



Programme Outcomes, Programme Specific Outcomes and  
Course Outcomes of all Academic Programmes offered at  
RKMVERI – FAR

## **Programme Name: B.Sc. (Hons.) Agriculture**

### **Programme Outcome:**

1. To impart firsthand knowledge on agriculture and allied sciences
2. To impart in-depth practical knowledge in agriculture and allied sciences
3. To provide extensive knowledge on agri-allied sectors like livestock, Poultry
4. To disseminate different technologies through various extension activities
5. To identify and overcome the problems encountered in day-to-day agriculture
6. To provide knowledge on commercial agricultural production practices
7. To make students competitive in pursuing higher studies

### **Programme Specific Outcome:**

1. To provide knowledge from ancient to modern agricultural practices
2. To impart in-depth practical knowledge in crop cultivation practices
3. To give detailed knowledge about agri-allied sectors
4. To provide knowledge on working of different farm implements
5. To serve the rural agricultural population
6. To disseminate recent agricultural technologies through extension.
7. Detailed knowledge on various agri-business activities
8. Detailed knowledge on horticulture and sericulture practices

**Course Outcome:**

<b>Semester - I</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcomes</b>
VU AGR 101	Fundamentals of Agronomy and Agricultural Heritage	<ul style="list-style-type: none"> <li>❖ To know the basics of the agriculture, tillage and evolution of agriculture from different periods from veda to modern agriculture.</li> </ul>
VU BIC 101	Fundamentals of Plant Biochemistry	<ul style="list-style-type: none"> <li>❖ To gain basic knowledge of the biomolecules viz., carbohydrates, proteins and lipids – their properties, structure and metabolism.</li> <li>❖ To learn basics of enzymes and their industrial uses.</li> </ul>
VU SAC 101	Fundamentals of Soil Science	<ul style="list-style-type: none"> <li>❖ To impart knowledge on concepts and principles of analytical techniques in soil science among under graduate students.</li> <li>❖ Further, the knowledge gained will form as building block to pursue many research works.</li> </ul>
VU FOR 111	Introduction to Forestry	<ul style="list-style-type: none"> <li>❖ To impart knowledge about the basic facts of Forestry as well as agroforestry and familiarize the students with important trees suitable for agroforestry and various agroforestry systems.</li> <li>❖ The students will learn about the silviculture and nursery technology of important agroforestry tree species.</li> </ul>
VU ENG 101	Comprehension & Communication Skills in English	<ul style="list-style-type: none"> <li>❖ To make the students competent in the following skills.</li> <li>❖ <b>Writing</b> - Understand the genre of writing, mechanics of writing, article writing (essay), abstract writing (précis) and letter writing. The students will gain competence in skills viz.,</li> <li>❖ <b>Listening</b> - Understanding the kinds of listening and acquire the techniques of active listening followed by note-taking and the art of asking questions.</li> <li>❖ <b>Speaking</b> - Acquire the correct pronunciation and the art of</li> </ul>

		<p>speaking in a forum.</p> <ul style="list-style-type: none"> <li>❖ <b>Reading:</b> Know the types of reading, the techniques of reading, reading for comprehension and note-making.</li> </ul>
VU HOR 111	Fundamentals of Horticulture	<ul style="list-style-type: none"> <li>❖ Students will gain knowledge on the fundamentals of horticulture</li> <li>❖ Hands on training on various propagation methods and important cultural practices for major fruit and plantation crops will be provided (Practical)</li> </ul>
VU MAT 113	Elementary Mathematics	<ul style="list-style-type: none"> <li>❖ To understand and apply fundamental concepts of mathematics applicable in agriculture and</li> <li>❖ To acquire knowledge on theoretical concepts of Algebra, Calculus and Mathematical Modeling.</li> <li>❖ Further the course will provide them good introduction to various mathematical models used in Biological sciences.</li> </ul>
VU PBG 101	Introduction to Agricultural Botany	<ul style="list-style-type: none"> <li>❖ To expose the students to the basic features of botanical description, economic parts and economic importance of different field and horticultural crops</li> <li>❖ Botanical features and economic importance of different crop plants belonging to 20 families will be exposed.</li> </ul>
VU AEX101	Rural Sociology & Educational Psychology	<ul style="list-style-type: none"> <li>❖ Imparting skills required for entrepreneurship development among the students for self-employment</li> <li>❖ Imparting managerial training among the young students to build entrepreneurial skills</li> <li>❖ Imparting skills necessary to prepare a model village plan</li> <li>❖ Learning techniques for establishing and managing micro project for the upliftment of rural people</li> <li>❖ Skills imparting for preparation of detailed project report (DPR) for availing loans and grants</li> </ul>
VU TAM 101	,yf;fpa';fspy; ntshz;ika[k;	<ul style="list-style-type: none"> <li>❖ To make student understand the ancient literatures in tamil to</li> </ul>

