

Regulation 2017

Programme: B.E. Agricultural Engineering		
Year & Semester:	1&1	
Course Code & Name:	C101&HS8151-Communicative English	
Year of Study :	2017 – 2018	

Course Code and Name : C101 & HS8151-Communicative English		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C101.1	Enable the development in sharing information about family and friends.	K3
C101.2	Strengthen general comprehending skills and present lucid skills in free writing.	K2
C101.3	Understand the basic grammar techniques and utilize it in enhancing language development.	K2
C101.4	Foster an environment for reading and develop good language skills.	K2
C101.5	Develop flair for any kind of writing with rich vocabulary and proper syntax.	K2

Programme: B.E. Agricultural Engineering		
Year & Semester: I&I		
Course Code & Name: C102 & MA8151-Engineering Mathematics -1		
Year of Study :	2017 – 2018	

Course Code and Name :C102 & MA8151-Engineering Mathematics -1		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C102.1	Use both the limit definition and rules of differentiation to differentiate functions	K3
C102.2	Apply differentiation to solve maxima and minima problems.	K3
C102.3	Evaluate integrals both by using Riemann sums and by using the Fundamental Theorem of Calculus. Apply techniques of integration to compute multiple integrals and evaluate convergent improper Integrals	K3
C102.4	Apply integration to compute multiple integrals, area, volume, integrals in polar coordinates, in addition to change of order and change of variables.	K3
C102.5	Apply various techniques in solving differential equations	K3



Programme: B.E. Agricultural Engineering		
Year & Semester: 1& 1		
Course Code & Name:	C103 & PH8151- Engineering Physics	
Year of Study :	2017 – 2018	

Course Code and Name :C103 & PH8151- Engineering Physics		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C103.1	Gain knowledge on the basics of properties of matter and its applications.	К2
C103.2	Acquire knowledge on the concepts of waves and optical devices and their application in fiber optics	K2
C103.3	Have a dequate knowledge on the concepts of thermal properties of material and their in application in expansion joints and heat exchanger.	K3
C103.4	Got knowledge on advanced physics concepts of quantum theory and its applications in tunneling microscope.	K2
C103.5	Understand the basics of crystals, their structures and different crystal growth technique.	К2

Programme: B.E. Agricultural Engineering		
Year & Semester:	1&1	
Course Code & Name: C104 & CY8151- Engineering Chemistry		
Year of Study :	2017 – 2018	

Course Code and Name : C104 & CY8151- Engineering Chemistry		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C104.1	Understand about various water treatment technique and its uses.	K4
C104.2	Know the surface phenomena of molecules and its applications	K2
C104.3	Understand the phase diagram and predict the composition of alloys.	K2
C104.4	Analyze the quality of fuels and its various uses. Gain the knowledge about energy sources and its applications.	K4
C104.5	Gain the knowledge about energy sources and its applications.	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	I & I	
Course Code & C105 & GE8151-Problem solving and python		
Name:	programming	
Year of Study :	2017 – 2018	

Course Code and Name : C105 & GE8151-Problem solving and python programming		
Course Code	CO Statements Knowledge	
The students sho	ould be able to	
C105.1	Develop algorithmic solutions to simple computational problems	K4
C105.2	Read, write, execute by hand simple Python programs and Structure simple Python programs for solving problems.	K4
C105.3	Decompose a Python program into functions.	K3
C105.4	Represent compound data using Python lists, tuples, dictionaries.	K3
C105.5	Read and write data from/to files in Python Programs.	K2

Programme: B.E. Agricultural Engineering		
Year & Semester:	I & I	
Course Code & Name:	Course Code & Name: C106 & GE8152- Engineering graphics	
Year of Study :	2017 – 2018	

Course Code and Name : C106 & GE8152- Engineering graphics		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C106.1	Familiarize with fundamentals and standards of engineering graphics	K2
C106.2	Perform freehand sketching of basic geometrical constructions and multiple view of objects	К3
C106.3	Project orthographic projections of lines and planer surfaces	К2
C106.4	Draw projections of solids and development of surfaces	K3
C106.5	Visualize and to project isometric and perspective sections of simple solids.	K 3



Programme: B.E. Agricultural Engineering		
Year & Semester: I&I		
Course Code & Name: C107 & GE8161-Problem solving and python		
programming laboratory		
Year of Study :	2017 – 2018	

