



F.No.VFSTR/Reg/A1/12/2020_01

Date: 01-07-2020

CIRCULAR


Sub: List of New Courses Introduced Program-wise during the last Five Academic years.

- Ref:**
1. Minutes of the 7th Meeting of Academic Council held on 26.06.2013.
 2. Minutes of the 8th Meeting of Academic Council held on 10.05.2014.
 3. Minutes of the 10th Meeting of Academic Council held on 04.03.2015.
 4. Minutes of the 12th Meeting of Academic Council held on 23.04.2016.
 5. Minutes of the 17th Meeting of Academic Council held on 14.07.2017.
 6. Minutes of the 18th Meeting of Academic Council held on 21.12.2017.
 7. Minutes of the 19th Meeting of Academic Council held on 12.05.2018.
 8. Minutes of the 21st Meeting of Academic Council held on 29.04.2019.
 9. Minutes of the 23rd Meeting of Academic Council held on 29.11.2019.

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The Curriculum of all programs offered by VFSTR undergoes major revision once in 2-3 years based on the feedback from stakeholders. The list of new courses Introduced Program- wise during the last five Academic years are shown in the Annexures (I-V)

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(Deemed to be University)
VADLAMUDI-522 213
GUNTUR (DISTRICT), A.P. INDIA



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Foundation for Science, Technology & Research

(Deemed to be University)

-Estd. u/s 3 of UGC Act 1956

The number of new courses Introduced Program wise during the last five Academic years (A.Y 2015-16 to 2019-20).

Sl.No	Academic year	Number of new courses
1	2015-16	338
2	2016-17	385
3	2017-18	617
4	2018-19	424
5	2019-20	393
Total		2157

ANNEXURE-I (2015-16)

Program code	Program name	Year of Introduction	CourseCode	Course Name	Activities
A01	B.Tech-Biotechnology	2015	BT301	Molecular Biology	Employability o Model the double-helix of DNA using ball and stick kit. o Identify complements, palindromes, loops and bends.
A01	B.Tech-Biotechnology	2015	BT302	Animal Biotechnology	Skill development o Design medium for culturing stem cells. o Visualize cell division under microscope.
A01	B.Tech-Biotechnology	2015	BT303	Biochemical Reaction Engineering	Employability o Hypothesize and validate reaction mechanism. o Design bioreactor.
A01	B.Tech-Biotechnology	2015	BT304	Thermodynamics for Biotechnologists	Skill development o Estimation of efficiency of heat engine and refrigerator. o Calculation of heat changes in fermentation process.
A01	B.Tech-Biotechnology	2015	BT305	Genetic Engineering	Skill development o Culture bacterial cells. o Isolation of bacterial and plasmid DNA. o Handling micropipettes to deal with molecular enzymes.
A01	B.Tech-Biotechnology	2015	BT306	Bioprocess Engineering	Skill development o Determine phases of cell growth. o Calculate substrate and product inhibition on growth of cells.
A01	B.Tech-Biotechnology	2015	BT307	Plant Biotechnology	Skill development o Multiplication of ornamental explants by micropropagation. o Visit to plant/ seed company to understand the micropropagation and genetic transformation of commercial crops.
A01	B.Tech-Biotechnology	2015	BT308	Enzyme technology	Skill development o Isolate peroxidase from horse radish. o Purify and compare peroxidase by different methods.
A01	B.Tech-Biotechnology	2015	BT309	Plant Metabolism	Skill development o Analyze the role of plant hormones on plant growth/hill model. o Estimate secondary metabolites such as tannins, resins, terpenes and others produced in plants.
A01	B.Tech-Biotechnology	2015	BT310	Bioethics Safety and IPR	Skill development o Open house debate on patenting and environmental issues. o Plenary session on ethical and moral implications of intellectual properties.
A01	B.Tech-Biotechnology	2015	BT311	Plant Physiology	Skill development o Prepare explants for genetic transformation. o Regeneration of plantlets.
A01	B.Tech-Biotechnology	2015	BT312	Stem Cell Biology	Employability o To encompass the tissue regeneration capacity model experiments
A01	B.Tech-Biotechnology	2015	BT313	Biochemical Reaction Engineering Lab	Skill development o Hypothesize and validate reaction mechanism. o Design bioreactor.
A01	B.Tech-Biotechnology	2015	BT329	Cell & Tissue culture	Skill development (o Apply the most advanced technique in cell culture o Tissue cultures analyzing for the updating advanced level)
A01	B.Tech-Biotechnology	2015	BT330	Animal Cell Science Technology	Skill development o Analyze the functioning of organ systems using 3D graphics/ models.
A01	B.Tech-Biotechnology	2015	BT331	Biological Database Lab	Employability (o Introduce the biological databases o working on biological databases for the learning of new technologies)
A01	B.Tech-Biotechnology	2015	BT332	Molecular Biology & Genetic Engineering Lab	Employability (o To learn the molecular biology techniques o working on live models of MB techniques)
A01	B.Tech-Biotechnology	2015	BT334	Bioprocess Engineering Laboratory	Skill development (To measure the rate of reaction o To evaluate the bioprocess reactions)
A01	B.Tech-Biotechnology	2015	BT336	Mini Project	Employability: (o To solve real time projects o Apply new techniques to develop new methods)
A02	B.Tech-Chemical Engineering	2015	CH301	process heat transfer	Skill development o Mix the heat. o Feel the heat. o Identification of heat exchangers. o Fabrication of double pipe heat exchanger. o Connecting shell and tube heat exchanger setup.
A02	B.Tech-Chemical Engineering	2015	CH302	Mass Transfer Operation-II	Skill development o Verify the Rayleigh's equation using Mat Lab. o Selection of best method for separation of a given binary or ternary mixture. o Application of appropriate mass transfer operation using C Language.
A02	B.Tech-Chemical Engineering	2015	CH303	Mass Transfer Operation-I	Skill development o Estimation of diffusivity coefficient using virtual operations. o Estimation of drying properties like critical moisture and equilibrium moisture using Matlab o Estimation of mass transfer coefficient for gases and liquids using Matlab
A02	B.Tech-Chemical Engineering	2015	CH304	Chemical Reaction Engineering-II	Skill development o Modeling of non-ideal reactors using MAT Lab. o Simulation of compartment model using MAT Lab. o Products and reactants concentration profiles in heterogeneous reactions
A02	B.Tech-Chemical Engineering	2015	CH305	Chemical Reaction Engineering-I	Skill development o Analyzing kinetic data using excel. o Estimate Kinetic parameters using excel. o Case study on Industrial applications of reactors.
A02	B.Tech-Chemical Engineering	2015	CH306	Chemical Engineering Thermodynamics-II	Skill development o Extracting equilibrium data. o Identification of ideal and nonideal behavior. o Modeling of vapor liquid equilibrium.
A02	B.Tech-Chemical Engineering	2015	CH308	Membrane Technology	Employability o Utilize laboratory techniques to identify microorganisms in foods o Membrane processing techniques o Membranes For Gas Separation, water treatment o Ultrafiltration, nanofiltration, reverse osmosis
A02	B.Tech-Chemical Engineering	2015	CH310	Mathematical Methods for Chemical Engineering	Employability o mathematical methods and their application to solving real world problems o complex problem and related solution to different domain in chemical engineering
A02	B.Tech-Chemical Engineering	2015	CH312	Biochemical Engineering	Skill development o Transport of energy and mass is fundamental to many biological and environmental processes o Bioreactors o Bioreactor mathematical modeling o Bioreactor batch/fedbatch/continuous operations
A02	B.Tech-Chemical Engineering	2015	CH314	Chemical Reaction Engineering Lab	Skill development o RTD of a straight tubular flow reactor without helical coils and as a helical coil o RTD for single tank reactor, two tanks in series and three tanks in series o RTD of packed bed reactor and prediction of extent of dispersion o To study the kinetics of liquid phase reaction in a batch reactor

A02	B.Tech-Chemical Engineering	2015	CH325	Process Dynamics and Control	Skill development o Simulate modeling equations for a given system.
A02	B.Tech-Chemical Engineering	2015	CH327	Energy Engineering	Skill development o Actively manage energy consumption o computer-aided tool used by power system operators to monitor, control, and carry out optimal energy management
A02	B.Tech-Chemical Engineering	2015	CH329	Industrial Safety and Hazard Management	Skill development o Quantitative Risk assessment in Chemical Industries o General hazards of plant operation toxic hazards
A02	B.Tech-Chemical Engineering	2015	CH331	Design of Analysis & Experiments	Skill development o Components of Experimental Design o experimental design skills
A02	B.Tech-Chemical Engineering	2015	CH333	process.heat transfer Lab	Skill development o Determination of heat transfer coefficients of double pipe heat exchanger. o Determination of heat transfer coefficient in Shell and Tube Heat Exchanger. o Determination of overall heat transfer coefficient of a given coil. o Estimation of heat transfer coefficient in forced convection.
A02	B.Tech-Chemical Engineering	2015	CH334	Mass Transfer Operation Lab	Skill development o Determine the pressure drop and flooding characteristics in a packed column o Determination of the mass transfer coefficient for absorption of CO ₂ in NaOH solution in packed Column o Verification of Himus equation through surface evaporation. o Estimation of diffusivity in gas phase.
A02	B.Tech-Chemical Engineering	2015	CH335	Chemical Technology Lab	Skill development o solubility tests on vegetable oils o basic experiments related to the chemical technology o synthesis of polymer o Iodine value, acid test
A02	B.Tech-Chemical Engineering	2015	CH336	Mini Project	Employability o contribute to productive working relationships and outcomes. o Initiative and enterprise
A02	B.Tech-Chemical Engineering	2015	CH337	Process Dynamics and Control Lab	Skill development o Simulation of proportional controller o Verifying the response of Non-interacting level system o Effect of PI controller on flow control system o Control valve characteristics
A03	B.Tech-Civil Engineering	2015	CE317	Design of Reinforced Concrete Structures	Skill development (Check the serviceability requirements of the structural elements)
A03	B.Tech-Civil Engineering	2015	CE319	Structural Analysis - II	Skill development (Classify different types of structures based on degrees of freedom)
A03	B.Tech-Civil Engineering	2015	CE320	Design of Steel Structures	Skill development (Calculate the cross section area required for plate girders)
A03	B.Tech-Civil Engineering	2015	CE321	Geotechnical Engineering - I	Skill development (Determine the consolidation properties (rate of consolidation, time taken for completing consolidation etc.) of a given soil.)
A03	B.Tech-Civil Engineering	2015	CE322	Structural Analysis	Skill development (Identify the deflection profile of structures subjected to several types of loadings)
A03	B.Tech-Civil Engineering	2015	CE323	Environmental Engineering - I	Skill development (Prepare a flow chart of Activated sludge process.)
A03	B.Tech-Civil Engineering	2015	CE324	Geotechnical Engineering - II	Skill development (Find out stresses using newmark's influence chart for a given area)
A03	B.Tech-Civil Engineering	2015	CE326	Environmental Engineering - II	Skill development (Estimate water requirement for Guntur city)
A03	B.Tech-Civil Engineering	2015	CE331	Geotechnical Engineering Lab	Entrepreneurship (Determine permeability coefficients of soils)
A03	B.Tech-Civil Engineering	2015	CE333	Computer Applications in Civil Engineering Lab	Entrepreneurship(Understand the load distribution process)
A03	B.Tech-Civil Engineering	2015	CE334	Computer Aided Analysis and Design of Structures Lab	Entrepreneurship (To demonstrate system analysis, design, fabrication, presentation and execution skills)
A03	B.Tech-Civil Engineering	2015	CE335	Building Drawing using AUTOCAD	Employability (To apply the graphical models to draw the best and better models)
A03	B.Tech-Civil Engineering	2015	CE336	Environmental Engineering Lab	Entrepreneurship (Prepare a model of Trickling filter)
A03	B.Tech-Civil Engineering	2015	CE338	Mini Project	Entrepreneurship (Design of multistorey building using STAAD)
A04	B.Tech-Computer Science and Engineering	2015	CS313	COMPUTER NETWORKS	Skill development(Identify various network device and then Investigate various network topologies.)
A04	B.Tech-Computer Science and Engineering	2015	CS315	OPERATING SYSTEMS	Skill development(Building applications of Embedded Systems using RTOS.)
A04	B.Tech-Computer Science and Engineering	2015	CS317	COMPILER DESIGN	Skill development(Construct the lexical analyser using LEX)
A04	B.Tech-Computer Science and Engineering	2015	CS319	OPEN SYSTEMS FOR WEB TECHNOLOGIES	Employability(Choose a real time problem to develop a Web application or Web site)
A04	B.Tech-Computer Science and Engineering	2015	CS321	COMPUTER GRAPHICS	Skill development(Design a suitable application using line, circle drawing algorithms and also Implement translation, rotation, scaling of objects.)
A04	B.Tech-Computer Science and Engineering	2015	CS322	OBJECT ORIENTED ANALYSIS & DESIGN	Skill development(Analyze various algorithmic techniques to solve problems and implement robust set of algorithms to solve new problems efficiently.)
A04	B.Tech-Computer Science and Engineering	2015	CS323	PERFORMANCE EVALUATION OF COMPUTER SYSTEMS	Skill development(To evaluate the computer systems it is working towards better performance)
A04	B.Tech-Computer Science and Engineering	2015	CS324	MIDDLEWARE TECHNOLOGIES	Employability(Apply styles to Web pages using CSS and Validate Client side C# program using .NET.)
A04	B.Tech-Computer Science and Engineering	2015	CS325	OPERATIONS RESEARCH	Skill development (Analytical problem solving method)
A04	B.Tech-Computer Science and Engineering	2015	CS326	MICROPROCESSORS & INTERFACING	Skill development(Interfacing 16x2 LCD with 8051 and Interfacing 4x4 Hex key pad with 8051.)
A04	B.Tech-Computer Science and Engineering	2015	CS328	MOBILE COMPUTING	Employability(Choose medium access control mechanism for a given application and Distinguish among various wireless networks.)
A04	B.Tech-Computer Science and Engineering	2015	CS329	COMPUTER NETWORKS LAB	Employability(Identify various network devices)
A04	B.Tech-Computer Science and Engineering	2015	CS330	NETWORK PROGRAMMING	Skill development(Develop a chat application for client/server model and develop an electronic mail application.)
A04	B.Tech-Computer Science and Engineering	2015	CS331	OPERATING SYSTEMS LAB	Skill development(Identification and Installation of Various Operating system)
A04	B.Tech-Computer Science and Engineering	2015	CS332	ARTIFICIAL INTELLIGENCE	Employability(Design solution for real time problems using AI Techniques and present knowledge representation for real time problems.)
A04	B.Tech-Computer Science and Engineering	2015	CS334	PRINCIPLES OF PROGRAMMING LANGUAGES	Skill development(Understand the basic syntax and semantics of various programming paradigms)
A04	B.Tech-Computer Science and Engineering	2015	CS336	SIMULATION AND MODELING	Skill development(Analyze and design various systems using simulators and then evaluate their simulating performance)
A04	B.Tech-Computer Science and Engineering	2015	CS338	OBJECT ORIENTED ANALYSIS & DESIGN THROUGH UML LAB	Employability(evolution of object-oriented model, classes, object-oriented methodology and its notations)
A04	B.Tech-Computer Science and Engineering	2015	CS340	MOBILE COMPUTING LAB	Skill development(incorporate application portability, distributed application component interoperability and integration)
A04	B.Tech-Computer Science and Engineering	2015	CS342	MINI PROJECT	Employability(To solve real time projects)
A05	B.Tech-Electronics and Communication Engineering	2015	EC317	Linear Ics & Applications	Skill development (Design inverting amplifier and voltage follower used in Buffers. Design Integrator.)
A05	B.Tech-Electronics and Communication Engineering	2015	EC318	Linear Control Systems	Skill development (Design Various controllers)

A05	B.Tech-Electronics and Communication Engineering	2015	EC319	Microprocessor & Microcontrollers	Employability (Interface a 16x2 LCD with 8051)
A05	B.Tech-Electronics and Communication Engineering	2015	EC320	VLSI Design	Skill development(Very large screen integrates require to design the comfortable view of the systems)
A05	B.Tech-Electronics and Communication Engineering	2015	EC321	Digital Communications	Skill development (Implement different Digital modulation schemes using Matlab ON-OFF Keying used in optical communication)
A05	B.Tech-Electronics and Communication Engineering	2015	EC322	Antennas & Wave Propagation	Skill development (Analyze an antenna for Wireless Applications.)
A05	B.Tech-Electronics and Communication Engineering	2015	EC323	Transmission Lines & Waveguides	Skill development (Analyze the waveguides.)
A05	B.Tech-Electronics and Communication Engineering	2015	EC324	Computer Architecture & Organization	Skill development(development of assembly language programs that leverage the underlying hardware resources efficiently.)
A05	B.Tech-Electronics and Communication Engineering	2015	EC325	Digital IC Applications	Skill development(Through application wide driven of Digitalization leads to easing of usage)
A05	B.Tech-Electronics and Communication Engineering	2015	EC326	Optical Communications	Skill development Choose the fiber to transmit 1 Gbps – 10 Gbps data over 500 meters distance. Find NA and attenuation of a given fibre
A05	B.Tech-Electronics and Communication Engineering	2015	EC327	IC Applications Lab	Skill development (design Oscillators using Lumped elemnts)
A05	B.Tech-Electronics and Communication Engineering	2015	EC328	Embedded Systems	Employability(Systems using to embedded the different partial fulfilments for the studying of Operating systems)
A05	B.Tech-Electronics and Communication Engineering	2015	EC329	Microprocessors & Interfacing Lab	Skill development (Program differnet applicatoinns using processors)
A05	B.Tech-Electronics and Communication Engineering	2015	EC330	Electromagnetic Interference Compatibility	Skill development (Design electronic systems that function without errors or problems related to electromagnetic compatibility.)
A05	B.Tech-Electronics and Communication Engineering	2015	EC331	Digital Communication Lab	Skill development (Perform various modulation techniques)
A05	B.Tech-Electronics and Communication Engineering	2015	EC332	VLSI Design Lab	Skill development(Very large screen integrates require to design the comfortable view of the systems in laboratory purpose)
A05	B.Tech-Electronics and Communication Engineering	2015	EC333	Communication Systems-I	Skill development (Analyse various modulation techniques)
A05	B.Tech-Electronics and Communication Engineering	2015	EC334	Mini Project	Employability(To solve real time projects)
A05	B.Tech-Electronics and Communication Engineering	2015	EC335	Linear IC Application	Skill development (Analyse linear and nonlinear applications of OP-Amp)
A05	B.Tech-Electronics and Communication Engineering	2015	EC336	Microprocessors and Interfacing	Skill development (write Assembly language programmes for various applications)
A05	B.Tech-Electronics and Communication Engineering	2015	EC338	Communication Systems-II	Skill development (Analyse various modulation techniques)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE313	A.C.Machines-II	Skill development (To monitor the D.C. Machines for the analyzing the systems for laboratory analysis)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE315	Power Systems-II	Skill development (Trouble shoot a single phase Induction Motor)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE316	Microprocessors Architectures and Control	Skill development (Make a prototype of single line diagram of substation (any one of 220/132/66KV)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE317	Power Electronics Devices and Circuits	Skill development (Design any microcontroller based system with more than seven peripherals)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE318	Switch Gear and Protection	Skill development (Design of DC-DC converter for speed control of Dc Motor)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE319	Linear Control Systems	Skill development (Visit a substation and prepare its technical report on control side)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE320	High Voltage DC Transmission	Skill development (Visit a substation and prepare its technical report on control side)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE322	AI Techniques in Electrical Engineering	Skill development (Design of digital inverter for UPS)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE323	Energy Conversion and Storage Technologies	Skill development (Analyzing the elctrical related works for the analysis of elctrical techniques)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE324	Embedded Systems in Electrical Engineering	Skill development (To monitoring the analysis of energy conversion systems)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE325	A.C. Machines Lab	Skill development (development of elctrical monitoring systems by using embedded formats)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE326	Power Electronics Lab	Skill developmen (Trouble shoot a single phase Induction Motor)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE327	Electrical Measurements & instrumentation Lab	Skill development (Design of DC-DC converter for speed control of Dc Motor)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE328	Linear Control Systems Lab	Skill development (Determine 3-phase reactive power consumed by agriculture load)
A06	B.Tech-Electrical and Electronics Engineering	2015	EE330	Mini Project	Employability (Analyze the Harmonic content of a signal using Fourier series)
A07	B.Tech-Information Technology	2015	IT303	DIGITAL IMAGE PROCESSING	Employability (Develop the Internet based analysis of scripting development)
A07	B.Tech-Information Technology	2015	IT305	ADVANCED COMPUTER ARCHITECTURE	Employability(Image acquisition by various resolution cameras and comparison of visual quality variation)
A07	B.Tech-Information Technology	2015	IT308	MICROPROCESSORS & MICROCONTROLLERS	Skill development(Simulate arithmetic, logic and shift operations)
A07	B.Tech-Information Technology	2015	IT310	SOFT COMPUTING	Skill development(various functional units of 8051 microcontroller)
A07	B.Tech-Information Technology	2015	IT311	Unix and Shell Programming	Skill development(Detection of threat objects using fuzzy points)
A07	B.Tech-Information Technology	2015	IT312	MOBILE APPLICATION DEVELOPMENT	Skill development(Shell scripting and file systems)
A07	B.Tech-Information Technology	2015	IT314	SCRIPT PROGRAMMING	Skill development(Design and deploy a Student attendance monitoring system in android)
A07	B.Tech-Information Technology	2015	IT316	MINI PROJECT	Skill development(Construct web scraping scripts to programmatically obtain data and content from web pages)
A08	B.Tech-Mechanical Engineering	2015	ME317	Design of machine elements-I	Skill development (Identify the nature of failures for various machine elements subjected to different loading)
A08	B.Tech-Mechanical Engineering	2015	ME318	Design of machine elements-II	Skill development (Identify the nature of failures for various machine elements subjected to different loading.)
A08	B.Tech-Mechanical Engineering	2015	ME319	Dynamics of machines	Skill development (Understand the dynamic forces acting on the engine components)
A08	B.Tech-Mechanical Engineering	2015	ME320	Heat transfer	Skill development (Understand the basic laws, modes of heat transfer and Analyze problems involving steady state heat conduction in simple geometries)
A08	B.Tech-Mechanical Engineering	2015	ME321	Manufacturing process-II	Employability 1. Complete knowledge of tool geometry and its performance.
A08	B.Tech-Mechanical Engineering	2015	ME322	Finite element analysis	Employability 1. Evaluate problems in static structural and steady state heat transfer using energy methods
A08	B.Tech-Mechanical Engineering	2015	ME323	Thermal engineering-II	Skill development (Describe the working principles of different thermal energy systems)

A08	B.Tech-Mechanical Engineering	2015	ME324	CAD/CAM	Employability (Differentiate between product life cycle in conventional and computerbased manufacturing systems)
A08	B.Tech-Mechanical Engineering	2015	ME325	Mechanical Vibrations	Skill development (Construct various equations of motions for mechanical systems)
A08	B.Tech-Mechanical Engineering	2015	ME326	Computational fluid dynamics	Employability (Construct various equations of motions for mechanical systems)
A08	B.Tech-Mechanical Engineering	2015	ME327	Metrology & instrumentation	Skill development (Acquire the knowledge in fits, tolerance & gauge design and make use of it.)
A08	B.Tech-Mechanical Engineering	2015	ME328	Mechatronics	Employability (Summarize how mechatronics integrates knowledge from different disciplines.)
A08	B.Tech-Mechanical Engineering	2015	ME329	Rapid prototyping	Skill development (understanding of the various rapid prototyping, rapid tooling technologies)
A08	B.Tech-Mechanical Engineering	2015	ME330	Composite materials	Skill development (Understand various types of composites based on matrix and reinforcing agents)
A08	B.Tech-Mechanical Engineering	2015	ME331	Machine tools & metrology lab	Employability (Study basic elements and philosophy of metal cutting and the mechanism of metal removal.)
A08	B.Tech-Mechanical Engineering	2015	ME332	Modeling & simulation lab	Employability (Expertise on modelling tools, for drawing machine components on computer screen.)
A08	B.Tech-Mechanical Engineering	2015	ME333	Fuels & I.C Engines lab	Skill development (Understand the complete operation of 2 stroke and 4 stroke I.C engines which can be further confirmed through V.T.D and P.T.D)
A08	B.Tech-Mechanical Engineering	2015	ME334	Mini project	Skill development 1. Provide the projected based learning and design small projects using new small scale projects
A08	B.Tech-Mechanical Engineering	2015	ME335	Manufacturing drawing & instrumentation lab	Skill development (Draw the fits, tolerance & gauge designs as per standards)
A10	B.Tech-Automobile Engineering	2015	AE319	Advanced Theory of I.C Engines	Employability (Capture images and analyze combustion processes)
A10	B.Tech-Automobile Engineering	2015	AE320	Vehicle Body Engineering	Employability (Design and analyze different bus body layouts)
A10	B.Tech-Automobile Engineering	2015	AE322	Automotive Safety	Employability (Identify requirements of a safety system)
A10	B.Tech-Automobile Engineering	2015	AE323	Automotive Components Design	Employability (Design a piston head using modelling software)
A10	B.Tech-Automobile Engineering	2015	AE324	Modern Vehicle Technology	Employability (Identify driver assisting systems and test procedures)
A10	B.Tech-Automobile Engineering	2015	AE325	Automotive Transmission	Employability (Dismantle, inspect and assemble gear box)
A10	B.Tech-Automobile Engineering	2015	AE326	Vehicle Dynamics	Employability (Draw free body diagram of different vibration system.)
A10	B.Tech-Automobile Engineering	2015	AE327	Automotive Chassis	Employability (Testing of suspension system components)
A10	B.Tech-Automobile Engineering	2015	AE328	Special Purpose Vehicles	Employability (Practice driving and operation of different offroad vehicles.)
A10	B.Tech-Automobile Engineering	2015	AE329	Two & Three Wheelers Technology	Employability (Perform brake efficiency test and brake adjustment.)
A10	B.Tech-Automobile Engineering	2015	AE330	Electronic Engine Management System	Employability (Identify driver assisting systems and test procedures)
A10	B.Tech-Automobile Engineering	2015	AE331	Vehicle Evaluation & Maintenance Lab	Skill development(Minor and Major tuneup of gasoline and diesel engines)
A10	B.Tech-Automobile Engineering	2015	AE333	Automotive Chassis & Transmission Lab	Skill development(Estimate torque and power transmission through sliding mesh gear box)
A10	B.Tech-Automobile Engineering	2015	AE334	Mini Project	Employability (To learn and develop the new mini projects for the research based learning)
A10	B.Tech-Automobile Engineering	2015	AE335	Two & Three Wheelers Technology Lab	Employability (Conduct performance test on shock absorber)
A11	B.Tech-Textile Technology	2015	TT424	Home Textiles	Skill development (1. To learn about different products and their specifications of home textile products. 2. To learn how these products can be manufactured. 3. design Home furnishings depends on requirements)
A11	B.Tech-Textile Technology	2015	TT317	Textile Testing-I	Skill development (o Measure fabric thread crimp theoretically and practically o Compare crease recovery of cotton and polyester fabric. o Draw fabric drape diagram for stiff and limp fabric. o Collect and compare test procedures under different standards. o Assessment of color fastness)
A11	B.Tech-Textile Technology	2015	TT319	Technology of Preparatory and Dyeing	Skill development (o Interpretation of computer colour matching data. o Dyeing of fabric with natural dye using different mordants. o Identification of various defects within the dyed and printed fabrics. o Collection of different finished samples in regular use. o Analysis of tirupur case study for ETP.)
A11	B.Tech-Textile Technology	2015	TT321	Fabric Structure and Design	Employability (o Analysis and designing of weaves, drafting and lifting plan for shirting fabric, upholstery. o Analysis and designing of weaves, drafting and lifting plan for any compound structured fabric. o Manufacturing of woven fabric from drafting and lifting plan. o Drawing weave notation for any welt knitted fabric. o Manufacturing of warp knitted fabric based on design. o Draw-in and denting operation for basic weaves.)
A11	B.Tech-Textile Technology	2015	TT322	Textile Testing-II	Skill development (ACTIVITIES: o Measure fabric thread crimp theoretically and practically o Compare crease recovery of cotton and polyester fabric. o Draw fabric drape diagram for stiff and limp fabric. o Collect and compare test procedures under different standards. o Assessment of color fastness)
A11	B.Tech-Textile Technology	2015	TT323	Advanced Yarn Manufacturing	Entrepreneurship (ACTIVITIES: o Collect technical specifications of yarn preparatory machines. o Prepare spin plan for carded and combed yarns for a given count. o Prepare flow chart for carded and combed yarn manufacturing process. o Observe spinning parameters by visiting a spinning mill.)
A11	B.Tech-Textile Technology	2015	TT324	Technology of Printing & Finishing	Skill development (ACTIVITIES: o Interpretation of computer colour matching data. o Dyeing of fabric with natural dye using different mordants. o Identification of various defects within the dyed and printed fabrics. o Collection of different finished samples in regular use. o Analysis of tirupur case study for ETP.)
A11	B.Tech-Textile Technology	2015	TT325	Physical Properties of Textile Fibers	Employability (ACTIVITIES: o Analyse Degree of order, degree of localization for polyester and nylon. o Analyse of x-ray pattern of oriented, disoriented and partially crystalline fibre. o Compare fiber properties based on fiber structure. o Perform heatsetting of polyester. o Analyse NMR graph and identify fibre.)
A11	B.Tech-Textile Technology	2015	TT326	Technical Textiles	Skill development (ACTIVITIES: o Collection of fibres used for a mulch mat/ geo-textile/ sutures/for various applications. o Design a fabric structure for a ballistic armor/ geo-textile/seat belt. o Interpret the results of permittivity and transitivity to the fabric thickness. o Analyse baby diaper/carry bag/tyre cord/ other technical textiles product. o Analyse shed cover, its design, coating and related information.)

A11	B.Tech-Textile Technology	2015	TT327	Proces & Quality Management in Textiles	Employability (ACTIVITIES: o Calculate individual and overall efficiency for spinning mill o Perform breakage study at warping and weaving. o Measure absorbency of bleached cloth. o Carry Iodine absorption test for evaluation of degree of cross linking. o Collect of standers and norms for textile mill processes.)
A11	B.Tech-Textile Technology	2015	TT328	Shuttle Less Weaving	Skill development (ACTIVITIES: o Calculate production capacity of shuttle-less weaving machines. o Collect and compare handloom fabric and shuttle-less loom fabrics. o Collect technical specifications of shuttle-less weaving machines. o Collection of various narrow fabric samples. o Prepare weave plan for desired quality.)
A11	B.Tech-Textile Technology	2015	TT329	Machnics of Textile Machinery	Employability (ACTIVITIES: o Calculate velocity and time using equation of motion and motion in a circle. o Design of cam for plain and twill weave. o calculate depth of warp shed. o Calculate power for picking in shuttle loom.)
A11	B.Tech-Textile Technology	2015	TT330	Intellectual Property Rights	Skill development (o Analyse copyright, patent, GI etc)
A11	B.Tech-Textile Technology	2015	TT331	Textile Testing-I Lab	Skill development (o Measure fabric thread crimp theoretically and practically o Compare crease recovery of cotton and polyester fabric. o Draw fabric drape diagram for stiff and limp fabric. o Collect and compare test procedures under different standards. o Assessment of color fastness)
A11	B.Tech-Textile Technology	2015	TT332	Personal Management and industrial Relations	Skill development (o study and understand case studies)
A11	B.Tech-Textile Technology	2015	TT333	Technology of Preparatory and Dying Lab	Skill development (o Interpretation of of computer colour matching data. o Dyeing of fabric with natural dye using different mordants. o Identification of various defects within the dyed and printed fabrics. o Collection of different finished samples in regular use. o Analysis of tirupur case study for ETP.)
A11	B.Tech-Textile Technology	2015	TT334	Lean and Six Sigma For Textile and Apparels	Skill development (Design and Development of Advanced textiles)
A11	B.Tech-Textile Technology	2015	TT335	Fabric Structure and Design Lab	Employability (o Analysis and designing of weaves, drafting and lifting plan for shirting fabric, upholstery. o Analysis and designing of weaves, drafting and lifting plan for any compound structured fabric. o Manufacturing of woven fabric from drafting and lifting plan. o Drawing weave notation for any weft knitted fabric. o Manufacturing of warp knitted fabric based on design. o Draw-in and denting operation for basic weaves.)
A11	B.Tech-Textile Technology	2015	TT336	Textile Testing-II Lab	Skill development (o Measure fabric thread crimp theoretically and practically o Compare crease recovery of cotton and polyester fabric. o Draw fabric drape diagram for stiff and limp fabric. o Collect and compare test procedures under different standards. o Assessment of color fastness)
A11	B.Tech-Textile Technology	2015	TT338	Technology of Printing and Finishing Lab	Skill development (o Interpretation of of computer colour matching data. o Dyeing of fabric with natural dye using different mordants. o Identification of various defects within the dyed and printed fabrics. o Collection of different finished samples in regular use. o Analysis of tirupur case study for ETP.)
A11	B.Tech-Textile Technology	2015	TT340	Mini Project	Skill development (o collection and preparing PROJECT report. Explaining to the faculty and classmates)
A12	B.Tech-Agriculture Engineering	2015	AG301	Machine Design	Skill development Design of power transmission shafts and couplings.
A12	B.Tech-Agriculture Engineering	2015	AG302	Irrigation Engineering	Employability Identify various irrigation methods.
A12	B.Tech-Agriculture Engineering	2015	AG303	Farm Machinery and Equipment	Employability Design and development of small scale forage chopper.
A12	B.Tech-Agriculture Engineering	2015	AG304	Tractor Systems and Controls	Skill development Design of gearbox, differential and transmission systems for tractors.
A12	B.Tech-Agriculture Engineering	2015	AG305	Ground Water, Wells and Pumps	Skill development Demonstration of different pump working models.
A12	B.Tech-Agriculture Engineering	2015	AG306	Dairy and Food Engineering	Employability development of various dairy products such as paneer, cheese, butter, buttermilk, sweets etc. on lab scale.
A12	B.Tech-Agriculture Engineering	2015	AG307	Watershed Hydrology	Skill development Analysis of rainfall data .
A12	B.Tech-Agriculture Engineering	2015	AG308	Drainage Engineering	Employability Visit to perceive the waterlogged field conditions for select types of drainage system required
A12	B.Tech-Agriculture Engineering	2015	AG309	Food Packaging Technology	Employability development of biodegradable packaging materials for selected food products.
A12	B.Tech-Agriculture Engineering	2015	AG310	Development of Processed Products and Equipment	Employability development of innovative products by the application of emerging technologies like extrusion, HPP, PEF, ohmic heating etc
A12	B.Tech-Agriculture Engineering	2015	AG311	Farm Power and Machinery Management	Employability Case study on machinery selection.
A12	B.Tech-Agriculture Engineering	2015	AG312	Tractor Design and Testing	Employability Collection of requisite parameters for design of hydraulic system for tractor.
A12	B.Tech-Agriculture Engineering	2015	AG313	Remote Sensing & GIS Applications	Employability Land use and land cover map preparation of a river.
A12	B.Tech-Agriculture Engineering	2015	AG314	Watershed Planning and Management	Skill development Watershed problem identification through survey.
A12	B.Tech-Agriculture Engineering	2015	AG315	Machine Drawing Lab	Skill development Design a piston assembly for engine considering stresses.
A12	B.Tech-Agriculture Engineering	2015	AG316	Irrigation and Drainage Engineering Lab	Employability Design of micro irrigation systems
A12	B.Tech-Agriculture Engineering	2015	AG317	Database Management and Internet Lab	Employability Design of ER diagram for the development of web applications.
A12	B.Tech-Agriculture Engineering	2015	AG318	Field Operation and Maintenance of Tractors & Farm Machinery Lab	Skill development Driving of a tractor.
A12	B.Tech-Agriculture Engineering	2015	AG319	Farm Machinery and Equipment Lab	Employability Identify and study various materials used for construction of machinery.
A12	B.Tech-Agriculture Engineering	2015	AG320	Mini Project	Employability (Apply the concepts and evaluate research based learning on mini project)
C01	Master of Business Administration	2015	MS149	Principles and Practices of Management (PPM)	Employability 1) Select a successful retail store and give details of factor leading to its success. 2) Select a failed venture, if any known to you, and bring out reasons for its failure (Note what we learn from these success & failure stories). 3) Select a company and prepare a SWOT analysis for the same.
C01	Master of Business Administration	2015	MS150	Managerial Economics (ME)	Employability 1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis.
C01	Master of Business Administration	2015	MS151	Business Environment & Ethics (BEE)	Employability 1. List out the various cyber offences and the penalties for the same. 2. List at least 3 MNCs of G-8 Countries operating in India along with products they manufacture.

