitor and evaluate – concept and definition, monitoring, and evaluation of Extension program, transfer of technology- Concept and Models.

Course Code : BAGR - 406

Title of the Course : Agricultural Extension: Dimensions, Methodologies for Transfer of Agricultural Technology Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the effects of communication such as to inform, to entertain, to aggravate and to persuade. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about an integral and important dimension of our culture's rational value orientation.

Upon completion of this course, the student will be able to:

CO1: Students will understand education; Extension Program planning Meaning, Process, Principles and Steps in program Development.

CO2: Students will have knowledge about extension systems in India: Extension efforts in Pre-independence era.

CO3: Students will understand new trends in Agriculture extension: privatization extension.

CO4: Students will be able to monitor and evaluate – concept and definition, monitoring, and evaluation of Extension program, transfer of technology- Concept and Models.

Course Code : BAGR-407

Title of the Course : Breeding of Field Crops

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about

theagriculture breeding objectives and important concepts of breeding. To study about the development of hybrids/varieties of various crops and different laws of breeding.

Upon completion of this course, the student will be able to:

CO1: Students will understand the chief objective of plant breeding is to develop such improved varieties of crop plants that will be commercially successful.

CO2: Students will analyze Students understand the significance of hybrids.

CO3: Students will able to study about the significance of inheritance

CO4: Students will study about the major breeding procedures for development of hybrids/varieties of various crops.

Course Code : BAGR - 408
Title of the Course : Breeding of Field Crops Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture breeding objectives and important concepts of breeding. To study about the development of hybrids/varieties of various crops and different laws of breeding.

Upon completion of this course, the student will be able to:

CO1: Students will understand the chief objective of plant breeding is to develop such improved varieties of crop plants that will be commercially successful.

CO2: Students will analyze Students understand the significance of hybrids.

CO3: Students will able to study about the significance of inheritance

CO4: Students will study about the major breeding procedures for development of hybrids/varietiesof various crops

Course Code : BAGR 409
Title of the Course: Diseases of Field & Horticultural Crops and their Management

Course Outcomes:

CO1: Student will know importance of sign and symptoms for detection of pathogens and disease.

CO2: To develop the ability to get maximum output with optimum utilization of different methods of disease control.

CO3: To understand the use of chemicals in optimum method

CO4: Student acquire the knowledge about IDM modules of wheat, rice, groundnut, mustardChickpea etc. and the diseases of horticultural crops

Course Code : BAGR - 410
Title of the Course : Diseases of Field & Horticultural Crops and their Management

Practical

Course Outcomes:

CO1: Student will know importance of sign and symptoms for detection of pathogens and disease.

CO2: To develop the ability to get maximum output with optimum utilization of different methods of disease control.

CO3: To understand the use of chemicals in optimum method

CO4: Student acquire the knowledge about IDM modules of wheat, rice, groundnut, mustard Chickpea etc. and the diseases of horticultural crops.

Course Code : BAGR-411
Title of the Course : Crop Production and Improvement Technology (Rabi Crops)

Course Outcomes:

CO1: Students will understand the chief objective of plant breeding is to develop such improved varieties of crop plants that will be commercially successful.

CO2 : Students will study about the different sowing methods.

CO3 : Students will able to study about the Hybrid seed production technology of *rabi* crops.

Course Code : BAGR – 412

Title of the Course : Crop Production and Improvement Technology (Rabi Crops) Practical

Course Outcomes:

CO1: Students will understand the chief objective of plant breeding is to develop such improved varieties of crop plants that will be commercially successful.

CO2 : Students will study about the different sowing methods.

CO3 : Students will able to study about the Hybrid seed production technology of *rabi* crops.

Course Code : BAGR 413

Title of the Course : Agricultural Marketing, Trade and Prices

Course Outcomes:

CO1: To develop the ability for higher levels of income form the farm products by reducing the number of middlemen or by restricting the commission on marketing services

CO2: Students will understand Optimization of Resource use and Output Management

CO3: To understand the marketing system is essential for the success of the development programmes which are designed to uplift the population as a whole

CO4: To develop an ability to setup of Agro based industries and stimulates the overall development process of the economy

Course Code : BAGR-501

Title of the Course : Organic Farming, Farming System and Sustainable Agriculture

Course Outcomes:

CO1: The student will be able to explain the major aspects of Agricultural practices and traditions through time

CO 2: Students understand the significance of natural resources.

CO 3: Students understand the importance of organic farming.

CO4: Students will able to develop an ability to make their organic products themselves

Course Code : BAGR - 502

Title of the Course : Organic Farming, Farming System and Sustainable Agriculture Practical

Course Outcomes:

CO1: The student will be able to explain the major aspects of Agricultural practices and traditions through time

CO 2: Students understand the significance of natural resources.