Course Code and Name : C107 & GE8161-Problem solving and python programming laboratory		
Course Code	CO Statements	Knowledge Level
The students should be able to		
C107.1	Write, test and debug simple python programs	K1
C107.2	Implement python programs with conditional and loops.	К3
C107.3	Develop python program step-wise by defining functions and calling them.	K 4
C107.4	Use python list, tuples dictionaries for representing compound date.	К3
C107.5	Read and write the data from/ to files in pythons	K2

Programme: B.E. Agricultural Engineering		
Year & Semester:	1&1	
Course Code & Name: C108& BS8161-Physics and chemistry		
laboratories		
Year of Study :	2017 – 2018	

Course Code and Name :C108 & BS8161-Physics and chemistry laboratories		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C108.1	Determine Young's modulus of beam and Rigidity modulus.	К3
C108.2	Apply the principle of optics and Laser in engineering field	K3
C108.3	Calculate conductivity, and band gap of a semiconductor and velocity of sound waves.	К3
C108.4	Analysis the effect of chlorides in water DO present in sample water	К3
C108.5	Identify basicity, acidity and pH of the material	K2



Programme: B.E. Agricultural Engineering		
Year & Semester: I & II		
Course Code & Name:	C109 & HS8251- Technical English	
Year of Study :	2017 – 2018	

Course Code and Name :C109 & HS8251- Technical English		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C109.1	Breakdown the ideas in to its elementary constituents, analyze and act after a meaning full thought process.	К2
C109.2	Analyze the phrase and passage and explicitly pass on the ideas meaning fully.	К3
C109.3	Manage to interpret the given phrase or the graphical rendering and review the contents well individually or as a group.	K3
C109.4	Concentrate on the communication aspect of complicated ideas and respond positively.	К2
C109.5	Debate the issues and find the rudiments of the problem individually and as a group.	K2

Programme: B.E. Agricultural Engineering		
Year & Semester: I & II		
Course Code & Name:	C110 & MA8251- Engineering Mathematics – II	
Year of Study :	2017 – 2018	

Course Code and Name :C110 & MA8251- Engineering Mathematics – II		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C110.1	Understand Eigen values and eigenvectors, diagonalization of a matrix, Symmetric matrices, Positive definite matrices and similar matrices.	K2
C110.2	Understand Gradient, divergence and curl of a vector point function and related identities	К2
C110.3	Evaluation of line, surface and volume integrals using Gauss, Stokes and Green's theorems and their verification.	K2
C110.4	Understand Analytic functions, conformal mapping and complex integration.	K2
C110.5	Understand Laplace transform and inverse transform of simple functions, properties, various related theorems and application to differential equations with constant coefficients.	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	1& 11	
Course Code & Name: C111 & BE8251 Basic Electrical and		
Electronics Engineering		
Year of Study :	2017 – 2018	

Course Code and Name : C111 & BE8251 Basic Electrical and Electronics Engineering		
Course Code	CO Statements	Knowledge Level
The students will	1 have	
C111.1	Explain the fundamental laws of Electrical circuits and	К2
	measurements.	
C111.2	Explain the operation of Electrical Machines.	K2
C111.3	Explain the fundamentals of semiconductor and	К2
	applications.	112
C111.4	Explain the principles of digital electronics.	K2
C111.5	Explain the operation of fundamental communication	К2
	System.	IXZ

Programme: B.E. Agricultural Engineering		
Year & Semester: I&II		
Course Code & Name:	C112 & GE8292-Engineering Mechanics	
Year of Study :	2017 – 2018	

Course Code and Name :C114 & GE8292-Engineering Mechanics		
Course Code	Course Code CO Statements	
The students should be able to		
C112.1	Illustrate the vectorial and scalar representation of forces and moments	К2
C112.2	Analyse the rigid body in equilibrium	K3
C112.3	Evaluate the properties of surfaces and solids	K3
C112.4	Calculate dynamic forces exerted in rigid body	К3
C112.5	Determine the friction and the effects by the laws of friction	К3



Programme: B.E. Agricultural Engineering		
Year & Semester:	1&11	
Course Code & Name: C113 & AI8201 Principles and Practices of Crop		
	Production	
Year of Study :	2017 – 2018	

Course Code and Name: C111 & AI8201 - Principles and Practices of Crop Production		
Course Code	CO Statements	Knowledge Level
The students sho	build be able to	
C113.1	Acquire knowledge on the basic principles of Agriculture crop production	К2
C113.2	Select suitable crops and decide upon its establishment procedures	K5
C113.3	Gain knowledge on the different crop management practices.	K2
C113.4	Gain knowledge in the area of production of agricultural and horticultural crops	К2
C113.5	Delineate their role in relation to various crop production practices	К2