C01	Master of Business Administration	2015	MS152	Accounting for Managers (AFM)	Employability 1. Contact an NGO and find out their system of accounting. 2. Collect information with regard to the practical reasons for charging
C01	Master of Business Administration	2015	MS153	Operations Research (OR)	Employability 1. Be able to build and solve Transportation Models and Assignment Models.
C01	Master of Business Administration	2015	MS154	Organizational Behavior (OB)	Employability 1. Survey on resistance to changing policies in The Banking Sector, The IT Sector 2. Undertake a study to find out the various nonfinancial incentives used to motivate employees. 3. A study in job enrichment and factors contributing to absenteeism and employee turnover in any industry of your choice. 4. Analyze the characteristics and components of attitudes. 5. Perform a study on the determinants of personality of a group of individuals. 6. Analyze the organizational culture and climate in the BPO industry. 7. Conduct a study on the reasons for attrition in the BPO industry.
C01	Master of Business Administration	2015	MS155	Business Laws (BL)	Employability 1. Draft a 'rent agreement' incorporating all the essential features of a valid agreement. 2. Draft the Memorandum of Association of a company.
C01	Master of Business Administration	2015	MS156	Managerial Communication (MC)	Employability Prepare a draft letter to the project manager which imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
C01	Master of Business Administration	2015	MS157	Marketing Management (MM)	Employability 1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company.
C01	Master of Business Administration	2015	MS158	Corporate Finance (FM)	Employability Visit a bank and collect information regarding short term and medium term finance offered by them which helps a retail company
C01	Master of Business Administration	2015	MS159	Human Resource Management (HRM)	Employability 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company.
C01	Master of Business Administration	2015	MS163	E-Business (EB)	Employability Collect the responses of managers in implementation of e-business practices
C01	Master of Business Administration	2015	MS164	Project Management (PM)	Entrepreneurship (Prepare a work break down structure for a given Project. 2. Apply Network Technique and calculate critical path for a given Project.)
D01	Master of Computer Applications	2015	MC115	Computer Programming and Problem Solving	Skill development(Implementation of matrix operation and manipulation functions)
D01	Master of Computer Applications	2015	MC116	Data Structures	Employability (Design and Implement a School Management System)
D01	Master of Computer Applications	2015	MC117	Internet and Web Technologies	Skill development(Installation and configuring the Web Server)
D01	Master of Computer Applications	2015	MC118	Database Management Systems	Employability(Design of ER Diagram for the development of Web applications)
D01	Master of Computer Applications	2015	MC119	Computer Organization	Skill development(Simulate arithmetic, logic and shift operations)
D01	Master of Computer Applications	2015	MC120	Software Engineering	Employability(Identify the Customer requirements and define the Process of developing the product)
D01	Master of Computer Applications	2015	MC121	Discrete Mathematical Structures	Employability(Construction of Logical Circuits using Truth Tables)
D01	Master of Computer Applications	2015	MC122	Probability and Statistics	Skill development (Test Hypothesis for Population Parameter)
D01	Master of Computer Applications	2015	MC123	Accounting and Financial Management	Entrepreneurship (case study on financial management in industry)
D01	Master of Computer Applications	2015	MC124	Computer Based Optimization Techniques	Skill development(design, implementation, and analysis of computational experiments)
D01	Master of Computer Applications	2015	MC125	Computer Programming and Problem Solving Lab	Skill development(Analysis of Given Problem)
D01	Master of Computer Applications	2015	MC126	Data Structures Lab	Skill development(Implementation of dictionaries using hash tables)
D01	Master of Computer Applications	2015	MC127	Internet and Web Technologies Lab	Skill development(Library Management System)
D01	Master of Computer Applications	2015	MC128	Database Management Systems Lab	Employability(Design of ER Diagram for the development of Web applications)
D01	Master of Computer Applications	2015	MC129	Communication Skills Lab-I	Skill development(Learning, Speaking, Reading & Writing)
D01	Master of Computer Applications	2015	MC130	Statistical Techniques Lab	Employability(statistical techniques to analyze microarray data and interpret the results generated)
G01	Ph.D - Biotechnology	2015	PH008	Advanced Bioprocess Engineering	Employability
G01	Ph.D - Biotechnology	2015	PH036	Machine Learning for Biotechnologists	Employability
G01	Ph.D - Biotechnology	2015	PH037	Plant Genomics & Biotechnology	Employability
G01	Ph.D - Biotechnology	2015	PH041	Plant Molecular Breeding	Employability
G01	Ph.D - Biotechnology	2015	PH061	Bio Analytical Techniques	Employability
G01	Ph.D - Biotechnology	2015	PH062	Pharmaceutical Sciences	Employability
G01	Ph.D - Biotechnology	2015	PH063	Experimental Studies On Certain Selected Man Groves Species Of Nizampatnam Sanitary	Employability
G01	Ph.D - Biotechnology	2015	PH064	Clinical Biotechnology	Employability
G01	Ph.D - Biotechnology	2015	PH065	Medical Biotechnology	Employability
G01	Ph.D - Biotechnology	2015	PH066	Molecular Genetics	Employability
G01	Ph.D - Biotechnology	2015	PH067	Method Development & Validation For Quantitative Estimation Of Bioactive Molecules In Pharmaceutical Dosage Forms & Biological Samples	Employability
G01	Ph.D - Biotechnology	2015	PH071	Pharmacological Screening Of Indian Medical Plants For Anti-Microbial, Anti-Oxidant & Anti-Cancer Biology	Employability
G01	Ph.D - Biotechnology	2015	PH266	Genes, Genomics and Proteomics	Employability
G02	Ph.D - Chemical Engineering	2015	PH001	Advanced Chemical Process Equipment Design and Drawing	Employability
G02	Ph.D - Chemical Engineering	2015	PH003	Advanced Process Dynamics and Control	Employability
G02	Ph.D - Chemical Engineering	2015	PH004	Advanced Separation Processes	Employability
G02	Ph.D - Chemical Engineering	2015	PH005	Advanced Transport Phenomena	Employability
G02	Ph.D - Chemical Engineering	2015	PH007	Applied Numerical Methods	Employability
G02	Ph.D - Chemical Engineering	2015	PH009	Chemical Process Equipment Design	Employability
G02	Ph.D - Chemical Engineering	2015	PH010	Chemical Process Safety	Employability
G02	Ph.D - Chemical Engineering	2015	PH011	Computational Methods	Employability
G02	Ph.D - Chemical Engineering	2015	PH012	Energy Management	Employability
G02	Ph.D - Chemical Engineering	2015	PH015	Enzyme and Microbial Technology	Employability
G02	Ph.D - Chemical Engineering	2015	PH016	Fermentation Technology	Employability
G02	Ph.D - Chemical Engineering	2015	PH017	Interfacial Science and Engineering	Employability
G02	Ph.D - Chemical Engineering	2015	PH018	Mathematical Methods in Chemical Engineering	Employability
G02	Ph.D - Chemical Engineering	2015	PH019	Membrane Technology	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH002	ADVANCED POWER SYSTEM PROTECTION	Employability
G05	Ph.D - Electronics and Communication Engineering	2015	PH059	DIGITAL IMAGE PROCESSING	Employability

G05	Ph.D - Electronics and Communication Engineering	2015	PH081	TRANSFORMS TECHNIQUES	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH028	POWER SYSTEM AUTOMATION	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH029	POWER SYSTEM PLANNING AND RELIABILITY	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH030	SMART GRID	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH031	SOFT COMPUTING	Employability
G06	Ph.D - Electrical and Electronics Engineering	2015	PH264	ENERGY AUDITING AND MANAGEMENT SYSTEM	Employability
G08	Ph.D - Mechanical Engineering	2015	PH033	COMPOSITE MATERIALS	Employability
G08	Ph.D - Mechanical Engineering	2015	PH048	POLYMER CHARACTERIZATION	Employability
G12	Ph.D- Management studies	2015	PH055	Security Analysis and Portfolio Management	Employability
G12	Ph.D- Management studies	2015	PH006	FINANCIAL MANAGEMENT	Employability
G12	Ph.D- Management studies	2015	PH013	HUMAN RESOURCE MANAGEMENT	Employability
G30	Ph.D - Physics	2015	PH040	VACUUM & THIN FILM TECHNOLOGY	Employability
G30	Ph.D - Physics	2015	PH074	CONDENSED MATTER PHYSICS & CHARACTERIZATION TECHNIQUES	Employability
G31	Ph.D - Chemistry	2015	PH038	INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS	Employability
G31	Ph.D - Chemistry	2015	PH060	RECENT ADVANCES IN MATERIAL CHEMISTRY	Employability
G31	Ph.D - Chemistry	2015	PH068	MANUFACTURING PROCESSES OF FIBER REINFORCED POLYMER COMPOSITES	Employability
G31	Ph.D - Chemistry	2015	PH069	CHARACTERIZATION OF FIBER REINFORCED POLYMER COMPOSITES	Employability
G31	Ph.D - Chemistry	2015	PH072	ADVANCED ORGANIC SYNTHESIS	Employability
G31	Ph.D - Chemistry	2015	PH076	FLAVANOIDS	Employability
G31	Ph.D - Chemistry	2015	PH079	PHARMACEUTICAL WASTE WARE TREATMENT TECHNIQUES	Employability
G31	Ph.D - Chemistry	2015	PH080	QUINONE ISOXAZOLE THIOPHENE HYBRIDS	Employability
G31	Ph.D - Chemistry	2015	PH268	HETERO CYCLES	Employability
G32	Ph.D - Mathematics	2015	PH073	MULTI VARIETY STATISTICS	Employability
G32	Ph.D - Mathematics	2015	PH263	Statistical Methods	Employability
J01	Bachelor of Computer Applications	2015	BC101	Digital Computer Fundamentals	Skill development(Design of Logical circuits using universal gates and basics gates)
J01	Bachelor of Computer Applications	2015	BC102	Data Structures	Skill development(Library Management System)
J01	Bachelor of Computer Applications	2015	BC103	Computer Programming	Skill development(Implementation of Matrix operations)
J01	Bachelor of Computer Applications	2015	BC104	Internet and Web Technologies	Skill development(Library Management System)
J01	Bachelor of Computer Applications	2015	BC105	Principles and practice of Management	Skill development(various theories of Management)
J01	Bachelor of Computer Applications	2015	BC106	Accounting and Financial Management	Employability(Financial Statements and Long-Term Financial Planning)
J01	Bachelor of Computer Applications	2015	BC107	Mathematics - I	Employability(apply methods to solve engineering problems)
J01	Bachelor of Computer Applications	2015	BC108	Mathematics - II	Employability((Test Hypothesis for Population Parameter)
J01	Bachelor of Computer Applications	2015	BC109	Technical communication Skills Lab	Skill development(instructions, policies, procedures, decisions)
J01	Bachelor of Computer Applications	2015	BC110	Soft Skills Lab	Skill development(Learning, Speaking, Reading & Writing)
J01	Bachelor of Computer Applications	2015	BC111	office Automation Lab - I	Skill development(data analysis in excel)
J01	Bachelor of Computer Applications	2015	BC112	Data Structures Lab	Employability(Skill development(Implementation of dictionaries using hash tables)
J01	Bachelor of Computer Applications	2015	BC113	Computer Programming Lab	Skill development(Analysis of Given Problem)
J01	Bachelor of Computer Applications	2015	BC114	Internet and Web Technologies Lab	Employability(Creating web applications)
K01	Bachelor of Business Administration	2015	BB201	Indian Economy	Employability 1. To study how business cycles have impacted the global economy in the past companies. 2. To compare the monetary policies of any two economies. 3. Do a case study of National income accounting company and underdeveloped economy with a developed area. 4. Find out the recent changes introduced in monetary and fiscal policies. 5. Prepare a report of Demonetization effect on economy. 6. Find statistical trends in unemployment. 7. List the difference between states in context of poverty, poverty alleviation programmes, literacy, population etc.
K01	Bachelor of Business Administration	2015	BB202	Financial Management	Employability 1. Read any two related international treaties & write a report. 2. Follow any latest cross-border merger and evaluate its outcomes. 3. Work out on cross-currency valuations. 4. Evaluate the role of any two International Agencies. 5. Bring out the role of GST in being tax guardian to endusers
K01	Bachelor of Business Administration	2015	BB203	Cost Accounting	Employability 1. List methods of costing adopted by industries located in the region. 2. List materials consumed in any two organizations of your choice. 3. Draw a specimen of a bin-card. 4. Draw a specimen of stores ledger. 5. List out the various expenses of two companies and prepare the cost sheet.

K01	Bachelor of Business Administration	2015	BB204	Marketing Management	Employability 1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company. 3. Observe the Distribution Network of a Company 4. List out Product Line of a company and note line modernization or deletion. 5. Draw a Product Life Cycle with regard to a particular product of a company and observe its extension.
K01	Bachelor of Business Administration	2015	BB205	Management Information System	Employability 1. Collect statistical information's from Magazines, Newspapers, Television, Internet etc., 2. Collect interesting statistical facts from various sources and paste it in your note book. 3. Collect a primary data about the mode of transport of yourschool students. Classify the data and tabulate it. 4. From the mark sheets of your class, form the frequencytables, less than and more than cumulative frequency tables. 5. Get the previous monthly expenditure of your family andinterpret it into bar diagram and pie diagram. Based on thedata, propose a budget for the next month and interpretedinto bar and pie diagram Compare the two months expenditure through diagrams 6. Measure the heights and weights of your class students.Find the mean, median, mode and compare 7. Find the mean marks of your class students in various subjects. Analysis of data by computing standard deviation and coefficient of variation. 8. Collect the data from magazines, newspapers, and television, and publications. Present the data in graphs and diagrams.)
K01	Bachelor of Business Administration	2015	BB206	Human Resource Management	Employability 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies. 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
K01	Bachelor of Business Administration	2015	BB207	Business Laws	Employability 1. Draft a 'rent agreement' incorporating all the essential features of a valid agreement. 2. Draft the Memorandum of Association of a company.
K01	Bachelor of Business Administration	2015	BB208	Operations Management	Employability 1. Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administration	2015	BB209	Organizational Behaviour	Employability 1. Survey on resistance to changing policies in The Banking Sector, The IT Sector 2. Undertake a study to find out the various nonfinancial incentives used to motivate employees. 3. A study in job enrichment and factors contributing to absenteeism and employee turnover in any industry of your choice. 4. Analyze the characteristics and components of attitudes. 5. Perform a study on the determinants of personality of a group of individuals. 6. Analyze the organizational culture and climate in the BPO industry. 7. Conduct a study on the reasons for attrition in the BPO industry.
K01	Bachelor of Business Administration	2015	BB210	Business Environment	Skill development 1. To conduct a survey on the practical application of laws of economics 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.
K01	Bachelor of Business Administration	2015	BB211	Soft Skills Lab	Employability (Setting a SMART goal - SWOT analysis of the self - Writing a Statement of Purpose)
K01	Bachelor of Business Administration	2015	BB212	Professional Communication Lab	Employability (Draft a letter to communicate your idea, its specifications and unique strategy)
K01	Bachelor of Business Administration	2015	MB701	Auditing	Employability 1. List methods of costing adopted by industries located in the region. 2. List materials consumed in any two organizations of your choice. 3. Draw a specimen of a bin-card. 4. Draw a specimen of stores ledger. 5. List out the various expenses of two companies and prepare the cost sheet.
K01	Bachelor of Business Administration	2015	MB702	Business & Industrial Law	Employability 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies. 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
K01	Bachelor of Business Administration	2015	MB703	Taxation-II	Employability 1. Form No. 49A (PAN) and 49B. 2. Filing of Income Tax Returns. 3. List of enclosures to be made along with IT returns (with reference to salary & H.P). 4. Preparation of Form-16. 5. Computation of Income Tax and the Slab Rates. 6. Computation of Gratuity. 7. Chart on perquisites. 8. List of enclosures to be made along with IT returns (with reference to salary and house property incomes).
K01	Bachelor of Business Administration	2015	MB704	Organizational Development	Employability 1. Survey on resistance to changing policies in The Banking Sector, The IT Sector 2. Undertake a study to find out the various nonfinancial incentives used to motivate employees. 3. A study in job enrichment and factors contributing to absenteeism and employee turnover in any industry of your choice. 4. Analyze the characteristics and components of attitudes. 5. Perform a study on the determinants of personality of a group of individuals. 6. Analyze the organizational culture and climate in the BPO industry. 7. Conduct a study on the reasons for attrition in the BPO industry.
K01	Bachelor of Business Administration	2015	MB705	Operations Research	Employability Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administration	2015	MB706	Operations Management	Employability Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administration	2015	MB707	Strategic Management	Employability Select a high profile industry such as IT or Entertainment Industry. Identify major Competitors and analyze the type of corporate level of strategies being used by firms.
K01	Bachelor of Business Administration	2015	MB708	Indian Banking System	Employability 1. To collect information regarding the various services offered by banks. 2. To track the changes in services offered by banks over the years. 3. What is the impact of GST on banking sector? 4. Case studies on banking sector 5. Demonetization effect on banking sector
K01	Bachelor of Business Administration	2015	MB710	Marketing Management-II	Employability 1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company. 3. Observe the Distribution Network of a Company 4. List out Product Line of a company and note line modernization or deletion. 5. Draw a Product Life Cycle with regard to a particular product of a company and observe its extension.
K01	Bachelor of Business Administration	2015	MB711	Operations Research Lab	Skill development Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administration	2015	MB712	Term Paper	Employability (To work on paper models to develop the working models)

K01	Bachelor of Business Administration	2015	MB713	Taxation Practice-II	Employability 1. Form No. 49A (PAN) and 49B. 2. Filing of Income Tax Returns. 3. List of enclosures to be made along with IT returns (with reference to salary & H.P). 4. Preparation of Form-16. 5. Computation of Income Tax and the Slab Rates. 6. Computation of Gratuity. 7. Chart on perquisites. 8. List of enclosures to be made along with IT returns (with reference to salary and house property incomes).
K01	Bachelor of Business Administration	2015	MB714	Project Work	Employability Prepare a project report in the specialization domain
K01	Bachelor of Business Administration	2015	MB715	Mini Project	Employability Prepare a project report in the specialization domain
	ALL Ph.D Programmes	2015	PH027	Technical Report Writing	Employability
	ALL Ph.D Programmes	2015	PH130	Research Methodology	Employability
	All M.Tech Programmes	2015	PR001	Project - I	Employability (learn different skills required for employability)
	All M.Tech Programmes	2015	SR001	Seminar	Employability(To Solve real world problems)
	All B.Tech Programmes	2015	HS307	Economic and Social Development of India	Skill development (o Basic grammar practice, framing paragraphs on topics allocated o Paraphrasing an article or a video in your own words. Finding topic sentences in newspaper articles. o Finding out new words from a professional viewpoint. Understanding the meaning and its usage.)
	All B.Tech Programmes	2015	HS308	Basic Numeracy, Mental Ability and Logical Reasoning	Skill development(To study and monitor the economic activity in developing india)
	All B.Tech Programmes	2015	MS303	Marketing and HR Management	Entrepreneurship (Study the effectiveness of Training programs of any 2 service sector related companies)
	All B.Tech Programmes	2015	MS310	Entrepreneurship and Project Management	Entrepreneurship(Study Attracting strategies of any 2 companies of financial institution and analyze orientation programs offered by any two companies)
	All M.Tech Programmes	2015	PR002	Project - II	Employability (learn different skills required for employability)



REGISTRAR

VIGNAN'S FOUNDATION
FOR SCIENCE, TECHNOLOGY AND RESEARCH
 (Declared to be Deemed University U/S 3 of UGC Act 1956)
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A.P. INDIA

ANNEXURE-II (2016-17)

Program code	Program name	Year of Introduction	CourseCode	Course Name	Activities
A01	B.Tech-Biotechnology	2016	16BT102	Bioproducts and Bioentrepreneurship	Skill development: o Models on renewable energy/biomass, biofuels, biogas. o Prepare vermicompost. o Case studies on green entrepreneurship
A01	B.Tech-Biotechnology	2016	BT401	Bioinformatics	Skill development o Retrieval of FASTA format from databases. o Perform BLAST and FASTA software analysis for both nucleic acids and amino acid sequences.
A01	B.Tech-Biotechnology	2016	BT402	Regulatory Affairs & Clinical Trails	Skill development o Open house debate on patenting and environmental issues. o Plenary session on ethical and moral implications of intellectual properties.
A01	B.Tech-Biotechnology	2016	BT403	Immunology	Skill development o Isolation of lymphocytes from mouse spleen. o Preparation of cell specific culture media. o Isolation and differentiation of immune cells.
A01	B.Tech-Biotechnology	2016	BT404	Proteomics and Genomics	Skill development o Amplification of gene by PCR. o Expertise in designing primers. o Analyzing exons and introns of gene.
A01	B.Tech-Biotechnology	2016	BT405	Down Stream Processing	Skill development o Experiment on Paper chromatography and thin layer chromatography. o Experiment on cell disruption methods. o Conduct electrophoresis of nucleic acids and proteins.
A01	B.Tech-Biotechnology	2016	BT406	Industrial Process Control	Skill development o Develop models in fluid flow. o Develop models in heat transfer. o Simulation of mathematical models.
A01	B.Tech-Biotechnology	2016	BT407	Biophysics	Employability o Estimate acoustic impedance of a given material. o Measurement of distances using ultrasonic range finder.
A01	B.Tech-Biotechnology	2016	BT408	Computational Molecular Biology	Skill development o Identify disease genes. o Identify single nucleotide polymorphisms.
A01	B.Tech-Biotechnology	2016	BT409	Biosensors & Bioelectronics	Skill development o Demonstrate glucose sensor parts, function and its principle. o Develop paper based sensors for detection of pesticides.
A01	B.Tech-Biotechnology	2016	BT410	Biostatistics	Skill development Fit an appropriate curve for a given set of data and test the statistical data for rejection or acceptance
A01	B.Tech-Biotechnology	2016	BT411	Nano Biotechnology	Skill development o Design new therapeutics and targeted drug delivery vehicles for cancer, arthritis, neurological and other important diseases. o Novel formulation to enhance the efficacy of existing drugs.
A01	B.Tech-Biotechnology	2016	BT412	Plant Design and Economics	Skill development o Develop models in fluid flow. o Develop models in heat transfer.
A01	B.Tech-Biotechnology	2016	BT413	Environmental Biotechnology	Skill development o Field visit to understand the geodistribution of plants. o Virtual tour to identify hotspots of the world and India.
A01	B.Tech-Biotechnology	2016	BT414	Project Work	Employability o Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A01	B.Tech-Biotechnology	2016	BT415	Biopharmaceutical Technology	Employability o Perform molecular docking. o Produce recombinant proteins having therapeutic potential.
A01	B.Tech-Biotechnology	2016	BT416	Internship	Employability: Implementation of Industry development Project.
A01	B.Tech-Biotechnology	2016	BT417	Cancer Biology	Skill development o Model the double-helix of DNA using ball and stick kit. o Identify complements, palindromes, loops and bends.
A01	B.Tech-Biotechnology	2016	BT419	Fermentation Technology	Skill development o Prepare and analyze a fermented beverage. o Produce polyhydroxy butyrate.
A01	B.Tech-Biotechnology	2016	BT421	Immunology Lab	Skill development o Isolation of lymphocytes from mouse spleen. o Preparation of cell specific culture media.
A01	B.Tech-Biotechnology	2016	BT423	Down Stream Processing Lab	Skill development o Preparation fermentation medium o Use of chromatography techniques for separation of bioproducts o Use of Electrophoresis units and gel preparation o Experiments on Cell disruption methods
A01	B.Tech-Biotechnology	2016	BT425	Bioinformatics Lab	Skill development o Retrieval of FASTA format from databases. o Perform BLAST and FASTA software analysis for both nucleic acids and amino acid sequences.)
A02	B.Tech-Chemical Engineering	2016	16CH101	Basics of Chemical Engineering	Skill development o Identification of various mass transfer equipment. o Identification of various heat transfer equipment.
A02	B.Tech-Chemical Engineering	2016	16CH102	Materials Science and Technology	Employability o Testing the type of failures. o "Gee Whiz": Wonder presentations. o Analysis of load test results. o Study of micro structures of materials. o Segregation of the given materials. o Identification of phases in the given phase diagram.
A02	B.Tech-Chemical Engineering	2016	CH401	Chemical Engineering Plant Design & Equipment	Skill development o Identify a location for establishing a particular type of industry. o Design a typical master plot plan for a particular plant. o Perform the cost and profit analysis for a given type of plant. o Prepare the list of safety and loss prevention factors for a given plant. o Draw the combined detailed flow diagram for a given manufacturing process.
A02	B.Tech-Chemical Engineering	2016	CH402	Technology of Pharmaceutical and Fine Chemicals	Skill development o Evaluation of chemical compositions using GC technique. o Assessment of concentration limits of metals using HPLC.
A02	B.Tech-Chemical Engineering	2016	CH403	Chemical Process Equipment Design	Skill development o Draw shell and tube heat exchanger. o Calculate design parameters. o Calibration of Psychrometer.
A02	B.Tech-Chemical Engineering	2016	CH404	Mineral Process Engineering	Skill development o Evaluation of chemical compositions using GC technique. o Assessment of concentration limits of metals using HPLC.

A02	B.Tech-Chemical Engineering	2016	CH405	Process Modeling & Simulation	Skill development o Simulate modeling equations for a given system.
A02	B.Tech-Chemical Engineering	2016	CH406	Food Processing Technology	Skill development o Preparation of report on usage and operation of different process control equipments. o Measure engineering properties of local variety cereal grains. o Estimate gravimetric properties of food powders
A02	B.Tech-Chemical Engineering	2016	CH407	Industrial Pollution Control Engineering	Skill development o air pollution control equipment. o Pollution Prevention Systems. o Environment audit, Environmental survey, o Industrial Engineering professional
A02	B.Tech-Chemical Engineering	2016	CH408	Nano Technology	Skill development o Application in chemical engineering process, food , drug etc o nanomaterial product synthesis o selection and production of nano composite
A02	B.Tech-Chemical Engineering	2016	CH409	Transport Phenomena	Skill development o Estimation of transport properties like viscosity, conductivity and diffusivity using MAT Lab. o Property estimation using ASPEN Plus. o Velocity, temperature and concentration distributions using MAT Lab.
A02	B.Tech-Chemical Engineering	2016	CH410	Computer Applications in Chemical Engineering	Employability o Software application of different field of Chemical Engineering
A02	B.Tech-Chemical Engineering	2016	CH411	Petrochemical Engineering	Skill development o Evaluation of petrochemicals by advanced techniques. o Enhancement of petroleum products using various methods.
A02	B.Tech-Chemical Engineering	2016	CH412	Fluidization Engineering	Skill development o Application of fluid flow phenomena in different relevant fields o Design of fluid flowing equipment
A02	B.Tech-Chemical Engineering	2016	CH413	Process Intensification	Employability o Calibration of spectro photometer. o Measurement of flow rate in open channels. o Calibration of head and flow meters.
A02	B.Tech-Chemical Engineering	2016	CH415	Optimization of Chemical Processes	Skill development o Formulation of objective functions. o Simulation using numerical methods and computer programming. o Graphical method using computational tool. o Simplex method using computational tool.
A02	B.Tech-Chemical Engineering	2016	CH416	Internship	Employability o information processing skills to solve problems. o interpersonal skills to effectively teamwork incorporating cooperation-related skills
A02	B.Tech-Chemical Engineering	2016	CH417	Polymer Technology	Skill development o Flowsheet preparation for manufacture of LDPE, PVC o Engineering cost analysis for manufacture of LDPE, PVC. o Case Study on feasibility of manufacture of polyacrylic acid.
A02	B.Tech-Chemical Engineering	2016	CH419	Colloidal & interfacial Sciences	Employability o additives to lubricant manufacture o dyes and pigments manufacture o manufacture of paints,lotions and inks
A02	B.Tech-Chemical Engineering	2016	CH420	Traffic Engineering	Skill development o Traffic stream characteristics o Traffic measurement procedures o Microscopic Traffic Flow Modeling o application of technology and scientific principles to the planning, functional design, operation
A02	B.Tech-Chemical Engineering	2016	CH421	Chemical Process Equipment Design Lab	Employability o Draw shell and tube heat exchanger. o Calculate design parameters. o Calibration of Psychrometer.
A02	B.Tech-Chemical Engineering	2016	CH423	Chemical Process Simulation Lab	Skill development o solving process simulation problems using MATLAB and Aspen-Plus o Calculate design parameters. o Calibration of Psychrometer.
A02	B.Tech-Chemical Engineering	2016	CH426	Project	Employability o contribute to productive working relationships and outcomes. o Initiative and enterprise
A02	B.Tech-Chemical Engineering	2016	CH449	Industrial Pollution Control Engineering Lab	Employability o air pollution control equipment. o Pollution Prevention Systems. o Environment audit, Environmental survey, o Industrial Engineering professional
A03	B.Tech-Civil Engineering	2016	CE418	Earthquake Resistant Design of Structures	Skill development (Conduct dynamic analysis on a 4 storied residential building using STAAD Pro)
A03	B.Tech-Civil Engineering	2016	CE416	Design and Drawing of Hydraulic Structures	Entrepreneurship (Prepare a model of a dam)
A03	B.Tech-Civil Engineering	2016	CE422	Environment impact Assessment	Employability (Models of energy resources, Pollution and Solid Waste Management 3Rstrategy)
A03	B.Tech-Civil Engineering	2016	CE424	Bridge Engineering	Employability (Compare the rate of corrosion for completely submerged and partially submerged structural steel)
A03	B.Tech-Civil Engineering	2016	CE425	Estimating & Construction Planning	Employability (Calculate rates of various items of work)
A03	B.Tech-Civil Engineering	2016	CE426	Repairs and Rehabilitation of Structures	Employability (Compare the rate of corrosion for completely submerged and partially submerged structural steel)
A03	B.Tech-Civil Engineering	2016	CE427	Transportation Engineering	Skill development (Develop insight for characterization of materials for highways and railways)
A03	B.Tech-Civil Engineering	2016	CE428	Project	Entrepreneurship (Using mode superposition technique find out total base shear for a residential building in your zone)
A03	B.Tech-Civil Engineering	2016	CE429	Engineering Geology	Employability (understand various secondary structures)
A03	B.Tech-Civil Engineering	2016	CE430	Internship	Entrepreneurship (Field work and site constructions)
A03	B.Tech-Civil Engineering	2016	CE431	Finite Element Methods in Civil Engineering	Skill development (Write simple computer code to apply finite element)
A03	B.Tech-Civil Engineering	2016	CE433	Ground Water Development and Management	Skill development (Measure discharge and velocity of flow using various methods.
A03	B.Tech-Civil Engineering	2016	CE435	Remote Sensing and GIS	Employability (Identify the outcome from aerial photographs)
A03	B.Tech-Civil Engineering	2016	CE437	Air Pollution and Control	Employability (Identify sampling and analysis techniques for air quality assessment)
A03	B.Tech-Civil Engineering	2016	CE439	Ground improvement Techniques	Employability (Diagnose problems associated with problematic soils)
A03	B.Tech-Civil Engineering	2016	CE441	Railway and Airport Engineering	Skill development (Design and analyse the railway track system)
A03	B.Tech-Civil Engineering	2016	CE443	Engineering Geology Lab	Entrepreneurship (Identify minerals by using physical properties)
A03	B.Tech-Civil Engineering	2016	CE445	Quantity Estimation & Project Management Lab	Entrepreneurship (Perform building valuation and rent fixation)
A03	B.Tech-Civil Engineering	2016	CE447	Transportation Engineering Lab	Entrepreneurship (Develop technical skills for pavement construction)
A04	B.Tech-Computer Science and Engineering	2016	16CS101	Basics of Computers and internet	Skill development (Prepare a report on various generations of computers and its peripherals, Disassembling and assembling of a personal computer system and Install the Linux operating system and other software required in a personal computer system.)

A04	B.Tech-Computer Science and Engineering	2016	16CS102	Computer Programming	Skill development(Prepare a Report on various generations of computers and its peripherals)
A04	B.Tech-Computer Science and Engineering	2016	CS420	Mobile Ad-hoc Networks	Skill development(Design and simulate an ad hoc network for real-time applications and simulate MAC scheduling algorithms using NS2.)
A04	B.Tech-Computer Science and Engineering	2016	CS422	E-Commerce	Skill development(Analyze the market data and predict the analytics using association rule mining)
A04	B.Tech-Computer Science and Engineering	2016	CS424	Pattern Recognition	Skill development(Morphing one object and another object using morphological operations. Identify iris, thumb impression using feature selection approaches.)
A04	B.Tech-Computer Science and Engineering	2016	CS425	Datawarehousing & Datamining	Employability(Use Data mining techniques to carry various functionalities to do data analytics)
A04	B.Tech-Computer Science and Engineering	2016	CS426	Human Computer interaction	Skill development(Multidisciplinary field of study focusing on the design of computer technologies such as Gaming)
A04	B.Tech-Computer Science and Engineering	2016	CS427	Cryptography & Network Security	Skill development(Design various security services for appropriate applications and Identifying the appropriate firewall, password management and anti-virus models for specific applications.)
A04	B.Tech-Computer Science and Engineering	2016	CS428	Neural Networks	Skill development(Case Study on Image Compression Using Neural Networks.Travelling Salesman Problem and Stock market Prediction analysis.)
A04	B.Tech-Computer Science and Engineering	2016	CS429	Distributed Component Object Technologies(J2EE/.NET)	Skill development(Construct various web applications using .NET, J2EE and JDBC.)
A04	B.Tech-Computer Science and Engineering	2016	CS430	Bio Metrics	Skill development(Design and development of various biometric systems such as face recognition and fingerprint recognition system)
A04	B.Tech-Computer Science and Engineering	2016	CS431	Cloud Computing	Employability(Identify various network devices in laboratory and Investigate various network topologies.)
A04	B.Tech-Computer Science and Engineering	2016	CS432	Genetic Algorithms	Skill development(Understand the process of natural selection that belongs to the larger class of evolutionary algorithms)
A04	B.Tech-Computer Science and Engineering	2016	CS433	Embedded Systems	Skill development(Demonstrate the interfacing of peripherals with 8051/ARM microcontroller and address the demonstration of deadlock situation in RTOS.)
A04	B.Tech-Computer Science and Engineering	2016	CS434	Multimedia Systems	Skill development(Processing of multimedia data and applications in terms of storage, generation, and manipulation etc.)
A04	B.Tech-Computer Science and Engineering	2016	CS435	Software Testing Methodologies	Employability(Verification and validation)
A04	B.Tech-Computer Science and Engineering	2016	CS436	Project Work	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A04	B.Tech-Computer Science and Engineering	2016	CS437	Fundamentals of image Processing	Skill development(Image acquisition by using various resolution cameras and comparison of visual quality variation and Implementation of image processing algorithms like enhancement, Restoration, segmentation and compression.)
A04	B.Tech-Computer Science and Engineering	2016	CS438	Internship	Employability(Implementation of Industry Oriented Project)
A04	B.Tech-Computer Science and Engineering	2016	CS439	Software Project Management	Employability(Identify and describe the key phases of project management)
A04	B.Tech-Computer Science and Engineering	2016	CS441	Business intelligence	Employability(comprehensive and in-depth knowledge of Business Intelligence (BI) principles and techniques)
A04	B.Tech-Computer Science and Engineering	2016	CS443	Big Data Analysis	Employability(Develop programming and analytics for various statistical problems using R. Design classification models for various standard and user Datasets.)
A04	B.Tech-Computer Science and Engineering	2016	CS445	Internet of Things	Employability(Build applications using IoT.)
A04	B.Tech-Computer Science and Engineering	2016	CS447	Data Warehousing & Data Mining Lab	Skill development(Use Data mining techniques to detect similarity of disease among the patients in hospital data base)
A04	B.Tech-Computer Science and Engineering	2016	CS449	Cryptography & Network Security Lab	Skill development(security protocols for protecting data on networks)
A04	B.Tech-Computer Science and Engineering	2016	CS451	J2EE Lab	Skill development(Construct various web applications.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC412	Sensors and Actuators	Skill development(Design the experiments and carrying out project based learning)
A05	B.Tech-Electronics and Communication Engineering	2016	EC414	Wireless Sensor Networks	Skill development (Analyse and compare various MAC and routing protocols for sensor networks.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC416	Biomedical Signal Processing	Skill development (Analyze the ECG and EEG signals for diagnosis purpose.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC418	Digital image Processing	Skill development (acquisition by using various resolution cameras and comparison of visual quality variation.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC420	Radar Systems	Skill development (Performance of different types of Radars)
A05	B.Tech-Electronics and Communication Engineering	2016	EC422	VLSI design & Validation	Employability (Choose a VLSI circuit and verify. Verify a VLSI circuit and make it error free.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC424	Project Work	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A05	B.Tech-Electronics and Communication Engineering	2016	EC426	Internship	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A05	B.Tech-Electronics and Communication Engineering	2016	EC431	Digital Signal Processing	Skill development(Find the response of the given LTI system using impulse input. Find the response of the given LTI system using step input.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC433	RF & Microwave Engineering	Skill development (Characterize the given power coupling device. Find the Mechanical tuning range of the given Reflex Klystron.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC435	Electronic Measurements & instruments	Skill development (Measure electrical and electronic parameters using various instruments.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC437	Data Communication & Computer Networks	Skill development(Identify various network devices, Investigate various network topologies and Connect and Configure workstations in Ethernet and WLAN.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC439	Satellite Communication	Skill development (Determine the global beam, zonal beam and spot beams of a given GEO SAT. Calculate longitude and latitude of the satellite for a given look angle.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC441	MEMS	Skill development (Technology required for fabrication of MEMS devices.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC443	Digital Design Through Verilog	Employability (Choose a digital circuit and write a Verilog program for any real Time application.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC445	Cellular & Mobile Communications	Skill development (Identify the Handoff strategies used by mobile operators in Capital region.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC447	Nano Electronics	Skill development (history, types and mechanism of Nano Technology.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC449	Digital Signal Processing Lab	Skill development (Program DSP algorithms in Matlab.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC451	Microwave Engineering Lab	Skill development (Measure various microwave parameters.)
A05	B.Tech-Electronics and Communication Engineering	2016	EC453	Instrumentation Lab	Skill development (Perform various measurements)
A05	B.Tech-Electronics and Communication Engineering	2016	EC461	Sensors and Transducers	Skill development (Capacitive pickup for angular displacement measurement)
A06	B.Tech-Electrical and Electronics Engineering	2016	16EE101	Basics of Engineering Products	Skill development(Trouble shooting of immersion heater and induction heaters and Disassemb and Assembe the Domestic Appliances such as Mixer Grinder, Fan etc.)
A06	B.Tech-Electrical and Electronics Engineering	2016	16EE102	Basics of Electrical and Electronics Engineering	Skill development(Decoding the value of resistors and Design and fabricate a simple loop permanent magnet generator)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE414	Utilization of Electrical Energy	Skill development (Design DC-DC boost converter using microcontroller)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE415	Electric Drives	Skill development (Design and testing of simple Electric Locomotive)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE416	Special Electrical Machines	Employability (Simulate full controlled bridge converter fed DC Motor Using MATLAB)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE417	Renewable Energy Sources	Employability (Trouble shoot a single phase Induction Motor)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE418	Power Quality	Employability (Design a prototype Biogas plant)