/ENG 102	mwptpay; jkpH; gadhf;fKk; / Development Education	<p>know in-depth about the need of agriculture.</p> <ul style="list-style-type: none"> <li>❖ And also to make them understand the terms involved in the agriculture in Tamil which make them to get connected with the local farmers.</li> <li>❖ To make students well verse in communication in english and soft skill development.</li> </ul>
VU NSS/NCC 101	National Social Service /National Cadet Corps	<ul style="list-style-type: none"> <li>❖ Students will do social work to the society like "Swach bharat", "Blood donation", Clean India campaign.</li> </ul>
VU PED 101	Physical Education	<ul style="list-style-type: none"> <li>❖ Student will play different games to maintain physical health.</li> </ul>
VU PED102	Yoga for human excellence	<ul style="list-style-type: none"> <li>❖ Student will learn different yoga practices to get excellence in mental health value.</li> </ul>

<b>Semester - II</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU SWE 101	Soil and Water Conservation Engineering	<ul style="list-style-type: none"> <li>❖ To gain knowledge and skills on soil and water engineering concepts like measurement of land, surveying and leveling, different irrigation methods, pumping of water, soil and water engineering concepts</li> </ul>
VU CRP 101	Fundamentals of crop Physiology	<ul style="list-style-type: none"> <li>❖ To impart basic knowledge on various functions and processes related to crop production, mineral nutrition, plant growth regulators and environmental stresses.</li> <li>❖ Students will come to know the various functions and processes related to crop production, mineral nutrition, plant growth regulators and environmental stresses.</li> </ul>

		❖ In addition, hands on exposure to estimate growth parameters, diagnosis and correction of nutrient deficiencies and enzyme assays.
VU AEC 101	Fundamentals of Agricultural Economics	❖ This course aims to introduce the basic principles of economics including the problem of economic decision - making, and deals with concepts of micro and macroeconomics in-depth.
VU PAT 101	Fundamentals of Plant Pathology	❖ Study of important taxonomic characters and symptoms produced by important microorganisms in order to manage them.
VU AEX 102	Fundamentals of Agricultural Extension Education	<ul style="list-style-type: none"> <li>❖ The course intends to expose students to the fundamentals of extension education, extension systems in India, programme planning and rural development efforts.</li> <li>❖ The course will also provide an opportunity to students to visit different organizations involved in extension activities and rural development work.</li> </ul>
VU FSN 111	Principles of Food Science and Nutrition	❖ Preservation of food and processing of fruits and vegetables which will enable students to start agro based processing units.
VU FMP 111	Farm Machinery and Power	❖ Students will be equipped with sufficient theoretical knowledge with practical skills on farm power sources like handling of tractor, power tillers and various implements used in land preparation, sowing, inter cultivation, plant protection and harvesting operations.
VU AGR 102	Introductory Agro-meteorology & Climate Change	<ul style="list-style-type: none"> <li>❖ To learn different metrological parameters like rainfall, temperature, RH and other weather parameters;</li> <li>❖ To make short-range and long-range weather forecasts.</li> </ul>
VU HOR 112	Production Technology for Fruit and Plantation Crops	❖ To impart knowledge on the principles of horticulture, propagation and production techniques of tropical, sub tropical, temperate fruit and plantation crops.