Programme: B.E. Agricultural Engineering		
Year & Semester:	1& 11	
Course Code & Name:	C115 & GE8261- Engineering Practices Laboratory	
Year of Study :	2017 – 2018	

Course Code and Name : C115 & GE8261- Engineering Practices Laboratory		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C114.1	Fabricate carpentry components and pipe connections including plumbing works and Use welding equipments to join the structures.	K4
C114.2	Carry out the basic machining operations and Make the models using sheet metal works	K4
C114.3	Illustrate on centrifugal pump, Air conditioner, operations of smithy, foundary and fittings.	K 4
C114.4	Carry out basic home electrical works and appliances and Measure the electrical quantities	K4
C114.5	Elaborate on the components, gates, soldering practices.	K4



Programme: B.E. Agricultural Engineering		
Year & Semester:	I & II	
Course Code & Name:	C115 & AI8211 Crop Husbandry Laboratory	
Year of Study :	2017 – 2018	

Course Code and Name : AI8211 Crop Husbandry Laboratory			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C115.1	Acquire knowledge on field preparation and seed treatment process	K2	
C115.2	Understating the biometric observation of crops	K2	
C115.3	Gain knowledge on nutrient management	K2	
C115.4	Gain knowledge in water and pest management.	K2	
C115.5	Obtain the knowledge in Post harvesting techniques	K3	

Programme: B.E. Agricultural Engineering		
Year & Semester: II & III		
Course Code & C201 & MA8353-Transforms and Partial Differential		
Name:	Equations	
Year of Study:	2018 – 2019	

Course Code and Name: C201 &MA8353-Transforms and Partial Differential Equations		
Course Code	CO Statements	Knowledge Level
The students sho	build be able to	
C201.1	Understand how to solve the given standard partial differential equations.	К2
C201.2	Solve differential equations using Fourier series analysis which plays a vital role in engineering applications.	К3
C201.3	Appreciate the physical significance of Fourier series techniques in solving one- and two-dimensional heat flow problems and one-dimensional wave equations.	К3
C201.4	Understand the mathematical principles on transforms and partial differential equations would provide them the ability to formulate and solve some of the physical problems of engineering.	К2
C201.5	Use the effective mathematical tools for the solutions of partial differential equations by using Z transform techniques for discrete time systems.	К3



Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code & C202&AI8301 -Soil Science and Engineering		
Name:		
Year of Study:	2018 – 2019	

Course Code and Name: C202&AI8301 -Soil Science and Engineering			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C202.1	Understand the fundamental knowledge of soil physical parameters	K2	
C202.2	Understand the procedures involved in soil survey, soil classification.	K2	
C202.3	Understand the phase relationship and soil compaction.	K2	
C202.4	Understand the engineering properties of soil	K2	
C202.5	Understand the Concepts of bearing capacity and slope stability	K2	

Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code & C203 & AI8302 - Fluid Mechanics and Hydraulics		
Name:		
Year of Study:	2018 – 2019	

Course Code and Name: C203&AI8302 -Fluid Mechanics and Hydraulics			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C203.1	Understand the properties of fluid, and method to measure	K2	
C205.1	the pressure.		
C203.2	Understand the analysis of fluid flow	K2	
C203.3	Understand the measurement of flow of fluid	K2	
C203.4	Understand the fluid flow in open channel	K2	
C203.5	Understand the dimensional analysis and the types of pumps	K2	



Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code &	C204 & AI8303-Theory of Machines	
Name:		
Year of Study:	2018 – 2019	

Course Code and Name: C204 & AI8303-Theory of Machines		
Course Code	CO Statements	Knowledge Level
The students sho	build be able to	
C204.1	Understand about the basic terminologies used in mechanisms and its inversions	К2
C204.2	Obtain the basic knowledge about the friction and its applications	К3
C204.3	Obtain the basic knowledge about motion of cam and its follower with the profile layout	К3
C204.4	Obtain the basic knowledge about the gear and gear trains	K3
C204.5	Learn the fundamentals related to the flywheel balancing	K1

Programme: B.E. Agricultural Engineering	
Year & Semester:	II & III
Course Code & C205 & CE8304-Surveying and Levelling	
Name:	
Year of Study:	2018 – 2019