CO 3: Students understand the importance of organic farming.

CO4: Students will be able to develop an ability to make their organic products themselves

Course Code : **BAGR– 503**
Title of the course : **Social and Farm Forestry**

Course Outcomes:

This course will help in understanding the importance of forestry and its maintenance. Students should know about different types of forests and their uses. They will be able to identify tree spp suitable for Agro forestry.

- CO1:** Management of social forestry plantations
- CO2:** A forestation on different problematic sites
- CO3:** Maintenance and conservation of village level forest

Course Code : **BAGR - 504**
Title of the Course : **Social and Farm Forestry Practical**

Course Outcomes:

This course will help in understanding the importance of forestry and its maintenance. Students should know about different types of forests and their uses. They will be able to identify tree spp suitable for Agro forestry.

- CO1:** Management of social forestry plantations
- CO2:** A forestation on different problematic sites
- CO3:** Maintenance and conservation of village level forest

Course Code : **BAGR-505**
Title of the Course : **Principles of Plant Biotechnology**

Course Outcomes:

- CO1:** Student will understand plant tissue culture and genetic engineering
- CO2:** Student will study importance of crop improvement
- CO3:** To study about the transgenic plant and their applications
- CO4:** Student will study synthetic seed production technology

Course Code : **BAGR - 506**
Title of the Course : **Principles of Plant Biotechnology Practical**

Course Outcomes:

- CO1:** Student will understand plant tissue culture and genetic engineering
- CO2:** Student will study importance of crop improvement
- CO3:** To study about the transgenic plant and their applications
- CO4:** Student will study synthetic seed production technology

Course Code : **BAGR- 507**
Title of the Course : **Protected Cultivation and Post- Harvest Technology & Management**

Course Outcomes:

To provide knowledge about importance of post-harvest techniques and equipments used for it to manage to increase shelf life of fruits and vegetables to maintain nutrition as well

At the end of this course student will be able to

- CO1:** To get knowledge about green -house technology, types of green houses and construction of green houses.

CO2: Course will give the knowledge of Green house equipments, materials of construction for traditional and low cost green houses.

CO3: This course will help the students to learn about Irrigation systems used in greenhouses, shade net house in protected cultivation.

CO4: By this course student get knowledge of post harvest operations like cleaning and grading, moisture measurement.

Course Code : BAGR - 508

Title of the Course : Protected Cultivation and Post- Harvest Technology & Management Practical

Course Outcomes:

To provide knowledge about importance of post-harvest techniques and equipment's used for it to manage to increase shelf life of fruits and vegetables to maintain nutrition as well
At the end of this course student will be able to

CO1: To get knowledge about green -house technology, types of green houses and construction of green houses.

CO2: Course will give the knowledge of Green house equipments, materials of construction for traditional and low cost green houses.

CO3: This course will help the students to learn about Irrigation systems used in greenhouses, shade net house in protected cultivation.

CO4: By this course student get knowledge of post harvest operations like cleaning and grading, moisture measurement.

Course Code : BAGR-509

Title of the Course : Crop and Stored Grain Pests and their Management

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate the students about gaining knowledge of the field as well as stored grain pests and methods of its management.

Upon completion of this course, the student will be able to:

CO1: Students will understand biology of insect and non insect pests of different field crops.

CO2: Students will able to identify the symptoms of damage of insects

CO3: Students will able to study about the different management practices

CO4: Students will study about the preventive and curative methods for the control of stored grain pests.

Course Code : BAGR - 510

Title of the Course : Crop and Stored Grain Pests and their Management Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate the students about gaining knowledge of the field as well as stored grain pests and methods of its management.

Upon completion of this course, the student will be able to:

CO1: Students will understand biology of insect and non insect pests of different field crops.

CO2: Students will able to identify the symptoms of damage of insects

CO3: Students will able to study about the different management practices

CO4: Students will study about the preventive and curative methods for the control of stored grain pests.

Course Code : BAGR - 511
Title of the Course : Practical Crop Production – Kharif Crops

Course Outcomes:

CO1: Students will able to study about the different methods of sowing the field crops

CO2: Students will able to know about cultivation of different field crops

CO3: Students will able to study about the different cropping and farming system

CO4: Students will able to learn about different harvesting methods.

Course Code : EDP 512
Title of the course : Entrepreneur Development I

Course Outcomes:

This course will expose the students to the importance and role of the entrepreneur in a market economy in general and agricultural sector in particular. They will gain basic. Knowledge and skills in project formulation, project report preparation and evaluation of projects which will enable them to appreciate the formal process for initiating an independent business

CO1: Effectively present business plan for a new initiative

CO2: Understand phases of entrepreneurial development Program

CO3: Comprehend the enabling environment &inspiring Agribusiness enterprises.