		<ul style="list-style-type: none"> <li>❖ Students will be imparted with wide knowledge on major tropical, sub-tropical and temperate fruit and plantation crops</li> <li>❖ Hands on training on various propagation methods and important cultural practices for major fruit and plantation crops will be provided.</li> </ul>
VU RSG 101	Geo- informatics for Precision Farming	❖ Students will know about applications of GIS in agriculture which will help them to forecast for precision farming.
VU NSS/NCC 101	NSS/NCC	❖ Students will do social work to the society like "Swach bharat", "Blood donation", Clean India campaign.
VU PED 101	Physical Education	❖ Student will play different games to maintain physical health.

<b>Semester - III</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU AGM 201	Fundamentals of Microbiology	<ul style="list-style-type: none"> <li>❖ To enlighten the students with the knowledge of microbial diversity in soils</li> <li>❖ To highlight the role of soil microorganisms in soil fertility and plant growth promotion</li> <li>❖ To develop experimental skills in soil microbiology which includes isolation of beneficial microorganisms from soil and their mass production</li> <li>❖ To make students gain expertise in practical aspects of production of industrial products</li> </ul>
VU AEN 201	Fundamentals of Entomology	<ul style="list-style-type: none"> <li>❖ The students gain knowledge on external morphology of insects, appendages and functions.</li> <li>❖ This course imparts knowledge on basic aspects of anatomy of different systems, physiology, classification and identification of</li> </ul>

		insects up to family level.
VU SST 201	Principles of Seed Technology	❖ The students will gain knowledge about the various techniques of quality seed production, processing and seed quality enhancement.
VU AGR 201	Crop Production Technology – I (Kharif crops)	❖ To impart knowledge on various cultivation practices of different Kharif crops
VU HOR 211	Production Technology for Vegetables and Spices	❖ To impart knowledge on the principles of horticulture, propagation and production techniques of tropical, sub tropical, temperate vegetable and spice crops.
VU ENS 201	Environmental Studies & Disaster Management	❖ To learn about different ecosystems and natural resources and environmental pollution and monitoring ❖ To gain the knowledge on climate change and disaster management.
VU AMP 201	Livestock and Poultry Management	❖ Students will gain knowledge about livestock, Poultry management ❖ To get knowledge on caring of livestock, Poultry
VU AEC 201	Farm Management, Production & Resource Economics	❖ Students will know the concepts of farm management. ❖ To get knowledge on resource allocation in the farm level ❖ To get to know about resource economic concepts
VU SAC 201	Soil Resource Inventory	❖ The students of undergraduate will gain knowledge on chemical composition and nutritional quality of various field and horticultural crops. ❖ Proper understanding of chemistry of pesticides will be inculcated among the students. ❖ The students will acquire the skills on quality monitoring of crops and pesticides through practices.
VU AGR 202	Study tour	❖ The students will undertake the short tour covering KVK's, Research stations, Sister Campuses and ICAR institutes in the



		<p>southern part of Tamil Nadu.</p> <ul style="list-style-type: none"> <li>❖ The study tour will provide an exposure to the students to know about the soil, climatic conditions and cropping patterns in the respective agro-climatic zones.</li> <li>❖ The students will also have first-hand information on latest technologies on various crops and allied activities.</li> </ul>
VU NSS/NCC 101	NSS/NCC	<ul style="list-style-type: none"> <li>❖ Students will do social work to the society like "Swach bharat", "Blood donation", Clean India campaign.</li> </ul>
VU PED 101	Physical Education	<ul style="list-style-type: none"> <li>❖ Student will play different games to maintain their physical health.</li> </ul>