A06	B.Tech-Electrical and Electronics Engineering	2016	EE419	Analysis & Operation of Power System	Employability (Study of capacitor switching transients)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE420	Electrical Distribution Systems	Skill development (Economic Dispatch with considering loss using MATLAB)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE421	DSP & its Applications	Employability (Design 12/24 pulse HVDC converter)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE422	Reliability Engineering	Skill development (Test the stability of given third order filter)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE423	High Voltage Engineering	Skill development (Design DC-DC boost converter using microcontroller)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE424	Machine Modelling and Analysis	Skill development (Testing of transformer oil and solid installation)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE425	Energy Conservation and Audit	Skill development (Mathematical modelling of BLDC)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE426	Project	Skill development (Energy auditing of different blocks in VFSTRU)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE427	Advanced Control Systems	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE428	Internship	Skill development (Design state feedback controller for DC and AC motors)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE429	Programmable Logic Controllers	Employability(To learn industry based curriculum for gaining knowledge on Internship)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE431	Power Systems Lab	Skill development (Design of PLC system for Railway gate control)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE433	Microprocessor Programming & its interfacing Lab	Skill development (Building Y-bus algorithm in MATLAB)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE435	Electrical Systems Simulation Lab	Skill development (Design any microcontroller based system with more than seven peripherals)
A06	B.Tech-Electrical and Electronics Engineering	2016	EE437	Automotive Electronics	Skill development(Design of newly advanced electronics for the development of automobiles)
A07	B.Tech-Information Technology	2016	IT407	Distributed Computing	Skill development(basic design principles in solving real life problems)
A07	B.Tech-Information Technology	2016	IT409	Robotics	Skill development(Conventional information retrieval systems)
A07	B.Tech-Information Technology	2016	IT414	Bio informatics	Skill development(Monitoring of systems for the development of new machines like robotics)
A07	B.Tech-Information Technology	2016	IT416	Design Patterns	Employability(Create, select, and apply appropriate techniques, resources, and modern engineering)
A07	B.Tech-Information Technology	2016	IT418	J2EE	Skill development(basic design principles in solving real life problems)
A07	B.Tech-Information Technology	2016	IT420	Enterprise Resource Planning	Skill development(process of developing electronic commerce sites and mobile commerce applications)
A07	B.Tech-Information Technology	2016	IT422	Mobile Commerce	Skill development(Better analysis and planning capabilities)
A07	B.Tech-Information Technology	2016	IT424	Ethical Practices in IT	Employability(to design and develop dynamic, database-driven application using J2EE)
A07	B.Tech-Information Technology	2016	IT426	Project Work	Skill development(To validate, or correct, personal ideas about various ethical perspectives)
A08	B.Tech-Mechanical Engineering	2016	16ME101	Engineering Graphics	Skill development (Draw line diagram of different machineries).
A08	B.Tech-Mechanical Engineering	2016	16ME102	Engineering Mechanics	Skill development (Solving classical mechanics problems involving system of forces).
A08	B.Tech-Mechanical Engineering	2016	16ME103	Workshop Practice	Skill development (To make wooden joints like Mortise and Tenon joint, T-lap joint which are used to prepare a wooden furniture)
A17	B.Tech-Petroleum Engineering	2016	16PL102	Basics of Petroleum Engineering	Employability o Case study on identification of rocks. o Projects on construction of geological maps like geological cross-section, o Thickness maps of various stratigraphic units.)
A08	B.Tech-Mechanical Engineering	2016	ME420	Total Quality Management	Skill development (Develop an understanding on quality management philosophies and frameworks)
A08	B.Tech-Mechanical Engineering	2016	ME421	Operations Research	Skill development (Formulate and solve engineering and managerial situations as LPP.)
A08	B.Tech-Mechanical Engineering	2016	ME422	Unconventional Manufacturing Processes	Skill development (Summarize the application of Water jet, Abrasive jet techniques and Ultrasonic and plasma arc machining.)
A08	B.Tech-Mechanical Engineering	2016	ME423	Robotics	Employability (Discuss the concept of automation, brief history of robot, construction and various types of links and joints of a manipulator.)
A08	B.Tech-Mechanical Engineering	2016	ME424	Non-Conventional Sources of Energy	Skill development (Appreciate the need of non-conventional forms of energy)
A08	B.Tech-Mechanical Engineering	2016	ME425	Refrigeration & Air Conditioning	Employability (Evaluate and analyze different refrigeration cycles)
A08	B.Tech-Mechanical Engineering	2016	ME426	Operations Management	Skill development (Illustrate the types of production systems, layouts and production planning and control activities)
A08	B.Tech-Mechanical Engineering	2016	ME427	Automobile Engineering	Skill development (Understand various domains in automobile engineering.)
A08	B.Tech-Mechanical Engineering	2016	ME428	Project	Employability (Ability to carry out independent literature survey.)
A08	B.Tech-Mechanical Engineering	2016	ME429	Power Plant Engineering	Skill development (Understand functions of the components of power plant)
A08	B.Tech-Mechanical Engineering	2016	ME430	Internship	Employability(Acquire the adequate knowledge and gaining of industrial exposure)
A08	B.Tech-Mechanical Engineering	2016	ME431	Non-Destructive Testing	Skill development (Explain the basic principles underlying in each NDT technique.)
A08	B.Tech-Mechanical Engineering	2016	ME433	Nano Technology	Skill development (Understand how basic nano systems work)
A08	B.Tech-Mechanical Engineering	2016	ME435	Automation in Manufacturing	Employability (Understand the automation technology, and its importance in manufacturing process)
A08	B.Tech-Mechanical Engineering	2016	ME437	Mechanisms & Machine Dynamics Lab	Skill development (Demonstrate the kinematics of planar mechanisms.)
A08	B.Tech-Mechanical Engineering	2016	ME439	Heat Transfer Lab	Skill development (Should be able to distinguish between the usage of heat transfer correlations to be applied for transient and steady state heat transfer analysis)
A08	B.Tech-Mechanical Engineering	2016	ME441	Hydraulics & Pneumatics Lab	Skill development (devices used in generating the hydraulic and pneumatic power and how to transmit and control energy)
A10	B.Tech-Automobile Engineering	2016	AE422	Automotive Airconditioning	Employability (Analyze different refrigeration cycles.)
A10	B.Tech-Automobile Engineering	2016	AE423	Autotronics	Employability (Draw wiring diagrams for different electrical systems and implement circuits.)
A10	B.Tech-Automobile Engineering	2016	AE424	Alternative Fuels & Energy Systems	Employability (Measure different fuel properties)
A10	B.Tech-Automobile Engineering	2016	AE425	Automotive Emission & Control	Employability (Perform engine emission measurements.)
A10	B.Tech-Automobile Engineering	2016	AE426	Motor Sport Engineering	Skill development(design of motor sport car for SAE Baja)
A10	B.Tech-Automobile Engineering	2016	AE427	Automotive System Design	Employability (Design a piston using modelling software)

A10	B.Tech-Automobile Engineering	2016	AE429	Industrial Economics & Management	Employability (Convert an car production line to lean manufacturing)
A10	B.Tech-Automobile Engineering	2016	AE430	Project-II	Employability (To develop the mini project based learning to identify the potential tasks in advanced level)
A10	B.Tech-Automobile Engineering	2016	AE431	Automotive Aerodynamics	Employability (Identify requirements of a good aerodynamic design)
A10	B.Tech-Automobile Engineering	2016	AE432	Internship	Employability (Develop the project based learning)
A10	B.Tech-Automobile Engineering	2016	AE435	Product Data Management & Collaborative Product Commerce	Employability(To maintain the supply chain management for the leading Product development and Collaborative commerce)
A10	B.Tech-Automobile Engineering	2016	AE437	Transport Management	Employability (Estimate the fare by assessing the operating cost.)
A10	B.Tech-Automobile Engineering	2016	AE439	New Generation and Hybrid Vehicles	Employability(Design the new models for the Electric cars)
A10	B.Tech-Automobile Engineering	2016	AE441	Automotive Testing lab	Skill development(Select a dynamometer based on requirement)
A10	B.Tech-Automobile Engineering	2016	AE443	Autotronics Lab	Skill development(different battery testing methods)
A10	B.Tech-Automobile Engineering	2016	AE445	Design Analysis and Simulation Lab	Skill development(simulation of different car parts using softwares)
A11	B.Tech-Textile Technology	2016	16TF101	Textile Fibers	Skill development o Report on food particle disintegration in a prototype stomach model. o Review on starch modification methods and its applications in food industry. o Estimation of RDA values for different micro and macro nutrients.
A11	B.Tech-Textile Technology	2016	TT414	High Performance Fibres	Skill development (Students will be able to understand the importance of high performances fibre. 1. They will be able to understand importance of preparation technique, process chemistry and machine related to the process. 2. They will know the characterization of those fibres. 3. They will also learn the application of high performances fibre.)
A11	B.Tech-Textile Technology	2016	TT416	Functional and Medical Textiles	Skill development (Students will be able to understand the functional & protective clothing. 1. They will be able to understand the smart material and clothing 2. They will know the importance of medical textile and thorough knowledge about medical textile. 3. They will also learn the artificial organs.)
A11	B.Tech-Textile Technology	2016	TT418	Computer Applications in Textiles	Skill development (1. Understand the different applications of computers in different process of textile and apparel manufacturing. 2. Able to understand the need of CAM, CAD in textile manufacturing)
A11	B.Tech-Textile Technology	2016	TT420	Textiles in Sports and Automobiles	Skill development (1. Understand of trends in sportswear design and material requirement)
A11	B.Tech-Textile Technology	2016	TT422	Textile Costing and Financial Analysis	Skill development (ACTIVITIES: o Prepare standard TECHPACK work given garment. o Calculate cost of garment from fiber stage o Analysis of types of cost for making a garment o Analyse various schemes available for garment exporters o Calculate cost incurred in exporting to various countries o Compare the advantages of EOU, Textile Parks SEZ etc.)
A11	B.Tech-Textile Technology	2016	TT423	Apparel Production Technology	Skill development (ACTIVITIES: o Draw and construct the yoke, collar and pockets. o Prepare Various stitches used for making the garment. o Collect sewing threads used for various garments.)
A11	B.Tech-Textile Technology	2016	TT425	Industrial Engineering for Textiles & Apparels	Skill development (ACTIVITIES: o Prepare standard work procedures for group of activities. o Case study on plant layout. o Collect the different types of material handling techniques used in garment industry. o Compare WIP in different production systems. o Calculate the inventory cost for given conditions. o Compare the advantages of outsourcing.)
A11	B.Tech-Textile Technology	2016	TT426	Project	Employability (Implementation of Research / Societal project)
A11	B.Tech-Textile Technology	2016	TT427	Practical Aspects of Textile & Apparels Manufacturing	Skill development 1. Understand labor requirement for different departments. 2. Calculations for Spin Plan & Weaveplan 3. Learn different practical aspects in textile industry.
A11	B.Tech-Textile Technology	2016	TT428	Internship	Employability o Implementation of Industry oriented project
A11	B.Tech-Textile Technology	2016	TT429	Garment Manufacturing	Skill development o Collect Specifications of different sewing machines. o List out the various parts in the different sewing machines. o Collect various defects from cutting, sewing departments. o Perform changes in the settings of different parts of sewing machine.
A11	B.Tech-Textile Technology	2016	TT431	Retailing & Branding Mangement of Apparels	Employability (Apply retailing concepts in real scenario. □ Maintain proper customer relationship. □ Get an idea about Retail Advertising and Promotion. □ Carry out the branding for an apparel product.)
A11	B.Tech-Textile Technology	2016	TT433	Energy and Pllution Control in Textiles	Skill development (1. Understanding of energy spent in textile. 2. Understanding the causes of pollution in textile industry. 3. The energy and pollution control process will be taught.)
A11	B.Tech-Textile Technology	2016	TT435	Structure & Properties of Yam & Fabrics	Skill development (1. Students will be able to relate basic parameters with final property and also its calculation. 2. They will also know the structure property relationship.)
A11	B.Tech-Textile Technology	2016	TT437	Textile Polymer Science	Skill development (1. Students will be able to understand the importance of polymer. 2. They will be able to understand different polymerization technique, process chemistry and machine related to the process. 3. They will know the characterization of the polymers. 4. They will also learn the application of polymer blend and composites.)
A11	B.Tech-Textile Technology	2016	TT439	Maintenance of Textile Machines	Skill development 1. To learn maintenance of various machines in textile industries. 2. To learn significance of machine maintenance with proper schedule.
A11	B.Tech-Textile Technology	2016	TT441	Apparel Production Technology Lab	Employability 1. To understand different parts in sewing machine. 2. Study of straight knife and round knife cutting machine. 3. Study of single needle lockstitch machine and adjustment of major parts. 4. To perform stitching in different shapes used in training of the sewing operators 5. To study different types of Seams. 6. To stitch the fabric with different types of seams. 7. Cutting the fabric with the help of patterns drafted. 8. To perform fusing operation to garment parts like collars and cuffs. 9. To prepare the different parts of the garment with sewing. 10. To assemble the different parts of the garment. 11. To analyse the garments for quality inspection. 12. To analyse the garment defects and suggest the improvements in prepared garments.

A11	B.Tech-Textile Technology	2016	TT443	Pattern Making Lab	Employability 1. Understand the different concepts in pattern making 2. To perform pattern making for different types of garments. 3. To plan the operation bulletin and calculate the SAM 4. To perform cutting of fabric 5. To perform sewing of fabrics
A11	B.Tech-Textile Technology	2016	TT445	Industrial Engineering Lab	Employability o Prepare standard work procedures for group of activities. o Case study on plant layout. o Collect the different types of material handling techniques used in garment industry. o Compare WIP in different production systems. o Calculate the inventory cost for given conditions. o Compare the advantages of outsourcing.
A12	B.Tech-Agriculture Engineering	2016	AG401	Soil & Water Conservation & Structures	Employability (Identification of gully affected areas and recommendations to control)
A12	B.Tech-Agriculture Engineering	2016	AG403	Electrical Machines & Power Utilization	Employability (Decoding the value of resistors.)
A12	B.Tech-Agriculture Engineering	2016	AG405	Food Processing Plant Design & Layout	Employability (Design of economical dryers for local crops.)
A12	B.Tech-Agriculture Engineering	2016	AG406	Design & Maintenance of Greenhouse	Employability(development of new technologies to allocate the environment)
A12	B.Tech-Agriculture Engineering	2016	AG407	Hydraulic Drive & Controls	Skill development (Develop a program using Programmable Logic Controllers for specific application.)
A12	B.Tech-Agriculture Engineering	2016	AG408	Production Technology for Agril Machinery	Employability (Work on command area problems and prepare contour map.)
A12	B.Tech-Agriculture Engineering	2016	AG409	Minor irrigation & Command Area Development	Employability (Statistical analysis on various meteorological data.)
A12	B.Tech-Agriculture Engineering	2016	AG410	Gully & Ravine Control Structures	Employability (development of farm structures for small cattle field.)
A12	B.Tech-Agriculture Engineering	2016	AG411	Agricultural Structures & Environment Control	Employability (development of farm structures for small cattle field and farms for evaluating environment control)
A12	B.Tech-Agriculture Engineering	2016	AG412	Biomass Management for Fodder and Energy	Skill development(development of fodder and biomass design to meet the daily needs)
A12	B.Tech-Agriculture Engineering	2016	AG413	Mechanics of Tillage and Traction	Skill development (Instrumentation in traction measurement)
A12	B.Tech-Agriculture Engineering	2016	AG414	Reservoir and Farm Pond Design	Skill development (Assessing the strength of the earth dam against tension, overturning and sliding.)
A12	B.Tech-Agriculture Engineering	2016	AG415	Micro irrigation System Design	Skill Deveopment (Design of sprinkler irrigation system for a small garden)
A12	B.Tech-Agriculture Engineering	2016	AG416	Human Engineering and Safety	Skill development (Design and development of safety devices for tractor.)
A12	B.Tech-Agriculture Engineering	2016	AG417	System Engineering	Skill development (development of new softwares for using systems engineer)
A12	B.Tech-Agriculture Engineering	2016	AG418	Environmental Engineering	Employability(To study and add the importance of environmental resources)
A12	B.Tech-Agriculture Engineering	2016	AG419	Refrigeration and Air Conditioning Lab	Employability (Design of cold storage for given capacity.)
A12	B.Tech-Agriculture Engineering	2016	AG420	Project	Employability To develop the project based learning thorough development of Projects)
A12	B.Tech-Agriculture Engineering	2016	AG421	Soil and Water Conservation and Structures Lab	Employability (Structural design of various structures.)
A12	B.Tech-Agriculture Engineering	2016	AG422	Internship	Employability (Onsite learning)
A12	B.Tech-Agriculture Engineering	2016	AG423	Dairy and Food Engineering Lab	Employability (Design of cold storage according to milk collection)
A14	B.Tech-Bioinformatics	2016	BI301	Molecular Evolution & Phylogenetic Trees	Skill development (o Case studies on selection and coevolution. o Solve population genetics problems using Hardy Weinberg principle.)
A14	B.Tech-Bioinformatics	2016	BI302	Genetic Engineering & Epigenetics	Skill development (o Determine phases of cell growth. o Calculate substrate and product inhibition on growth of cells.)
A14	B.Tech-Bioinformatics	2016	BI303	Herbal Biotechnology	Skill development (o Field trip to agricultural university, field stations and seed company to understand the various methods of cropping.)

A14	B.Tech-Bioinformatics	2016	BI304	Ethnobotany Genomics	Skill development (o Estimate secondary metabolites such as tannins, resins, terpenes and others produced in plants.)
A14	B.Tech-Bioinformatics	2016	BI305	Natural Selection	Skill development(o Using different microbiology techniques to identify the natural selections)
A14	B.Tech-Bioinformatics	2016	BI306	Codon Evaluation and Temporal Dynamics	Employability (o Bioinformatics tools are used to evaluate the subject)
A14	B.Tech-Bioinformatics	2016	BI307	Construction of Phylogenetic Trees Lab	Employability(Using multiple sequences of different species and working on phylogenetics)
A14	B.Tech-Bioinformatics	2016	BI310	Biomedical Informatics	Skill development (o Acquire biomedical imaging data. o Evaluate biomedical and health information resources.)
A14	B.Tech-Bioinformatics	2016	BI312	Unix Programming	Skill development (o Shell scripting and file systems)
A14	B.Tech-Bioinformatics	2016	BI314	Unix Programming Lab	Skill development(To perform the basic commands to run operating system)
A14	B.Tech-Bioinformatics	2016	BI316	Mini Project Lab	Skill development(To perform the basic commands to run operating system in laboratory level)
A15	B.Tech-Food Technology	2016	FT301	Legumes and Oil Seeds Technology	Employability Selection and optimization of operating and performance parameters in different food processing equipments
A15	B.Tech-Food Technology	2016	FT302	Food Packing	Employability Collect, identify and prepare a report on physicochemical properties of different oil seeds. Mention different oil extraction method
A15	B.Tech-Food Technology	2016	FT303	Cereal Processing	Skill development o Prepare database for packaging materials with their functional properties. o Report on national and international packaging standards
A15	B.Tech-Food Technology	2016	FT304	Food Safety and Microbial Standards	Skill development o Collect, identify and prepare a report on physicochemical properties of different cereal, legumes and oil seeds. o Design prototype milling equipment for grains.
A15	B.Tech-Food Technology	2016	FT305	Fruit and Vegetable Processing	Employability o Identify Hazards and categorize them based on their severity o Construct a chart with allergens associated with various food products. o Prepare HACCP plan for any food industry
A15	B.Tech-Food Technology	2016	FT306	Processing of Milk and Milk Products	Skill development o Report on nutritional composition, processing and storage considerations for a particular fruit / vegetable product.
A15	B.Tech-Food Technology	2016	FT307	Bakery and Confectionery Products	Skill development Perform an experiment on various platform tests conducted in dairy industry o Study on various regulatory standards implemented in dairy UNIT.
A15	B.Tech-Food Technology	2016	FT308	Processing of Meat and Poultry Products	Skill development o Prepare a flowchart for production process of bakery and confectionary products keeping safety regulations in consideration.
A15	B.Tech-Food Technology	2016	FT309	Refrigeration Engineering and Cold Chain	Skill development Report on production and processing of local meat, fish and poultry products.
A15	B.Tech-Food Technology	2016	FT310	Food Industry By-Products	Skill development o Report on different types of refrigerants and its characteristics. o Prepare a table with different foods and their storage temperatures.
A15	B.Tech-Food Technology	2016	FT311	Engineering Properties of Food Materials	Employability Prepare a value added food product from fruit and vegetable wastes
A15	B.Tech-Food Technology	2016	FT312	Neutraceuticals and Functional Foods	Skill development o Measure engineering properties of local variety cereal grains. o Estimate gravimetric properties of food powders.
A15	B.Tech-Food Technology	2016	FT313	Novel Food Processing Techniques	Skill development o Report on bioactive compounds and their functional role. o Report on global market policy and regulatory aspects for FFN.
A15	B.Tech-Food Technology	2016	FT314	Food Safety and Microbial Standards Lab	Skill development Prepare a list of novel equipments used for value added food products
A15	B.Tech-Food Technology	2016	FT315	Cereal Processing Lab	Employability o Identify Hazards and categorize them based on their severity o Construct a chart with allergens associated with various food products. o Prepare HACCP plan for any food industry
A15	B.Tech-Food Technology	2016	FT316	Processing of Milk and Milk Products Lab	Skill development Formulation of at least two processed product using cereal flour and proximate analysis of developed products
A15	B.Tech-Food Technology	2016	FT317	Fruit and Vegetable Processing Lab	Skill development Perform an experiment on various platform tests conducted in dairy industry o Study on various regulatory standards implemented in dairy UNIT.
A15	B.Tech-Food Technology	2016	FT318	Mini Project	Skill development experiment on nutritional composition, processing and storage considerations for a particular fruit / vegetable product.
A15	B.Tech-Food Technology	2016	FT319	Bakery and Confectionery Products Lab	Employability(To solve real time projects)
A16	B.Tech-Biomedical Engineering	2016	16BM101	Fundamentals of Anatomy and Physiology	Skill development(Record different Lung Volumes based on the Physical Excersion.)
A16	B.Tech-Biomedical Engineering	2016	BM201	Anatomy	Skill development (Study of rate of Conduction velocity in nerves)
A16	B.Tech-Biomedical Engineering	2016	BM202	Transforms and partial differential equations	Skill development (Apply the fourier transforms in the case of biosignals for the understanding of spectrum)
A16	B.Tech-Biomedical Engineering	2016	BM203	Physiology	Skill development (Record different Lung Volumes based on the Physical Excersion.)
A16	B.Tech-Biomedical Engineering	2016	BM204	Electronics Engineering-I	Skill development (Design three types of biasing circuits and determine the stability factors in each case)
A16	B.Tech-Biomedical Engineering	2016	BM205	Signals and Systems for Bioengineers	Employability(Analyze the various biosignals based on the frequencies)
A16	B.Tech-Biomedical Engineering	2016	BM206	Transducers and Bio-Sensors	Employability(Measuring temperature, capacitance, inductance for biomedical applications.)
A16	B.Tech-Biomedical Engineering	2016	BM207	Anatomy and Physiology Lab	Employability(Measure the Reflexes of the muscle contraction of frog's gastronemus muscle)
A16	B.Tech-Biomedical Engineering	2016	BM208	Communication Systems	Skill development (Design a VCO (NE 566) to generate FM signal for a given application.)
A16	B.Tech-Biomedical Engineering	2016	BM209	Signals and Systems for Bioengineers Lab	Employability(Analyze the various biosignals based on the frequencies.)
A16	B.Tech-Biomedical Engineering	2016	BM210	Clinical Science	Employability(Make a prototype of Defibrillators and HLM.)
A16	B.Tech-Biomedical Engineering	2016	BM211	Bio Chemistry	Employability(Analyze the different constituents of blood)
A16	B.Tech-Biomedical Engineering	2016	BM212	Electronics Engineering-I Lab	Skill development(Analyze the characteristics of BJT)
A16	B.Tech-Biomedical Engineering	2016	BM214	Transducers and Bio-Sensors Lab	Employability(Measure the various signals that are attained from the instrumentation labn)
A17	B.Tech-Petroleum Engineering	2016	PL201	Petroleum Geology	Entrepreneurship o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons.
A17	B.Tech-Petroleum Engineering	2016	PL202	Petroleum Engg. Thermodynamics	Entrepreneurship o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons.)

A17	B.Tech-Petroleum Engineering	2016	PL203	Petroleum Geophysics	Skill development o Estimation of thermodynamic properties. o Determination of heat engine and pump efficiency. o Identification of reversible and irreversible processes. o Selection of refrigeration process and refrigerant.)
A17	B.Tech-Petroleum Engineering	2016	PL204	Process Heat Transfers	Entrepreneurship o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons.)
A17	B.Tech-Petroleum Engineering	2016	PL205	Petroleum Geology Lab	Entrepreneurship (ACTIVITIES: o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons.)
A17	B.Tech-Petroleum Engineering	2016	PL206	Drilling Technology-I	Entrepreneurship o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons
A17	B.Tech-Petroleum Engineering	2016	PL208	Drilling Fluids & Cementing Technology	Skill development o Acquire a thorough knowledge of drilling fluids and rheology. o Choose the right equipment for solid removal. o Communicate efficiently with a drilling fluid specialist.)
A17	B.Tech-Petroleum Engineering	2016	PL210	Petrochemical Products	Skill development o Acquire a thorough knowledge of drilling fluids and rheology. o Choose the right equipment for solid removal o Communicate efficiently with a drilling fluid specialist.)
A17	B.Tech-Petroleum Engineering	2016	PL212	Process Heat Transfer Lab	Skill development o Implement industrial management strategies for pollution prevention. o Analyze and determine effluent toxicity. o Develop solutions for industrial effluent toxicity.
A17	B.Tech-Petroleum Engineering	2016	PL214	Drilling Technology-I Lab	Skill development o Determination of heat transfer coefficients of double pipe heat exchanger. o Determination of heat transfer coefficient in Shell and Tube Heat Exchanger. □ Determination of overall heat transfer coefficient of a given coil. □ Estimation of heat transfer coefficient in forced convection.
G02	Ph.D - Chemical Engineering	2016	PH094	Technical Textiles	Employability
G05	Ph.D - Electronics and Communication Engineering	2016	PH093	COGNITIVE RADIO TECHNOLOGY	Employability
G08	Ph.D - Mechanical Engineering	2016	PH084	METAL MATRIX COMPOSITES	Employability
G08	Ph.D - Mechanical Engineering	2016	PH099	MODERN TECHNIQUES OF MATERIAL CHARACTERIZATION & TESTING	Employability
G08	Ph.D - Mechanical Engineering	2016	PH100	FRICTION STIR WELDING & PROCESSING	Employability
G08	Ph.D - Mechanical Engineering	2016	PH101	SOLAR ENERGY	Employability
G08	Ph.D - Mechanical Engineering	2016	PH102	NANOTECHNOLOGY	Employability
G30	Ph.D - Physics	2016	PH088	GLASS SCIENCE	Employability
G31	Ph.D - Chemistry	2016	PH078	ADVANCED ORGANIC SYNTHESIS HETERO CYCLES	Employability
G31	Ph.D - Chemistry	2016	PH083	ADVANCES IN ALKALINE EARTH METALLIC CHEMISTRY AND CATALYSIS	Employability
G31	Ph.D - Chemistry	2016	PH087	ADVANCED ORGANIC SYNTHESIS AND IDENTIFICATION OF NATURAL PRODUCTS	Employability
G31	Ph.D - Chemistry	2016	PH089	INSTRUMENTAL METHODS & CHARACTERIZATION TECHNIQUE	Employability
G31	Ph.D - Chemistry	2016	PH096	HYDRO FRACTURING & APPLICATIONS	Employability
G31	Ph.D - Chemistry	2016	PH097	NANO BIOTECHNOLOGY	Employability
G32	Ph.D - Mathematics	2016	PH098	NUMERICAL ANALYSIS	Employability
G32	Ph.D - Mathematics	2016	PH105	ORDINARY & PARTIAL DIFFERENTIAL EQUATIONS	Employability
All B.Tech Programmes		2016	16HS101	Basic Mathematics-I	Skill development: o Implement matrix operations. o Implement malloc and calloc functions. o Copy the content of one file into the other. o Implement string manipulations functions
All B.Tech Programmes		2016	16HS102	Engineering Physics	Skill development(Estimation of acoustic impedance of a given material and Measurement of distances using ultrasonic range finder)
All B.Tech Programmes		2016	16HS103	Engineering Mathematics-I	Skill development(Differentiate methods to solve given differential equation and Compute numerical solutions to differential equation and compare the result with MATLAB output)
All B.Tech Programmes		2016	16HS104	English Proficiency and Communication Skills	Employability(SWOT Analysis, Snap talks, Spell Bee, Short conversations, Role play, Quiz, Elocution and JAM)
All B.Tech Programmes		2016	16HS105	Technical English Communication	Employability(Doing phonetic transcription of selected words from the list provided using talking dictionaries of AHD and CALD and Completing graded grammar exercises in Rosetta Stone.)
All B.Tech Programmes		2016	16HS106	Basic Mathematics-II	Skill development: o Compute the inverse of matrix and compare with MATLAB output. o Solve given system of linear equations and compare with MATLAB output. o Solve given differential equations and compare with MATLAB output
All B.Tech Programmes		2016	16HS107	Engineering Chemistry	Skill development(Collect water samples from different villages near VFSTR University and determine the total hardness, and total alkalinity and Present the water analysis report to the villagers and suggest proper measures to be taken)
All B.Tech Programmes		2016	16HS108	Engineering Mathematics-II	Skill development(Differentiate the methods to find the rank of a matrix and Solve given system of linear equations and compare with MATLAB output)
All B.Tech Programmes		2016	16HS109	Environmental Science and Technology	Skill development(Painting contests on environmental issues and themes and Models of energy resources, Pollution and Solid Waste Management- 3R strategy)
All B.Tech Programmes		2016	16HS110	Engineering Physics Laboratory	Skill development(Frequency of laser by using diffraction grating and determination of efficiency of solar cell when two solar cells are connected in parallel and in series.)
All B.Tech Programmes		2016	16HS111	Engineering Chemistry Laboratory	Skill development(Identify some of the functional groups like carboxylic acid, aldehyde and ketones by I.R. Spectroscopy.)
All B.Tech Programmes		2016	MS409	Production and Operations Management	Entrepreneurship



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ANNEXURE-III(2017-18)

Program code	Program name	Year of Introduction	CourseCode	Course Name	Activities
A01	B.Tech-Biotechnology	2017	16BT201	Biochemistry	Skill development o Models on renewable energy biomass, biofuels, biogas. o Prepare vermicompost. o Case studies on green entrepreneurship.
A01	B.Tech-Biotechnology	2017	16BT202	Cell Biology	Skill development o Demonstrate various stages of chick embryo development. o Culture different cell lines. o Assess cell viability. o Identify individual cell organelles by staining.
A01	B.Tech-Biotechnology	2017	16BT203	Microbiology	Skill development o Isolate microbes from different sources – air, soil and water. o Identify pathogens from local hospitals and dairy farms. o Purify different strains of bacteria and fungi. o Carryout sterilization processes.
A01	B.Tech-Biotechnology	2017	16BT204	Process Engineering Principles	Skill development o Verify Bernoulli's theorem. o Estimate centrifugal pump efficiency. o Measure fluid velocity in a pipe. o Estimate pressure drop in fluidized bed reactor.
A01	B.Tech-Biotechnology	2017	16BT205	Genetics	Skill development o Prepare a table with different foods and their preservation methods. o Report on permissible limits for various food additives as per regulatory standards.
A01	B.Tech-Biotechnology	2017	16BT206	Heat and Mass Transfer	Skill development o Design of double pipe heat exchanger o Design of shell and tube heat exchanger o Design of evaporator for fruit juice concentrate
A01	B.Tech-Biotechnology	2017	16BT207	Instrumental Methods of Biological Analysis	Employability o Qualitative and quantitative analysis of biomolecules. o Purify biomolecules from plants. o Disrupt different cells using sonicator. o Compare different analytical methods to estimate enzymes.
A01	B.Tech-Biotechnology	2017	16BT208	Molecular Biology	Employability o Model the double-helix of DNA using ball and stick kit. o Identify complements, palindromes, loops and bends. o Predict DNA complexity by gel electrophoresis. o Amplify gene using PCR.
A01	B.Tech-Biotechnology	2017	16BT250	Plant Metabolism	Skill development o Analyze the role of plant hormones on plant growth hill model. o Estimate secondary metabolites such as tannins, resins, terpenes and others produced in plants. o Determine toxicity of solutions in leaves.
A01	B.Tech-Biotechnology	2017	16BT251	Physiology & Histology	Skill development o Analyze the functioning of organ systems using 3D graphics/ models. o Visualize organ systems in animal model frog. o Estimate CO ₂ consumption during rest and exercise.
A01	B.Tech-Biotechnology	2017	16BT252	Microbial Technology	Skill development o Estimate Monod parameters. o Determine Del factor for heating, holding and cooling periods. o Determine temperature dependent term of Arrhenius equation. o Estimate biomass and product formation.
A01	B.Tech-Biotechnology	2017	16BT253	Algal Biotechnology	Skill development 1. Measuring the growth of algae. 2. Analyze biomass yield and pigments such as chlorophylls and carotenoids in micro algal culture. 3. Visit to algal biotechnology company to understand the commercial algal cultivation systems.
A01	B.Tech-Biotechnology	2017	16BT254	Elements of Bioinformatics	Skill development 1. Retrieval of FASTA format from databases. 2. Perform BLAST and FASTA software analysis for both nucleic acids and amino acid sequences. 3. Perform pair wise and multiple sequence alignments. 4. Construct phylogenetic trees using software tools such as PHYLIP and PAUP.
A02	B.Tech-Chemical Engineering	2017	16CH201	Chemical Process Calculations	Skill development o Mini project on material and energy balance of a chemical process. o Estimation of physical properties.
A02	B.Tech-Chemical Engineering	2017	16CH202	Momentum Transfer	Skill development o Calibration of rotameter. o Separation of immiscible liquids using decanter. o Calibration of manometer. o Design of Venturi meter. o Design of Orifice meter.
A02	B.Tech-Chemical Engineering	2017	16CH203	Process Instrumentation	Employability o Calibration of spectro photometer. o Measurement of flow rate in open channels. o Calibration of head and flow meters.
A02	B.Tech-Chemical Engineering	2017	16CH204	Chemical Engineering Thermodynamics-I	Skill development o Calibration of thermometer. o Conversion of work into heat using Joale's experiment. o Expansion of gas using Joule-Thomson effect.
A02	B.Tech-Chemical Engineering	2017	16CH205	Mechanical Unit Operations	Employability o To compare the working of different types of crushers. o To find the optimum time of sieving. o To compare the working of leaf filter and plate and frame filter press.
A02	B.Tech-Chemical Engineering	2017	16CH206	Organic Chemistry	Skill development o Perform preliminary tests. o Identification of extra elements present in organic compounds. o Properties of various functional groups. o Medicinally important reactions. o Concentrate organic liquids obtained from plant extracts.
A02	B.Tech-Chemical Engineering	2017	16CH207	Process Heat Transfer	Skill development o Mix the heat. o Feel the heat. o Identification of heat exchangers. o Fabrication of double pipe heat exchanger. o Connecting shell and tube heat exchanger setup.
A02	B.Tech-Chemical Engineering	2017	16CH240	Effluent Treatment Methods	Employability o Case study on effluent treatment in a process industry.
A02	B.Tech-Chemical Engineering	2017	16CH241	Mineral Process Technology	Employability o Identify mineral components of an ore under different light conditions in the petrographic microscope. o Develop process flow sheet for a mineral processing plant and determine recovery, losses and grades. o Carry out tests for identification of metals.