Course Code and Name:C205 & CE8304-Surveying and Levelling		
Course Code	Course Code CO Statements	
The students sho	buld be able to	
C205.1	Understand the fundamentals and the method of chain	K2
C205.1	surveying	
C205.2	Understand about the compass and the methods of plane table	K2
C205.2	surveying	
C205.3	Understand and carryout the methods of theodolite and	K2
	modern surveying	
C205.4	Understand the methods and the procedure of levelling	K2
C205.5	Understand the applications of levelling	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code & Name:	C206 & MF8491 - Thermodynamics	
Year of Study:	2018 – 2019	

Course Code and Name: C206&MF8491-Thermodynamics		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C206.1	Understand the fundamentals and basic concepts of	K2
	thermodynamics	
C206.2	Understand the first and second law of thermodynamics	K2
C206.3	Understand about the heat engines and its different types	K2
	along with the refrigeration system	
C206.4	Understand about the gas and vapour mixture with the aid of	K2
	gas laws	
C206.5	Understand about the heat transfer through different	K2
	mediums.	

Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code & C207 & CE8312 - Surveying and Levelling Laboratory		
Name:		
Year of Study:	2018 – 2019	

Course Code and Name: C207&CE8312-Surveying and Levelling Laboratory		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C207.1	Have a practical knowledge on handling basic survey instruments like chain surveying	K3
C207.2	Have a practical knowledge in compass surveying for triangulation problem	К3
C207.3	Have a practical knowledge on handling basic survey instruments like plane table surveying	K3
C207.4	Have a practical knowledge on theodolite surveying for the measurement of horizontal & vertical angles	K3
C207.5	Have a practical knowledge on handling basic survey methods for levelling	K3



Programme: B.E. Agricultural Engineering		
Year & Semester:	II & III	
Course Code & Name:	C208 & AI8311-Fluid Mechanics Laboratory	
Year of Study:	2018 – 2019	

Course Code and Name: C208 & AI8311-Fluid Mechanics Laboratory		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C208.1	Know the procedure to measure flow in pipes using different methods	K 1
C208.2	Know the procedure to measure flow of fluid through different notches	K 1
C208.3	Know the procedure to calculate the friction coefficient in pipes	K 1
C208.4	Know the procedure to measure the frictional losses in pipes and different fittings	K 1
C208.5	Develop the characteristics of different pumps and turbines.	K4

Programme: B.E. Agricultural Engineering		
Year & Semester: II & III		
Course Code & C209 & HS8381-Interpersonal Skills /Listening and		
Name: Speaking		
Year of Study:	2018 – 2019	

Course Code and Name: C209&HS8381-Interpersonal Skills /Listening and Speaking		
Course Code	Course Code CO Statements	
The students should be able to		
C209.1	Listen and respond appropriately	K2
C209.2	Participate in group discussions	K2
C209.3	Make effective presentations	K6
C209.4	Participate confidently in speech listening	K6
C209.5	Participate appropriately in conversations both formal and informal	K6



Programme: B.E. Agricultural Engineering	
Year & Semester:	II & IV
Course Code &	C210 &MA8391-Probability and Statistics
Name:	
Year of Study:	2018 – 2019

Course Code and Name:C210 & MA8391 - Probability and Statistics			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C210.1	Understand the fundamental knowledge of the concepts of probability and have knowledgeof standard distributions which can describe real life phenomenon.	К2	
C210.2	Understand the basic concepts of one- and two- dimensional random variables and apply in engineering applications	К2	
C210.3	Apply the concept of testing of hypothesis for small and large samples in real life problems.	K3	
C210.4	Apply the basic concepts of classifications of design of experiments in the field of agriculture and statistical quality control.	К3	
C210.5	Understand the notion of sampling distributions and statistical techniques used in engineering and management problems.	K2	

Programme: B.E. Agricultural Engineering		
Year & Semester: II & IV		
Course Code & C211&AI8401-Unit Operations in Agricultural		
Name:	Processing	
Year of Study:	2018 – 2019	

Course Code and Name:C211 & AI8401 - Unit Operations in Agricultural Processing		
Course Code	CO Statements	Knowledge Level
The students should be able to		
C211.1	Understand the concepts of evaporation and concentration	K2
C211.2	Understand the concept of mechanical separation and its	K2
	types	
C211.3	Understand the concepts of size reduction and the	K2
	grinders used for it	
C211.4	Understand the concepts of contact equilibrium	K2
	separation and its types	
C211.5	Understand the crystallization and distillation methods.	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	II & IV	
Course Code & Name:	C212 & AI8402-Farm Tractors	
Year of Study:	2018 – 2019	