<b>Semester – IV</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU PBG 201	Fundamentals of Genetics	<ul style="list-style-type: none"> <li>❖ To expose the students on basic concepts of genetics.</li> <li>❖ To impart knowledge on genetic engineering and technologies like tissue-culture, GMO etc.,</li> </ul>
VU AEX 201	Communication Skills and Personality Development	<ul style="list-style-type: none"> <li>❖ Imparting skills required for entrepreneurship development among the students for self-employment.</li> <li>❖ To make them competitive by imparting personal skills</li> </ul>
VU MAT 211	Statistical Methods	<ul style="list-style-type: none"> <li>❖ Students will acquire knowledge in basis statistical techniques that are applicable to agricultural sciences.</li> <li>❖ Further the course will provide them good introduction to various statistical analysis used in biological sciences.</li> </ul>
VU PAT 201	Principles of plant disease management	<ul style="list-style-type: none"> <li>❖ Study of important taxonomic characters and symptoms produced by important microorganisms in order to manage them.</li> <li>❖ To impart knowledge on plant disease management by different</li> </ul>

		methods.
VU AEN 202	Beneficial insects and Principles of Insect pest management	❖ To impart knowledge on the economically important insects and principles of insect pest management, including concept and components of IPM
VU AGR 203	Crop Production Technology – II (Rabi crops)	❖ Students will get knowledge on crop production technologies of different Rabi crops.
VU ERG 211	Renewable Energy	❖ Students will gain practical aspects of utilizing various renewable energy like solar energy, wind energy and other energy efficient technologies, etc.
VU AGR 204	Farming System & Sustainable Agriculture	<ul style="list-style-type: none"> <li>❖ Students will know different cropping and farming system like integrated farming system (IFS).</li> <li>❖ To get knowledge on sustainable agricultural practices such as organic farming.</li> </ul>
VU SAC 202	Problematic soils and their management	<ul style="list-style-type: none"> <li>❖ The students of undergraduate will gain knowledge on chemical composition and nutrient requirement of various field and horticultural crops.</li> <li>❖ Proper understanding of problematic soils like salinity, alkalinity, acidity etc., and their reclamation practices.</li> </ul>
VU HOR 212	Production Technology for Ornamental Crops, MAP and Landscaping	<ul style="list-style-type: none"> <li>❖ Students will learn different production technology for ornamental Crops,</li> <li>❖ To learn the techniques in Landscaping</li> </ul>
VU ANM 201	Introductory Nematology	<ul style="list-style-type: none"> <li>❖ This course will give an introduction about nematodes, its diversity, extent of its damage caused in crops and the necessity to manage them in agriculture.</li> <li>❖ The course aims at imparting basic, fundamental and applied aspects of the science of Nematology at UG level.</li> </ul>

VU NST 201	Fundamentals and Applications of Nanotechnology	❖ Students will get to know the applications of Nanotechnology in Energy, Environment, Health and Agriculture.
VU NSS/NCC 101	NSS/NCC	❖ Students will do social work to the society like "Swach bharat", "Blood donation", Clean India campaign.
VU PED 101	Physical Education	❖ Student will play different games in order to maintain physical health.

<b>Semester – V</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU PBG 301	Fundamentals of Plant Breeding	❖ The plant breeding methodologies and applications employed for self, cross and vegetatively propagated crops will be exposed.
VU AEC 301	Agricultural Marketing Trade & Prices	❖ The aim of the course is to give exposure on market concepts, marketing of agricultural commodities, intermediaries involved, domestic and export trade, risk in agricultural marketing, price dynamics and the role of Government in regulation of markets.
VU AGM 301	Soil and Applied Microbiology	<ul style="list-style-type: none"> <li>❖ To enlighten the students with the knowledge of microbial diversity in soils</li> <li>❖ To high lighten the role of soil microorganisms in soil fertility and plant growth promotion</li> <li>❖ To develop experimental skills in soil microbiology which includes isolation of beneficial microorganisms from soil and plant</li> </ul>
VU PAT 301	Diseases of Field and Horticultural crops and their management	<ul style="list-style-type: none"> <li>❖ To gain the knowledge on different diseases in field and horticultural crops</li> <li>❖ Mass multiplication of biocontrol agents like <i>Trichoderma viride</i>,</li> </ul>