A02	B.Tech-Chemical Engineering	2017	16CH242	Pharmaceutical Chemistry	Employability o Evaluation of drug synthesis using MAT LAB. o Estimation of physical and chemical properties of drugs.
A02	B.Tech-Chemical Engineering	2017	16CH243	Polymer Structure and Property Relationship	Employability o Polymer property prediction. o UTM data analysis. o DSC, TGA data interpretation.
A02	B.Tech-Chemical Engineering	2017	16CH244	Petroleum Production Operations	Employability o Assessment of artificial lift Inflow performance principles and descriptions of artificial lift methods
A02	B.Tech-Chemical Engineering	2017	16CH245	Conventional Energy Sources	Employability o Case study on the pros and cons of various conventional energy technologies and propose the best possible energy conversion system for a particular location.
A02	B.Tech-Chemical Engineering	2017	16CH246	Food Safety and Regulations	Employability o Identify Hazards and categorize them based on their severity o Prepare HACCP plan for any food industry
A02	B.Tech-Chemical Engineering	2017	16CH346	Food Quality and Evaluation	Skill development o Prepare quality control chart for quality analysis of food o Prepare HACCP plan for any food industry
A02	B.Tech-Chemical Engineering	2017	16CH355	Energy Management and Auditing	Skill development o Classroom discussions on quantifying energy efficiency. o Identifying and implementing energy efficiency measures. o Case study on analyzing issues related to the implementation of energy efficiency measures. o Preparing energy audit reports.
A02	B.Tech-Chemical Engineering	2017	16CH356	Subjective and Objective Evaluation in Food Products	Skill development o Formulation of objective functions. o Simulation using numerical methods and computer programming.
A03	B.Tech-Civil Engineering	2017	16CE201	Building Materials & Concrete Technology	Skill development (Prepare different grades of concrete)
A03	B.Tech-Civil Engineering	2017	16CE202	Fluid Mechanics	Skill development (Differentiate between Newtonian and Non Newtonian fluids)
A03	B.Tech-Civil Engineering	2017	16CE203	Solid Mechanics	Skill development (Analyze stress strain variation in MS bar under tension, draw stress strain curve and find out Young's modulus for the tested specimen)
A03	B.Tech-Civil Engineering	2017	16CE204	Surveying-I	Skill development (Transfer Benchmark from near-by established control points)
A03	B.Tech-Civil Engineering	2017	16CE205	Material Testing Lab	Entrepreneurship (Testing of concrete materials)
A03	B.Tech-Civil Engineering	2017	16CE206	Building Construction & Planning	Employability (Find out engineering properties of brick and stone)
A03	B.Tech-Civil Engineering	2017	16CE207	Environmental Engineering-I	Skill development (Estimate water requirement for Guntur city)
A03	B.Tech-Civil Engineering	2017	16CE208	Hydraulics & Hydraulic Machines	Skill development (Differentiate between Newtonian and Non Newtonian fluids)
A03	B.Tech-Civil Engineering	2017	16CE209	Structural Analysis-I	Skill development (Classify different types of structures based on degrees of freedom)
A03	B.Tech-Civil Engineering	2017	16CE210	Surveying-II	Skill development (Take details of an area using prismatic compass)
A03	B.Tech-Civil Engineering	2017	16CE240	Non-Destructive Testing	Entrepreneurship (Examine the strength of concrete without destruction using UPV and Rebound Hammer)
A03	B.Tech-Civil Engineering	2017	16CE280	Engineering Seismology	Skill development (Make a working model of a building to demonstrate base isolation)
A03	B.Tech-Civil Engineering	2017	16CE281	Renewable Energy Resources	Skill development (Prepare a solar plate model for lighting LED)
A04	B.Tech-Computer Science and Engineering	2017	16CS201	Database Management Systems	Employability (Design of ER Diagram for the development of Web applications)
A04	B.Tech-Computer Science and Engineering	2017	16CS202	Data Structures	Skill development (Design and Implement a School Management System)
A04	B.Tech-Computer Science and Engineering	2017	16CS203	Digital Logic Design	Employability (Design of Logical Circuits using Universal gates and Basic Gates)
A04	B.Tech-Computer Science and Engineering	2017	16CS204	Discrete Mathematical Structures	Skill development (Construction of Logical Circuits using Truth Tables)
A04	B.Tech-Computer Science and Engineering	2017	16CS205	Computer Organization and Architecture	Employability (development of assembly language programs that leverage the underlying hardware resources efficiently)
A04	B.Tech-Computer Science and Engineering	2017	16CS206	Design & Analysis of Algorithms	Skill development (Analysis of Various algorithmic techniques to solve problems)
A04	B.Tech-Computer Science and Engineering	2017	16CS207	Formal Languages & Automata Theory	Skill development (Conversion of NFA to DFA)
A04	B.Tech-Computer Science and Engineering	2017	16CS208	Object Oriented Programming Using Java	Employability (Analysis and design of Composite structures using Software Packages)
A04	B.Tech-Computer Science and Engineering	2017	16CS240	Data Communications	Skill development (Construct a simple network with involving various network devices and Analyze various network topologies.)
A04	B.Tech-Computer Science and Engineering	2017	16CS241	Computer Graphics	Skill development (Design a suitable application using line, circle drawing algorithms and Implement translation, rotation, scaling of objects)
A04	B.Tech-Computer Science and Engineering	2017	16CS242	Scripting Languages	Employability (Implement of data types such as scalars, arrays, lists using Python and Develop functions using Python.)
A04	B.Tech-Computer Science and Engineering	2017	16CS243	Advanced Microcontrollers	Skill development (Identify hardware and software components to build an embedded system and Porting of OS on to ARM processor board.)
A04	B.Tech-Computer Science and Engineering	2017	16CS244	Fuzzy Set Theory and Logic	Skill development (Implement fuzzy modeling for automobile MPG prediction and Implement of fuzzy Modeling for Stock market time series prediction.)
A04	B.Tech-Computer Science and Engineering	2017	16CS245	Advanced Databases	Skill development (Query from RDBMS Data bases, Query from NOSQL Data bases and Verify concurrency control and ACID properties)
A04	B.Tech-Computer Science and Engineering	2017	16CS246	Linux/Unix & Shell Programming	Employability (Writing shell scripts on given problem statement)
A04	B.Tech-Computer Science and Engineering	2017	16CS247	Fundamentals of Database Systems	Skill development (Design and development of databases for storage information)
A04	B.Tech-Computer Science and Engineering	2017	16CS254	Scripting Languages	Skill development o Implementation of data types such as scalars, arrays, lists using Python. o Implementation of simple matching expressions using Python. o Develop functions using Python. o Finding the similarity of text documents.
A05	B.Tech-Electronics and Communication Engineering	2017	16EC201	Materials for Electronics Engineering	Skill development (materials in the development of various electronic devices electric and dielectric properties in the area of electromagnetic waves)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC202	Electronics Devices and Circuits	Employability (To design and develop the integrated circuits for devices)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC203	Network Theory	Skill development (Design of logical circuits using universal gates and basic gates. Reduction of Boolean function using K-maps and Construction of one stage ALU circuit.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC204	Signals & Systems	Skill development (Recording of various signals like Speech, Noise, Audio signals and analysis using Matlab and spectrum analyzer)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC205	Digital Electronics	Skill development (Choose a Gate for digital circuit. Design digital circuits using universal gates. Implement Combinational circuits like adder encoder, decoder. Design Sequential circuits like flip flops, counters.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC206	Probability Theory & Stochastic Processes	Skill development (Expectation, variance and standard deviation with the help of MATLAB for (a) any random data. (b) any continuous random variables. (c) any Discrete random variables.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC207	Electronic Circuit Analysis	Skill development Expectation, variance and standard deviation with the help of MATLAB for (a) any random data. (b) any continuous random variables. (c) any Discrete random variables.
A05	B.Tech-Electronics and Communication Engineering	2017	16EC208	Analog Communications	Skill development (Choose the modulation scheme for the given Audio signal with minimum bandwidth. Choose the modulation scheme for the given voice signal with very good quality.)

A05	B.Tech-Electronics and Communication Engineering	2017	16EC209	Linear Control Systems	Skill development (Realize the Lag, Lead Compensators using R.L and C for any specifications. Analyze time response of second order system using MATLAB.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC250	Digital System Design Using HDL	Employability (Choose a digital circuit and write a HDL program for any real Time application. Implement any application in FPGA.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC260	Television Engineering	Skill development (Demonstration of set-top box TV system. Demonstration of DTH TV system.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC270	Embedded Linux	Skill development (kernel for a smartphone/ laptop and embedded applications. Test the code coverage of given application program.)
A05	B.Tech-Electronics and Communication Engineering	2017	16EC271	Embedded Systems and RTOS	Skill development (architecture for networked household security system Design testing procedure for networked household security system)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE201	Linear Systems and Signal Analysis	Employability (Analyze the Harmonic content of a signal using Fourier series)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE202	DC Machines	Employability (Design a battery operated electric car)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE203	Electrical Circuit Analysis	Employability (Selection of switches, plugs, fuse and wire specifications for domestic loads)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE204	Power Generation Systems	Employability (Design a working model of solar power plant)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE205	Electromagnetic Fields and Transmission Lines	Employability (Determine the dimensions of the transmission line for various initial condition)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE206	Power Electronic Devices & Circuits	Employability (Design of DC-DC converter for speed control of DC Motor)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE207	Electronic Devices and Circuit Theory	Employability (Choose a diode for a cellphone / Laptop/ tablet adapter)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE208	Analog Electronics	Skill development (Design of Integrator and Differentiator)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE251	Renewable Energy Technologies	Employability (Design a prototype Biogas plant)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE252	Alternate Energy Resources	Employability (Choose a battery for a cellphone/ laptop/tablet/adaptor for various ratings)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EE253	Solar PV Technologies-I	Employability (Measurement of Beam radiation)
A06	B.Tech-Electrical and Electronics Engineering	2017	16EL102	Soft Skills Laboratory	Employability(Formal and informal communication and SWOT analysis.)
A07	B.Tech-Information Technology	2017	16IT201	Object Oriented Programming	Skill development o Implement the concept of Encapsulation. o Develop a sample program which exhibits inheritance and polymorphism.
A07	B.Tech-Information Technology	2017	16IT202	Advanced Data Structures	Skill development(To maintain the large sets of data through structured programming)
A07	B.Tech-Information Technology	2017	16IT309	Unix Programming	Skill development o Applying Unix commands for various file and user management activities. o Design Page replacement algorithms in memory management.
A08	B.Tech-Mechanical Engineering	2017	16ME201	Manufacturing Technology	Skill development (Design patterns with allowances for a few sample products.)
A08	B.Tech-Mechanical Engineering	2017	16ME202	Material Science and Metallurgy	Skill development (Sample preparation for morphological analysis.)
A08	B.Tech-Mechanical Engineering	2017	16ME203	Mechanics of Solids	Skill development (Tensile test on mild steel and indicate the principal plane on which the crack appears.)
A08	B.Tech-Mechanical Engineering	2017	16ME204	Thermodynamics	Skill development (Classify thermodynamic systems based on mass and energy interactions.)
A08	B.Tech-Mechanical Engineering	2017	16ME205	Computer Aided Machine Drawing	Employability (Convert mechanical drawings into AutoCAD sketches and vice-versa.)
A08	B.Tech-Mechanical Engineering	2017	16ME206	Fluid Mechanics & Hydraulic Machines	Skill development (Evaluate various fluid properties.)
A08	B.Tech-Mechanical Engineering	2017	16ME207	Kinematics of Machines	Skill development (Creation of various joints.)
A08	B.Tech-Mechanical Engineering	2017	16ME208	Metal Cutting & Machine Tools	Skill development (Fabricate a few sample components on various machine tools.)
A08	B.Tech-Mechanical Engineering	2017	16ME209	Prime Movers	Skill development (Assembly of a 2-stroke diesel engine)
A08	B.Tech-Mechanical Engineering	2017	16ME251	Advanced Mechanics of Solids	Skill development (Determine the unsymmetrical bending and locate the shear centre)
A08	B.Tech-Mechanical Engineering	2017	16ME252	Advanced Thermodynamics	Skill development (Formulate advanced thermodynamic equations.)
A08	B.Tech-Mechanical Engineering	2017	16ME253	Casting Process	Skill development (Manufacture components by metal casting processes)
A08	B.Tech-Mechanical Engineering	2017	16ME254	Ceramics & Polymers	Skill development (Identify various types of ceramics)
A08	B.Tech-Mechanical Engineering	2017	16ME255	3D Printing Technology	Skill development (Design and fabricate universal coupling with FDM Technology.)
A08	B.Tech-Mechanical Engineering	2017	16ME256	Basics in Robotics	Employability (Working models of Robotics for the development new technologies)
A10	B.Tech-Automobile Engineering	2017	16AE201	Automotive Chassis	Skill development (Hands on experience on various chassis frames for long trailers)
A10	B.Tech-Automobile Engineering	2017	16AE202	Engineering thermodynamics & Heat Transfer	Employability: Experimentation using Otto, Diesel and dual cycles and determination of their efficiencies
A10	B.Tech-Automobile Engineering	2017	16AE203	Fundamentals of IC Engines	Employability (Perform experiments on SI and CI engines for valve/port timing diagram.)
A10	B.Tech-Automobile Engineering	2017	16AE204	Fundamentals of Motorsport Engineering	Employability (Analyze a racing sport with respect to its technicalities)
A10	B.Tech-Automobile Engineering	2017	16AE205	Materials for Automobile industry	Employability(Perform tests to evaluate micro structures of different materials)
A10	B.Tech-Automobile Engineering	2017	16AE206	Advanced Theory of IC Engines	Employability (Formulate equations/ correlations to evaluate effect of various thermodynamic properties on the efficiency of SI and CI engines)
A10	B.Tech-Automobile Engineering	2017	16AE207	Manufacturing Processes for Automotive Components	Skill development(Mould Preparation and casting different components)
A10	B.Tech-Automobile Engineering	2017	16AE241	Engine Testing and Certification	Employability (Identify requirements of test measurement)
A10	B.Tech-Automobile Engineering	2017	16AE242	Modern Vehicle Technology	Employability (Identify driver assisting systems and test procedures)
A10	B.Tech-Automobile Engineering	2017	16AE243	New Generation & Hybrid Vehicles	Employability (Comparative analysis of different engine technologies)
A10	B.Tech-Automobile Engineering	2017	16AE244	Racing Two Wheeler and Four Wheelers	Employability: Analyze a racing sport with respect to its technicalities
A10	B.Tech-Automobile Engineering	2017	16AE245	Engineering Metrology and instrumentation	Employability (Perform linear measurements using slip gauges)
A10	B.Tech-Automobile Engineering	2017	16AE246	Basic Automobile Engineering	Skill development(Learning of automation and supporting machinery to obtain knowledge in automobiles)
A11	B.Tech-Textile Technology	2017	16TF201	Technology of Manufactured Fibres	Skill development o Collect different types of man made fibers. o Find the different applications in which man made fibers are widely used. o Analyze the fibers structure through SEM, optical microscope, FTIR. o Selection of different routes for manufacturing of man made fibers.

A11	B.Tech-Textile Technology	2017	16TF202	Yarn Manufacturing	Entrepreneurship o Collect technical specifications of yarn preparatory machines. o Prepare spin plan for carded and combed yarns for a given count. o Prepare flow chart for carded and combed yarn manufacturing process. o Observe spinning parameters by visiting a spinning mill.
A11	B.Tech-Textile Technology	2017	16TF203	Fabric Manufacturing	Skill development o Observing weaving parameters by visiting weaving mill. o Collection of technical specifications of winding, warping, sizing machines. o Drawing and denting of warp in hand loom. o Comparison of shuttle-less looms technical specifications. o Preparation of peg plan for given design.
A11	B.Tech-Textile Technology	2017	16TF204	Fashion, Art, Design & Accessories	Skill development o Making of mood board for particular theme. o Selection of design and color from mood board. o Design of clothing based on mood board. o Accessories designing using ribbons, braids, laces, appliques, buttons, zippers, snap fasteners etc. o Showcase of ornamental accessories as per specific theme.
A11	B.Tech-Textile Technology	2017	16TF205	Pattern Engineering	Skill development o Taking measurements using flat pattern methods. o Design darts using slash and spread, pivotal methods for apparel. o Pattern making for plain, puff and bell types of sleeves. o Pattern making for peter pan, cape roller and sailor collars. o Grading of basic bodice
A11	B.Tech-Textile Technology	2017	16TF206	Fashion illustration Lab	Skill development (Illustration of the following: 1. Lines and strokes using pencil shading techniques; lettering and numbering styles. 2. Elements of design. 3. Principles of design. 4. Different postures of human head, hand, leg and feet. 5. Different hair styles. 6. Sketching of lay figure using head theory. 7. Preparation of Prang's colour wheel. 8. Preparation of different colour schemes. 9. Rendering different fabric textures. 10. Sleeves, cuffs, and necklines. 11. Skirts, pockets, trousers, and skirt tops)
A11	B.Tech-Textile Technology	2017	16TF207	Accessories & Surface Ormentation Lab	Skill development (1. Designing and production of Earrings, bracelets, necklaces using materials like colored papers, buttons, fabric scraps, coloured beads and stones. 2. Designing and Construction of handbags, purses and gloves.)
A11	B.Tech-Textile Technology	2017	16TF208	Garment Construction Techniques	Skill development o Draw and construct the yoke, collar and pockets. o Prepare Various stitches used for making the garment. o Collect sewing threads used for various garments.
A11	B.Tech-Textile Technology	2017	16TF209	Technology of Knits & Non-Woven's	Skill development o Identification of face, back side and type of knitted fabric by visual observation. o Analysis of SMS non woven composite fabric for surgical mask. o Identification and analysis of nonwoven fabric used in carry bags. o Designing of needle punched fabric for filtration application. o Selection of knitting machine gauge based on tightness factor.
A11	B.Tech-Textile Technology	2017	16TF210	Fabric Structure & Design	Employability o Analysis and designing of weaves, drafting and lifting plan for shirting fabric, upholstery. o Analysis and designing of weaves, drafting and lifting plan for any compound structured fabric.
A11	B.Tech-Textile Technology	2017	16TF211	Textile Wet Processing	Skill development o Interpretation of computer colour matching data. o Dyeing of fabric with natural dye using different mordants. o Identification of various defects within the dyed and printed fabrics. o Collection of different finished samples in regular use. o Analysis of tirupur case study for ETP.
A11	B.Tech-Textile Technology	2017	16TF250	Practical Aspects in Blow room and Carding	Skill development o Collect the technical specifications of modern blow room line. o Comparative study on conventional and nonconventional carding machines. o Collect the carding parameters for a given cotton. o Case study on nep removal efficiency in conventional and nonconventional cards. o Study of Rieter and Trumac blow room line.
A11	B.Tech-Textile Technology	2017	16TF251	Practical Aspects in Weaving Preparatory	Skill development o Collect technical parameters of winding machine. o List out the requirements of yarn dyed packages. o Calculate efficiency of preparatory processes. o Simulate warping parameters and find efficiency. o Collect reed, drop wire, heald wire specifications.
A11	B.Tech-Textile Technology	2017	16TF252	Hand Knitting and Flat Knitting	Skill development o Perform hand knitting for making fabric by basic and special knits. o Collect various threads and needles used in hand knitting o Design a round and square collar by hand knitting. o Design pocket and button holes using hand knitting. o Fabricate a shawl using at least two stitch length at flat knitting.
A11	B.Tech-Textile Technology	2017	16TF253	Dyes & Pigments	Skill development o Perform dyeing of different fabrics with dyes and pigments. o Analyse chemical structure after dyeing the fabric. o Prepare a flowchart of different classes of dyes and its chemical composition. o Collect different trade names of dyes from dye manufacturers.
A12	B.Tech-Agriculture Engineering	2017	16AG201	Engg. Properties of Biological Materials & Food Quality	Skill development (Quality assessment of various food products by considering existing laws.)
A12	B.Tech-Agriculture Engineering	2017	16AG202	Farm Power and Renewable Energy Sources	Skill development (Preparation of biomass briquettes.)
A12	B.Tech-Agriculture Engineering	2017	16AG203	Principles of Thermodynamics	Skill development development of solar energy operated sprayer, cooker and lamps.
A12	B.Tech-Agriculture Engineering	2017	16AG204	Soil Mechanics	Skill development Preparation of soil samples, perform compaction and consolidation strength tests
A12	B.Tech-Agriculture Engineering	2017	16AG205	Crop Production Technology	Entrepreneur Determination of bulk density, particle density and porosity of soil.
A12	B.Tech-Agriculture Engineering	2017	16AG206	Strength of Materials	Skill development Measurement of tensile, compressive and shear strength of materials.
A12	B.Tech-Agriculture Engineering	2017	16AG207	Surveying & Levelling	Skill development Measurement of included angle of an object using compass.
A12	B.Tech-Agriculture Engineering	2017	16AG208	Theory of Machines	Skill development Simulation and modelling of different mechanisms.
A12	B.Tech-Agriculture Engineering	2017	16AG241	Food Packing Technology	Employability Supply and maintenance of foods in the form of packed and preservative

A12	B.Tech-Agriculture Engineering	2017	16AG242	Processing of Horticultural Products	Employability (Quality assessment of fruits and vegetables)
A12	B.Tech-Agriculture Engineering	2017	16AG243	Farm Power & Machinery Management	Skill development (Identify important parameters for cost analysis of machinery.)
A12	B.Tech-Agriculture Engineering	2017	16AG244	Biomass Management for Fodder and Energy	Employability (Preparation of models of biogas plant.)
A12	B.Tech-Agriculture Engineering	2017	16AG245	Climate Change and Water Resources	Skill development (Analysis of climate change impact on river flow case study.)
A14	B.Tech-Bioinformatics	2017	16BI201	Biological Databases	Skill development o Retrieve file formats of various public databases such as Genbank and PDB. o Perform biomolecular sequence analysis. o Perform biomolecular structure analysis.
A14	B.Tech-Bioinformatics	2017	16BI202	Molecular Evolution	Skill development o Deduce evolutionary relationships using phylogenetic trees. o Construct rooted and unrooted trees. o Construct dendrogram. o Perform multiple sequence alignment using software tools.
A14	B.Tech-Bioinformatics	2017	16BI250	Biopharmaceutical Technology	Skill development o Perform molecular docking o Produce recombinant proteins having therapeutic potential. o Analyze pharmacokinetics and pharmacodynamics of drug.
A14	B.Tech-Bioinformatics	2017	16BI251	Genomes of Pathogens	Employability o Seminars on some important diseases such as cholera, small pox, HIV and TB. o Culture bacteriophages. o Movie shows on Contagion, Outbreak or any other documentary.
A14	B.Tech-Bioinformatics	2017	BI401	Molecular Modelling & Drug Design	Skill development(To study the molecular biology level to consider the design and development of Drugs)
A14	B.Tech-Bioinformatics	2017	BI402	Eco informatics & Predictive Ecology	Skill development(To study the evolutionary studies and along with ecology)
A14	B.Tech-Bioinformatics	2017	BI403	r-Statistics	Skill development(Design and development of Statistical methods using programming language)
A14	B.Tech-Bioinformatics	2017	BI404	Computational Epigenetics	Skill development (o Determine phases of cell growth. o Calculate substrate and product inhibition on growth of cells)
A14	B.Tech-Bioinformatics	2017	BI405	immunology & immunoinformatics	Skill development (o Isolation of lymphocytes from mouse spleen. o Preparation of cell specific culture media)
A14	B.Tech-Bioinformatics	2017	BI406	Metabolic Engineering	Employability (o Optimize flux amplification. o Lipidomic profiling.)
A14	B.Tech-Bioinformatics	2017	BI407	Population Genetics	Skill development (o Examine Mendelian Laws using pea plant by applying Punnett squares. o Design Ames test to understand mutation.)
A14	B.Tech-Bioinformatics	2017	BI408	Molecular forensics	Employability (o Model the double-helix of DNA using ball and stick kit. o Identify complements, palindromes, loops and bends.)
A14	B.Tech-Bioinformatics	2017	BI409	Proteomics & Genomics	Skill development (o Amplification of gene by PCR. o Expertise in designing primers.)
A14	B.Tech-Bioinformatics	2017	BI410	Comparative Genomics	Employability (1. Sequence alignment with tools like BLAST and FASTA.)
A14	B.Tech-Bioinformatics	2017	BI411	forensic Science	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A14	B.Tech-Bioinformatics	2017	BI412	Project	Skill development (o Visit to NGS lab and demonstration of NGS. o Seminar on different sequencing machines and their working principles.)
A14	B.Tech-Bioinformatics	2017	BI413	Next Generation Sequencing & Analysis	Employability (Implementation of Industry Oriented Project)
A14	B.Tech-Bioinformatics	2017	BI414	Internship	Skill development (o Determine the structure of protein.)
A14	B.Tech-Bioinformatics	2017	BI415	Structural Bioinformatics	Skill development(Study and design of different structural formats for the bioinformatics)
A14	B.Tech-Bioinformatics	2017	BI417	immunoinformatics Lab	Skill development(Study and design of different structural formats for the bioinformatics in immunological level)
A14	B.Tech-Bioinformatics	2017	BI419	r-Statistics Lab	Skill development(Design and development of Statistical methods using programming language through laboratory level)
A14	B.Tech-Bioinformatics	2017	BI421	Molecular Modelling Lab	Skill development(Molecular modelling is used to develop the working flow to get easy)
A15	B.Tech-Food Technology	2017	16FT101	Biochemistry & Nutrition	Skill development o Report on food particle disintegration in a prototype stomach model. o Review on starch modification methods and its applications in food industry. o Estimation of RDA values for different micro and macro nutrients.
A15	B.Tech-Food Technology	2017	16FT201	Food Chemistry	Skill development o Checking efficacy of various solvents for edible oil extraction. o Shelf life prediction of food products. o Estimation of enzymatic reactions using Michaelis-Menten Equation.
A15	B.Tech-Food Technology	2017	16FT202	Food Microbiology	Skill development o Prepare flow charts for production of food products using different microorganisms.
A15	B.Tech-Food Technology	2017	16FT203	Thermodynamics & Heat Engines	Skill development o Report on properties and environmental performance of some commonly used refrigerants in food industry. o Report on Indian Boiler's Act and Indian Boiler Regulation.
A15	B.Tech-Food Technology	2017	16FT204	Fundamentals of Fluid Mechanics	Skill development o experiment on nutritional composition, processing and storage considerations for a particular fruit / vegetable product.
A15	B.Tech-Food Technology	2017	16FT205	Principles of Food Preservation	Skill development o Prepare a table with different foods and their preservation methods. o Report on permissible limits for various food additives as per regulatory standards.

A15	B.Tech-Food Technology	2017	16FT206	Fundamentals of Heat & Mass Transfer	Skill development o Mix the heat o Feel the heat o Effect of radiation on test tube filled with water. o Window Insulation o Connecting shell and tube heat exchanger setup. o Feel the fragrance o Calculate critical thickness o Design of double pipe heat exchanger o Design of shell and tube heat exchanger o Design of evaporator for fruit juice concentrate
A15	B.Tech-Food Technology	2017	16FT207	Unit Operations	Skill development o Comparing the working of different types of crushers o Finding the optimum time of sieving o Comparing the working of leaf filter and plate and frame filter press.
A15	B.Tech-Food Technology	2017	16FT250	Refrigeration & Cold Chain Management	Skill development o Report on different types of refrigerants and its characteristics. o Prepare a table with different foods and their storage temperatures.
A15	B.Tech-Food Technology	2017	16FT251	Unit Operations-II	Skill development o Solve design problems on freezing and pasteurization
A15	B.Tech-Food Technology	2017	16FT252	Food Additives	Skill development o Survey on various additives used in food industry. o Study on regulatory laws related to food additives.
A15	B.Tech-Food Technology	2017	16FT253	Introduction to Biochemical Engineering and Enzyme Technology	Skill development o Calculate kinetics of biochemical reactions and enzymes involved. o Prepare flowcharts for upstream and downstream processing of different industrially manufactured food products.
A15	B.Tech-Food Technology	2017	16FT254	Entrepreneurship Development in Food Processing	Skill development o Project planning for new product development o Survey on marketing of the product o Project cost calculation
A15	B.Tech-Food Technology	2017	FT401	Processing of Spices & Planting Crops	Skill development development of cakes by different methods and physico-chemical analysis
A15	B.Tech-Food Technology	2017	FT402	Instrumentation and Process Control	Skill development o Report on various adulterants used in spices and plantation products. o Flow chart of processing of local value added products of spices and condiments.
A15	B.Tech-Food Technology	2017	FT403	Techniques in Food Analysis	Employability o Preparation of report on usage and operation of different process control equipments.
A15	B.Tech-Food Technology	2017	FT404	Industrial Microbiology	Skill development o Sample preparation procedure to find mineral composition in finger millet. o HPLC, GC data interpretation. o Significance test for given experimental data. o DSC, TGA data interpretation.
A15	B.Tech-Food Technology	2017	FT405	Food Additives	Skill development (Prepare flow charts for production of food products using different microorganisms. Collect information of different spoilage micro-organisms)
A15	B.Tech-Food Technology	2017	FT406	Product Development & formulation	Skill development o Survey on various additives used in food industry. o Study on regulatory laws related to food additives.
A15	B.Tech-Food Technology	2017	FT407	Food Processing Equipment	Skill development (Develop a new food product using innovative ingredients following market analysis)
A15	B.Tech-Food Technology	2017	FT408	Extrusion Technology	Employability o Solve numerical problems on equipment design.
A15	B.Tech-Food Technology	2017	FT409	Food Plant Layout, Management and Utilities	Skill development (Formulation of extruded products using single screw and twin screw extruders and evaluation of its quality.)
A15	B.Tech-Food Technology	2017	FT410	Entrepreneurship Development	Skill development (Design a plant layout for orange juice processing industry.)
A15	B.Tech-Food Technology	2017	FT411	Processing of Fish and Marine Products	Employability Project planning for new product development o Survey on marketing of the product o Project cost calculation
A15	B.Tech-Food Technology	2017	FT412	Post Harvest Management of Fruits & Vegetables	Employability (Mention the quality requirements for a fish processing unit Mention the uses of byproducts obtained from marine products)
A15	B.Tech-Food Technology	2017	FT413	Food Quality & Certification	Skill development o Prepare a list of underutilized fruits and their physicochemical and health benefits. o Write a report on fresh cut fruits and vegetable status in India.
A15	B.Tech-Food Technology	2017	FT414	Project	Skill development (Prepare a list of international and national Food quality standards)
A15	B.Tech-Food Technology	2017	FT415	Food Biotechnology	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A15	B.Tech-Food Technology	2017	FT416	Internship	Skill development (Prepare a flowchart for the production process of industrially important food products using biotechnology)
A15	B.Tech-Food Technology	2017	FT417	Food Storage and Transport Engineering	Employability (Implementation of Industry oriented project)
A15	B.Tech-Food Technology	2017	FT419	Food Laws & Regulations	Skill development (List function of FCI, also list recent intervention in cold chain storage and transport)
A15	B.Tech-Food Technology	2017	FT421	Processing of Spices and Planting Crops Lab	Skill development (List recently introduced food laws and regulation)
A15	B.Tech-Food Technology	2017	FT423	Techniques in Food Analysis Lab	Employability (Experiment on various adulterants used in spices and plantation products o Flowchart of processing of local value added products of spices and condiments)
A15	B.Tech-Food Technology	2017	FT425	Food Processing Equipment Lab	Employability (Experiment on physico-chemical analysis of processed food materials)
A16	B.Tech-Biomedical Engineering	2017	16BM201	Biomechanics	Skill development (Analysis of blood vessels based on various laws of structures.)
A16	B.Tech-Biomedical Engineering	2017	16BM202	Biostatistics	Skill development(Assessment of severity state of a patient with prognosis of outcome of a disease)
A16	B.Tech-Biomedical Engineering	2017	16BM203	Biochemistry for Medical Engineers	Employability(Analyze the different constituents of blood)
A16	B.Tech-Biomedical Engineering	2017	16BM204	Electronics Engineering-I	Employability(Design three types of biasing circuits and determine the stability factors in each case)
A16	B.Tech-Biomedical Engineering	2017	16BM205	Signals & Systems for Bioengineers	Employability(Analyze the various biosignals based on the frequencies)
A16	B.Tech-Biomedical Engineering	2017	16BM206	Electronics Engineering-II	Employability(Design digital circuits using universal gates. Design Combi-national circuits like adder encoder, decoder.)
A16	B.Tech-Biomedical Engineering	2017	16BM207	Biomaterials & Artificial Organs	Skill development(Determine and select the right materials for surgeries, or implants or whole organs replacement with artificial organs.)
A16	B.Tech-Biomedical Engineering	2017	16BM208	Basic Clinical Sciences	Employability(Make a prototype of Defibrillators and HLM.)
A16	B.Tech-Biomedical Engineering	2017	16BM209	Transducers & Biosensors	Employability(Measuring temperature, capacitance, inductance for biomedical applications.)
A16	B.Tech-Biomedical Engineering	2017	16BM240	Hospital Management	Employability(Practice Leadership process in a hospital environment and on of it for continuous improvement of work flow)
A16	B.Tech-Biomedical Engineering	2017	16BM241	Bio Fluids & Dynamics	Skill development(ascertain the different flow mechanics of a blood vessel bifurcation)

A16	B.Tech-Biomedical Engineering	2017	BM301	Microprocessor & Microcontrollers For Bio Engineers	Employability (Interface a 16x2 LCD with Arduino.)
A16	B.Tech-Biomedical Engineering	2017	BM302	Diagnostic & Therapeutic Equipment-II	Employability(Analyse the criticality of an instrument and trouble shoot it economically.)
A16	B.Tech-Biomedical Engineering	2017	BM303	Bio Medical Instrumentation	Employability(Analyse Biomedical signals using kits)
A16	B.Tech-Biomedical Engineering	2017	BM304	Medi-Embedded Systems & RTOS	Employability (Interface a 16x2 LCD with 8051.)
A16	B.Tech-Biomedical Engineering	2017	BM305	Diagnostic & Therapeutic Equipment-I	Employability(Analyse of principles behind holter monitoring, defibrillators and other monitoring systems.)
A16	B.Tech-Biomedical Engineering	2017	BM306	Bio Materials & Artificial Organs	Skill development(Determine and select the right materials for surgeries, or implants or whole organs replacement with artificial organs.)
A16	B.Tech-Biomedical Engineering	2017	BM307	Electronics Engineering-II	Employability(Design Combinational circuits like Half adder and full adder, Encoder and decoder.)
A16	B.Tech-Biomedical Engineering	2017	BM308	Physiological System Modelling	Employability(To study the Physiological systems and remodelling of molecules)
A16	B.Tech-Biomedical Engineering	2017	BM309	Physiological Control Systems	Skill development (Design inverting amplifier and voltage follower used in Buffers. Design Integrator.)
A16	B.Tech-Biomedical Engineering	2017	BM310	Digital Signal Processing Lab	Employability(Analyze the various biosignals based on the frequencies.)
A16	B.Tech-Biomedical Engineering	2017	BM311	Bio Informatics	Skill development(differentiate between a clean data and a filtered data to move towards filter techniques)
A16	B.Tech-Biomedical Engineering	2017	BM312	Embedded Systems Lab	Employability (to program a microcontroller to control the set of traffic lights)
A16	B.Tech-Biomedical Engineering	2017	BM313	Total Quality Management	Enterpreneurship (Perform tests to evaluate micro structures of bm instruments)
A16	B.Tech-Biomedical Engineering	2017	BM314	Mini Project	Employability (To develop the mini project based learning to identify the potential tasks)
A16	B.Tech-Biomedical Engineering	2017	BM315	Microprocessor & Microcontrollers For Bio Engineers Lab	Employability (Interface a 16x2 LCD with Arduino.)
A16	B.Tech-Biomedical Engineering	2017	BM317	Bio Medical Instrumentation Lab	Employability(quantify the signal parametres at various stage/ biomedical instument blocks)
A17	B.Tech-Petroleum Engineering	2017	16PL201	Fundamentals of Geology	Skill development o Understand the origin of various kinds of igneous, sedimentary, metamorphic rocks that can be understood in terms of their tectonic setting. o Gain the knowledge on fundamentals of sedimentary basins and palcontology and their significance to the petroleum industry.
A17	B.Tech-Petroleum Engineering	2017	16PL202	Petroleum Exploration	Skill development o Identify the physical processes governing the behavior of common geophysical systems. o Explain the principles of applying geophysical methods to societally relevant problems, including natural hazards, resource exploration and management, and environmental issues. o Quantitatively describe the behavior of natural systems and the principles of geophysical measurement with physics-based mathematical models.
A17	B.Tech-Petroleum Engineering	2017	16PL203	Petroleum Geology	Entrepreneurship o Discern about origin of source rocks, formation of good source rocks, different characterization of reservoir rocks, classification, nomenclature and different source of reservoir rocks, pore space, porosity and its types. o Gain knowledge of how and why fluid hydrocarbons migrate from a source rock to reservoir rock, entrapment and accumulation of hydrocarbons.
A17	B.Tech-Petroleum Engineering	2017	16PL204	Surveying & offshore Structures	Skill development o Principles, importance and measurement of angles using Theodolite. o Concepts and terminology in contour mapping. o Measurement and to plotting the contour maps. o Basics of total station and GPS.
A17	B.Tech-Petroleum Engineering	2017	16PL205	Petroleum Engineering Thermodynamics	Skill development o Estimation of thermodynamic properties. o Determination of heat engine and pump efficiency. o Identification of reversible and irreversible processes. o Selection of refrigeration process and refrigerant.
A17	B.Tech-Petroleum Engineering	2017	16PL206	Drilling Fluids & Cementing Technology	Skill development o Acquire a thorough knowledge of drilling fluids and rheology. o Choose the right equipment for solid removal. o Communicate efficiently with a drilling fluid specialist.
A17	B.Tech-Petroleum Engineering	2017	16PL240	Production of Petro Chemicals	Skill development o Implement industrial management strategies for pollution prevention. o Analyze and determine effluent toxicity. o Develop solutions for industrial effluent toxicity.
A17	B.Tech-Petroleum Engineering	2017	16PL241	Natural Gas Hydrates and Coal Bed Methane	Employability o Design line heaters for effective transportation. o Have knowledge of different equilibriums of liquid water and solids with natural gas o Understand the challenges of NGH.
A17	B.Tech-Petroleum Engineering	2017	16PL242	Transport Phenomena	Skill development o Estimation of transport properties. o Predict appropriate boundary conditions for fluid flow. o Determine flow characteristics. o Develop velocity distribution profile for simple geometries.
A17	B.Tech-Petroleum Engineering	2017	PL301	Petroleum Production Engineering	Skill development 1. Describe processes associated with directional drilling and its uses in exploration and production. 2. An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems. 3. Analysis of critical safety parameters associated with drilling, such as safe drilling window, pore pressure, fracture pressure and collapse pressure.)
A17	B.Tech-Petroleum Engineering	2017	PL302	Petroleum Reservoir Engineering-I	Skill development 1. Apply the advance control strategies 2. Tune process controllers 3. To describe quantitatively the behavior of simple control systems and to design control systems 4. To get exposure to advanced control strategies 5. To design and tune a control loop and to apply this knowledge in the industry/laboratory
A17	B.Tech-Petroleum Engineering	2017	PL303	Process Instrumentation	Skill development 1. Describe processes associated with directional drilling and its uses in exploration and production. 2. An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems. 3. Analysis of critical safety parameters associated with drilling, such as safe drilling window, pore pressure, fracture pressure and collapse pressure.
A17	B.Tech-Petroleum Engineering	2017	PL304	Surface Production Operations	Skill development o Temperature measurement with electrical systems o Flow measurement with different devices o Select a suitable measurement device for a given application.
A17	B.Tech-Petroleum Engineering	2017	PL305	Well Logging & Formation Evaluation	Skill development o Recognize the fundamental physics of log measurements and perform log quality control. o Perform basic log interpretation to identify and characterize reservoirs.