Course Code and Name:C212 & AI8402-Farm Tractors		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C212.1	Understand the various types of tractors and its	K2
	components	
C212.2	Understand the different mechanisms of engine	K2
	components	
C212.3	Understand the different mechanisms and types of	K2
	transmission and steering systems	
C212.4	Understand the different types of hydraulic systems and its	K2
	control systems	
C212.5	Understand the different tractor classification and tillage	K2
C212.5	implements	

Programme: B.E. Agricultural Engineering		
Year & Semester:	II & IV	
Course Code & C213 & CE8091-Hydrology and Water Resources		
Name:	Engineering	
Year of Study:	2018 – 2019	

Course Code and Name: C213 & CE8091 - Hydrology and Water Resources Engineering		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C213.1	An understanding of the key drivers on water resources, hydrological processes and the integrated behavior in catchments,	К2
C213.2	Construct and apply a range of hydrological models to surface water and ground water problems including Hydrograph,	К3
C213.3	Construct and apply a range of flood/Drought management, artificial recharge	К3
C213.4	Conduct Spatial analysis of rainfall data and design water storage reservoirs	K4
C213.5	Understand the concept and methods of ground water management.	К2



Programme: B.E. Agricultural Engineering	
Year & Semester:	II & IV
Course Code &	C214 & CE8393 - Strength of Materials
Name:	
Year of Study:	2018 – 2019

Course Code and Name: C214 & CE8393 - Strength of Materials		
Course Code	CO Statements	Knowledge Level
The students sh	nould be able to	
C214.1	Apply mathematical knowledge to calculate the stress, strain and deformation of solids	К3
C214.2	Critically analyze problem and solve the problems related to structural elements	K4
C214.3	Critically analyze problem and solve the problems related to different types of loads	K4
C214.4	Analyze the tensional stress in different types of shafts and springs.	K4
C214.5	Analyze the deflection of beams by using different methods.	K4

Programme: B.E. Agricultural Engineering		
Year & Semester:	II & IV	
Course Code & Name: C215 & GE8291-Environmental Science and		
	Engineering	
Year of Study:	2018 – 2019	

Course Code and Name:C215 & GE8291- Environmental Science and Engineering		
Course Code	CO Statements	Knowledge Level
The students sh	nould be able to	
C215.1	Understand about the basics of environment, ecosystems and biodiversity	K2
C215.2	Know about the different environmental Pollutions and case studies.	K2
C215.3	Know about the public awareness of environmental is at infant stage.	K2
C215.4	Know about the ignorance and incomplete knowledge has lead to misconceptions	K2
C215.5	Know about the development and improvement in std. of living has lead to serious environmental disasters	K2



Programme: B.E. Agricultural Engineering		
Year & Semester: II & IV		
Course Code & Name:	C216&AI8411-Soil Science Laboratory	
Year of Study:	2018 – 2019	

Course Code and Name: C216 & AI8411-Soil Science Laboratory		
Course Code	CO Statements	Knowledge Level
The students sh	hould be able to	
C216.1	Identify the rocks and minerals and processing of soil samples	K2
C216.2	Determine the soil moisture, EC and pH, determination of field density by using different methods.	K4
C216.3	Determine the specific gravity and Textural analysis of soil	K4
C216.4	Determine of Organic carbon and estimate the Gypsum requirements	K4
C216.5	Know the techniques to determine various physical and chemical properties of soil that are applicable for agriculture and irrigation by conducting appropriate tests.	K2

Programme: B.E. Agricultural Engineering		
Year & Semester:	II & IV	
Course Code & Name: C217 & CE8481-Strength of Materials Laborate		
Year of Study:	2018 – 2019	

Course Code and Name: C217 & CE8481 - Strength of Materials Laboratory		
Course Code	CO Statements	Knowledge Level
The students sho	build be able to	
C217.1	Get a broad knowledge in the area of testing of materials	K2
C217.2	Get a broad knowledge about the components of structural elements experimentally	K2
C217.3	Get a broad knowledge in the behavioral study of deflection of metal beams	K2
C217.4	Get a broad knowledge about testing of different types of springs.	К2
C217.5	Get a broad knowledge in the failure analysis of metals	K2



Programme: B.E. Agricultural Engineering		
Year & Semester: II & IV		
Course Code & Name:	C218 & HS8461-Advanced Reading and Writing	
Year of Study:	2018 – 2019	