CO4: Understand the intricacies in preparing an effective BAGRI-business Plans

Course Code : BAGR-601
Title of the Course : Principles of Seed Technology

Course Outcomes

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the agriculture development and civilization era and instill the belief that subject is important for agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: Students understand the seed production, seed testing and the laws.

CO2: Understand regulations related to marketing high quality seed

CO3: Develop an understanding of seed development, germination and vigor.

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation

Course Code : BAGR - 602
Title of the Course : Principles of Seed Technology Practical

Course Outcomes

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate in students an intrinsic interest in gaining knowledge about the

agriculture development and civilization era and instill the belief that subject is important for agricultural technology development.

Upon completion of this course, the student will be able to:

CO1: Students understand the seed production, seed testing and the laws.

CO2: Understand regulations related to marketing high quality seed

CO3: Develop an understanding of seed development, germination and vigor.

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation

Course Code : **BAGR 603**
Title of the Course : **Farm Power Machinery**

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate students about gaining knowledge about the agricultural implements and renewable sources which are used in agriculture sector for various purposes.

Upon completion of this course, the student will be able to:

CO1 : Students will study about the various sources of farm power and their uses

CO2 : Students will understand about working of IC Engines and their uses in modern equipments

CO3: Students will be able to study about bio fuel production and their applications in today's world

CO4: Students will study about various parts of tractors and their mechanism

Course Code : **BAGR - 604**
Title of the Course : **Farm Power Machinery Practical**

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate students about gaining knowledge about the agricultural implements and renewable sources which are used in agriculture sector for various purposes.

Upon completion of this course, the student will be able to:

CO1 : Students will study about the various sources of farm power and their uses

CO2: Students will understand about working of IC Engines and their uses in modern equipments

CO3: Students will be able to study about bio fuel production and their applications in today's world

CO4: Students will study about various parts of tractors and their mechanism

Course Code : **BAGR– 605**
Title of the Course : **Ornamental Horticulture and Landscaping**

Course Outcomes:

This course will help in understanding the importance of Floriculture in Punjab and India. Students study about the different ornamental plants, their identification, special uses and full cultivation practices.

At the end of this course student will be able to

CO1: Start their own business for floriculture, Landscaping

CO2: Students able to propagate different flowers from vegetative parts of plant

CO3: Students learn about principles of gardening and landscaping

Course Code : BAGR - 606

Title of the Course : Ornamental Horticulture and Landscaping Practical

Course Outcomes:

This course will help in understanding the importance of Floriculture in Punjab and India. Students study about the different ornamental plants, their identification, special uses and fullcultivation practices.

At the end of this course student will be able to

CO1: Start their own business for floriculture, Landscaping

CO2: Students able to propagate different flowers from vegetative parts of plant

CO3: Students learn about principles of gardening and landscaping

Course Code : BAGR 607

Title of the Course : Manures, Fertilizers and Soil Fertility Management

Course Outcomes:

The course helps in gaining knowledge about important fertilizers which were used in different crops, Students will able to identify, uses and nutrient composition of different manures and fertilizers.

At the end of this course, students will be able to

CO1:Students will able to identify manures and fertilizers with classification

CO2 :Students will able to know nutrient uptake phenomenon of plants

CO3 :Recognition of plant nutrient deficiency symptoms and application of nutrient

CO4: Students will familiar with chemicals used in Agriculture.

Course Code : BAGR - 608

Title of the Course : Manures, Fertilizers and soil fertility management Practical

Course Outcomes:

The course helps in gaining knowledge about important fertilizers which were used in different crops, Students will able to identify, uses and nutrient composition of different manures and fertilizers.

At the end of this course, students will be able to

CO1:Students will able to identify manures and fertilizers with classification

CO2 :Students will able to know nutrient uptake phenomenon of plants

CO3 :Recognition of plant nutrient deficiency symptoms and application of nutrient

CO4: Students will familiar with chemicals used in Agriculture.

Course Code : BAGR-609

Title of the Course : Fundamentals of Agribusiness Management

Course Outcomes:

CO1: Students will study about the Agribusiness and relation to different Agriculture branches.

CO2: Students will able to understand how to make balance sheet and its importance.

CO3:Students will understand the Agro based industry and marketing of this industry product.

CO4:Students will explain the importance of marketing and management in agri businessesventure.

Course Code : BAGR-610
Title of the Course : Practical Crop Production (Rabi Crops)

Course Outcomes:

CO1: Students will able to study about the different methods of sowing the field crops

CO2: Students will able to know about cultivation of different field crops

CO3: Students will able to study about the different cropping and farming system

CO4: Students will able to learn about different harvesting methods.