A17	B.Tech-Petroleum Engineering	2017	PL306	Process Dynamics & Control	Skill development o Estimate the reserves of various sands of the reservoir from well data. o Calculate the formation damage and can recommend suitable stimulation operations to reverse the wells.
A17	B.Tech-Petroleum Engineering	2017	PL307	Well Completion, Testing & Services	Skill development o Application of suitable artificial lifts on reservoir energy depletion. o Crisis management.)
A17	B.Tech-Petroleum Engineering	2017	PL308	Petroleum Economics & Asset Management	Skill development (o Able to draw layout of petroleum industry. o Calibration of venture and orifice meter.)
A17	B.Tech-Petroleum Engineering	2017	PL309	Petroleum Refinery Engineering	Skill development (o Carry out a project risk evaluation, breakeven and sensitivity analysis and develop a model to know which petroleum projects is viable and relative priority.)
A17	B.Tech-Petroleum Engineering	2017	PL310	Petroleum Reservoir Engineering Lab - I	Employability (Storage of large sets in barrels for long term usage)
A17	B.Tech-Petroleum Engineering	2017	PL312	Process Dynamics & Control Lab	Employability (Storage of large sets in barrels for long term usage in petrochemical industries)
A17	B.Tech-Petroleum Engineering	2017	PL314	Mini Project	Skill development(Instrumentation of processing models for dynamics and control lab)
A17	B.Tech-Petroleum Engineering	2017	PL315	Process Instrumentation Lab	Employability(To solve real time projects)
A17	B.Tech-Petroleum Engineering	2017	PL317	Drilling Technology & Well Logging Lab	Skill development(Instrumentation of processing models for dynamics and control laboratory level)
A17	B.Tech-Petroleum Engineering	2017	PL319	Petroleum Analysis Lab	Employability(To carry out the electrical related works that can help the working line)
A17	B.Tech-Petroleum Engineering	2017	PL350	Fundamentals of Liquefied Natural gas	Employability(To carry out the working line of laboratory experiments)
B01	M.Tech-Biotechnology	2017	17BT001	Advanced Bioprocess Engineering	Skill development o Preparation fermentation medium o Use of batch and fed batch systems for production of bio-based products o Yield calculations o Software usage for Medium design and optimization
B01	M.Tech-Biotechnology	2017	17BT002	Upstream and Downstream Processing	Skill development o Preparation fermentation medium o Use of chromatography techniques for separation of bioproducts o Use of Electrophoresis units and gel preparation o Experiments on Cell disruption methods
B01	M.Tech-Biotechnology	2017	17BT003	Enzyme Technology	Skill development o Isolate amylase/ peroxidase/ urease from various sources. o Purify the enzyme by different methods. o Estimate KM and Vmax of different enzyme reactions. o Immobilize peroxidase on various substrates cloth, fabric, glass bead and encapsulation.
B01	M.Tech-Biotechnology	2017	17BT004	Bio Analytical Techniques	Skill development o Qualitative and quantitative analysis of biomolecules. o Purify biomolecules from plants. o Compare different analytical methods to estimate enzymes.
B01	M.Tech-Biotechnology	2017	17BT005	Advanced Biochemical Reaction Engineering	Skill development o Measurement of microbial growth kinetics in fermentor o Determination product formation kinetics in continuous mode in fermentor o Measurement of RTD by tracer injection methods
B01	M.Tech-Biotechnology	2017	17BT006	Plant Design and Economics for Biotechnologists	Skill development (Activities o Design of flow sheet for plant construction o Design of bioreactor for plant and animal cell cultures o Feasibility survey for development of new product o Estimation of replacement cost of new equipment.
B01	M.Tech-Biotechnology	2017	17BT007	r-Dna Technology	Skill development (Activities o Culture bacterial cells. o Isolation of bacterial and plasmid DNA. o Handling micropipettes to deal with molecular enzymes. o Experimentation on gel electrophoresis. o Preparation of competent cells.
B01	M.Tech-Biotechnology	2017	17BT008	Bioprocess Modelling Control & Simulation	Employability o development of mathematical models for bioprocesses o Design and operation of bioreactor o Simulation of mathematical models using computer software o Validation of mathematical models.
B01	M.Tech-Biotechnology	2017	17BT009	Advanced Process Engineering Principles-I	Skill development o Calibration of Bernoulli's theorem o Estimation of frictional losses with different types of fitting to pipes o Calculation of capacity of pump required for pumping of fluid using centrifugal pump o Flow measurement using venturimeter.
B01	M.Tech-Biotechnology	2017	17BT010	Immunotechnology	Skill development o Preparation of antigens and dose fixation o Isolation of lymphocytes o Harvesting antibodies o Seminar presentation of immune- compromised case studies o development of nano-based Immunodiagnostic kits
B01	M.Tech-Biotechnology	2017	17BT011	Bioinformatics and Molecular Modelling	Employability o Retrieval of FASTA format from databases. o Perform BLAST and FASTA software analysis for both nucleic acids and amino acid sequences. o Construct phylogenetic trees using software tools such as PHYLIP and PAUP. o Perform protein homology modelling.
B01	M.Tech-Biotechnology	2017	17BT012	Computational Biology	Employability o Preparation of ball and stick model of protein o Perform the sequence alignment o Analysis of protein structure o Seminar presentation on molecular modeling o Seminar presentation on molecular dynamics
B01	M.Tech-Biotechnology	2017	17BT013	Microbiology and Biochemistry	Skill development o Isolate microbes from different sources – air, soil and water. o Purify different strains of bacteria and fungi. o Carryout sterilization processes. o Estimate macromolecules in biological fluids. o Model exercises on building structures of Macromolecules.
B01	M.Tech-Biotechnology	2017	17BT014	Environmental Biotechnology	Skill development o Environmental monitoring of the pollutants from land and water. o Bioremediation of pesticides o Wastewater treatment and analysis o Calculation of COD and BOD o Environmental risk assessment studies o Seminar presentation on Environmental Biotechnology
B01	M.Tech-Biotechnology	2017	17BT015	Advanced Plant and Animal Biotechnology	Employability o Multiplication of ornamental explants by micropropagation. o Visit to plant/seed company to understand the micro propagation and genetic transformation of commercial crops. o Visualize cell division under microscope. o Observe different cell lines isolated from various sources

B01	M.Tech-Biotechnology	2017	17BT016	Industrial Biotechnology and Metabolic Engineering	Employability o Isolate amylase/peroxidase/urease from various sources. o Purify the enzyme by different methods. o Estimate KM and Vmax of different enzyme reactions. o Immobilize peroxidase on various substrates cloth, fabric, glass bead and encapsulation.
B01	M.Tech-Biotechnology	2017	17BT017	Mass Transfer Separations	Skill development o Estimation of diffusivity of gases and liquids o Determination of batch drying curve o Determination of no. of trays required for distillation column using McCabe- Thiele method o Performing leaching and extraction techniques
B01	M.Tech-Biotechnology	2017	17BT018	Advanced Process Engineering Principles-II	Employability o Estimation of efficiency of heat engine and refrigerator. o Calculation of heat changes in fermentation process. o Determine equilibrium constant for a chemical reaction. o Design of heat exchanger
B01	M.Tech-Biotechnology	2017	17BT019	Advanced Fermentation Technology	Employability o Produce and analyze antimicrobial activity of antibiotic compounds. o Produce polyhydroxy butyrate. o Produce enzymes and recombinant proteins
B01	M.Tech-Biotechnology	2017	17BT020	Cancer Biology and Therapy	Employability o Preparation of cell culture specific media o Calculation and preparation of buffers o Maintaining aseptic conditions of Laminar Flow chamber o Inducing cancer in animal models o Evaluation of anti-cancer activities of medicinal plants
B04	M.Tech-Computer Science and Engineering	2017	17CS001	Advanced Database Management Systems	Employability(Convert ER- Model to RDBMS, Design and implement advanced queries using Structured Query Language, Perform the database tuning)
B04	M.Tech-Computer Science and Engineering	2017	17CS002	Data Warehousing & Data Mining	Employability(Design and development of schema models for a data warehouse, Extraction of hidden interesting association rules and Implementation of various classification and clustering algorithms)
B04	M.Tech-Computer Science and Engineering	2017	17CS003	Data Structures & Algorithms	Employability(Be able to Design and Analyse programming problem statements, Choose appropriate data structures and algorithms, understand the ADT/libraries, and use it to design algorithms for a specific problem and Be able to understand the necessary mathematical abstraction to solve problems)
B04	M.Tech-Computer Science and Engineering	2017	17CS004	Cryptography and Network Security	Skill development(Differentiate classical encryption methods with modern encryption algorithms, Develop secured client/server environment and Apply different security mechanisms for different layers.)
B04	M.Tech-Computer Science and Engineering	2017	17CS005	Embedded Systems	Skill development(Identify hardware and software components to build an embedded system, Demonstrate the interfacing of peripherals with 8051/ARM microcontroller and Porting of OS on to ARM processor board.)
B04	M.Tech-Computer Science and Engineering	2017	17CS006	Internet of Things	Employability(Learn how IoT works in different domain applications by case studies, Learn Python programming language and Learn how to sense or actuate devices using Raspberri Pi kits)
B04	M.Tech-Computer Science and Engineering	2017	17CS007	Cloud Computing	Employability(Gain broad perspective of cloud architecture and models, Understand the concept of Virtualization and implements it and Understand the features of cloud simulator and simulate cloud environment)
B04	M.Tech-Computer Science and Engineering	2017	17CS008	Big Data Analytics	Employability(Install Hadoop and develop applications on Hadoop, Develop Map Reduce applications and Develop applications using Hive/Pig/Spark)
B04	M.Tech-Computer Science and Engineering	2017	17CS009	Wireless Computer Network	Skill development(Design and develop a routing algorithm for a specified ad hoc network and scheduling algorithm for energy saving for a specified ad hoc network.)
B04	M.Tech-Computer Science and Engineering	2017	17CS010	Artificial intelligence	Employability(Explore the facts and apply the inference mechanism, Formulate the planning problem as search problem and Understand the concepts of expert systems)
B04	M.Tech-Computer Science and Engineering	2017	17CS011	Advanced Computer Architecture	Skill development(Know about the different architectures, Familiarity with pipelining concepts and Know how the control transfer based on the instructions)
B04	M.Tech-Computer Science and Engineering	2017	17CS012	Artificial Neural Networks	Skill development(Learn to design and build neural network models and Learn to develop learning algorithms for machine learning)
B04	M.Tech-Computer Science and Engineering	2017	17CS013	Biometrics	Skill development(Hands-on training to acquired biometric data using different sensors and Designing and development of different identification/ verification systems to validate the user identity)
B04	M.Tech-Computer Science and Engineering	2017	17CS014	Computer Vision	Skill development(Design the smoothing filter with a Gaussian function, Implement using the Laplacian to detect edges and Design & Implement shot boundary detection.)
B04	M.Tech-Computer Science and Engineering	2017	17CS015	Cyber Security	Skill development(Perform port scanning, transferring files, and port listening, Sniffing router traffic and Using tools and methods of cyber crime)
B04	M.Tech-Computer Science and Engineering	2017	17CS016	Fundamentals of Image Processing	Skill development(Design the smoothing filter with average or weighted average template, Implement using the Laplacian operator to detect thin edges and Design & Implementation of edge based segmentation for Building images)
B04	M.Tech-Computer Science and Engineering	2017	17CS017	Pattern Recognition	Skill development(Students are able to do different Estimation Techniques in real time applications, Students are able to apply different classification techniques and Students are able to apply different dimensionality reduction techniques)
B04	M.Tech-Computer Science and Engineering	2017	17CS018	Web Technologies	Employability(Develop a university website and deploy in free hosting server, Develop a personnel website and host in free hosting server and Develop 2 applications one is bus ticket booking another one is for service provider and provide communication between these using web services)
B04	M.Tech-Computer Science and Engineering	2017	17CS019	Wireless Communication Networks	Skill development(Distinguish among various wireless networks, Simulate the calling mechanism used in GSM and Design and simulate a simple wireless network.)
B06	M.Tech-Embedded Systems	2017	17ES001	Microcontrollers for Embedded System	Skill development(Differentiate various controllers and ES applications)
B06	M.Tech-Embedded Systems	2017	17ES002	Adhoc Sensor Networks	Skill development(Simulation of DSDV algorithm AODV algorithm and DSR algorithm along with the comparison with respect to the delay cost and Simulation of leach and Pegasis algorithm)
B06	M.Tech-Embedded Systems	2017	17ES003	Embedded System Design Concepts	Skill development(Design of ES concepts/Outline validation and testing methodologies for embedded system)
B06	M.Tech-Embedded Systems	2017	17ES004	Design of IoT systems	Employability(Learn how IoT works in different domain applications by case studies, Learn Python programming language and Learn how to sense or actuate devices using Raspberri Pi kits.)
B06	M.Tech-Embedded Systems	2017	17ES005	Embedded Programming	Employability(validation of Embedded c and algorithms.)
B06	M.Tech-Embedded Systems	2017	17ES006	Embedded Linux	Skill development(Kernel shell differentiating and applications in networking)
B06	M.Tech-Embedded Systems	2017	17ES007	Embedded Networking	Skill development(Design a basic network architecture)
B06	M.Tech-Embedded Systems	2017	17ES008	Embedded System Design With FPGA	Skill Oriented • Understand logic simulation and synthesis for FPGA
B06	M.Tech-Embedded Systems	2017	17ES009	Introduction to Internet of Things	Employability(Learn how IoT works in different domain applications by case studies, Learn Python programming language and Learn how to sense or actuate devices using Raspberri Pi kits.)
B06	M.Tech-Embedded Systems	2017	17ES010	RISC Processors Architecture and Programming	Skill development(Design of logical circuitsto reduce power consumption)
B06	M.Tech-Embedded Systems	2017	17ES011	Soft Computing	Skill development(Analyse and implement various soft computing techniques)
B06	M.Tech-Embedded Systems	2017	17ES012	Micro Electro Mechanical System	Employability(Design and Implement a mems based system.)
B06	M.Tech-Embedded Systems	2017	17ES013	Adaptive Signal Processing	Skill development(Decoding the value of resistors and Design and fabricate a simple loop permanent magnet generator)
B06	M.Tech-Embedded Systems	2017	17ES014	DSP Processors	Employability(Analyse various processors and their impart in Embedded networks)
B06	M.Tech-Embedded Systems	2017	17ES015	System on Chip Design	Skill development(abIPsoc design)
B06	M.Tech-Embedded Systems	2017	17ES016	Computer Architecture and Parallel Processing	Employability(Draft the system and software requirements and prepare SRS document.)
B06	M.Tech-Embedded Systems	2017	17ES017	Digital Image and Video Processing	Skill development (Image acquisition by using various resolution cameras and comparison of visual quality variation and also Implement of image processing algorithms like enhancement, Restoration, segmentation and compression.)
B06	M.Tech-Embedded Systems	2017	17ES018	Robotics and Automation	Skill development(Implementation of Embedded controlled robots)

B06	M.Tech-Embedded Systems	2017	17ES019	Data Communications	Skill development(Identify various network device and then Investigate various network topologies.)
B06	M.Tech-Embedded Systems	2017	17ES020	Cryptography and Network Security	Employability(Design and Implement a crypto systembased system.)
B06	M.Tech-Embedded Systems	2017	17ES021	Neural Networks & Fuzzy Systems	Skill development (Implementation of Real world Applications using Neural Networks and Case study on various algorithms using Neural Networks.)
B06	M.Tech-Embedded Systems	2017	17ES022	Smart Instrumentation	Skill development(Analyse various Instruments and their applications in Embedded systems)
B06	M.Tech-Embedded Systems	2017	17ES023	Scripting Languages	Employable(Introduces scripting languages such as Perl and Python)
B06	M.Tech-Embedded Systems	2017	17ES024	Wireless Communications and Networks	Employability(Study of handoff frequency reuse mechsansims and various Generations)
B09	M.Tech-Machine Design	2017	17MD001	Advanced Mechanisms	Skill development (Guiding a body through three distinct positions and four distinct positions.)
B09	M.Tech-Machine Design	2017	17MD002	Computer Aided Design	Employability (Model a Part.)
B09	M.Tech-Machine Design	2017	17MD003	Advanced Mechanics of Solids	Skill development (Design of C clamp for Crane)
B09	M.Tech-Machine Design	2017	17MD004	Mechanical Vibrations	Employability (Analyze single and multiple DOF system problems)
B09	M.Tech-Machine Design	2017	17MD005	Creep, Fatigue & Fracture Mechanics	Skill development (Evaluate stress intensity factors of surface cracks of the specimens prepared from casting and various types of welding.)
B09	M.Tech-Machine Design	2017	17MD006	Design Synthesis	Skill development (Preparation of market survey for a new automobile design.)
B09	M.Tech-Machine Design	2017	17MD007	Advanced Finite Element Analysis	Skill development (Solve 1D problems in bars.)
B09	M.Tech-Machine Design	2017	17MD008	Optimization Techniques	Skill development (Find the dimension of a beam of rectangular CS to be cut from a log having a Employability (circular crosssection of diameter a. The beam has to be used as a cantilever beam to carry ac oncentrated load at the free end. Find the dimension of the beam that corresponds to the maximum bending stress carrying capacity.)
B09	M.Tech-Machine Design	2017	17MD009	Mechanics of Composite Materials	Skill development (Calculation of the principle stresses from body coordinate stresses. Transformation of stresses from on-axis to offaxis or vice versa.)
B09	M.Tech-Machine Design	2017	17MD010	Computational Fluid Dynamics	Employability (Convert partial differential equations to linear algebraic equations. Solve linear equations using various numerical techniques.)
B09	M.Tech-Machine Design	2017	17MD011	Pressure Vessel Design	Skill development (Calculation of the principle stresses from body coordinate stresses. Transformation of stresses from on-axis to off-axis or vice versa.)
B09	M.Tech-Machine Design	2017	17MD012	Industrial Tribology	Skill development (Design of Journal Bearing)
B09	M.Tech-Machine Design	2017	17MD013	Theory of Plasticity	Skill development (Equal Channel Angular Press (ECAP) test of an aluminium billet through an 90 degree channel.)
B09	M.Tech-Machine Design	2017	17MD014	Gear Engineering	Employability (Spur gear design for the given power requirement based on space constraints.)
B09	M.Tech-Machine Design	2017	17MD015	Design and Metallurgy of Welded Joints	Skill development (Preparation of formulae of failure of joints and joint efficiency)
B09	M.Tech-Machine Design	2017	17MD016	Experimental Stress Analysis	Skill development (Calculation of principle stresses and their directions for three dimensional problems.)
B09	M.Tech-Machine Design	2017	17MD017	Reliability Engineering	Skill development (Draw Fault tree Diagram for all machines in Dynamics Lab.)
B09	M.Tech-Machine Design	2017	17MD018	Nano Technology	Skill development (Analyzing engineering problems, selecting and using mathematical and theoretical data to provide suitable NDT solutions with consideration of the entire inspection cycle)
B09	M.Tech-Machine Design	2017	17MD019	Industrial Hydraulics & Pneumatics	Skill development (Preparation of chart for different hydraulic symbols.)
B09	M.Tech-Machine Design	2017	17MD020	Condition Monitoring & Fault Diagnosis of Machines	Skill development (Inspection of welds using solvent removable visible dye penetrant.)
B10	M.Tech-Power Electronics and Drives	2017	17PE001	Analysis of Power Electronic Converters	Skill development (Design of inverter for UPS)
B10	M.Tech-Power Electronics and Drives	2017	17PE002	Digital Control of Power Electronics	Employability (Design of digital inverter for UPS)
B10	M.Tech-Power Electronics and Drives	2017	17PE003	Electric Drives-I	Employability (Simulate chopper fed DC drive with dynamic braking)
B10	M.Tech-Power Electronics and Drives	2017	17PE004	Electric Drives-II	Employability (Simulate senseless vector control of Induction Motor)
B10	M.Tech-Power Electronics and Drives	2017	17PE005	Flexible Ac Transmission Systems	Skill development (Survey on FACTS devices existed in India)
B10	M.Tech-Power Electronics and Drives	2017	17PE006	HVDC Transmission System	Skill development (Draw the computer diagram of HVDC system)
B10	M.Tech-Power Electronics and Drives	2017	17PE007	Modelling & Dynamics of Electrical Machines	Skill development (Mathematical modelling of BLDC.
B10	M.Tech-Power Electronics and Drives	2017	17PE008	Design of Power Electronic Systems	Employability (Design Flyback converter for Laptop Charger)
B10	M.Tech-Power Electronics and Drives	2017	17PE009	Neural, Fuzzy Systems & Genetic Algorithms	Skill development (Implement genetic algorithm for speed control of DC Motor)
B10	M.Tech-Power Electronics and Drives	2017	17PE010	Processor Applications in Electrical Engineering	Employability (Design DC-DC boost converter using microcontroller)
B10	M.Tech-Power Electronics and Drives	2017	17PE011	New Renewable Energy Sources & Technology	Entrepreneurship (Able to design a prototype of Biogas plant)
B10	M.Tech-Power Electronics and Drives	2017	17PE012	Modern Control Theory	Skill development (Conversion of nonlinear system to linear system)
B10	M.Tech-Power Electronics and Drives	2017	17PE013	Optimization Techniques	Skill development (Simplex method programming usinh MATLAB)
B10	M.Tech-Power Electronics and Drives	2017	17PE014	Energy Conversion Systems	Skill development (Energy auditing of different blocks in VFSTRU campus)
B10	M.Tech-Power Electronics and Drives	2017	17PE015	Power Quality	Skill development (Study of capacitor switching transients)
B10	M.Tech-Power Electronics and Drives	2017	17PE016	Programmable Logic Controllers and Their Applications	Employability (Design of PLC system for Railway gate control)
B10	M.Tech-Power Electronics and Drives	2017	17PE017	Analysis of Inverters	Employability (Design a Multilevel Inverter)
B10	M.Tech-Power Electronics and Drives	2017	17PE018	Power Semiconductor Devices and Passive Components	Skill development (Designing of Gate firing circuits)
B10	M.Tech-Power Electronics and Drives	2017	17PE019	Smart Power Grids	Employability (Design of Intelligent control for any load connected to supply)
B10	M.Tech-Power Electronics and Drives	2017	17PE020	SMPS Based Converters	Entrepreneurship (Design a SPWM)
B10	M.Tech-Power Electronics and Drives	2017	17PE021	Solar Energy Conversion	Entrepreneurship (Design of solar still)
B10	M.Tech-Power Electronics and Drives	2017	17PE022	Microprocessor & Microcontrollers	Employability (Interface a 4X4 Hex keypad with 8051)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL001	Analog IC Design	Skill development(design of various analog circuits using MOS transistors)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL002	Mixed Signal Design	Skill development(design of various mixed (Analog and digital) circuits using MOS transistors)

B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL003	Digital IC Design	Skill development(design of various digital circuits using MOS transistors)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL004	VLSI Testing and Validation	Employable (know different testing methods and validation procedures)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL005	VLSI Technology	Skill development(Different steps in IC Fabrication of MOS transistors)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL006	Low Power VLSI Design	Skill development(design of low power VLSI circuits)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL007	Semiconductor Device Modelling	Skill development(Analysis and modeling of different semiconductor active devices)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL008	Modelling and Synthesis With Verilog HDL	Employable (Understand logic simulation and synthesis for FPGA)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL009	Scripting Languages	Employable (Introduces scripting languages such as Perl and Python)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL010	Nano Electronics	Skill development(know the different transistors like finfet, QCA..)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL011	VLSI Signal Processing	Skill development (Introduces signal processing algorithms)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL012	ASIC	Employable (Understand the design procedure of front end and back end of ASIC)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL013	Verification Methodologies	Employable(know different industry standard verification methods)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL014	Micro Electro Mechanical Systems	Employability(Design and Implement a mecms based system.)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL015	CAD VLSI	Skill development(Introduces different algorithms for routing, powering etc.)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL016	Semiconductor Memory Design	Skill development(design of different memories)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL017	Advanced Digital System Design	Skill development(design of digital systems)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL018	Nano Sensors and its Applications	Skill development (understand nano sensors)
B11	M.Tech-Very Large Scale Integration (VLSI)	2017	17VL020	RFIC Design	Skill development (Design of RF IC circuits)
B12	M.Tech-Food Processing Technology	2017	17FT001	Plant Food Technology	Skill development Design a plant layout for plant based food processing industry.
B12	M.Tech-Food Processing Technology	2017	17FT002	Emerging Technologies Systems and Management	Employability Formulation of extruded products using single screw and twin screw extruders and evaluation of its quality.
B12	M.Tech-Food Processing Technology	2017	17FT003	Unit Operations in Food Processing Engineering	Skill development Evaluation of efficiencyof drying for various fruits and vegetables using different dryers.
B12	M.Tech-Food Processing Technology	2017	17FT004	Food Quality Systems and Management	Employability Detection of different heavy metals in food products
B12	M.Tech-Food Processing Technology	2017	17FT005	Food Quality and Safety Engineering	Skill development Detection of different heavy metals in food products.
B12	M.Tech-Food Processing Technology	2017	17FT006	Animal Product Training	Employability Mention the quality requirements for a fish processing unit Mention the uses of byproducts obtained from poultry processing UNIT
B12	M.Tech-Food Processing Technology	2017	17FT007	Food Microbiology	Employability Prepare flow charts for production of food products using different microorganisms. Collect information of different spoilage micro-organisms
B12	M.Tech-Food Processing Technology	2017	17FT008	Food Packing Technology	Skill development Report on new technological intervention in food packaging Prepare database for packaging materials with their functional properties.
B12	M.Tech-Food Processing Technology	2017	17FT009	Equipment Design and Process Control	Skill development Selection and optimization of operating and performance parameters in different food processing equipments
B12	M.Tech-Food Processing Technology	2017	17FT011	Food Biochemistry and Nutrition	Skill development Report on food particle disintegration in a prototype stomach model o Review on starch modification methods and its applications in food industry o Estimation of RDA values for different micro and macronutrients.
B12	M.Tech-Food Processing Technology	2017	17FT012	Separation Techniques in Food Processing	Skill development Calculate the efficiencyof various separation equipments
B12	M.Tech-Food Processing Technology	2017	17FT013	Refrigeration and Coldstorage Construction	Skill development Report on different types of refrigerants and its characteristics. o Prepare a table with different foods and their storage temperatures.
B12	M.Tech-Food Processing Technology	2017	17FT014	Environmental Food Processing	Skill development Design an efficient combustion technology. o To utilizebyproducts from dairy industry.
B12	M.Tech-Food Processing Technology	2017	17FT015	Nutraceuticals and Health Foods	Skill development Isolation of lycopene from tomato and its incorporation in beverages o Tostudy processing, health effects and stability of various bioactive components in wheat/grass juice
B12	M.Tech-Food Processing Technology	2017	17FT016	Plant Layout and Process Economics	Skill development Design a plant layout for mango juice processing industry.
B12	M.Tech-Food Processing Technology	2017	17FT017	Plantation Crops, Spices & Condiment Technology	Skill development Report on various adulterants used in spices and plantation products o Flowchart of processing of local value added products of spices and condiments
B12	M.Tech-Food Processing Technology	2017	17FT018	Heat & Mass Transfer Operations in Food Processing	Skill development Effect of radiation on test tube filled with water. o Connecting shell and tube heat exchanger setup o Design of shell and tube heat exchanger
B12	M.Tech-Food Processing Technology	2017	17FT019	Industrial Biotechnology	Skill development Prepare a flowchart for the production process of industrially important food products using biotechnology
B12	M.Tech-Food Processing Technology	2017	17FT020	Sugar and Confectionary Technology	Skill development Prepare a flowchart for production process of bakery and confectionary products keeping safety regulations in consideration
B12	M.Tech-Food Processing Technology	2017	17FT021	Traditional and Convenience Food Technology	Skill development Formulation of at least two processed product using cereal flour and proximate analysis of developed products
B12	M.Tech-Food Processing Technology	2017	17FT022	Beverages Technology	Skill development development of blended beverage and shelf life study of theproduct
B12	M.Tech-Food Processing Technology	2017	17FT023	Automation in Food Processing	Skill development List out various requirements for a Dehydration and freezing plant automation.
B12	M.Tech-Food Processing Technology	2017	17FT024	Lipid Science and Technology	Skill development To carry out an experiment on deep fat frying of vegetables and to study degradation products from oil.
B12	M.Tech-Food Processing Technology	2017	17FT026	Dairy Technology	Skill development Perform an experiment on various platform tests conducted in dairy industry o Study on various regulatory standards implemented in dairy UNIT.
B15	M.Tech-Structural Engineering	2017	17CE001	Theory of Elasticity	Skill development (Determination of Plane stress and plain strain for any 2D element using Excel and Mat-lab)
B15	M.Tech-Structural Engineering	2017	17CE002	Matrix Methods & Finite Element Analysis	Skill development (Determination of the static and kinematic indeterminacy of frames and trusses)
B15	M.Tech-Structural Engineering	2017	17CE003	Structural Dynamics	Skill development (Differentiate the response of single and multi-degree of freedom systems)
B15	M.Tech-Structural Engineering	2017	17CE004	Earthquake Resistant Design of Structures	Skill development (Take plan of a 6 storied residential building and calculate base shear using Static equivalent method)
B15	M.Tech-Structural Engineering	2017	17CE005	Advanced Reinforced Concrete Design	Skill development (Analysis and design of multi storey buildings and Industrial building)
B15	M.Tech-Structural Engineering	2017	17CE006	Theory of Plates and Shells	Skill development (Determination of maximum deflection in plates with different boundary conditions by using classical method and approximate methods)
B15	M.Tech-Structural Engineering	2017	17CE007	Mathematical Methods	Skill development (Form Mass matrix and Stiffness matrix for any 3 story building and Find its Natural time period and Mode shapes using Eigen values and vectors)
B15	M.Tech-Structural Engineering	2017	17CE008	Repair and Rehabilitation of Structures	Employability (Compare the rate of corrosion for completely submerged and partially submerged structural steel)
B15	M.Tech-Structural Engineering	2017	17CE009	Plastic and Limit State Design of Steel Structures	Skill development (Design a 4 storey steel building in STAAD Pro using IS 800 code book)
B15	M.Tech-Structural Engineering	2017	17CE010	Fracture Mechanics	Skill development (Design based on linear elastic fracture mechanics)

B15	M.Tech-Structural Engineering	2017	17CE011	Advanced Pre-Stressed Concrete	Skill development (Make a pre-stressed column and analyze)
B15	M.Tech-Structural Engineering	2017	17CE012	Construction Planning and Project Management	Entrepreneurship (Prepare WORK BREAKDOWN STRUCTURE for construction of 3 storey building and assign resources to each activity)
B15	M.Tech-Structural Engineering	2017	17CE013	Advanced Concrete Technology	Skill development (Perform NDT on beams of Surveying lab to find strength)
B15	M.Tech-Structural Engineering	2017	17CE014	Advanced Foundation Engineering	Skill development (Analyze active and passive earth pressures acting on to a retaining wall with the properties of the soil given, using any theory, using some soft wares)
B15	M.Tech-Structural Engineering	2017	17CE015	Mechanics of Composite Materials	Skill development (Investigation of failure and fracture characteristics of composite materials)
B15	M.Tech-Structural Engineering	2017	17CE016	Ground Improvement Techniques	Employability (Suggest a suitable ground improvement technique based on soil conditions)
B15	M.Tech-Structural Engineering	2017	17CE017	Bridge Engineering	Employability (Compare the rate of corrosion for completely submerged and partially submerged structural steel)
B15	M.Tech-Structural Engineering	2017	17CE018	Design of Tall Structures	Skill development (Design any Tall building using IS code method and compare it using any design software)
B15	M.Tech-Structural Engineering	2017	17CE019	Stability of Structures	Skill development (Analyze active and passive earth pressures acting on to a retaining wall with the properties of the soil given, using any theory, using some soft wares)
B15	M.Tech-Structural Engineering	2017	17CE020	Structural Optimization	Skill development (Identify the variables affecting a complex phenomenon and to perform a sensitivity analysis on them)
B15	M.Tech-Structural Engineering	2017	17CE021	Smart Structures and Applications	Skill development (Presentation by students on the currently used Active and Adaptive Systems)
B15	M.Tech-Structural Engineering	2017	17CE022	Pre Engineered Buildings	Employability (To know the procedure of prefabrication)
B15	M.Tech-Structural Engineering	2017	17CE023	Experimental Stress Analysis	Skill development (Conduct an NDT test on various structural components using Rebound hammer)
B15	M.Tech-Structural Engineering	2017	17CE024	Soil Structure interaction	Skill development (Model two different substructure in STAAD Pro with and without soil structure)
B15	M.Tech-Structural Engineering	2017	17CE025	Advanced Steel and Concrete Composite Structures	Employability (Analysis and design of Composite structures using Software Packages)
B21	M.Tech-Farm Machinery	2017	17AG001	Design of Farm Machinery Systems	Employability (mastering the methods and processes of design)
B21	M.Tech-Farm Machinery	2017	17AG002	Soil Dynamics in Tillage and Traction	Skill development (design and implement safe and cost-effective mechanical soil tillage systems for producing desired physical states)
B21	M.Tech-Farm Machinery	2017	17AG003	Tractor Systems Design	Employability (understand design features and selection of engine for tractor.)
B21	M.Tech-Farm Machinery	2017	17AG004	Ergonomics in Agro Systems	Skill development (demonstrate an awareness of the legal responsibilities in farm safety planning)
B21	M.Tech-Farm Machinery	2017	17AG005	Alternative Energy Sources	Skill development (recognize the effects that current energy systems based on fossil fuels have over the environment and the society)
B21	M.Tech-Farm Machinery	2017	17AG006	Testing of Tractors and Agricultural Machinery	Skill development (System Engineering and Productivity)
B21	M.Tech-Farm Machinery	2017	17AG007	Computer Aided Design and Manufacturing	Employability (Develop algorithms for real time applications.)
B21	M.Tech-Farm Machinery	2017	17AG008	Credit Seminar	Skill development (Understand the elements of equipment)
B21	M.Tech-Farm Machinery	2017	17AG009	Machinery Systems for Precision Agriculture	Employability (understand management and troubleshooting of the entire agricultural system)
B21	M.Tech-Farm Machinery	2017	17AG010	Introduction to intellectual Property Law	Skill development (examine the fundamentals of patent law in the international community)
B21	M.Tech-Farm Machinery	2017	17AG011	Instrumentation and Research Techniques	Skill development (appreciate how to identify and specify sensors (or complete instruments) for controlling machines and processes.)
B21	M.Tech-Farm Machinery	2017	17AG012	Simulation Modelling in Farm Machinery and Power Engineering	Employability (gricultural Mechanization", Modelling and Simulation)
B21	M.Tech-Farm Machinery	2017	17AG013	Production Technology for Machinery Components	Employability (Discuss the importance of changing and setting tooling for production machines)
B21	M.Tech-Farm Machinery	2017	17AG014	Advances in Hydraulics and Electro Pneumatic Controls	Skill development (differentiate between electrical, pneumatic and fluid power systems)
B21	M.Tech-Farm Machinery	2017	17AG015	Agro-Energy Audit and Management	Skill development (importance & role of government all over the world to promote use of the renewable energy sources)
B21	M.Tech-Farm Machinery	2017	17AG016	Advanced Internal Combustion Engines	Skill development (describe and explain the gas exchange process and power boosting by means of turbo charging.)
B21	M.Tech-Farm Machinery	2017	17AG017	Land Grading and Earth Moving Machinery	Skill development (understand the properties of soil and ground in earth-moving)
B21	M.Tech-Farm Machinery	2017	17AG018	Energy Conservation and Management in Farm Machinery and Power Engineering	Skill development (Conservation and Management in Farm Machinery and Power Engineering)
B21	M.Tech-Farm Machinery	2017	17AG019	Optimization Techniques	Skill development (Find the dimension of a beam of rectangular CS to be cut from a log having a Employability (circular crosssection of diameter a. Skill development (The beam has to be used as a cantilever beam to carry ac concentrated load at the free end. Find the dimension of the beam that corresponds to the maximum bending stress carrying capacity.)
B21	M.Tech-Farm Machinery	2017	17AG020	Mechanical Vibrations	Employability (Ability to analyze the mathematical model of a linear vibratory system to determine its response)
C01	Master of Business Administration	2017	17MB101	Principles of Management and Organizational Behaviour	Employability 1. Prepare list of corporate strategies that are adopted by Indian Companies to face the challenges of competition. 2. Select a successful retail store and give details of factor leading to its success. 3. Select a failed venture, if any known to you, and bring out reasons for its failure (Note what we learn from these success & failure stories). 4. Select a company and prepare a SWOT analysis for the same.
C01	Master of Business Administration	2017	17MB102	Marketing Management	Employability 1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company. 3. Observe the Distribution Network of a Company 4. List out Product Line of a company and note line modernization or deletion. 5. Draw a Product Life Cycle with regard to a particular product of a company and observe its extension.
C01	Master of Business Administration	2017	17MB103	Business Economics	Employability 1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.
C01	Master of Business Administration	2017	17MB104	Financial Management	Employability Find five effective service advertisements in newspapers and magazines. According to the criteria given in this chapter, identify why they are effective. Critique them using the list of criteria and discuss ways they could be improved.
C01	Master of Business Administration	2017	17MB105	Accounting for Managers	Employability 1. Contact an NGO and find out their system of accounting. 2. Collect information with regard to the practical reasons for charging 3. Depreciation and the methods adopted for calculating the same. 4. Generate different types of financial and cost related reports using excel and tally. 5. Find out the accounting system adopted by a Sole Proprietor 6. Differences between Double Entry and Single Entry systems of Book-keeping. 7. Analyse the differences between Profit & Loss Account and Income & Expenditure Account/ Receipts & Payments Account.