Course Code and Name: C218 & HS8461-Advanced Reading and Writing			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C218.1	Read and recognize different text types	K2	
C218.2	Write different types of essays.	K2	
C218.3	Write winning job applications	K2	
C218.4	Read and evaluate texts critically.	K5	
C218.5	Display critical thinking in various professional contexts	K6	

Programme: B.E. Agricultural Engineering		
Year & Semester: III &V		
Course Code & Name:	C301 & AI8501-Irrigation and Drainage Engineering	
Year of Study:	2018 – 2019	

Course Code and Name:C301 &AI8501-Irrigation and Drainage Engineering		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C301.1	Apply the knowledge and skills on Planning, design, operation and management of reservoir system.	К3
C301.2	Understand about the methods of irrigation	K2
C301.3	Understand about the diversion and impounding structures	K2
C301.4	Understand about the canal irrigation and command area development	K2
C301.5	Understand about the agricultural drainage	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	III & V	
Course Code & Name:	C302 & AI8502-Farm Machinery and Equipment	
Year of Study:	2019 – 2020	

Course Code and Name:C302&AI8502-Farm Machinery and Equipment			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C302.1	Understand the concept of farm mechanization	K2	
C302.2	Understand the primary and secondary tillage implements	K2	
C302.3	Understand about sowing and fertilizing equipment	K2	
C302.4	Understand about weeding and plant protection equipment	K2	
C302.5	Understand about the harvesting machinery	K2	

Programme: B.E. Agricultural Engineering		
Year & Semester: III &V		
Course Code & Name:	C303 & AI8503 -Design of Basic Machine Elements	
Year of Study:	2019 – 2020	

Course Code and Name: C303 & AI8503 -Design of Basic Machine Elements		
Course Code	CO Statements	Knowledge Level
The students sho	ould be able to	
C303.1	Understand the types of stresses in different machine	К2
	members.	K2
C303.2	Understand the design procedure of power transmission	K2
	systems.	
C303.3	Understand the design procedure of shafts and couplings	K2
C303.4	Understand the design procedure of energy storing	K2
	elements	
C303.5	Understand the design procedure of gears and bearings	K2



Programme: B.E. Agricultural Engineering		
Year & Semester: III &V		
Course Code & Name:	C304 & AI8504-Post Harvest Technology	
Year of Study:	2019 – 2020	

Course Code and Name: C304 & AI8504-Post Harvest Technology		
Course Code	CO Statements	Knowledge Level
The students should be able to		
C304.1	Understand about the Material handling equipment	K2
C304.2	Obtain the basic knowledge about the psychrometry and drying	К2
C304.3	Understand about the cleaning and grading	K2
C304.4	Understand about the shelling and handling	K2
C304.5	Obtain the basic knowledge about Fundamentals of various unit operations of Agricultural Processing	К2

Programme: B.E. Agricultural Engineering		
Year & Semester: III &V		
Course Code & Name: C305 & GE8074 - Human Rights		
Year of Study:	2019 – 2020	

Course Code and Name:C305 & GE8074 - Human Rights			
Course Code	Code CO Statements Knowledge Leve		
The students sh	The students should be able to		
C305.1	Acquire the basic knowledge about the Human rights and its need	К2	
C305.2	Understand about the Evolution of the concept of Human Rights	K2	
C305.3	Understand the Theories and perspectives of UN Laws	K2	
C305.4	Understand the Human Rights in India	K2	
C305.5	Understand the Human Rights of Disadvantaged People	K2	



Programme: B.E. Agricultural Engineering		
Year & Semester:	III &V	
Course Code & C306 & OCE551 - Air Pollution and Control		
Name:	Engineering	
Year of Study:	2019 – 2020	

Course Code and Name:C306 & OCE551 -Air Pollution and Control Engineering		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C306.1	An understanding of the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management	К2
C306.2	Ability to identify, formulate and solve air and noise pollution problems	K5
C306.3	Ability to design stacks and particulate air pollution control devices to meet applicable standards.	K5
C306.4	Ability to select control equipment	K5
C306.5	Ability to ensure quality, control and preventive measures	K5

Programme: B.E. Agricultural Engineering		
Year & Semester:	III&V	
Course Code &	C307&AI8511 -Operation andMaintenance of	
Name:	FarmMachinery Lab	
Year of Study:	2019 – 2020	