		<i>Pseudomonas fluorescens</i> and <i>Bacillus subtilis</i> and also learn about the method of applications
VU AEX 301	Entrepreneurship Development and Business Communication	<ul style="list-style-type: none"> <li>❖ To impart knowledge on different extension methods and approaches used for transfer of agricultural technology.</li> <li>❖ The course will also enable to develop practical skills on preparation of different extension teaching methods.</li> </ul>
VU AGR 301	Practical Crop Production - I (Kharif crops)	<ul style="list-style-type: none"> <li>❖ Each student will be allotted a minimum land area of 10 cents and he will do all field operations in the allotted land from field preparation to harvest and processing.</li> <li>❖ Under exigencies like water scarcity to raise wetland rice of the crop production programme shall be with two irrigated dry crops, with an area of not less than five cents.</li> <li>❖ Irrigated puddled lowland rice will be cultivated.</li> </ul>
VU HOR 311	Post harvest management and value addition of fruits and vegetable crops	<ul style="list-style-type: none"> <li>❖ Students will get to know about different processing techniques of fruits and vegetable crops and they make value added products like jam, jelly, squash, juice etc.</li> </ul>
VU SAC 301	Manures, Fertilizers and Soil Fertility Management	<ul style="list-style-type: none"> <li>❖ To impart knowledge on soil essential nutrients and nutrient transformations in soil</li> <li>❖ To know the soil fertility management.</li> <li>❖ The knowledge gained by students through this course will be useful in making decisions on nutrient dose, choice of fertilizers/manures and method of application etc.</li> <li>❖ The students will also gain confidence in managing soil health for sustained productivity.</li> </ul>
VU ABT 301	Plant Bio technology	<ul style="list-style-type: none"> <li>❖ To impart knowledge on basic and applied aspects of plant biotechnology.</li> </ul>

VU AGR 302	Rainfed Agriculture & Watershed Management	❖ Student will study about rainfed agriculture which is predominant in all over India and develop watersheds to manage agricultural practices during off-season.
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<b>Semester – VI</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU AEC 302	Agricultural Finance and Co-Operation	<ul style="list-style-type: none"> <li>❖ This course aims at imparting knowledge on principles of finance, banking and co –operation and farm financial analyses.</li> <li>❖ This course will also help in understanding the functions of various institutions involved in farm financing and different crop insurance products.</li> </ul>
VU PAT 302	Diseases of Field crops and Horticultural crops and their management	❖ Students will learn diseases of various Field crops and Horticultural crops and to know their management practices.
VU COM 311	Agriculture Informatics	❖ Students will get to know about basics of agricultural informatic softwares and applications.
VU ENS 301	Environmental Pollution and Management	<ul style="list-style-type: none"> <li>❖ It deals with the scientific study of environmental pollution in different systems like air, water, soil and land due to environmental damages as a result of human interaction with the environment.</li> <li>❖ To study the different pollution management practices.</li> </ul>
VU APE 311	Post-Harvest and Food Engineering	❖ Students will get to know about different processing techniques of agricultural products such as parboiling, oil extraction etc.
VU AEN 301	Pests of Crops and Stored grain and their Management	❖ Students will know about pest of crops and stored grains like cereals, pulses, oilseeds and their management.

VU AGR 303	Practical Crop Production - II (Rabi crops)	<ul style="list-style-type: none"> <li>❖ Each student will be allotted a minimum land area of 10 cents and he will do all field operations in the allotted land from field preparation to harvest and processing.</li> <li>❖ The dryland crops like sunflower, gingelly etc., or the garden land crops like maize, finger millet etc., will be cultivated.</li> </ul>
VU AGR 304	Principles of Organic Farming	<ul style="list-style-type: none"> <li>❖ Students get to know about the organic farming practices and procedure for obtaining organic certificates.</li> </ul>
VU PBG 302	Crop Improvement	<ul style="list-style-type: none"> <li>❖ Students will deploy different methods of plant breeding like pure line selection, mass selection, pedigree method and other hybrid crop varieties production for special crop improvement.</li> <li>❖ Crop improvement may be for drought resistance, high yield, pest and disease resistance.</li> </ul>
VU OPT 301	Optional course	<ul style="list-style-type: none"> <li>❖ Student will select a set of optional courses offered during the semester based on their own interest.</li> </ul>