C01	Master of Business Administration	2017	17MB106	Human Resource Management	Employability 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
C01	Master of Business Administration	2017	17MB107	Business Statistics	Employability 1. Collect statistical information's from Magazines, Newspapers, Television, Internet etc., 2. Collect interesting statistical facts from various sources and paste it in your note book. 3. Collect a primary data about the mode of transport of yourschool students. Classify the data and tabulate it. 4. From the mark sheets of your class, form the frequencytables, less than and more than cumulative frequency tables. 5. Get the previous monthly expenditure of your family andinterpret it into bar diagram and pie diagram. Based on thodata, propose a budget for the next month and interpretedinto bar and pie diagram.Compare the two months expenditure through diagrams 6. Measure the heights and weights of your class students.Find the mean, median, mode and compare 7. Find the mean marks of your class students in various subjects. Analysis of data by computing standard deviation and coefficient of variation. 8. Collect the data from magazines, newspapers, and television, and publications. Present the data in graphs and diagrams.
C01	Master of Business Administration	2017	17MB108	Business Research Methods	Employability 1. Choose an area of interest, review a minimum of 4 literature on the same and formulate a topic for prospective research. 2. For a given topic – collect data through primary and secondary sources. 3. For a given data, analyze data using various statistical tools 4. For a given case study, prepare a research report in the required format
C01	Master of Business Administration	2017	17MB109	Business Laws	Employability 1. Draft a 'rent agreement' incorporating all the essential features of a valid agreement. 2. Draft the Memorandum of Association of a company. 3. Case laws 'involving points of law of contracts'. 4. Draft a complaint against 'unfair trade practice' adapted by a businessman – to the consumer forum. 5. List out the latest cases of both High Court and Supreme Court on Environmental issues with both facts and judgments [Atleast 2 cases]
C01	Master of Business Administration	2017	17MB110	IT for Managers	Employability Explore contemporary technologies and practices of IT companies in data base management and networking.
C01	Master of Business Administration	2017	17MB111	Business Environment & Ethics	Employability 1. List out the various cyber offences and the penalties for the same. 2. List at least 3 MNCs of G-8 Countries operating in India along with products they manufacture. 3. Collect the latest Fiscal, Monetary Policies on business 4. Students are expected to study any five CSR initiatives by Indian organizations and submit a report for the same. 5. A group assignment on "The relationship between Business houses and Society in Indian Context and relating the same with respect to the models studied. 6. Mini Project: Collect details of unethical practices by businesses in today's context in the areas of Production, Marketing, HRM, and Financial services and make a report. 7. Case studies/Role plays related ethical issues in business with respect to Indian context.
C01	Master of Business Administration	2017	17MB112	Operations Management	Employability 1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities 3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement. 4. List out the functions of materials management in an organization. 5. Visit any industry and list out the various quality measures /maintenance methods adopted.
C01	Master of Business Administration	2017	17MB113	Managerial Communication-I	Skill development Prepare a draft letter to the project manager which Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
C01	Master of Business Administration	2017	17MB114	Managerial Communication-II	Skill development Prepare a draft letter to the project manager which Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
C01	Master of Business Administration	2017	17MB115	Essential Skills for Managers-I	Skill development 1. Assigning role play situations to improve the selling skills of the students. 2. Giving case let to improve the analytical and decision making skills of the students. 3. Asking the students to design the distribution channels by giving them some products.
C01	Master of Business Administration	2017	17MB116	Essential Skills for Managers-II	Skill development 1. Assigning role play situations to improve the selling skills of the students. 2. Giving case let to improve the analytical and decision making skills of the students. 3. Asking the students to design the distribution channels by giving them some products.
D01	Master of Computer Applications	2017	MC325	Middleware Technologies	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
D01	Master of Computer Applications	2017	MC327	Multimedia Systems	Skill development(middleware facilitates the development of distributed applications in heterogeneous environments)
D01	Master of Computer Applications	2017	MC329	Cryptography and Network Security	Skill development(applications using available hardware and software tools)
D01	Master of Computer Applications	2017	MC331	Big Data Analysis	Skill development(maintain the Confidentiality, Integrity and Availability of a data.)
D01	Master of Computer Applications	2017	MC333	Distributed Systems	Skill development(Structured and unstructured data)
D01	Master of Computer Applications	2017	MC335	Script Programming	Employability(Design and develop distributed programs using sockets and RPC/RMI)
D01	Master of Computer Applications	2017	MC337	Cloud Computing	Employability(use of regular expressions in processing text.)
D01	Master of Computer Applications	2017	MC339	Soft Computing	Employability(Connect work stations in Ethernet)
D01	Master of Computer Applications	2017	MC341	Mobile Computing	Skill development(Detection of threat objects using fuzzy points)
D01	Master of Computer Applications	2017	MC343	Seminar	Skill development(Development of presentation skills)
D01	Master of Computer Applications	2017	MC345	Middleware Technologies Lab	Employability(Skill based concept for the gaining adequate knowledge)
D01	Master of Computer Applications	2017	MC347	Multimedia Systems Lab	Employability(To perform the activities for the development of new languages and advanced systems)
D01	Master of Computer Applications	2017	MC349	Mini Project-II	Employability (To develop the mini project based learning to identify the potential tasks)
D01	Master of Computer Applications	2017	PR004	Project Work	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
G01	Ph.D - Biotechnology	2017	PH026	Microbial Technology	Employability
G01	Ph.D - Biotechnology	2017	PH243	Inflammation	Employability
G01	Ph.D - Biotechnology	2017	PH265	Chemo informatics	Employability

G01	Ph.D - Biotechnology	2017	PH267	Plant Nutraceuticals	Employability
G02	Ph.D - Chemical Engineering	2017	PH020	Modelling and Simulation of Chemical Processes	Employability
G02	Ph.D - Chemical Engineering	2017	PH021	Optimization Techniques	Employability
G02	Ph.D - Chemical Engineering	2017	PH022	Particulate Technology	Employability
G02	Ph.D - Chemical Engineering	2017	PH023	Petroleum Refinery Processes	Employability
G02	Ph.D - Chemical Engineering	2017	PH024	Polymer Engineering	Employability
G02	Ph.D - Chemical Engineering	2017	PH025	Reaction Engineering and Reactor Design	Employability
G02	Ph.D - Chemical Engineering	2017	PH039	SEPARATION METHODS & ANALYTICAL TECHNIQUES	Employability
G02	Ph.D - Chemical Engineering	2017	PH216	Structure mechanics of fibers, yarns and fabrics	Employability
G02	Ph.D - Chemical Engineering	2017	PH217	Physical Properties of Textile fibers	Employability
G02	Ph.D - Chemical Engineering	2017	PH218	NON WOVEN TECHNOLOGY	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH201	BIOMEDICAL SIGNAL PROCESSING	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH202	FUNDAMENTALS OF MASSIVE MIMO	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH203	COMPRESSIVE SENSING	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH204	SPEECH PROCESSING	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH206	CONVEX OPTIMIZATION	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH211	PHYSICALLY UNCLONABLE FUNCTIONS CONSTRUCTIONS, PROPERTIES & APPLICATIONS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH214	ANTENNA THEORY	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH215	MICROWAVE & MILLIMETER WAVE CIRCUITS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH220	ADVANCED DIGITAL COMMUNICATIONS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH221	BROADBAND WIRELESS TECHNOLOGIES	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH234	BIOMECHANICS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH238	CHANNEL CODING	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH239	WIRELESS & CELLULAR COMMUNICATIONS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH240	MICRO STRIP ANTENNA	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH241	MICROWAVE MEASUREMENTS	Employability
G05	Ph.D - Electronics and Communication Engineering	2017	PH242	META MATERIALS	Employability
G08	Ph.D - Mechanical Engineering	2017	PH034	COMPUTATIONAL FLUID DYNAMICS	Employability
G08	Ph.D - Mechanical Engineering	2017	PH035	FUELS & COMBUSTION	Employability
G08	Ph.D - Mechanical Engineering	2017	PH049	CONVENTIONAL MACHINING PROCESSES	Employability
G08	Ph.D - Mechanical Engineering	2017	PH231	ADVANCED HEAT TRANSFER	Employability
G08	Ph.D - Mechanical Engineering	2017	PH232	RENEWABLE ENERGY TECHNOLOGIES	Employability
G08	Ph.D - Mechanical Engineering	2017	PH233	NANO MATERIALS & FLUIDS FOR ENERGY & ENVIRONMENT	Employability
G08	Ph.D - Mechanical Engineering	2017	PH235	MECHATRONICS & MANUFACTURING AUTOMATION	Employability
G08	Ph.D - Mechanical Engineering	2017	PH236	ADVANCED SURFACE ENGINEERING TECHNIQUES	Employability
G08	Ph.D - Mechanical Engineering	2017	PH237	ADDITIVE MANUFACTURING TECHNOLOGIES & APPLICATIONS	Employability
G12	Ph.D - Management studies	2017	PH210	DECISION SUPPORT SYSTEMS	Employability
G18	Ph.D - Agriculture Engineering	2017	PH085	Special Manufacturing Process	Employability
G18	Ph.D - Agriculture Engineering	2017	PH086	Unconventional Machining Process	Employability
G30	Ph.D - Physics	2017	PH042	POLYMER COMPOSITES	Employability
G30	Ph.D - Physics	2017	PH053	MATERIAL SCIENCE & ENGINEERING	Employability
G31	Ph.D - Chemistry	2017	PH219	CHROMATOGRAPHIC TECHNIQUES FOR API	Employability
G31	Ph.D - Chemistry	2017	PH253	Applications of Nanomaterials and Catalysts	Employability
G31	Ph.D - Chemistry	2017	PH254	Polymers and Elastomers	Employability
G31	Ph.D - Chemistry	2017	PH255	Analytical Chemistry	Employability
G31	Ph.D - Chemistry	2017	PH256	Electrochemistry and Batteries	Employability
G31	Ph.D - Chemistry	2017	PH257	Environmental and Sustainable Chemistry	Employability
G31	Ph.D - Chemistry	2017	PH258	Food, Agro and Pharmaceutical Chemistry	Employability
G31	Ph.D - Chemistry	2017	PH259	Medicinal Chemistry	Employability
G31	Ph.D - Chemistry	2017	PH260	Stereo-selective Organic Synthesis	Employability
G31	Ph.D - Chemistry	2017	PH261	Surface and Interfacial Chemistry	Employability
G31	Ph.D - Chemistry	2017	PH262	Symmetry and Mathematics	Employability
G31	Ph.D - Chemistry	2017	PH271	ATOMIC AND MOLECULAR SPECTROSCOPY	Employability
G32	Ph.D - Mathematics	2017	PH132	MATHEMATICS	Employability
G32	Ph.D - Mathematics	2017	PH230	GRAPH THEORY	Employability
G33	Ph.D - English	2017	PH212	LITERARY THEORY	Employability
G33	Ph.D - English	2017	PH213	ENGLISH LANGUAGE TEACHING	Employability
G33	Ph.D - English	2017	PH222	NAYANTARA SAHGAL IN THE CONTEXT OF INDIAN WRITING IN ENGLISH	Employability
G33	Ph.D - English	2017	PH223	KAMALA MARKANDAYA IN THE CONTEXT OF INDIAN WRITING IN ENGLISH	Employability
G33	Ph.D - English	2017	PH224	DYNAMICS OF POWER AND OPPRESSION:AN INTERDISCIPLINARY STUDY OF TOTALITARIANISM	Employability

G33	Ph.D - English	2017	PH225	NARRATIVE TECHNIQUES AND PSYCHOLOGICAL REALISM IN THE WORKS OF KHAZUO ISHIGURO	Employability
G33	Ph.D - English	2017	PH226	REFLECTIVE TEACHING FOR LANGUAGE TEACHERS	Employability
G33	Ph.D - English	2017	PH227	TEACHING AND TESTING OF VOCABULARY IN SECOND LANGUAGE	Employability
G33	Ph.D - English	2017	PH245	INDIAN WRITING IN ENGLISH	Employability
G33	Ph.D - English	2017	PH247	CURRENT RESEARCH & PRACTICE IN TEACHING & LEARNING VOCABULARY	Employability
G33	Ph.D - English	2017	PH248	LANGUAGE ACROSS CURRICULUM IN ESL PEDAGOGY	Employability
G33	Ph.D - English	2017	PH249	SPEAKING SKILLS	Employability
G33	Ph.D - English	2017	PH251	ENHANCING COMMUNICATION SKILLS THROUGH DRAMATIZATION	Employability
G33	Ph.D - English	2017	PH252	CRIMINAL RECORD DOCUMENTATION : A LINGUISTIC STUDY	Employability
J01	Bachelor of Computer Applications	2017	BC301	Open Source Systems	Employability(installation of various packages in open source operating systems)
J01	Bachelor of Computer Applications	2017	BC302	information Security	Employability(principles of web security.)
J01	Bachelor of Computer Applications	2017	BC303	Data Warehousing And Mining	Skill development(Use Data mining techniques to detect similarity of disease among the patients in hospital data base)
J01	Bachelor of Computer Applications	2017	BC304	Big Data Analytics	Employability(Handling of the structured and unstructured data)
J01	Bachelor of Computer Applications	2017	BC305	Software Testing Methodologies	Employability(Verification and Validation)
J01	Bachelor of Computer Applications	2017	BC306	Seminar	Skill development(utilization for developing communication)
J01	Bachelor of Computer Applications	2017	BC307	Embedded Systems	Skill development(development of correct and efficient software using fault detection and other test systems)
J01	Bachelor of Computer Applications	2017	BC308	Project	Employability(To solve real time projects)
J01	Bachelor of Computer Applications	2017	BC309	Open Source Systems Lab	Employability(Functions and define the recursive functions)
J01	Bachelor of Computer Applications	2017	BC311	Data Warehousing And Mining Lab	Skill development(Use Data mining techniques to detect similarity of disease among the patients in hospital data base)
J01	Bachelor of Computer Applications	2017	BC313	Professional Communication Lab	Skill development(Applying verbs,nouns to real entities)
K01	Bachelor of Business Administration	2017	17BB101	Business Communication-I	Employability (Prepare a draft letter to the project manager which Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.)
K01	Bachelor of Business Administration	2017	17BB102	Business Communication-II	Skill development (Prepare a draft letter to the project manager which Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.)
K01	Bachelor of Business Administration	2017	17BB103	Business Mathematics	Employability (1. Identify the applications of business mathematics for solving managerial problems. 2. Take any applications of business problem and solving using matrices. 3. List the uses binomial theorem, arithmetic and geometric progression in business. 4. Write the various applications of differentiation in business.)
K01	Bachelor of Business Administration	2017	17BB104	Cost Accounting	Employability (1. List methods of costing adopted by industries located in the region. 2. List materials consumed in any two organizations of your choice. 3. Draw a specimen of a bin-card. 4. Draw a specimen of stores ledger. 5. List out the various expenses of two companies and prepare the cost sheet.)
K01	Bachelor of Business Administration	2017	17BB105	Financial Accounting	Employability (1. Contact an NGO and find out their system of accounting. 2. Collect information with regard to the practical reasons for charging 3. Depreciation and the methods adopted for calculating the same. 4. Generate different types of financial and cost related reports using excel and tally. 5. Find out the accounting system adopted by a Sole Proprietor 6. Differences between Double Entry and Single Entry systems of Book-keeping. 7. Analyse the differences between Profit & Loss Account and Income & Expenditure Account/ Receipts & Payments Account.)
K01	Bachelor of Business Administration	2017	17BB106	Business Psychology	Employability (1. Undertake a study to find out how employee behavior effect from work environment and which factors affecting to employees motivation. 2. Analyze the characteristics and components of individuals behavior. 3. Perform a study on the determinants of individuals in work place. 4. Analyze the organizational culture and climate and stress management of the employees in any industry.)
K01	Bachelor of Business Administration	2017	17BB107	Micro Economics	Employability (1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.)
K01	Bachelor of Business Administration	2017	17BB108	Macro Economics	Employability (1. To study how business cycles have impacted the global economy in the past companies. 2. To compare the monetary policies of any two economies. 3. Do a case study of National income accounting company and underdeveloped economy with a developed area. 4. Find out the recent changes introduced in monetary and fiscal policies. 5. Prepare a report of Demonetization effect on economy. 6. Find statistical trends in unemployment. 7. List the difference between states in context of poverty, poverty alleviation programmes, literacy, population etc.)
K01	Bachelor of Business Administration	2017	17BB109	IT Tools for Business	Employability (Explore contemporary technologies and practices of IT companies in data base management and networking.)

K01	Bachelor of Business Administration	2017	17BB110	Business Statistics	Employability (1. Collect statistical information's from Magazines, Newspapers, Television, Internet etc., 2. Collect interesting statistical facts from various sources and paste it in your note book. 3. Collect a primary data about the mode of transport of yourschool students. Classify the data and tabulate it. 4. From the mark sheets of your class, form the frequencytables, less than and more than cumulative frequency tables. 5. Get the previous monthly expenditure of your family andinterpret it into bar diagram and pie diagram. Based on thedata, propose a budget for the next month and interpretedinto bar and pie diagram.Compare the two months expenditure through diagrams 6. Measure the heights and weights of your class students. Find the mean, median, mode and compare 7. Find the mean marks of your class students in various subjects. Analysis of data by computing standard deviation and coefficient of variation. 8. Collect the data from magazines, newspapers, and television, and publications. Present the data in graphs and diagrams.)
K01	Bachelor of Business Administration	2017	17BB111	Principles and Practice of Management	Employability (1) Select a successful retail store and give details of factor leading to its success. 2) Select a failed venture, if any known to you, and bring out reasons for its failure (Note what we learn from these success & failure stories). 3) Select a company and prepare a SWOT analysis for the same.)
K01	Bachelor of Business Administration	2017	17BB112	Geography and Environmental Studies	Employability (1. Understand fundamentals of geography 2. Learn milestones in India's scientific and technological progress 3. Sources of energy and their importance 4. Importance of Bio-Diversity 5. Environmental issues and their implications)
K01	Bachelor of Business Administration	2017	17BB113	English Proficiency Course -I	Employability (Introducing Self Activity-2 : Introducing Others Activity-3 : Expressing Needs and Necessities)
K01	Bachelor of Business Administration	2017	17BB114	English Proficiency Course -II	Employability (Expressing Likes and Dislikes Activity-5 : Describing People and Places Activity-6 : Describing Things and Processes)
K01	Bachelor of Business Administration	2017	BB301	Indian banking and insurance	Employability (1. To collect information regarding the various services offered by banks. 2. To track the changes in services offered by banks over the years. 3. What is the impact of GST on banking sector? 4. Case studies on banking sector 5. Demonetization effect on banking sector)
K01	Bachelor of Business Administration	2017	BB302	Industrial Laws	Employability (1. Conduct a Study on effectiveness of TU in APSRTC in selected units 2. Find out the collective Bargaining procedure in selected sugar factory 3. Analyse the effectiveness of The Workmen's Compensation Act, 1923 – The ESI Act, 1948 – The Payment of Wages Act, 1936 – in any manufacturing sector 4. The Minimum Wages Act, 1948 – The Payment of Bonus Act, 1965 – The Payment of Gratuity Act, 1972 – The EPF Act, 1952 in any pharma company)
K01	Bachelor of Business Administration	2017	BB303	Business Ethics and values	Employability (1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.)
K01	Bachelor of Business Administration	2017	BB304	Management Accounting	Employability (1. Collect financial statements of any one organization for two years. 2. Calculation of ratios based on the above financial statement. Profitability ratios – Gross Profit Ratio – Net Profit Ratio – ROCE – Current Ratio – Liquid Ratio. 3. Draft imaginary Budget reports. 4. Draft an imaginary Management Report.)
K01	Bachelor of Business Administration	2017	BB305	Entrepreneurship	Entrepreneurship-1. Convert your business ideas by drafting a business plan and carefully evaluate the possible business opportunities. 2. Prepare a brief case study based on any successful local entrepreneur by analyzing the failures and success factors. 3. List out and analyze the profiles of any three new age Entrepreneurs. 4. Visit the DIC and make list of the various existing institutions supporting Entrepreneurs in Andhrpradesh and analyze the facilities provided by them. 5. Arrange for a guest lecture by an entrepreneur of your choice. 6. Analyze the scope of Angel Investing and Venture Capital in India.
K01	Bachelor of Business Administration	2017	BB306	Taxation	Employability (1. Form No. 49A (PAN) and 49B. 2. Filing of Income Tax Returns. 3. List of enclosures to be made along with IT returns (with reference to salary & H.P). 4. Preparation of Form-16. 5. Computation of Income Tax and the Slab Rates. 6. Computation of Gratuity. 7. Chart on perquisites. 8. List of enclosures to be made along with IT returns (with reference to salary and house property incomes).
K01	Bachelor of Business Administration	2017	BB307	Operations Research	Employability (Be able to build and solve Transportation Models and Assignment Models.)
K01	Bachelor of Business Administration	2017	BB308	International Business	Employability (Prepare a project report on 1. Indian Foreign Trade Policy: 2.Export and Import Procedures & Promotions)
K01	Bachelor of Business Administration	2017	BB309	Strategic Management	Employability (Select a high profile industry such as IT or Entertainment Industry. Identify major Competitors and analyze the type of corporate level of strategies being used by firms.)
K01	Bachelor of Business Administration	2017	BB310	Project Management	Employability (1. Prepare a work break down structure for a given Project. 2. Apply Network Technique and calculate critical path for a given Project.)
K01	Bachelor of Business Administration	2017	BB311	SIP Review	Employability (Prepare a project report in the specialization domain)
K01	Bachelor of Business Administration	2017	BB312	Project Work	Employability (Prepare a project report in the specialization domain)
K01	Bachelor of Business Administration	2017	BB313	Seminar	Employability (Seminar to be presented)
K01	Bachelor of Business Administration	2017	BB314	Report and Viva	Employability (Prepare a project report in the specialization domain)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS001	English I	Skill development(To learn the basics in english)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS002	English Proficiency and Communication Skills I	Skill development(To learn the basics in english advanced level)

M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS003	Environmental Studies	Skill development (To study the environment and their related activities)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS004	Fundamentals of Computer Science I	Employability (To learn the basic concepts of computers)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS004A	Fundamentals of Computer Science I Lab	Employability (To learn the basic concepts of computers and applying the adequate knowledge)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS005	Differential Equations	Skill development (Enter differential equation and graph the solution in the Zoom Decimal window Graph the family of solutions and trace the specific solution to the differential equation)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS006	Descriptive Statistics and Probability	Skill development (1. What can you say about the shape of the histogram as n increases? What can you say about the center of the histogram as n increases? What can you say about the spread of the histogram as n increases.) course that describe the various measures of the data and to identify the type of population and mathematical form so as to find the constants of the population
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS007	Descriptive Statistics and Probability Lab	Skill development (Statistical methods are used to solve the problems)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS008	Computer Fundamentals and Photoshop	Employability (Usage of computers for the development of photoshop tasks)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS009	Computer Fundamentals and Photoshop Lab	Employability (Usage of computers for the development of photoshop tasks in laboratory)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS011	English II	Skill development (To develop the english communication and learn skills)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS012	English Proficiency Communication Skills II	Skill development (To develop the english communication and learn skills through advanced level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS013	General Studies I	Skill development (Learning of Socio economic related activities for the knowledge)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS014	Fundamentals of Computer Science II	Skill development (Learning of Socio economic related activities for the knowledge in advanced level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS015	Geometry	Skill development (1. Put triangles together to make patterns. Repeating patterns in two and three dimensions)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS016	Mathematical Expectations and Probability Distributions	Skill development (To study various mathematical forms of the probability distributions and constants of the population. To know the general tendency of the data usage of application oriented statistics like SQC and Reliability)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS017	Mathematical Expectations and Probability Distributions Lab	Employability (Analyze the mathematical problems and find out the solution)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS018	Programming in C	Skill development (Developing the programming language for the code based level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2017	17HS019	Programming in C Lab	Skill development (Developing the programming language for the code based advanced level)
All B.Tech Programmes		2017	16HS120	Environmental Studies	Skill development (To study the nature and social culture to protect the environment by planting trees)
All B.Tech Programmes		2017	16HS201	Complex Variables and Transformation	Skill development (Laplace transforms and solve differential equations, Z- transforms and evaluate the difference equations)
All B.Tech Programmes		2017	16HS202	Probability and Statistics	Skill development (Fit an appropriate curve for a given set of data and test the statistical data for rejection or acceptance)
All B.Tech Programmes		2017	16HS203	Professional Communicational Lab	Skill development (Develop the interpersonal skills that can enhance the communication skills)
All B.Tech Programmes		2017	16HS219	Indian History and Culture	Skill development (Study the suitability of sources of water around campus)
All B.Tech Programmes		2017	16HS224	Polity and Governance of India	Skill development (Learn the activities of governance of india)
All B.Tech Programmes		2017	16MS201	Management Science	Skill development o Identify various operational functions of management using case studies. o Analyze and improve marketing strategies. o Estimate human resources requirement and understand the interpersonal relationships in industries.
All B.Tech Programmes		2017	16MS202	Principles and Practice of Management	Employability (Working on management related works for practicing principles)
All M.Tech Programmes		2017	17HS101	Research Methods	Skill development (understand research methods)
All M.Tech Programmes		2017	17HS102	Employment Orientation Program	Employable (learn different skills required for employability)
All B.Tech Programmes		2017	SR004	Seminar	Skill development (utilization for developing communication)
All B.Tech Programmes		2017	SR005	Seminar	Skill development (utilization for developing communication)
All B.Tech Programmes		2017	16LS001	Life Skills-I	Skill Development (To develop the Life skill while using communication and experimental level of skills)
All B.Tech Programmes		2017	16LS002	Life Skills-II	Skill Development (To develop the Life skill while using communication and experimental level of skills)


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ANNEXURE-IV (2018-19)

Program code	Program name	Year of Introduction	CourseCode	Course Name	Activities
A01	B.Tech-Biotechnology	2018	16BT301	Biochemical Reaction Engineering	Employability o Hypothesize and validate reaction mechanism. o Design bioreactor. o Develop growth kinetics based on unstructured models. o Measure RTD by tracer injection methods.
A01	B.Tech-Biotechnology	2018	16BT302	Biosensors	Employability o Demonstrate glucose sensor parts, function and its principle. o Develop paper based sensors for detection of pesticides.
A01	B.Tech-Biotechnology	2018	16BT303	Enzyme Technology	Skill development o Isolate peroxidase from horse radish. o Purify and compare peroxidase by different methods. o Estimate Vmax of different enzyme reactions. o Immobilize peroxidase on various substrates: cloth, fabric, glass bead and encapsulation.
A01	B.Tech-Biotechnology	2018	16BT304	Industrial Biotechnology	Skill development o Ferment barley and grapes for production of beverages. o Plenary session on historical perspective of evolution of antibiotics and multidrug resistance. o Produce biofertilizers and biopreservatives. o Discuss current scenario on bioethanol and butanol production.
A01	B.Tech-Biotechnology	2018	16BT305	Bioethics & intellectual Property Rights	Skill development o Open house debate on patenting and environmental issues. o Plenary session on ethical and moral implications of intellectual properties. o Mock session on drafting and defending a patent. o Organize guest lectures on BT cotton and brinjal.
A01	B.Tech-Biotechnology	2018	16BT306	Bioprocess Engineering	Employability o Determine phases of cell growth. o Calculate substrate and product inhibition on growth of cells. o Evaluate thermal death kinetics. o Measure dissolved O2 concentration.
A01	B.Tech-Biotechnology	2018	16BT307	Genetic Engineering & Epigenetics	Employability o Culture bacterial cells. o Isolation of bacterial and plasmid DNA. o Handling micropipettes to deal with molecular enzymes. o Experimentation on gel electrophoresis. o Preparation of competent cells.
A01	B.Tech-Biotechnology	2018	16BT308	Thermodynamics for Biotechnologists	Skill development o Estimation of efficiency of heat engine and refrigerator. o Calculation of heat changes in fermentation process. o Determine equilibrium constant for a chemical reaction. o Draw phase equilibrium diagrams.
A01	B.Tech-Biotechnology	2018	16BT350	Agricultural Biotechnology	Skill development o Field trip to agricultural university, field stations and seed company to understand the various methods of cropping. o Analyze soil composition and soil types.
A01	B.Tech-Biotechnology	2018	16BT351	Cell Culture Techniques	Skill development o Design medium for culturing stem cells. o Visualize cell division under microscope. o Observe different cell lines isolated from various sources.
A01	B.Tech-Biotechnology	2018	16BT352	Fermentation Products	Skill development o Prepare and analyze a fermented beverage. o Produce polyhydroxy butyrate. o Produce lactase
A01	B.Tech-Biotechnology	2018	16BT353	Plant Biotechnology	Skill development o Multiplication of ornamental explants by micropropagation. o Visit to plant/ seed company to understand the micropropagation and genetic transformation of commercial crops.
A01	B.Tech-Biotechnology	2018	16BT354	Tissue Engineering & Regenerative Medicine	Skill development o Observe various cell/sar cells, blood cells and skin cells under microscope. o Presentation on NGC educational videos: 3D tissue engineering and grafting. o Preparation of biodegradable material: collagen.
A01	B.Tech-Biotechnology	2018	16BT355	Bioprocess Modelling & Simulations	Skill development o Develop models in fluid flow. o Develop models in heat transfer. o Simulation of mathematical models.
A01	B.Tech-Biotechnology	2018	16BT356	TILLING Method for Crop improvement	Skill development o Extract DNA from maize, lady's finger and peanut. o Create mutagenized population in paddy seeds. o Discover mutation applying genomics tools in paddy. o Establish stable mutant line of paddy in fields.
A01	B.Tech-Biotechnology	2018	16BT357	Snake Biology and Anti - Venom Production	Skill development o Identify four important poisonous snakes of India by pictures, photographs and models. o Identify different parts of venom apparatus in snake and scorpion by virtual media. o Conduct field trip to antivenom.
A01	B.Tech-Biotechnology	2018	16BT363	Meat, Poultry, Fish and Dairy Technology	Skill development 1. Proximate analysis of meat, poultry, fish samples 2. Estimation of protein from meat, poultry, fish samples 3. Visit to fish processing units to understand various processing methods.
A01	B.Tech-Biotechnology	2018	16BT364	Comparative Genomics	Skill development 1. Sequence alignment with tools like BLAST and FASTA. 2. Construction of phylogenetic trees 3. Annotation of a gene with unknown function by comparative genomics.
A01	B.Tech-Biotechnology	2018	16BT365	Algorithms for Bioinformatics	Skill development 1. Constructing a programme to identify ORF 2. Develop a programme for phylogenetic tree analysis 3. Constructing a programme to find structure- function relationship of a protein
A02	B.Tech-Chemical Engineering	2018	16CH301	Chemical Engineering II Thermodynamics	Skill development o Extracting equilibrium data. o Identification of ideal and nonideal behavior. o Modeling of vapor liquid equilibrium.
A02	B.Tech-Chemical Engineering	2018	16CH302	Chemical Reaction Engineering-I	Skill development o Analyzing kinetic data using excel. o Estimate Kinetic parameters using excel. o Case study on Industrial applications of reactors.
A02	B.Tech-Chemical Engineering	2018	16CH303	Mass Transfer Operations-I	Skill development o Estimation of diffusivity coefficient using virtual operations. o Estimation of drying properties like critical moisture and equilibrium moisture using Matlab. o Estimation of mass transfer coefficient for gases and liquids using Matlab.
A02	B.Tech-Chemical Engineering	2018	16CH304	Process Dynamics & Control	Skill development o Using matlab plot the root locus and Bode diagrams. o Block diagram construction for a process. o Effect of controller parameters on system stability.

A02	B.Tech-Chemical Engineering	2018	16CH305	Chemical Reaction Engineering-II	Skill development o Modeling of non-ideal reactors using MAT Lab. o Simulation of compartment model using MAT Lab. o Products and reactants concentration profiles in heterogeneous reactions.
A02	B.Tech-Chemical Engineering	2018	16CH306	Chemical Technology	Skill development o Modeling of non-ideal reactors using MAT Lab. o Simulation of compartment model using MAT Lab. o Products and reactants concentration profiles in heterogeneous reactions.
A02	B.Tech-Chemical Engineering	2018	16CH307	Mass Transfer Operations-II	Skill development o Verify the Rayleigh's equation using Mat Lab. o Selection of best method for separation of a given binary or ternary mixture. o Application of appropriate mass transfer operation using C Language.
A02	B.Tech-Chemical Engineering	2018	16CH308	Process Modeling & Simulation	Skill development o Simulate modeling equations for a given system.
A02	B.Tech-Chemical Engineering	2018	16CH340	Solid Waste Management & Treatment	Employability o Identify areas that are likely to contain mineral deposits. o Evaluate the feasibility of mining identified deposits. o Extract and process the mineral resource.
A02	B.Tech-Chemical Engineering	2018	16CH341	Mining Methods and Unit Operations	Employability o Estimation of physical and chemical properties of drugs.
A02	B.Tech-Chemical Engineering	2018	16CH342	Pharmaceutical and Fine Chemicals	Skill development o Flowsheet preparation for manufacture of LDPE, PVC. o Engineering cost analysis for manufacture of LDPE, PVC. o Case Study on feasibility of manufacture of polyacrylic acid.
A02	B.Tech-Chemical Engineering	2018	16CH343	Manufacturing of industrial Polymers	Skill development o Evaluation of chemical compositions using Instrumentation technique. o Enhancement of petroleum refinery products.
A02	B.Tech-Chemical Engineering	2018	16CH344	Petroleum Refinery Engineering	Skill development o Compare the pros and cons of various renewable energy technologies and propose the best possible energy conversion system for a particular location. o Investigate the potentials of renewable energy technologies to help solve environmental and economic problems within society.
A02	B.Tech-Chemical Engineering	2018	16CH345	Non Conventional Energy Sources	Skill development o environmental awareness skills o implementation of environmental legislation
A02	B.Tech-Chemical Engineering	2018	16CH350	Environmental Regulations & Impact Analysis	Skill development o Case study on impact analysis of a process industry.
A02	B.Tech-Chemical Engineering	2018	16CH351	Physical Separation Process	Skill development o Evaluation of chemical compositions using GC technique. o Assessment of concentration limits of metals using HPLC.
A02	B.Tech-Chemical Engineering	2018	16CH352	Pharmaceutical Analytical Techniques	Skill development o Trouble shooting defective polymer products. o Mould design for injection moulding. o New polymer product development flowsheet.
A02	B.Tech-Chemical Engineering	2018	16CH353	Polymer Processing Technology	Skill development o Evaluation of petrochemicals by advanced techniques. o Enhancement of petroleum products using various methods.
A02	B.Tech-Chemical Engineering	2018	16CH354	Petrochemicals	Skill development o Evaluation of petrochemicals by advanced techniques. o Enhancement of petroleum products using various methods.
A03	B.Tech-Civil Engineering	2018	16CE301	Environmental EngineeringII	Skill development (Study the suitability of sources of water around campus)
A03	B.Tech-Civil Engineering	2018	16CE302	Geotechnical Engineering I	Skill development (Identify and classify soils)
A03	B.Tech-Civil Engineering	2018	16CE303	Structural AnalysisII	Skill development (Identify the deflection profile of structures subjected to several types of loadings)
A03	B.Tech-Civil Engineering	2018	16CE304	Transportation Engineering I	Skill development (Monitor and maintain road pavements)
A03	B.Tech-Civil Engineering	2018	16CE305	Water Resources Engineering I	Skill development (Construction of flood hydrograph resulting from rainfall of unit duration for a given area)
A03	B.Tech-Civil Engineering	2018	16CE306	Design of Reinforced Concrete Structures	Skill development (Design Regular/Flanged beam for different types of loading conditions)
A03	B.Tech-Civil Engineering	2018	16CE307	Geotechnical EngineeringII	Skill development (Determine permeability coefficients of soils)
A03	B.Tech-Civil Engineering	2018	16CE308	Structural AnalysisI	Skill development (Analyze the behavior of structures subjected to moving loads)
A03	B.Tech-Civil Engineering	2018	16CE309	Water Resources Engineering - II	Skill development (Find out the parameters for Guntur aquifers using the data from Central Ground Water Board, Ministry Of Water Resources, Government Of India; Ground Water Brochure, Guntur District, Andhra Pradesh)
A03	B.Tech-Civil Engineering	2018	16CE340	Urban infrastructure	Skill development (Design green buildings)
A03	B.Tech-Civil Engineering	2018	16CE341	Disaster Management & Mitigation	Employability (Plan method of disaster Risk reduction)
A03	B.Tech-Civil Engineering	2018	16CE380	Remote Sensing & GIS Applications	Employability (Draw layout for a given location)
A03	B.Tech-Civil Engineering	2018	16CE381	Traffic Engineering	Skill development (Estimate the traffic flow characteristics)
A03	B.Tech-Civil Engineering	2018	16CE382	Ground Improvement Techniques	Employability (Diagnose problems associated with problematic soils)
A03	B.Tech-Civil Engineering	2018	16CE383	Structural Dynamics	Skill development (Determine vibration characteristics of structures like frequency, amplitude, impedance, and time period)
A03	B.Tech-Civil Engineering	2018	16CE385	Environmental Pollution and Control	Employability (Assess the characteristics of sewage)
A03	B.Tech-Civil Engineering	2018	16CE391	Principles of industrial Waste Treatment	Skill development (Treatment of sewage and effluents from industries)
A04	B.Tech-Computer Science and Engineering	2018	16CS301	Software Engineering	Employability Identify the customer requirements and define the process of developing the product, Draft the system and software requirements and prepare SRS document and Design the project using UML diagrams.
A04	B.Tech-Computer Science and Engineering	2018	16CS302	Web Technologies	Employability Choose a real time problem to develop a web application or web site. Identify number of web pages to be created and Develop each web page using the template and HTML, CSS languages
A04	B.Tech-Computer Science and Engineering	2018	16CS303	Compiler Design	Skill development Construct the lexical analyser using LEX and Construct various parsers using YACC.
A04	B.Tech-Computer Science and Engineering	2018	16CS304	Operating Systems	Employability (Identification and installation of various operating system)
A04	B.Tech-Computer Science and Engineering	2018	16CS305	Data Mining Techniques	Employability (Use data mining techniques to detect similarity of disease among the patients in hospital data base and Apply data mining techniques to create awareness about the insurance company policies among the people.)
A04	B.Tech-Computer Science and Engineering	2018	16CS306	Computer Networks	Skill development (Identify various network devices, investigate various network topologies and Connect and Configure workstations in Ethernet and WLAN.)
A04	B.Tech-Computer Science and Engineering	2018	16CS307	Micro Processors and interfacing	Skill development (Interfacing 16*2 LCD with 8051)
A04	B.Tech-Computer Science and Engineering	2018	16CS308	Operations Research for Computer Science Engineers	Skill development Interfacing 16x2 LCD with 8051, Interfacing 4x4 Hex key pad with 8051 and Interfacing stepper motor with 8051.
A04	B.Tech-Computer Science and Engineering	2018	16CS340	Mobile Technologies	Skill development (Design and develop an application for identify and store various locations of VFSTRU and Implement an application to access the moodles data base.)
A04	B.Tech-Computer Science and Engineering	2018	16CS341	Fundamentals of Image Processing	Skill development (Image acquisition by using various resolution cameras and comparison of visual quality variation and Implementation of image processing algorithms like enhancement, Restoration, segmentation and compression.)
A04	B.Tech-Computer Science and Engineering	2018	16CS342	Open Systems for Web Technologies	Employability (Develop a web application using opensource technology. Develop web pages using HTML and CSS and Installation of Apache web server.)
A04	B.Tech-Computer Science and Engineering	2018	16CS343	Real Time Operating Systems	Skill development Building applications of Embedded Systems using RTOS.