Course Code and Name: C307&AI8511 - Operation and Maintenance of FarmMachinery Lab		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C307.1	Have a practical knowledge on handling the farm machinery	K2
C307.2	Have a practical knowledge in the field operation and	K2
	adjustments of ploughs, harrows and cultivators	
C307.3	Have a practical knowledge on handling of Field operation of	K2
	sowing and planting equipment and their adjustments	
C307.4	Have a practical knowledge on handling of Field operation of	K2
	mowers, reapers. and so on.	
C307.5	Have a Studies on methods of repair, maintenance and off-	K2
C307.5	season storage of farm equipment	



Programme: B.E. Agricultural Engineering		
Year & Semester:	III &V	
Course Code &	C308&AI8512 -Post Harvest EngineeringLaboratory	
Name:		
Year of Study:	2019 – 2020	

Course Code and Name:C308&AI8512 -Post Harvest EngineeringLaboratory		
Course Code	CO Statements	Knowledge Level
The students sho	build be able to	
C308.1	Determine various engineering properties of grains, test and evaluate different post harvesting machineries	K4
C308.2	Understand the testing procedure of paddy thresher & paddy winnower and groundnut decorticator & maize sheller	K2
C308.3	Know the evaluation procedure of thin layer drier and LSU drier	K2
C308.4	Know the procedure to determine the efficiency of bucket elevator and screw conveyor and oil content of oil seeds.	K2
C308.5	Understand the industrial working of modern rice mill and pulse milling industry.	K2

Programme: B.E. Agricultural Engineering		
Year & Semester:	III&V	
Course Code &	C309&AI8513-Irrigation Field Laboratory	
Name:		
Year of Study:	2019 – 2020	

Course Code and Name:C309&AI8513-Irrigation Field Laboratory		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C309.1	Understand the determination procedure of infiltration rate	К2
	and soil moisture wetting pattern	
C309.2	Understand the design procedure for Drip irrigation system	K2
	and sprinkler irrigation system.	
C309.3	Understand the measurement and evaluation of flow	K2
C309.5	properties and surface irrigation.	
C309.4	Understand the determination procedure of uniformity	K2
	coefficient for drip and sprinkler system.	
C309.5	Conductexperiment on disc filter for micro irrigation systems	K3



Programme: B.E. Agricultural Engineering		
Year & Semester: III &V		
Course Code & C310 &HS8581 –Professional Communication		
Name:		
Year of Study:	2019 – 2020	

Course Code and Name:C310 &HS8581 – Professional Communication			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C310.1	Make effective presentations	K6	
C310.2	Participate confidently in Group Discussions	K3	
C310.3	Attend job interviews and be successful in them.	K3	
C310.4	Develop adequate Soft Skills required for the workplace	K6	
C310.5	Recognizing differences between groups and teams	K2	

Programme: B.E. Agricultural Engineering			
Year & Semester:	III &VI		
Course Code &	C311&AI8601 -Groundwater and WellEngineering		
Name:			
Year of Study:	2019 – 2020		

Course Code and Name:C311&AI8601 -Groundwater and WellEngineering			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C311.1	Understand the concept of hydrological parameters like groundwater, its availability, assessment and utilization	К2	
C311.2	Understand the concept of well hydraulics	K2	
C311.3	Understand the theory behind well design,	K2	
C311.4	Understand the theory behindwell construction and maintenance	K2	
C311.5	Understand the theory of well management	K2	



Programme: B.E. Agricultural Engineering		
Year & Semester: III &VI		
Course Code & Name: C312&AI8602 -Food and Dairy Engineering		
Year of Study:	2019 – 2020	

Course Code and Name:C312&AI8602 -Food and DairyEngineering		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C312.1	Gain knowledge about the properties and processing of Dairy and Food process engineering	К2
C312.2	Understand the processing of milk products	K2
C312.3	Understand the food and its properties, reaction and kinetics	K2
C312.4	Understand the process of manufacturing of dairy products and thermal processing of food.	К2
C312.5	Students will understand the importance of quality control and food preservationand packaging.	К2

Programme: B.E. Agricultural Engineering		
Year & Semester: III &VI		
Course Code & Name: C313&AI8603 - Protected Cultivation		
Year of Study:	2019 – 2020	

Course Code and Name:C313&AI8603 -Protected Cultivation		
Course Code	ourse Code CO Statements	
The students sho	buld be able to	
C313.1	Understand the concepts behind protected cultivation and its	K2
	types	
C313.2	Understand the concepts behind protected cultivation of	K2
	various vegetable crops	
C313.3	Understand the concepts behind protected cultivation various	K2
	flower crops	
C313.4	Understand the concepts behind precision farming techniques	K2
C313.5	Understand the concepts behind precision farming of	K2
	horticultural crops	