<b>Semester - VII</b>		
<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
VU AEX 401	Rural Agricultural Work Experience and Agro-industrial Attachment(RAWE &AIA)	
VU AEX 401	General orientation & On campus training by different faculties	<ul style="list-style-type: none"> <li>❖ Students will get an on campus training from various faculties before step into the village attachment and Agro-industrial attachment.</li> </ul>
VU AEX 401	Village attachment/ Unit attachment in Univ./ College. KVK/ Res. Stn.	<ul style="list-style-type: none"> <li>❖ To enable the students to learn and understand issues related to farming and rural development in a natural setting on real-time basis. The course also provides opportunities for the students to learn about the functioning of the extension organisations viz., state</li> </ul>

		agricultural departments, KVK's, and research stations
VU AEX 401	Agro-Industrial Attachment	❖ Course provides opportunities for the students to attach with the agri related industries and make them know about the functioning them.
VU AEX 401	Project Report Preparation, Presentation and Evaluation	❖ Students will propose a project based on his interest and concerned specialists will assist them to complete their project.

### Semester - VIII

Course Code	Course Name	Course Outcome
VU EXP 401 - Experiential Learning Programme/ HOT		
VU EXP 401	Bio-agents and Bio-fertilizer production	❖ Students will produce biocontrol agents like Trichoderma, Pseudomonas and bio fertilisers like phosphobacteria for commercial marketing.
VU EXP 401	Hybrid Seed Production in Vegetables Crops	❖ Students will produce hybrid seeds of vegetables for commercial production and marketing.
VU EXP 401	On Farm Advisory for Soil Health, Water Quality & Plant Nutrition	❖ Students will analyze soil health and provide management solutions to farmers.
VU EXP 401	Commercial Beekeeping	❖ Student will produce honey using their practical knowledge on commercial bee keeping.
VU EXP 401	Commercial Cocoon Production	❖ Students will produce commercial silk cocoon both white and yellow to market.
VU EXP 401	Commercial Plant Tissue Culture	❖ Students will produce commercial crops like tomato, banana, sugarcane etc., through plant tissue culture.

VU EXP 401	Commercial Nursery Technology of Horticultural Crops	❖ Students will raised the nurseries of different vegetables crops for commercial sale.
VU EXP 401	Commercial Landscape Gardening	❖ Students can make landscape and gardening and interior lanscaping plans.
VU EXP 401	Commercial production of Bio-control agents	❖ Students will produce biocontrol agents like Trichoderma, Pseudomonas for commercial marketing.
VU EXP 401	Commercial mushroom production	❖ Pleurotus / button mushrom will be produced by students for commercial marketing.
VU EXP 401	Commercial broiler and layer production	❖ Students will produce broiler and layer birds commercially.
VU EXP 401	Commercial seed production	❖ Students will produce hybrid seeds of vegetables for commercial production and marketing.
VU EXP 401	Hybrid pearl millet seed production	❖ Students will produce hybrid seeds of pearl millet for commercial production and marketing.
VU EXP 401	Hybrid rice parental line seed production	❖ Students will produce hybrid seeds of rice using parental line selection for commercial production and marketing.
VU EXP 401	Managerial skill for Agribusiness	❖ Students will know the different agribusiness opportunities and will get necessary managerial skills.
VU EXP 401	Export Import and Protection of Property Rights in Agriculture	❖ Students will be aware of Intellectual Property Rights for ensuring rights for their products.
VU EXP 401	Development of Integrated Farming system Model	❖ Student will prepare an IFS model to the location specific.
VU EXP 401	Protected cultivation of Vegetable crops	❖ Students will produce different vegetables under poly house/ protected cultivation.



VU EXP 401	Composting technology	❖ Students will gain skill in compost-making.
VU EXP 401	Utilization of Rearing Bed Refuse, Pupae and Unreelable Cocoons	❖ Students will utilize the waste products from sericulture to make it worthy for the market.
VU EXP 401	Agri-business management	❖ Students will know the different agribusiness opportunities and will get necessary managerial skills.