A04	B.Tech-Computer Science and Engineering	2018	16CS344	Artificial intelligence	Employability Design solution for real time problems using AI Techniques and Develop knowledge representation for real time problems.
A04	B.Tech-Computer Science and Engineering	2018	16CS345	Distributed Systems	Skill development(Case Study on chat application and Case studies using Web services using SOAP protocol.)
A04	B.Tech-Computer Science and Engineering	2018	16CS346	Network Programming	Skill development(Develop a chat application for client/server model and Develop an electronic mail application.)
A04	B.Tech-Computer Science and Engineering	2018	16CS347	Middleware Technologies	Employability(Apply styles to Web pages using CSS, Validate Client side C# program using .NET and Store and retrieve data using ADO.NET.)
A04	B.Tech-Computer Science and Engineering	2018	16CS348	Embedded C	Skill development(Develop a real time embedded system using embedded C concepts.)
A04	B.Tech-Computer Science and Engineering	2018	16CS349	Artificial Neural Networks	Skill development(Case Study on Image Compression Using Neural Networks, Stock market Prediction and Travelling Salesman Problem)
A04	B.Tech-Computer Science and Engineering	2018	16CS350	Cloud Computing	Employability(Identify various network devices in laboratory, Investigate various network topologies and Connect workstations in Ethernet.)
A04	B.Tech-Computer Science and Engineering	2018	16CS351	R Programming	Skill development(Analysis of Given Problem)
A04	B.Tech-Computer Science and Engineering	2018	16CS352	JAVA Programming	Skill development(Implementation of Object oriented concepts)
A04	B.Tech-Computer Science and Engineering	2018	16CS353	Statistics using Python	Employability(Apply and interpret inferential procedures when analyzing real data)
A04	B.Tech-Computer Science and Engineering	2018	16CS354	Fundamentals of Data Mining Techniques	Skill development(Apply various tools to store large sets of data in databases)
A04	B.Tech-Computer Science and Engineering	2018	16CS355	Internet Technologies	Employability(Provide internet based working flow for seamless performance)
A04	B.Tech-Computer Science and Engineering	2018	16CS370	Linux, Apache, Mysql, Php	Skill development(Operating systems to development of applications and user interface)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC301	Linear IC's & Applications	Skill development (Design inverting amplifier and voltage follower used in Buffers. Design Integrator, used in ADC's and Wave form generators. Develop RC phase shift oscillator using Op-Amp.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC302	Microprocessors & Microcontrollers	Employability (Interface a 16x2 LCD with 8051. Interface a 4X4 Hex keypad with 8051. Interface Stepper motor.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC303	Digital Communications	Skill development (Implement different Digital modulation schemes using Matlab. ON-OFF Keying used in optical communication)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC304	Electromagnetic Waves & Transmission Lines	Skill development (lines due to point charge, line of charges and sheet of charges. Draw the field lines to illustrate reflection through a metal plate.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC305	Computer Architecture & Organization	Skill development(development of assembly language programs that leverage the underlying hardware resources efficiently.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC306	VLSI Design	Skill development (Create schematics to digital system using CMOS.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC307	Antenna Propagation	Skill development Simulate different micro strip antennas for wireless Applications like GPS/ Communication/ control.
A05	B.Tech-Electronics and Communication Engineering	2018	16EC308	Digital Signal Processing	Skill development Find the response of the given LTI system using impulse input. Find the response of the given LTI system using step input.
A05	B.Tech-Electronics and Communication Engineering	2018	16EC309	Internet of Things	Employability(Learn how IoT works in different domain applications by case studies, Learn Python programming language and Learn how to sense or actuate devices using Raspberri Pi kits.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC350	Perl & Python	Employability (Implement data types-scalars, arrays, hashes using Perl. Implement simple matching expressions using Perl. Develop functions by using Python.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC351	System on Chip Design	Skill development (Choose a digital circuit and draw layout. Design and implement a circuit in hardware.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC360	Cellular & Mobile Communications	Skill development (Determine number of cells, cell frequencies for Amaravati (Capital City). Identify the Handoff strategies used by mobile operators in Capital region.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC370	Microcontrollers for Embedded Systems	Employability (Interface LEDs to ARM7 controller. Interface a stepper motor to ARM 7 controller.)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC371	Adhoc and Sensor Network	Skill development (Implement routing protocols (simulation). Demonstrate sensor nodes)
A05	B.Tech-Electronics and Communication Engineering	2018	16EC380	Unix & Shell Programming	Skill development (Design and implementation of a data base system for students with Register no, Name, Semester, Subjects, Mid-1 Marks, Mid-2 Marks, Mid-3 Marks, etc., using UNIX Shell Scripts.)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE301	Control Systems	Skill development Design of Speed Controlled DC Motor for Domestic Applications
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE302	Power System Analysis	Entrepreneurship Building Y-bus algorithm in MATLAB
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE303	Electrical Power Transmission & Distribution	Skill development Make a prototype of single line diagram of substation (any one of 220/132/66KV).
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE304	Microprocessors Architectures & Control	Entrepreneurship Design any microcontroller based system with more than seven peripherals
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE305	Electrical Measurements and instrumentation	Employability Determine 3-phase reactive power consumed by agriculture load
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE306	Switch Gear & Protection	Employability Visit a substation and prepare its technical report on control side
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE307	Transformers and Induction Motors	Employability Choose a transformer rating for a given application
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE308	Synchronous and Special Machines	Employability Trouble shoot a single phase Induction Motor
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE351	HVDC and FACTS	Employability (Design 12/24 pulse HVDC converter)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE352	Advanced AC Transmission Systems	Employability (Simulate performance of EHV line in PSCAD)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE353	Power Semiconductor Devices & Passive Components	Skill development (Design grid tie inverter)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE354	Analysis of inverters	Skill development (Design SVPWM inverter for torque control of AC Motor)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE355	Utilization of Electrical Energy	Skill development (Design and testing of simple Electric Locomotive)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE356	Energy Audit, Conservation and Management	Employability (Energy auditing of different blocks in VFSTRU)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE357	Solar PV Technologies - II	Employability (Design a solar lamp)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EE358	Design & Economics of PV plants	Skill development (Design a solar water pumping for an agriculture applications)
A06	B.Tech-Electrical and Electronics Engineering	2018	16EL103	Professional Communication Laboratory	Skill development To gain the adequate knowledge and Formal and Informal Communication
A07	B.Tech-Information Technology	2018	16IT301	Human Computer interaction	Skill development(Analysing the user interface design models)
A07	B.Tech-Information Technology	2018	16IT340	Wireless Sensor Networks	Skill development Implementing data acquisition techniques in WSN
A07	B.Tech-Information Technology	2018	16IT341	Soft Computing	Skill development(Detection of threat objects using fuzzy points)
A07	B.Tech-Information Technology	2018	16IT343	Mobile Application Development Using Android	Skill development(Using Android to develop the mobile applications with advanced features)
A07	B.Tech-Information Technology	2018	16IT370	Web Application Development Using MONGODB and Angular JS	Skill development(development of user interface for easing of working flow while using MONGOOb)

A08	B.Tech-Mechanical Engineering	2018	16ME301	Cad/Cam	Employability (Fabrication of two cavity mould for injection moulding)
A08	B.Tech-Mechanical Engineering	2018	16ME302	Design of Machine Elements	Employability (Select suitable materials for machine elements for an intended application.)
A08	B.Tech-Mechanical Engineering	2018	16ME303	Dynamics of Machinery	Skill development (Balancing of rotating and reciprocating machine components.)
A08	B.Tech-Mechanical Engineering	2018	16ME304	Thermal Turbo Machinery	Skill development (Determine the performance parameters of compressors)
A08	B.Tech-Mechanical Engineering	2018	16ME305	Design of Transmission Elements	Employability (Design and drawing of different types of keys)
A08	B.Tech-Mechanical Engineering	2018	16ME306	Finite Element Methods	Employability (Calculate stress and strain in 1D elements.)
A08	B.Tech-Mechanical Engineering	2018	16ME307	Heat Transfer	Skill development (Demonstration of basic modes of heat transfer and its applications.)
A08	B.Tech-Mechanical Engineering	2018	16ME308	Metrology & instrumentation	Employability (Design GO and NOGO gauges.)
A08	B.Tech-Mechanical Engineering	2018	16ME351	Additive Manufacturing	Skill development (Analyze the effect of process of parameters on end products.)
A08	B.Tech-Mechanical Engineering	2018	16ME352	Characterization of Materials	Skill development (Analyze morphological properties using optical and electron microscopes.)
A08	B.Tech-Mechanical Engineering	2018	16ME353	Composite Materials	Skill development: (Recognize the selection and roles of reinforcement materials.)
A08	B.Tech-Mechanical Engineering	2018	16ME354	Computational Fluid Dynamics	Skill development (Convert partial differential equations to linear algebraic equations.)
A08	B.Tech-Mechanical Engineering	2018	16ME355	Experimental Stress Analysis	Skill development (Calculate stress and strain using different methods.)
A08	B.Tech-Mechanical Engineering	2018	16ME356	Non - Conventional Sources of Energy	Skill development (Construct concentrating and non-concentrating solar radiation collectors and calculate their efficiencies.)
A08	B.Tech-Mechanical Engineering	2018	16ME357	Theory of Metal Cutting	Skill development: (Assess geometrical characteristics of ductile chips : chip reduction coefficient, cutting ratio ,shear angle and cutting strain)
A08	B.Tech-Mechanical Engineering	2018	16ME358	Tribology	Skill development (Understand the nature of engineering surfaces and their topography.)
A08	B.Tech-Mechanical Engineering	2018	16ME359	Welding Technology	Skill development (Apply advanced welding techniques such as LBM, Ultrasonic welding, EBW to weld dissimilar metals and high strength alloys.)
A08	B.Tech-Mechanical Engineering	2018	16ME360	Automobile Engineering	Skill development (Assemble and disassemble two wheeler automobile.)
A08	B.Tech-Mechanical Engineering	2018	16ME361	Computer integrated Manufacturing	Skill development (Develop graphical models using CAD systems)
A08	B.Tech-Mechanical Engineering	2018	16ME362	Mechanical Vibrations	Employability (Formulate mathematical models for vibrating systems.)
A08	B.Tech-Mechanical Engineering	2018	16ME363	Nanotechnology	Employability (Identify the nanomaterials for various applications.)
A08	B.Tech-Mechanical Engineering	2018	16ME364	Power Plant Engineering	Skill development (Understand various sources of energy in power plants.)
A08	B.Tech-Mechanical Engineering	2018	16ME365	Surface Engineering	Employability (Analyze various surface coating techniques and their applications.)
A08	B.Tech-Mechanical Engineering	2018	16ME366	Theory of Elasticity	Skill development (Compute solid mechanics problems using classical and energy methods.)
A08	B.Tech-Mechanical Engineering	2018	16ME367	Reverse Engineering	Skill development (disassemble any of an engineering product and to apply RE methodologies.)
A08	B.Tech-Mechanical Engineering	2018	16ME368	Safety Engineering	Skill development (Implement safety engineering techniques in various industries.)
A08	B.Tech-Mechanical Engineering	2018	16ME369	Advances in Robotics	Employability Implementation of Embedded controlled robots advanced level
A08	B.Tech-Mechanical Engineering	2018	16ME370	Field and Service Robotics	Employability Implementation of Embedded controlled robots field level robotics
A10	B.Tech-Automobile Engineering	2018	16AE301	Automotive Components Design	Employability: Design of connecting rod using modelling software
A10	B.Tech-Automobile Engineering	2018	16AE302	Automotive Transmission	Skill development(Differentiate between different vehicle layouts)
A10	B.Tech-Automobile Engineering	2018	16AE303	Special Purpose Vehicles	Employability: Troubleshoot tractors and farm machinery.
A10	B.Tech-Automobile Engineering	2018	16AE305	Two and Three Wheelers Technology	Employability: Dismantle,inspect and assemble two and three wheeler engine/ clutch/gear box.
A10	B.Tech-Automobile Engineering	2018	16AE306	Vehicle Dynamics	Employability: Calculate spring rate, tractive effort of vehicles.
A10	B.Tech-Automobile Engineering	2018	16AE307	Autotronics	Skill development (Draw wiring diagrams for different electrical systems and implement circuits.)
A10	B.Tech-Automobile Engineering	2018	16AE313	Vehicle Body Engineering	Employability:Different types of bus body and car body layouts
A10	B.Tech-Automobile Engineering	2018	16AE341	Combustion in Engines	Employability: Differentiate between Ic engine combustion and gas turbine combustion
A10	B.Tech-Automobile Engineering	2018	16AE342	Nano Technology	Employability: Prepare Carbon Nano Tubes for automobile Use
A10	B.Tech-Automobile Engineering	2018	16AE343	Motorsport Vehicle Analysis	Employability: Formulate and analyze Finite Element models for different I-D bar elements
A10	B.Tech-Automobile Engineering	2018	16AE344	Vehicle Maintenance	Employability: Differentiate between different schedules.
A11	B.Tech-Textile Technology	2018	16TF301	Testing of Fibers & Yarns	Skill development o Apply zoning technique for sampling of cotton from a bales. o Analyze test results using ANOVA. o Test cotton fiber under bear sorter for any variety. o Comparison of strength of two different sample using Z-test.
A11	B.Tech-Textile Technology	2018	16TF302	Apparel Production, Planning & Control	Skill development o Case study on apparel production planning. o calculation of marker efficiency through mini marker. o Preparation of operation bulletin for given garment style. o Optimising line balancing through hourly adjustment. o Performing takt time analysis. o Inspection of garments and finding A, B & C category faults.
A11	B.Tech-Textile Technology	2018	16TF303	Garment Dyeing, Printing and Embroidery	Skill development o Flow chart preparation for list of parameters to be considered during garment dyeing and printing. o collection of different dyed, printed and finished samples. o Identify the types of wash suitable for the particular garment. o Plan for the particular finish required for the garment based on the end use.
A11	B.Tech-Textile Technology	2018	16TF304	Textile Mathematics	Skill development o Collect unit conversions used in textiles. o Calculate velocity and time using equations of motion and motion in circle. o Calculate production of carding, draw frame, simplex, ring frame and loom. o Calculate yarn diameter by using different formulae.

A11	B.Tech-Textile Technology	2018	16TF305	Garment Machinery	Skill development o Collect Specifications of different sewing machines. o List out the various parts in the different sewing machines. o Collect various defects from cutting, sewing departments. o Perform changes in the settings of different parts of sewing machine.
A11	B.Tech-Textile Technology	2018	16TF306	Testing of Fabrics & Garments	Skill development o Measure fabric thread crimp theoretically and practically o Compare crease recovery of cotton and polyester fabric. o Draw fabric drape diagram for stiff and limp fabric. o Collect and compare test procedures under different standards. o Assessment of color fastness
A11	B.Tech-Textile Technology	2018	16TF307	Apparel Merchandising	Skill development o Collect different marketing activities followed by garment industry. o Prepare flow chart of various activities done by merchandiser. o Collect the lead time for different trims and accessories o Prepare a TNA calendar.
A11	B.Tech-Textile Technology	2018	16TF308	Textile and Fashion Cad Lab	Employability 1. To make cutting plan using textile CAD for Mens shirt. 2. To make cutting plan using textile CAD for Women's wear. 3. To make cutting plan using textile CAD for Children wear. 4. To make drafting and lifting plan for given design using textile CAD. 5. To make drafting and lifting plan for given design using textile CAD by changing yarn count and twist. 6. To make stripe pattern with miss dent design by using textile CAD with changing yarn color. 7. To make checks pattern using textile CAD by changing yarn color. 8. To make stripe pattern using textile CAD by changing weave and yarn color. 9. To make checks pattern using textile CAD by changing weave and yarn color. 10. To make garment for summer wear using fashion CAD. 11. To make garment for party wear using fashion CAD.)
A11	B.Tech-Textile Technology	2018	16TF350	Practical Aspects in Drawing, Comber and Simplex	Employability o Collect technical specifications of modern machines. o Compare conventional and nonconventional lap formers. o Perform production calculations of speed frame. o Compare backward and forward feeding combers
A11	B.Tech-Textile Technology	2018	16TF351	Practical Aspects in Yarn formation Machinery	Skill development o Collect ring and rotor yarn specifications for denim. o Derivation for the twist factor in Ne and Tex mode. o Comparison of ring, rotor, airjet and friction yarn properties. o Analyse ring spinning system as it is major producer of yarn formation.
A11	B.Tech-Textile Technology	2018	16TF352	Principles of Weaving	Skill development o Collect technical parameters of different jacquards. o Practice on pegging for left and right handed dobby lattices by using various designs. o Calculate casting-out for jacquard. o Compare conventional jacquard and electronic jacquard.
A11	B.Tech-Textile Technology	2018	16TF353	Shuttleless Weaving	Skill development o Calculate production capacity of shuttle-less weaving machines. o Collect and compare handloom fabric and shuttle-less loom fabrics. o Collect technical specifications of shuttle-less weaving machines. o Collection of various narrow fabric samples. o Prepare weave plan for desired quality.
A11	B.Tech-Textile Technology	2018	16TF354	Circular Knitting	Employability o Determine needle gauge for a given stitch density of plain knitted fabric o Compare the effect of tension level on stitch length o Draw cam design for skip, float, tuck stitches. o Analyse recent developments in circular knitting. o Collect technical specifications by visiting a knitting unit.
A11	B.Tech-Textile Technology	2018	16TF355	Warp Knitting	Employability Analyse warp knitted fabric like seat cover/ nets. o Collect various warp knitted fabrics. o Design and construct single and double bar warp knit fabric through hand knitting o Calculate Run-in ratio of given warp knitted fabric. o identify the areas where warp knitted fabrics can be used.
A11	B.Tech-Textile Technology	2018	16TF356	Dyeing & Printing Machinery	Skill development o Collect of Different dyeing machines and its technical aspects o Identify of type of print on a given fabric or garment o Compare dyeing performance of different machines o Analyse the package requirement for cone dyeing o Collect of different printing machines technical aspects.
A11	B.Tech-Textile Technology	2018	16TF357	Eco Friendly Wet Processing	Employability o Analyse different eco friendly processed fabrics. o Identify various areas where eco friendly process followed. o Analyse GOTS standards for dyeing, printing and finishing o Calculate pollution load on the ETP by ecofriendly processing. o Prepare techno economic study of eco friendly processing.
A11	B.Tech-Textile Technology	2018	16TF358	Computer Applications in Textiles	Skill development o Creating of spin plan for small spinning mill in excel. o Creating a weaving plan for a loom shed running 8 looms o Finding out optimized proportions of cotton varieties using LPP for a mixing. o Designing a weave pattern for a small motif using textile CAD.
A11	B.Tech-Textile Technology	2018	16TF359	Lean and Six Sigma in Textiles and Apparels	Skill development o Analyse results of spinning mill using total quality management tools. o Apply Taguchi for optimization on small experiment. o Case study of application of L6QMS 2008 model in textile industry o Calculation of CPK based on results for a spinning mill.
A11	B.Tech-Textile Technology	2018	16TF360	Physical Properties of Textile Fibers	Employability o Analyse Degree of order, degree of localization for polyester and nylon. o Analyse of x-ray pattern of oriented, disoriented and partially crystalline fibre. o Compare fiber properties based on fiber structure. o Perform heatsetting of polyester. o Analyse NMR graph and identify fibre.
A11	B.Tech-Textile Technology	2018	16TF361	Process Control and Quality Management in Textiles	Employability o Calculate individual and overall efficiency for spinning mill o Perform breakage study at warping and weaving. o Measure absorbency of bleached cloth. o Carry Iodine absorption test for evaluation of degree of cross linking. o Collect of standards and norms for textile mill processes.
A12	B.Tech-Agriculture Engineering	2018	16AG301	Crop Process Engineering	Skill development: Design of prototype belt conveyor, screw conveyor and bucket elevator
A12	B.Tech-Agriculture Engineering	2018	16AG302	Drying & Storage Engineering	Skill development: Design and development of storage structures for local crops.
A12	B.Tech-Agriculture Engineering	2018	16AG303	Hydrology	Skill development: Evapotranspiration and infiltration analysis of a region.
A12	B.Tech-Agriculture Engineering	2018	16AG304	Machine Design	Skill development: Design a piston assembly for engine considering stresses.
A12	B.Tech-Agriculture Engineering	2018	16AG305	Tractor Systems & Controls	Skill development: Seedbed preparation and Haulage operation using a tractor.
A12	B.Tech-Agriculture Engineering	2018	16AG306	Dairy & Food Engineering	Skill development: Preparation of layout of a dairy plant for local area in accordance with milk collection.
A12	B.Tech-Agriculture Engineering	2018	16AG307	Drainage Engineering	Skill development: Installation and test of piezometer, observation well and analysis of data.
A12	B.Tech-Agriculture Engineering	2018	16AG308	Farm Machinery & Equipment - I	Skill development: development of software for machinery selection.
A12	B.Tech-Agriculture Engineering	2018	16AG309	Ground Water, Wells & Pumps	Skill development: Assembling and dismantling of various pumps.
A12	B.Tech-Agriculture Engineering	2018	16AG310	Irrigation Engineering	Skill development: Develop an irrigation project in a water shed.

A12	B.Tech-Agriculture Engineering	2018	16AG341	Agricultural Structures & Environment Control	Employability(Cost estimation of farm structures.)
A12	B.Tech-Agriculture Engineering	2018	16AG342	Development of Processed Products & Equipment	Employability(Fabrication of small capacity conveyors.)
A12	B.Tech-Agriculture Engineering	2018	16AG343	Waste and By Product Utilization	Skill development(Maintenance of waste management and effluent treatment.)
A12	B.Tech-Agriculture Engineering	2018	16AG344	Hydraulic Drive & Controls	Skill development(Identify and operate valves and other components of a hydraulic system.)
A12	B.Tech-Agriculture Engineering	2018	16AG345	Applications of Hydraulics and Pneumatics in Agricultural Machinery	Skill development(Identify problems in hydraulic circuits.)
A12	B.Tech-Agriculture Engineering	2018	16AG346	Production Technology for Agriculture Machinery	Employability(Add-on course on CNC programming software.)
A12	B.Tech-Agriculture Engineering	2018	16AG347	Tractor Design & Testing	Employability(Collection of data on various axle designs.)
A12	B.Tech-Agriculture Engineering	2018	16AG348	Gully and Ravine Control Structures	Skill development(Analysis and preparation graph by using various software for flood forecasting)
A12	B.Tech-Agriculture Engineering	2018	16AG349	Micro Irrigation & Systems Design	Employability(Design of drip irrigation system for a small field.)
A12	B.Tech-Agriculture Engineering	2018	16AG350	Non - Point Source Pollution and Management	Skill development(Simulation of non point source pollution models.)
A12	B.Tech-Agriculture Engineering	2018	16AG351	Reservoir & Farm Pond Design	Skill development(Benefit cost analysis of reservoir and farm pond structures against various costs.)
A12	B.Tech-Agriculture Engineering	2018	16AG425	Principles of Heat & Mass Transfer	Skill development (development of apparatus for measurement of specific heat/ heat capacity of various food material.)
A14	B.Tech-Bioinformatics	2018	16BI301	Molecular Phylogenetics	Skill development: o Case studies on convergence, divergence and speciation. o Solve population genetics problems using Hardy Weinberg principle.
A14	B.Tech-Bioinformatics	2018	16BI302	Biodiversity & Conservation	Skill development: o Field visit to understand the geodistribution of plants. o Virtual tour to identify hotspots of the world and India. o Construct ecological pyramids. o Analyze effects of invasive species.
A14	B.Tech-Bioinformatics	2018	16BI350	Molecular Modeling	Skill development o Visualize tertiary protein using CN3D tool. o Retrieve protein structures. o Predict basic secondary structure. o Perform protein homology modelling. o Identify binding pocket or pharmacophore. o Simulate molecular interactions.
A14	B.Tech-Bioinformatics	2018	16BI351	Next Generation Sequencing & Analysis	Skill development o Visit to NGS lab and demonstration of NGS. o Seminar on different sequencing machines and their working principles. o Identify disease genes. o Identify single nucleotide polymorphisms.
A14	B.Tech-Bioinformatics	2018	16BI353	Metabolomics & Metabolic Engineering	Employability o Optimize flux amplification. o Lipidomic profiling. o Differentiate normal and cancer cells.
A14	B.Tech-Bioinformatics	2018	16BI354	Forensic Genomics	Employability o Extract and quantify genomic DNA from various specimens. o Determination of parental linkage. o Quantification of alleles.
A15	B.Tech-Food Technology	2018	16FT301	Bakery and Confectionery Technology	Skill development o Prepare a flowchart for production process of bakery and confectionary products keeping safety regulations in consideration.
A15	B.Tech-Food Technology	2018	16FT302	Cereals, Legumes & Oilseeds Process Technology	Skill development o Collect, identify and prepare a report on physicochemical properties of different cereal, legumes and oil seeds. o Design prototype milling equipment for grains.
A15	B.Tech-Food Technology	2018	16FT303	Dairy Technology	Skill development o Report on standards of commercial milk products o Prepare plant design and layout for dairy industry. o New product development flow sheet.
A15	B.Tech-Food Technology	2018	16FT304	Fruits & Vegetables Processing	Skill development o Report on nutritional composition, processing and storage considerations for a particular fruit / vegetable product.
A15	B.Tech-Food Technology	2018	16FT305	Food Packaging	Skill development o Prepare database for packaging materials with their functional properties. o Report on national and international packaging standards
A15	B.Tech-Food Technology	2018	16FT306	Food Safety & Standards	Employability o Identify Hazards and categorize them based on their severity o Construct a chart with allergens associated with various food products. o Prepare HACCP plan for any food industry
A15	B.Tech-Food Technology	2018	16FT307	Instrumental Methods of Food Analysis	Skill development o Sample preparation procedure to find mineral composition in finger millet. o HPLC, GC data interpretation. o Significance test for given experimental data. o DSC, TGA data interpretation.
A15	B.Tech-Food Technology	2018	16FT308	Nutraceutical & Functional Foods	Skill development o Report on bioactive compounds and their functional role. o Report on global market policy and regulatory aspects for FFN.
A15	B.Tech-Food Technology	2018	16FT350	Grain Storage Technology	Skill development o Identify different types of pest management practices in storage house o Case study on problems in drying and storage of grains

A15	B.Tech-Food Technology	2018	16FT351	Maintenance of Food Equipment	Employability o Prepare a detailed plan for maintenance of milk processing equipment. o Case study on life cycle cost estimation and analysis of any small scale food industry.
A15	B.Tech-Food Technology	2018	16FT352	Food Toxicology Agrochemical Residues in Food	Skill development o Survey on various sources of toxins in food. o Calculation of MRL and NOAEL values of different food toxins and agrochemical residues.
A15	B.Tech-Food Technology	2018	16FT353	Instrumentation and Process Control in Food Processing	Employability o Preparation of report on usage and operation of different process control equipments
A15	B.Tech-Food Technology	2018	16FT354	Strategy and Marketing of Food Products	Employability o Develop a new product and plan marketing strategy o Survey on source of raw material and marketing of finished product
A15	B.Tech-Food Technology	2018	16FT360	Sugar & Jaggery Processing Technology	Skill development o Report on by product utilization. o Report on packaging material used for sugar jaggery products o Study FSSAI manual for sugar and jaggery products
A15	B.Tech-Food Technology	2018	16FT361	Engineering Properties of Food Materials	Skill development o Measure engineering properties of local variety cereal grains. o Estimate gravimetric properties of food powders.
A15	B.Tech-Food Technology	2018	16FT362	Total Quality Management for Food industries	Skill development o Prepare quality control chart for quality analysis of food o Prepare HACCP plan for any food industry
A15	B.Tech-Food Technology	2018	16FT363	Waste Management and Byproduct Utilization in Food industries	Skill development o Design and suggest novel ideas for management, treatment and utilization of food industry waste and byproducts.
A15	B.Tech-Food Technology	2018	16FT364	Cross National Co-operative and international investment	Skill development o Case study on different financial institutes o Case study on development of co-operative societies
A16	B.Tech-Biomedical Engineering	2018	16BM301	Analog & Digital Communication	Skill development (Implement different Digital modulation schemes using Matlab. ON-OFF Keying used in optical communication)
A16	B.Tech-Biomedical Engineering	2018	16BM302	Biocontrol Systems	Skill development (Design inverting amplifier and voltage follower used in Buffers. Design Integrator)
A16	B.Tech-Biomedical Engineering	2018	16BM303	Biomedical Instrumentation	Employability(Analyze Biomedical signals using kits)
A16	B.Tech-Biomedical Engineering	2018	16BM304	Fundamentals of Microcontrollers	Employability (Interface a 16x2 LCD with 8051.)
A16	B.Tech-Biomedical Engineering	2018	16BM305	Biomedical Signal Processing	Skill development (Find the response of the given LTI system using impulse input. Find the response of the given LTI system using step input.)
A16	B.Tech-Biomedical Engineering	2018	16BM306	Diagnostic & Therapeutic Equipment	Employability(Analyse of principles behind holter monitoring, defibrillators and other monitoring systems.)
A16	B.Tech-Biomedical Engineering	2018	16BM307	Medical informatics	Skill development(Work on pac systems and the complications induced while data capture.)
A16	B.Tech-Biomedical Engineering	2018	16BM308	Medical Imaging Techniques	Employability(Image markings, segmentation and registration of images.)
A16	B.Tech-Biomedical Engineering	2018	16BM340	Electromagnetic Biointeraction	Skill development (ascertain the EM safety and interaction with the patients)
A16	B.Tech-Biomedical Engineering	2018	16BM341	Bioinformatics	Skill development (differentiate between a clean data and a filtered data to move towards filter techniques)
A16	B.Tech-Biomedical Engineering	2018	16BM342	Assist Devices	Skill development(To provide the technical support to the assistive models)
A16	B.Tech-Biomedical Engineering	2018	16BM343	Tissue Engineering	Skill development (ascertain the interaction of the tissue with grafts)
A16	B.Tech-Biomedical Engineering	2018	16BM344	Fiber Optics & Lasers in Medicine	Skill development (Find NA and attenuation of a given fibre.)
A16	B.Tech-Biomedical Engineering	2018	16BM350	Bio Mem	Skill development(To use BioMem for supporting of management)
A16	B.Tech-Biomedical Engineering	2018	16BM360	Computer Organization	Skill development (Determine the bus interfacing and protocol involved.)
A16	B.Tech-Biomedical Engineering	2018	16BM361	Internet and Java Programming	Skill development (Develop college enrollment system for VFSTR)
A16	B.Tech-Biomedical Engineering	2018	BM401	Medical Imaging Techniques	Employability (perform techniques of US standing wave on the water volme using US diathermy.)
A16	B.Tech-Biomedical Engineering	2018	BM402	Telemedicine	Skill development(Safely transfer data wirelessly to meet data security.)
A16	B.Tech-Biomedical Engineering	2018	BM403	Digital Image Processing	Skill development (acquisition by using various resolution cameras and comparison of visual quality variation.)
A16	B.Tech-Biomedical Engineering	2018	BM404	Bio Transport Process	Skill development (Ascertain the transport of glucose in liver)
A16	B.Tech-Biomedical Engineering	2018	BM405	Rehabilitation Engineering	Skill development(Impart techniques for people with differently enabled.)
A16	B.Tech-Biomedical Engineering	2018	BM406	Neural Engineering	Skill development (Find NA and attenuation of a given fibre.)
A16	B.Tech-Biomedical Engineering	2018	BM407	Wearable Systems	Employability(To be well versed with the operational procedures of a biomedical Engineer)
A16	B.Tech-Biomedical Engineering	2018	BM408	Tissue Engineering	Employability (Evaluate the tissue interaction with the graft in knee)
A16	B.Tech-Biomedical Engineering	2018	BM409	Hospital Management	Entrepreneurship(clarify the NABH procedures in the ICU)
A16	B.Tech-Biomedical Engineering	2018	BM410	Bio Mem	Skill development (development of a variety of diagnostic and therapeutic applications, intelligent biochips and sensors.)
A16	B.Tech-Biomedical Engineering	2018	BM411	Assist Devices	Employability (Evaluate the heating and cooling conditions required for the lower limb pain relief)
A16	B.Tech-Biomedical Engineering	2018	BM412	Medical Physics	Employability(Inverse square law and KERMA calculation.)
A16	B.Tech-Biomedical Engineering	2018	BM413	Fiber Optics & Lasers in Medicine	Employability (determine the interface patterns and principle of hologram)
A16	B.Tech-Biomedical Engineering	2018	BM414	Project	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A16	B.Tech-Biomedical Engineering	2018	BM415	Digital Image Processing Lab	Employability(Histogram equalization of an medical image)
A16	B.Tech-Biomedical Engineering	2018	BM416	Internship	Employability(Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
A16	B.Tech-Biomedical Engineering	2018	BM417	Data Structures Lab	Skill development (Implement a project to findout a common words in an article.)
A16	B.Tech-Biomedical Engineering	2018	BM419	Hospital Visit	Employability(observe the maintenance records of a NABH in inspections)
A17	B.Tech-Petroleum Engineering	2018	16PL301	Process Dynamics & Control	Skill development 1. Apply the advance control strategies 2. Tune process controllers 3. To describe quantitatively the behavior of simple control systems and to design control systems 4. To get exposure to advanced control strategies 5. To design and tune a control loop and to apply this knowledge in the industry/laboratory

A17	B.Tech-Petroleum Engineering	2018	16PL302	Drilling Technology	Skill development 1. Describe processes associated with directional drilling and its uses in exploration and production. 2. An ability to apply effective, creative and innovative solutions, both independently and cooperatively, to current and future problems. 3. Analysis of critical safety parameters associated with drilling, such as safe drilling window, pore pressure, fracture pressure and collapse pressure.
A17	B.Tech-Petroleum Engineering	2018	16PL303	Process instrumentation	Skill development o Temperature measurement with electrical systems o Flow measurement with different devices o Select a suitable measurement device for a given application.
A17	B.Tech-Petroleum Engineering	2018	16PL304	Well Logging & formation Evaluation	Skill development o Recognize the fundamental physics of log measurements and perform log quality control. o Perform basic log interpretation to identify and characterize reservoirs.
A17	B.Tech-Petroleum Engineering	2018	16PL305	Petroleum Reservoir Engineering	Skill development o Estimate the reserves of various sands of the reservoir from well data. o Calculate the formation damage and can recommend suitable stimulation operations to reverse the wells.
A17	B.Tech-Petroleum Engineering	2018	16PL306	Petroleum Production Engineering	Skill development o Application of suitable artificial lifts on reservoir energy depletion o Crisis management.
A17	B.Tech-Petroleum Engineering	2018	16PL307	Surface Production Operations	Skill development o Able to draw layout of petroleum industry. o Calibration of venturi and orifice meter.
A17	B.Tech-Petroleum Engineering	2018	16PL308	Petroleum Economics & Asset Management	Skill development o Carry out a project risk evaluation, breakeven and sensitivity analysis and develop a model to know which petroleum projects is viable and relative priority.
A17	B.Tech-Petroleum Engineering	2018	16PL340	Petroleum Refinery Engineering	Skill development o Application of suitable processes (such as alkylation, reforming, isomerization) for converting light ends/ naphtha cuts to meet the desired gasoline blends. o Understanding of various petrochemical feed stocks and their origin from refining/gas processes. o Knowledge of various petrochemical products in the market and best available technologies to produce them.
A17	B.Tech-Petroleum Engineering	2018	16PL341	Advanced Natural Gas Engineering	Employability o Case study on material and energy balances around the natural gas reservoir. o Case study on analysis of well production.
A17	B.Tech-Petroleum Engineering	2018	16PL342	Mass Transfer Operations	Employability o Estimate the diffusion coefficients for binary and ternary mixtures. o Suggest specifications for designing mass transfer equipment. o Test the working condition of the humidifier and dehumidifier. o Test and design of gas-liquid contact equipment. o Test the virtual mass transfer operations.
A17	B.Tech-Petroleum Engineering	2018	16PL350	Fundamentals of LNG	Skill development o Classify different liquefaction techniques. o Understand different units in LNG processing and transportation. o Have knowledge associated with safety aspects of LNG.
A17	B.Tech-Petroleum Engineering	2018	16PL351	Reservoir Modeling and Simulation	Skill development o Single-phase fluid equations in multiple dimensions. o Volume finite difference approaches. o Block centered grids. o Point distributed grids. o Well representation.
A17	B.Tech-Petroleum Engineering	2018	16PL352	Chemical Reaction Engineering	Employability o Estimate the temperature and concentration dependency of rate equation. o Carry out experiments to obtain the kinetic data. o Determine the kinetic model parameters. o Design ideal reactor for the given duty.
A17	B.Tech-Petroleum Engineering	2018	PL401	Health,Safety & Environment	Skill development o Classify different liquefaction techniques. o Understand different units in LNG processing and transportation. o Have knowledge associated with safety aspects of LNG.
A17	B.Tech-Petroleum Engineering	2018	PL402	Oil & Gas Process Plant Design	Skill development o Knowledge of Hazop in drilling rigs & production installations. o Knowledge of disaster management to fight any fire accident at drilling rig/ production installation/production platform.)
A17	B.Tech-Petroleum Engineering	2018	PL403	Petroleum Reservoir Engineering - II	Skill development o Methodology for designing petroleum equipments. o Engineering drawing procedure for equipments. o Design of drill bits. o Design of surface facilities. o Design of stabilization and refinery equipments.
A17	B.Tech-Petroleum Engineering	2018	PL404	Enhanced oil Recovery Methods	Skill development o Identify equipments required for production and refining of crude oil. o Analyze crude oil quality using standardized test methods. o Suggest catalyst for refining operations. o Proficiency on petrochemicals production methods.
A17	B.Tech-Petroleum Engineering	2018	PL412	Internship	Skill development o Have the knowledge of that specific reservoir before designing of any EOR project. o Be a very good team members in the multidiscipline team where key decisions can be taken in this project work. o Be a very good operator and maintenance engineer of EOR techniques. o Take all safety precautions while handling of various types of chemicals used in EOR. o Become good reservoir managers / production engineers in monitoring the reservoir after post project activities. o Handle the wells during work over operations.
A17	B.Tech-Petroleum Engineering	2018	PL421	Petroleum Reservoir Engineering-II lab	Employability o Implementation of Industry oriented project
A17	B.Tech-Petroleum Engineering	2018	PL423	Enhanced Oil Recovery Methods Lab	Skill development o Estimate the reserves of various sands of the reservoir from well data. o Calculate the formation damage and can recommend suitable stimulation operations to reverse the wells.
A17	B.Tech-Petroleum Engineering	2018	PL424	Oil & Gas Process Plant Design Lab	Skill development o Have the knowledge of that specific reservoir before designing of any EOR project. o Be a very good team members in the multidiscipline team where key decisions can be taken in this project work. o Be a very good operator and maintenance engineer of EOR techniques. o Take all safety precautions while handling of various types of chemicals used in EOR. o Become good reservoir managers / production engineers in monitoring the reservoir after post project activities. o Handle the wells during work over operations.
A17	B.Tech-Petroleum Engineering	2018	PL441	Reservoir Stimulation	Skill development o Methodology for designing petroleum equipments. o Engineering drawing procedure for equipments. o Design of drill bits. o Design of surface facilities. o Design of stabilization and refinery equipments.