Programme: B.E. Agricultural Engineering		
Year & Semester: III &VI		
Course Code & Name: C314&AI8604 -Solar and Wind Energy Engineering		
Year of Study:	2019 – 2020	

Course Code and Name:C314&AI8604 -Solar and Wind Energy Engineering			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C314.1	Impart knowledge on solar energyradiation and solar thermal collectors	K 1	
C314.2	Impart knowledge onsolar concentrating collectors	K1	
C314.3	Impart knowledge onsolar pv technology	K1	
C314.4	Impart knowledge onwind energy	K1	
C314.5	Impart knowledge onwind mill types and applications	K1	

Programme: B.E. Agricultural Engineering		
Year & Semester:	III &VI	
Course Code & Name: C315&AI8006 - Agricultural Extension		
Year of Study:	2019 – 2020	

Course Code and Name:C315&AI8006 -Agricultural Extension		
Course Code	Course Code CO Statements	
The students should be able to		
C315.1	Understand the need for communication and programme	K2
	planning	
C315.2	Understand the concept of extension teaching methods	K2
C315.3	Understand the concept of modern communication gadgets	K2
C315.4	Understand the concept of diffusion and adoption	K2
C315.5	Understand the concept of capacity building	K2



Programme: B.E. Agricultural Engineering		
Year & Semester:	III&VI	
Course Code & Name:	C316&AI8007 - Agricultural Waste Management	
Year of Study:	2019 – 2020	

Course Code and Name:C316&AI8007 -Agricultural Waste Management		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C316.1	Impart the knowledge on various methods of agricultural waste management	K 1
C316.2	Impart the knowledge on the concept of composting process and biomass briquetting	K 1
C316.3	Impart the knowledge on Various eco-friendly methods for agricultural waste management.	K 1
C316.4	Impart the knowledge onbiochar production and biogas and bio ethanol production	K 1
C316.5	Impart the knowledge onNutritive value and energy production potential of agro wastes.	K 1

Programme: B.E. Agricultural Engineering		
Year & Semester:	III &VI	
Course Code &	C317&AI8611 -CAD for Agricultural Engineering	
Name:		
Year of Study:	2019 – 2020	

Course Code and Name:C317&AI8611 -CAD for Agricultural Engineering			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C317.1	Understand the plan and layout of underground pipes	K2	
C317.2	Understand the plan and layout of postharvesting unitsand check dams.	К2	
C317.3	Design and draw the components using computer aided Methods like Mould board plough, Disk plough	K6	
C317.4	Design and draw the components using computer aided Methods like Post harvest technology units and biogas plant	K6	
C317.5	Get a broad knowledge about the 3D modeling software like Pro/E, CREO, Solid works, Solid Edge etc	К2	



Prog	Programme: B.E. Agricultural Engineering	
Year & Semester:	III&VI	
Course Code &	C318&AI8612-Drawing of Farm Structures	
Name:		
Year of Study:	2019 – 2020	

Course Code and Name:C318&AI8612-Drawing of Farm Structures		
Course Code	CO Statements	Knowledge Level
The students sho	buld be able to	
C318.1	Understand the Planning and Layout of farmstead	K2
C318.2	Conceive and design various farm structures related to agricultural engineering	K3
C318.3	Understand the design procedure of farm structures like, stall bam, loose housing and milk parlors, poultry house, and so on.	К2
C318.4	Understand the design procedure of farm structures like, sheep / goat house, ventilation system for dairy and poultry house	К2
C318.5	Understand the design procedure of farm structures like, farm fencing system, septic tank and sanitary structures, rural/farm roads and culverts and so on.	К2

Programme: B.E. Agricultural Engineering	
Year & Semester:	III &VI
Course Code &	C319&AI8614-Food Process Engineering Laboratory
Name:	
Year of Study:	2019 – 2020

Course Code and Name: C319 & AI8614 - Food Process Engineering Laboratory			
Course Code	CO Statements	Knowledge Level	
The students sho	The students should be able to		
C319.1	Get experience on various aspects of food processing, like cooking properties of parboiled and raw rice and Estimation of microbial load in food materials	К2	
C319.2	Observe the osmotic dehydration of foods and food extruder	K2	
C319.3	Observe the properties of food and milk	K2	
C319.4	Study the methods for cream separator and operation of butter churn	K 1	
C319.5	Observe the method to detection of Food Adulteration and estimation of protein in food	K2	