Course Code : BAGR-611
Title of the Course : Crop Production Practical (Vegetable Crops)

Course Outcomes:

CO1: Students will able to study about the different methods of sowing the vegetable crops

CO2: Students will able to know about cultivation of different vegetable crops

CO3: Students will able to study about the different cropping and farming system

CO4: Students will able to learn about different harvesting methods.

Course Code : EDP 613
Title of the Course : Entrepreneurship Development II

Course Outcomes:

This course will expose the students to the importance and role of the entrepreneur in a market economy in general and agricultural sector in particular. They will gain basic. Knowledge and skills in project formulation, project report preparation and evaluation of projects which will enable them to appreciate the formal process for initiating an independent business

CO1: Effectively present business plan for a new initiative

CO2: Understand how entrepreneurial skills can foster their career and personal development

CO3: Comprehend the enabling environment & institutional support for agriprenurship.

Course Code : BAGR-801
Title of the Course : IPR, Food Safety and Standard

Course Outcomes:

CO1: Critically evaluates information on food science and nutrition issues appearing in the popular press.

CO2: Discuss the important pathogen and spoilage microorganism in foods.

CO3: Discuss basic principles and practices of cleaning and sanitation in food preparation operation.

CO4: Identity and explain nutrients in foods and the specific functions in maintaining health.

Course Code : BAGR-802
Title of the Course : IPR, Food Safety and Standard Practical



Course Outcomes:

CO1: Critically evaluates information on food science and nutrition issues appearing in the popular press.

CO2: Discuss the important pathogen and spoilage microorganism in foods.

CO3: Discuss basic principles and practices of cleaning and sanitation in food preparation operation.

CO4: Identify and explain nutrients in foods and the specific functions in maintaining health.

Course Code : BAGR– 803

Title of the Course : Rainfed Agriculture

Course Outcomes:

CO1: Student will know importance of rainfall water. It can be used for a larger area by suitable watershed management techniques

CO2: To develop the ability to get maximum output with optimum utilization of different methods of moisture conservation.

CO3: To understand the problems of crop production in rainfed farming

CO4: Student acquires the knowledge about critical stages of life saving irrigations.

Course Code : BAGR-804

Title of the Course : Rainfed Agriculture Practical

Course Outcomes:

CO1: Student will know importance of rainfall water. It can be used for a larger area by suitable watershed management techniques

CO2: To develop the ability to get maximum output with optimum utilization of different methods of moisture conservation.

CO3: To understand the problems of crop production in rainfed farming

CO4: Student acquires the knowledge about critical stages of life saving irrigations.

Course Code : BAGR 805

Title of the Course : Renewable Energy

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate students about gaining knowledge about the agricultural implements and renewable sources which are used in the agriculture sector for various purposes.

Upon completion of this course, the student will be able to:

CO1: Students will study about the various sources of farm power and their uses

CO2: Students will understand about working of IC Engines and their uses in modern equipments

CO3: Students will be able to study about bio fuel production and their applications in today's world

CO4: Students will study about various parts of tractors and their mechanism

Course Code : BAGR 806

Title of the Course : Renewable Energy Practical

Course Outcomes:

The course aims to shape the attitudes of learners regarding the field of agriculture. Specifically, the course aims to motivate students about gaining knowledge about the agricultural implements

and renewable sources which are used in agriculture sector for various purposes. Upon completion of this course, the student will be able to:

CO1: Students will study about the various sources of farm power and their uses

CO2: Students will understand about working of IC Engines and their uses in modern equipments

CO3: Students will be able to study about bio fuel production and their applications in today's world

CO4 : Students will study about various parts of tractors and their mechanism

Course Code : BAGR-807

Title of the Course : Production Technology of Fruit Crops Course Outcomes:

CO1: Students understand will Importance of fruits in human nutrition improved and nationaleconomy.

CO2: Students will understand practical knowledge on specialized production techniques of fruits

CO3: Students Managing skill for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation.

Course Code : BAGR 808

Title of the Course : Production Technology of Fruit Crops Practical Course Outcomes:

CO1: Students understand will Importance of fruits in human nutrition improved and nationaleconomy.

CO2: Students will understand practical knowledge on specialized production techniques of fruits

CO3: Students Managing skill for solving field problems

CO4: To develop an ability to increase the yield of crop and decrease the cost of cultivation.

Specialization

M.Sc. in following areas

1. Agronomy
2. Horticulture
3. Plant Breeding and Genetics
4. Seed Science
5. Crop-Physiology
6. Plant Pathology
7. Plant Protection
8. Soil Science
9. Entomology
10. Extension Education
11. Agriculture Biotechnology
12. Agriculture Engineering

13. Agriculture Economics
14. Forestry
15. Animal Husbandry
16. Environmental Sciences
17. Food Science and Technology
18. Land and Water Management
19. Agricultural Chemistry
20. Agricultural Microbiology
21. Home Science