C01	Master of Business Administration	2018	17MB201	Strategic Management	Employability(1. Select a high profile industry such as IT or Entertainment industry. Identify major Competitors and analyze the type of corporate level of strategies being used by firms. 2. Identify a business group (e.g. Reliance) that has relied extensively on Backward Integration as expansion corporate level strategy. Analyze reasons why company chose to do so. 3. List a few recent instances of Indian companies that adopted diversification strategies and make observations on why these companies diversified and types of diversification used. 4. Pick up several business magazines. Locate corporate reports of different types of companies according to different factors such as industry – size or type. Analyze these reports to identify types of corporate level strategies – the companies chosen by you are employing. 5. Analyze the following trends and extrapolate their implications for strategy formulation within companies (i) rising population (ii) crisis in higher education sector (iii) spread of Internet culture (iv) deplorable state of public utilities.)
C01	Master of Business Administration	2018	17MB202	International Business	Employability(Prepare a Report on the following: 1. Global trading environment and institutions aid global trading 2. Role of Technology in global business and International logistics 3. Indian foreign trade policy in conjunction with global trade and legal framework 4. Export and import procedures, promotions and policies)
C01	Master of Business Administration	2018	17MB203	Entrepreneurship & Business Plan	Entrepreneurship (1. Prepare a brief case study based on any successful local entrepreneur by analyzing the failures and success factors. 2. List out and analyze the profiles of any three new age Entrepreneurs.)
C01	Master of Business Administration	2018	17MB204	Project Management	Employability(1. Prepare a work break down structure for a given Project. 2. Apply Network Technique and calculate critical path for a given Project. 3. Project risk analysis – Identify a project and conduct risk analysis. 4. Identify a project and list out the major activities that can be outsourced to the companies 5. Prepare a project control report for a given project.)
C01	Master of Business Administration	2018	17MB205	Marketing Research	Employability(1. To collect the data regarding any phenomenon in the form of both primary and secondary. 2. To make out an effective research design process for an identified problem. 3. Appropriate questionnaires can be designed to fulfill the research objectives. 4. Association and Variance analysis can be measured between variables. 5. Causal relationship between the variables can be analyzed.)
C01	Master of Business Administration	2018	17MB206	Innovation and Product Development	Employability(1. Visit any software company and identify how they manage the innovation. 2. Prepare a report on Technology transfer models followed by a company that you have visited recently. 3. Identify the new product development (NPD) strategies followed by a company known to you. 4. Prepare a report on new product opportunities generated through packaging in the recent past. 5. Select a product, conduct market research and prepare market survey report.)
C01	Master of Business Administration	2018	17MB207	Retailing Management	Employability(1. To collect information regarding some of the major retail brand names in the world. 2. To study the advantages and disadvantages in the retail sector. 3. To study the role of malls in retail marketing. 4. A report to be made on industries directly dependent on different modes of transport systems in India. 5. Changes in retail chain management.)
C01	Master of Business Administration	2018	17MB208	Advertising & Brand Management	Employability(1. Build a model of Promotion mix which gives the best utilitarian value for the business firms. 2. Appropriate media plans can be developed. 3. Adequate knowledge on advertising agencies in India. 4. Brand building can be planned effectively for different segments. 5. Case study development on Brand repositioning.)
C01	Master of Business Administration	2018	17MB209	Consumer Behavior	Employability(1. Collect five print ads of products, which are directed at the life style segments. Describe the lifestyle that these ads focus on. 2. Construct a brand personality inventory for two different brands in the same product category. Ask five of your friends to rate each brand on ten different personality dimensions. Do these brand personalities relate to the advertising strategies to differentiate these brands? 3. Mention five examples each of classical conditioning instrumental conditioning and cognitive learning used in advertising. 4. Positive Re-enforcement b. Negative Re-enforcement)
C01	Master of Business Administration	2018	17MB210	Services Marketing	Employability(1. Find five effective service advertisements in newspapers and magazines. According to the criteria given in this chapter, identify why they are effective. Critique them using the list of criteria and discuss ways they could be improved. 2. Consider that you are the owner of a new private college and can prepare a value/price package that is appealing to students. Describe your approach. How does it differ from existing offerings? 3. Visit a service provider of your choice. Experience the service firsthand if possible and observe other customers for a period of time. Describe the consumers experience in detail in terms of what happened throughout the process and how customers, including yourself, felt about it. How could the service experience be improved? 4. Try a service you have never tried before on the internet. Analyze the benefits of this service. Was enough information provided to make the service easy to use? How would you compare this service to other methods of obtaining the same benefits? 5. List five incidents in which a service company has exceeded your expectations. How did you react to the service? Did these incidents change the way you viewed subsequent interactions with the companies? In what way?)
C01	Master of Business Administration	2018	17MB211	Sales & Distribution Management	Employability(1. Assigning role play situations to improve the selling skills of the students. 2. Giving case let to improve the analytical and decision making skills of the students. 3. Asking the students to design the distribution channels by giving them some products.)
C01	Master of Business Administration	2018	17MB212	Digital Marketing	Employability(1. To get well versed with Google AdWords and Google tools 2. Free tools for website designing. 3. Understanding the various measures taken to relate to enhance Public relations. 4. Create and maintain a page on Social Media Eg: Facebook- Twitter- InstagramLinkedIn. 5. Help a start up promote their local business using Google AdWords or Facebook Promotes.)
C01	Master of Business Administration	2018	17MB213	Security Analysis and Portfolio Management	Employability(1. Read any two related international treaties & write a report 2. Project on security analysis 3. Project on portfolio management)
C01	Master of Business Administration	2018	17MB214	Financial Derivatives	Employability(1. To study the role of derivatives in financial markets 2. Project on financial derivatives 3. What is role of financial derivatives)

C01	Master of Business Administration	2018	17MB215	International Financial Management	Employability(1. Read any two related international treaties & write a report. 2. Follow any latest cross-border merger and evaluate its outcomes. 3. Work out on cross-currency valuations. 4. Evaluate the role of any two International Agencies. 5. Bring out the role of GST in being tax guardian to end-users.)
C01	Master of Business Administration	2018	17MB216	Financial Engineering	Employability(1. Project on capital allocation 2. Report financing options 3. GD on financial topics regards to subject 4. Analysis of financial instruments)
C01	Master of Business Administration	2018	17MB217	Management of Financial Services	Employability(1. Role play on CRM practices in banks 2. Project on short-term securities 3. Presentation on financial services 4. GD on topics related to subject)
C01	Master of Business Administration	2018	17MB218	Risk Management	Employability(1. Work out on cross-currency valuations.. 2. Project on foreign exchange 3. Project on risk management)
C01	Master of Business Administration	2018	17MB219	Project Finance	Employability(1. A case study on different types of finance techniques 2. Group discussion on long run and short run finances 3. Presentations on finances of the project 4. Project approval methods and techniques)
C01	Master of Business Administration	2018	17MB220	Strategic Financial Management	Employability(1. Project on strategic financial management 2. Role play on the project 3. Case studies discussion in the class)
C01	Master of Business Administration	2018	17MB221	Industrial Relations and Labour Laws	Employability(1. Conduct a Study on effectiveness of TU in APSRTC in selected units 2. Find out the collective Bargaining procedure in selected sugar factory 3. Analyse the effectiveness of The Workmen's Compensation Act, 1923 – The ESI Act, 1948 – The Payment of Wages Act, 1936 – in any manufacturing sector 4. The Minimum Wages Act, 1948 – The Payment of Bonus Act, 1965 – The Payment of Gratuity Act, 1972 – The EPF Act, 1952 in any pharma company)
C01	Master of Business Administration	2018	17MB222	Performance & Compensation Management	Employability(1. Find out staffing strategy of any 2 companies 2. Conduct a survey on importance of HR planning in any 2 IT based companies)
C01	Master of Business Administration	2018	17MB223	Talent Planning and Acquisition	Employability(1. Find out staffing strategy of any 2 companies 2. Conduct a survey on importance of HR planning in any 2 IT based companies 3. Study Attracting strategies of any 2 companies of financial institution 4. List out the latest trends in Recruitment 5. Study orientation programs offered by any 2 companies of IT sector)
C01	Master of Business Administration	2018	17MB224	Strategic and International HRM	Employability(1. Chart out the methods of appraising employees of any MNC organization of your choice. 2. List out the HR policies of any MNC company. 3. Select any two companies of your choice and write its HR policies)
C01	Master of Business Administration	2018	17MB225	Learning and Development	Employability(1. List out Training practices of any 2 telecommunication companies 2. Conduct a study on designing Training programs of banking sector 3. Study the effectiveness of Training programs of any 2 service sector related companies 4. Find out group building activities of any MNC company 5. Analyse any special issues of T&D programs)
C01	Master of Business Administration	2018	17MB226	HR Analytics and Metrics	Employability(1. Identify the applications of business analytics in HR 2. Collect the data from various industries and present the data suitable visualizations techniques.)
C01	Master of Business Administration	2018	17MB227	Talent Management & Succession Planning	Employability(1. Find out staffing strategy of any 2 companies 2. Conduct a survey on importance of HR planning in any 2 IT based companies 3. Study Attracting strategies of any 2 companies of financial institution 4. List out the latest trends in Recruitment 5. Study orientation programs offered by any 2 companies of IT sector)
C01	Master of Business Administration	2018	17MB228	Organization Development and Change	Employability(1. List out Training practices of any 2 telecommunication companies 2. Conduct a study on designing Training programs of banking sector 3. Study the effectiveness of Training programs of any 2 service sector related companies)
C01	Master of Business Administration	2018	17MB229	Industrial and Organizational Psychology	Employability(1. Identify the leadership styles of any 2 organisations 2. Survey the Job satisfaction levels of any BPO company 3. Study the motivational factors of any 2 banks 4. Analyse the Industrial Psychological influencing factors of Indian & foreign organizations 5. By using Minnesota Satisfaction, Questionnaire analyse job satisfaction levels of any organisation)
C01	Master of Business Administration	2018	17MB230	Leadership & People Management	Employability(1. Study Attracting strategies of any 2 companies of financial institution 2. List out the latest trends in Recruitment 3. Study orientation programs offered by any 2 companies of IT sector)
C01	Master of Business Administration	2018	17MB231	Service Management	Employability(1. Visit any service sector organization and prepare the report on service operations 2. Prepare a service blue print for a service organization. 3. Visit any service sector organization and prepare the report on service strategies followed by the organization. 4. Prepare a queuing model for a service sector organization nearer to you. 5. Visit any service sector organization and prepare the report on service quality measures followed by the organization.)
C01	Master of Business Administration	2018	17MB232	Innovation and Product Development	Employability(1. Visit any software company and identify how they manage the innovation. 2. Prepare a report on Technology transfer models followed by a company that you have visited recently. 3. Identify the new product development (NPD) strategies followed by a company known to you. 4. Prepare a report on new product opportunities generated through packaging in the recent past. 5. Select a product, conduct market research and prepare market survey report.)
C01	Master of Business Administration	2018	17MB233	Supply Chain Management	Employability(1. Visit any company and prepare the report on supply chain strategies followed by them. 2. Prepare a report on supply chain matrices followed by manufacturing company that you have visited recently. 3. Visit any company and benchmark the logistics and supply chain operations with the best company in the industry. 4. Prepare a report on retail store optimum inventory management methods 5. Visit any organization and prepare the report on its global SCM.)
C01	Master of Business Administration	2018	17MB234	Competitive Manufacturing Management	Employability(1. Summarize the elements of competitive manufacturing strategy of a MNC 2. Design the processing system for product/service)
C01	Master of Business Administration	2018	17MB235	Essentials of Business analytics	Employability(1. Identify the applications of business analytics in HR, Marketing, Finance operations, etc. 2. Collect the data from various industries and present the data suitable visualizations techniques. 3. Collect the data of income and adv. expenditure / price of the companies. Develop the scatter plots and estimate the regression line. Estimate the income for the future. 4. Identify the various decision-making environments in the organizations.)

C01	Master of Business Administration	2018	17MB236	Predictive Analytics for Managers	Employability(1. Collect the data of income and adv. expenditure / price of the companies. Develop the scatter plots and estimate the regression line. Estimate the income for the future. 2. Identify the various decision-making environments in the organizations.)
C01	Master of Business Administration	2018	17MB237	Technology Management	Employability(1. Visit any company and identify the Key issues in managing technological innovation. 2. Prepare a report on Technology acquisition methods followed by a company that you have visited recently. 3. Identify the Technology Forecasting Process followed by a software company known to you in the industry. 4. Prepare a report on how the Technology strategy is decided in a company. 5. Visit any R & D organization and prepare the report on its R&D Operations management.)
C01	Master of Business Administration	2018	17MB238	Enterprise Resource Planning	Employability(1. Identify and Analyze the strategic options for ERP identification and adoption by an MNC 2. Design the ERP implementation strategies 3. Create reengineered business processes for successful ERP implementation.)
C01	Master of Business Administration	2018	17MB239	Operations Strategy	Employability(1. Visit any company and identify the operations strategies followed by them. 2. Prepare a report on TQM implementation process followed by a company that you have visited recently. 3. Identify the purchasing and process Technologies followed by a company known to you. 4. Prepare a report on improvement strategies of a company you have visited. 5. Visit any company and prepare the report on its process Operations strategies.)
C01	Master of Business Administration	2018	17MB240	Productivity Improvement and Cost Control	Employability(1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities 3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement. 4. List out the functions of materials management in an organization. 5. Visit any industry and list out the various quality measures /maintenance methods adopted.)
C01	Master of Business Administration	2018	17MB241	Analytical Skills for Managers-I	Employability 1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities 3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement. 4. List out the functions of materials management in an organization. 5. Visit any industry and list out the various quality measures /maintenance methods adopted.
C01	Master of Business Administration	2018	17MB242	Analytical Skills for Managers-II	Skill development 1. Choose an area of interest, review a minimum of 4 literature on the same and formulate a topic for prospective research. 2. For a given topic – collect data through primary and secondary sources. 3. For a given data, analyze data using various statistical tools. 4. For a given case study, prepare a research report in the required format
C01	Master of Business Administration	2018	17MB243	Summer Internship Assessment	Skill development (Task issues by the company guide in your respective specialization)
C01	Master of Business Administration	2018	17MB244	Project Work	Employability (Activities: Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
D01	Master of Computer Applications	2018	18MC101	Computer Programming and Problem Solving	Skill development(Implementation of matrix operation and manipulation functions)
D01	Master of Computer Applications	2018	18MC102	Data Structures	Skill development(Library management system)
D01	Master of Computer Applications	2018	18MC103	Internet and Web Technologies	Skill development(Installation and configuring the Web Server)
D01	Master of Computer Applications	2018	18MC104	Object Oriented Programming Through Java	Skill development(Hotel Management System)
D01	Master of Computer Applications	2018	18MC105	Digital Computer Fundamentals	Skill development(Design of Logical circuits using universal gates and basics gates)
D01	Master of Computer Applications	2018	18MC106	Computer Organization	Skill development(Simulate arithmetic, logic and shift operations)
D01	Master of Computer Applications	2018	18MC107	Discrete Mathematical Structures	Employability(Construction of Logical Circuits using Truth Tables)
D01	Master of Computer Applications	2018	18MC108	Probability and Statistics	Skill development(Calculate and interpret correlation coefficient and regression lines)
D01	Master of Computer Applications	2018	18MC109	Technical English Communication	Skill development(Completing graded grammar exercises in Rosetta Stone)
D01	Master of Computer Applications	2018	18MC110	Principles and Practices of Management	Skill development(Process of organisation and delegation of authority)
D01	Master of Computer Applications	2018	18MC111	IT Workshop	Skill development(Installation of various softwares)
D01	Master of Computer Applications	2018	18MC120	Soft Skills Lab	Skill development(Learning, Speaking, Reading & Writing)
G30	Ph.D - Physics	2018	PH273	CARBON NANOMATERIALS	Employability
G32	Ph.D - Mathematics	2018	PH269	ADVANCED CALCULUS	Employability
G32	Ph.D - Mathematics	2018	PH270	ALGEBRAIC TOPOLOGY	Employability
G32	Ph.D - Mathematics	2018	PH287	Statistics	Employability
G33	Ph.D - English	2018	PH272	Black Literature	Employability
G33	Ph.D - English	2018	PH274	Indian Corporate English- Interpersonal Communication Skills	Employability
G33	Ph.D - English	2018	PH275	Indian Literary Criticism and Poetics	Employability
G33	Ph.D - English	2018	PH277	Innovative and Promising Trends in ELT	Employability
G33	Ph.D - English	2018	PH279	Technical Writing Course	Employability
G33	Ph.D - English	2018	PH280	Using Technology in Developing Reading Skills in EFL Students	Employability
G35	Ph.D - Computer applications	2018	PH276	Network security & cryptography	Employability
J01	Bachelor of Computer Applications	2018	18BC101	Digital Computer Fundamentals	Skill development(Design of Logical circuits using universal gates and basics gates)
J01	Bachelor of Computer Applications	2018	18BC102	Data Structures	Skill development(Library Management System)
J01	Bachelor of Computer Applications	2018	18BC103	Problem Solving through C	Skill development(Implementation of Matrix operations)
J01	Bachelor of Computer Applications	2018	18BC104	Object Oriented Programming through Java	Skill development(Hotel Management System)
J01	Bachelor of Computer Applications	2018	18BC105	Technical Communication English	Skill development(Completing graded grammar exercise in Rosetta stone)
J01	Bachelor of Computer Applications	2018	18BC106	Operating Systems	Skill development(Identification and Installation of Various Operating system)
J01	Bachelor of Computer Applications	2018	18BC107	Discrete Mathematical Structures	Employability(Construction of Logical Circuits using Truth Tables)
J01	Bachelor of Computer Applications	2018	18BC108	Probability and Statistics	Employability((Test Hypothesis for Population Parameter)
J01	Bachelor of Computer Applications	2018	18BC109	IT Workshop Laboratory	Skill development(Identification of Peripherals of Computer)
J01	Bachelor of Computer Applications	2018	18BC110	Soft Skills Laboratory	Skill development(Formal and Informal Communication)

J01	Bachelor of Computer Applications	2018	18BC111	Linux Basics and Shell Scripting Laboratory	Skill development(To develop the basic scripting language for running operating systems)
K01	Bachelor of Business Administration	2018	17BB201	Business Environment	Employability-1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.
K01	Bachelor of Business Administration	2018	17BB202	Marketing Management	Employability-1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company. 3. Observe the Distribution Network of a Company 4. List out Product Line of a company and note line modernization or deletion. 5. Draw a Product Life Cycle with regard to a particular product of a company and observe its extension.
K01	Bachelor of Business Administration	2018	17BB203	Management Accounting	Employability-1. Collect financial statements of any one organization for two years. 2. Calculation of ratios based on the above financial statement: Profitability ratios – Gross Profit Ratio – Net Profit Ratio – ROCE – Current Ratio – Liquid Ratio. 3. Draft imaginary Budget reports. 4. Draft an imaginary Management Report.
K01	Bachelor of Business Administration	2018	17BB204	Business Finance	Employability-1. To collect and scrutinize share application forms of IPOs. 2. To calculate the EPS of various companies. 3. To determine the operating cycle for a manufacturing and non – manufacturing firm. 4. To visit banks and collect information regarding short term and medium term finance offered by them. 5. To track the dividend policies of some well known companies.
K01	Bachelor of Business Administration	2018	17BB205	Indian Banking & insurance	Employability-1. To collect information regarding the various services offered by banks. 2. To track the changes in services offered by banks over the years. 3. What is the impact of GST on banking sector? 4. Case studies on banking sector 5. Demonstration effect on banking sector
K01	Bachelor of Business Administration	2018	17BB206	Human Resource Management	Employability-1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies. 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
K01	Bachelor of Business Administration	2018	17BB207	Business Laws	Employability-1. Draft a 'rent agreement' incorporating all the essential features of a valid agreement. 2. Draft the Memorandum of Association of a company.
K01	Bachelor of Business Administration	2018	17BB208	Operations Management	Employability-Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administration	2018	17BB209	Business Research Methods	Employability-1. Choose an area of interest. review a minimum of 4 literature on the same and formulate a topic for prospective research. 2. For a given topic – collect data through primary and secondary sources. 3. For a given data, analyze data using various statistical tools 4. For a given case study, prepare a research report in the required format.
K01	Bachelor of Business Administration	2018	17BB210	Direct Taxation	Employability-1. Form No. 49A (PAN) and 49B. 2. Filing of Income Tax Returns. 3. List of enclosures to be made along with IT returns (with reference to salary & H.P). 4. Preparation of Form-16. 5. Computation of Income Tax and the Slab Rates. 6. Computation of Gratuity. 7. Chart on perquisites. 8. List of enclosures to be made along with IT returns (with reference to salary and house property incomes).
K01	Bachelor of Business Administration	2018	17BB211	BECC	Employability-1. List out the various cyber offences and the penalties for the same. 2. List at least 3 MNCs of G-8 Countries operating in India along with products they manufacture. 3. Collect the latest Fiscal, Monetary Policies on business 4. Students are expected to study any five CSR initiatives by Indian organizations and submit a report for the same. 5. A group assignment on "The relationship between Business houses and Society in Indian Context and relating the same with respect to the models studied. 6. Mini Project: Collect details of unethical practices by businesses in today's context in the areas of Production, Marketing, HRM, and Financial services and make a report. 7. Case studies/Role plays related ethical issues in business with respect to Indian context.
K01	Bachelor of Business Administration	2018	17BB212	Company Law	Employability-1. Compare different types of companies and the difference between a company and a partnership firm 2. Acquaint with the concepts of incorporation of a company, Promoter and Prospectus. 3. Hone the abilities to design MOA and AOA.
K01	Bachelor of Business Administration	2018	17BB213	Soft Skills Lab	Skill development-Activity: Setting a SMART goal - SWOT analysis of the self – Writing a Statement of Purpose
K01	Bachelor of Business Administration	2018	17BB214	Professional Communication Lab	Skill development-Draft a letter to communicate your idea, its specifications and unique strategy
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS020	Business English Communication I	Skill development(To learn the basics in english for managing the business)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS021	Business English Communication II	Skill development (To develop the english communication and learn skills through advanced business level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS022	Analytical Skills I	Employability 1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities 3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement.
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS023	General Studies II	Skill development (To gain the knowledge on social related issues)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS024	Group Theory	Skill development(Group theory is a mathematical topic that is usually reserved for upper-level undergraduate courses. In this thesis, we will explicitly show the connection between group theory and fundamental mathematics)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS025	Statistical Methods	Skill development (This hands-on activity enables students to grasp the relationship between a population and a sample. Confirming the parameters with different statistics that are used at specified level of significance)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS026	Data Structures	Employability (Design and Implement a School Management System)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS027	Statistical Methods Lab	Skill development (Statistical methods are used to solve the problems)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS028	Data Structures Lab	Skill development (Implement a project to find out a common words in an article.)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS029	Analytical Skills II	Employability 1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS030	General Studies III	Skill development (To gain the knowledge on social related issues)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS031	Employability Skills	Employability(To develop the communication skills for job oriented)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS032	Human Values / Professional Ethics	Skill development(Social economic values of nature to protect professional ethics)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS033	Real Analysis	Skill development(This suite of five interactive applets (written with GeoGebra) allows exploration of definitions and theorems commonly presented in first-year analysis courses. Topics include sequence convergence, continuity at a point, the Mean Value theorem, Taylor series, and Riemann sums. Included with each applet is a pair of activities: one for becoming comfortable using the applet, and one for using the applet to explore the associated topic in depth.)

M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS034	Statistical Inference	Skill development(This suite of five interactive applets (written with GeoGebra) allows exploration of definitions and theorems commonly presented in first-year analysis courses. Topics include sequence convergence, continuity at a point, the Mean Value theorem, Taylor series, and Riemann sums. Included with each applet is a pair of activities: one for becoming comfortable using the applet, and one for using the applet to explore the associated topic in depth.)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS035	Statistical Inference Lab	Skill development (Estimating the parameters is crucial in statistical inference so as to test the parameters of the population with different samples. Estimating confidence intervals and performing hypothesis tests for a single sample mean, single sample proportion and other statistics is a good practice for making inferences on the population studies.)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS036	Object Oriented Programming Using Java	Skill development(Working on JAVA for the development through programming language)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2018	17HS037	Object Oriented Programming Using Java Lab	Skill development(Working on JAVA for the development through programming language laboratory level)
N01	Bachelor of Pharmacy	2018	18BP001	Human Anatomy and Physiology I – Theory	Skill development 1. Focus the microscope under 10X, 40X and 100X 2. Determine the Blood group of the given sample 3. Calculate the number of Red Blood cells in the given sample 4. Calculate the number of White Blood cells in the given sample 5. Record the Blood Pressure of the given subject
N01	Bachelor of Pharmacy	2018	18BP002	Pharmaceutical Analysis I – Theory	Employability 1. Estimate the pH for the given sample. 2. Measure the conductance of the given sample 3. Measure the percent purity for the given samples by assay procedures. 4. Estimate the amount of samples by different titration procedures. 5. Techniques to minimise the errors during the analysis of samples.
N01	Bachelor of Pharmacy	2018	18BP003	Pharmaceutics I – Theory	Employability 1. Weigh the various samples, handle different analytical balances and glasswares 2. Calculate the pharmaceutical dose calculations based on age, body weight and body surface area. 3. Prepare various conventional dosage forms like syrups and Elixirs 4. Prepare and evaluate dosage forms like suspensions and emulsions 5. Prepare dosage forms like suppositories, ointments, and gel
N01	Bachelor of Pharmacy	2018	18BP004	Pharmaceutical Inorganic Chemistry – Theory	Employability 1. Practicing how to refer Pharmacopoeia 2. List out contents in monograph from pharmacopoeia for at least one drug 3. List out impurities present in general products 4. Determine the weather the particulate matter is present in solutions or not against black and white backgrounds 5. Practicing the comparison of intensity of colors or turbidity 6. Preparation of drawings or charts related to limit test to display in laboratory 7. Practicing the basic laboratory precautions
N01	Bachelor of Pharmacy	2018	18BP005	Communication skills – Theory *	Skill development 1. Physiological Barriers, Physical Barriers, Cultural Barriers 2. Non-verbal communication, Verbal Communication
N01	Bachelor of Pharmacy	2018	18BP006	Remedial Biology	Employability 1. Neural control and coordination 2. Chemical coordination and regulation 3. Plants and mineral nutrition
N01	Bachelor of Pharmacy	2018	18BP007	Remedial Mathematics – Theory*	Employability 1. Partial fraction 2. Logarithms
N01	Bachelor of Pharmacy	2018	18BP008	Human Anatomy and Physiology – Practical	Skill development 1. Focus the microscope under 10X, 40X and 100X 2. Determine the Blood group of the given sample 3. Calculate the number of Red Blood cells in the given sample 4. Calculate the number of White Blood cells in the given sample 5. Record the Blood Pressure of the given subject)
N01	Bachelor of Pharmacy	2018	18BP009	Pharmaceutical Analysis I – Practical	Employability 1. Weigh the various samples, Handle different analytical glassware. 2. Prepare Standard solutions for the analysis. 3. Estimate the pH for the given sample. 4. Measure the conductance of the given sample. 5. Perform various types of titrations to estimation of Samples with unknown amounts. 6. Prepare of different types of buffers and measure their pH
N01	Bachelor of Pharmacy	2018	18BP010	Pharmaceutics I – Practical	Skill development 1. Weigh the various samples, handle different analytical balances and glasswares 2. Calculate the pharmaceutical dose calculations based on age, body weight and body surface area. 3. Prepare various conventional dosage forms like syrups and Elixirs 4. Prepare and evaluate dosage forms like suspensions and emulsions 5. Prepare dosage forms like suppositories, ointments, and gel
N01	Bachelor of Pharmacy	2018	18BP011	Pharmaceutical Inorganic Chemistry – Practical	Employability 1. Practicing how to refer Pharmacopoeia 2. List out contents in monograph from pharmacopoeia for at least one drug 3. List out impurities present in general products 4. Determine the weather the particulate matter is present in solutions or not against black and white backgrounds 5. Practicing the comparison of intensity of colors or turbidity 6. Preparation of drawings or charts related to limit test to display in laboratory 7. Practicing the basic laboratory precautions.
N01	Bachelor of Pharmacy	2018	18BP012	Communication skills – Practical*	Skill development 1. Do's and Don'ts of an interview 2. Meeting People Asking Questions Making Friends What did you do? Dos and Don'ts
N01	Bachelor of Pharmacy	2018	18BP016	Human Anatomy and Physiology II – Theory	Employability 1. Demonstrate the Spinal Reflex activity 2. Explain the various sense organs using models 3. Demonstrate the Motor Nerve Function 4. Determine the visual acuity of eye 5. Explain the process of Digestion
N01	Bachelor of Pharmacy	2018	18BP017	Pharmaceutical Organic Chemistry I – Theory	Employability 1. List out the precautions to be followed while handling acids and hazardous solutions 2. Prepare the charts for IUPAC system rules 3. Prepare the chart for periodic table 4. Prepare the chart for various aliphatic functional groups 5. Prepare the charts for named reactions like SN1, SN2, Nucleophilic addition, Electromeric effect, aldol condensation, Crossed Aldol condensation Benzoin condensation, Perkin condensation.
N01	Bachelor of Pharmacy	2018	18BP018	Biochemistry – Theory	Employability 1. Estimate the amount of glucose in the given sample 2. Estimate the amount of protein in the given sample 3. Estimate the normal and abnormal constituents in the given urine sample 4. Estimate the type of carbohydrate in the given sample 5. Estimate the amount of glucose in the given blood sample 6. Estimate the amount of creatinine in the given urine sample

N01	Bachelor of Pharmacy	2018	18BP019	Pathophysiology – Theory	Skill development 1. learn about Cell injury and Adaptation 2. learning about Principles of cancer 3. Disease of bones and joints 4. Haematological Diseases
N01	Bachelor of Pharmacy	2018	18BP020	Computer Applications in Pharmacy – Theory *	Skill development 1. Create Invoice table using MS Access 2. Export the give forms into web pages 3. Identify the structure of the given drug in the Bioinformatics Database 4. Complete the given task using LIMS 5. Retrieve the data about the given drug
N01	Bachelor of Pharmacy	2018	18BP021	Environmental sciences – Theory *	Employability 1. Concept of an ecosystem. 2. Structure and function of an ecosystem. 3. Natural resources and associated problems) 4. Environmental Pollution
N01	Bachelor of Pharmacy	2018	18BP022	Human Anatomy and Physiology II –Practical	Employability 1. Demonstrate the Spinal Reflex activity 2. Explain the various sense organs using models 3. Demonstrate the Motor Nerve Function 4. Determine the visual acuity of eye 5. Explain the process of Digestion
N01	Bachelor of Pharmacy	2018	18BP023	Pharmaceutical Organic Chemistry I- Practical	Skill development 1. List out the precautions to be followed while handling acids and hazardous solutions 2. Prepare the charts for IUPAC system rules 3. Prepare the chart for periodic table 4. Prepare the chart for various aliphatic functional groups 5. Prepare the charts for named reactions like SN1, SN2, Nucleophilic addition, Electromeric effect, aldol condensation, Crossed Aldol condensation Benzoic condensation, Perkin condensation.
N01	Bachelor of Pharmacy	2018	18BP024	Biochemistry – Practical	Skill development 1. Estimate the amount of glucose in the given sample 2. Estimate the amount of protein in the given sample 3. Estimate the normal and abnormal constituents in the given urine sample 4. Estimate the type of carbohydrate in the given sample 5. Estimate the amount of glucose in the given blood sample 6. Estimate the amount of creatinine in the given urine sample
N01	Bachelor of Pharmacy	2018	18BP025	Computer Applications in Pharmacy – Practical*	Skill development 1. Create Invoice table using MS Access 2. Export the give forms into web pages 3 Identify the structure of the given drug in the Bioinformatics Database 4. Complete the given task using LIMS 5. Retrieve the data about the given drug
All B.Tech Programmes		2018	16MC001	Modular Course	Employability(Providing of required skilling on employable courses to gain adequate knowledge)
All B.Tech Programmes		2018	16HS301	Professional Ethics	Skill development(Enhances the presentation skills through public speaking; personality develop)
All B.Tech Programmes		2018	16HS307	Economic and Social Development of India	Employability o Study market fluctuations. o Visit banks and corporate offices to know their functioning.
All B.Tech Programmes		2018	16HS308	Geography and Environmental Concerns of India	Employability o Presentation and group discussion on environmental issues. o Study the different types of soils and climate conditions.
All B.Tech Programmes		2018	16MS301	Managerial Economics	Entrepreneurship o Solve a test case to understand the concepts of demand and methods of demand forecasting. o Solve a test case to understand production function and its uses.
All B.Tech Programmes		2018	16MS302	Finance for Engineers	Entrepreneurship o Solve a test case to identify the various general entries and post them into general ledger. o Solve a test to use various tools like statement comparison, ratio analysis etc.
All B.Tech Programmes		2018	16MS401	Engineering Entrepreneurship	Entrepreneurship(Organizational needs to develop the self engineering workshops)
All M.Tech Programmes		2018	17PR001	Project/Internship Phase-I	Employability (Implementation of Industry oriented project)
All M.Tech Programmes		2018	17PR002	Project/Internship Phase-II	Employability (Activities: Implementation of real-time projects to serve the societal needs/ Industry oriented projects)
All B.Tech Programmes		2018	16ES002	Employability Skills-II	Employability(To develop the employability skill while using communication and experimental level of skills)
All B.Tech Programmes		2018	16ES001	Employability Skills-I	Employability(To develop the employability skill while using communication and experimental level of skills)



REGISTRAR

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A.P. INDIA

ANNEXURE-V (2019-20)

Program code	Program name	Year of Introduction	CourseCode	Course Name	Activities
A01	B.Tech-Biotechnology	2019	16BT401	Nanobiotechnology	<ul style="list-style-type: none"> o Design new therapeutics and targeted drug delivery vehicles for cancer, arthritis, neurological and other important diseases. o Novel formulation to enhance the efficacy of existing drugs. o Detection and imaging for early disease diagnosis. o Design and develop smart nanomaterial for bioseparation, tissue engineering and other medical applications.
A01	B.Tech-Biotechnology	2019	16BT402	Bioinformatics	<ul style="list-style-type: none"> Skill development o Retrieval of FASTA format from databases. o Perform BLAST and FASTA software analysis for both nucleic acids and amino acid sequences. o Perform pair wise and multiple sequence alignments. o Construct phylogenetic trees using software tools such as PHYLIP and PAUP.
A01	B.Tech-Biotechnology	2019	16BT403	Downstream Processing	<ul style="list-style-type: none"> Employability o Experiment on Paper chromatography and thin layer chromatography. o Experiment on cell disruption methods o Conduct electrophoresis of nucleic acids and proteins.
A01	B.Tech-Biotechnology	2019	16BT404	Genomics and Proteomics	<ul style="list-style-type: none"> Skill development o Amplification of gene by PCR. o Expertise in designing primers. o Analyzing exons and introns of gene. o Expertise with sub-cloning of gene. o Expertise with expression of gene.
A01	B.Tech-Biotechnology	2019	16BT405	Immunology and Immunoinformatics	<ul style="list-style-type: none"> Skill development o Isolation of lymphocytes from mouse spleen. o Preparation of cell specific culture media. o Isolation and differentiation of immune cells. o Preparation of antigens. o Production of polyclonal antibodies.
A01	B.Tech-Biotechnology	2019	16BT411	Project Work	Employability Implementation of real-time projects to serve the societal needs.
A01	B.Tech-Biotechnology	2019	16BT412	Internship	Employability Implementation of Industry development Project.
A01	B.Tech-Biotechnology	2019	16BT450	Trangenic Plants	<ul style="list-style-type: none"> Employability o Prepare explants for genetic transformation. o Regeneration of plantlets. o Amplification of selectable marker.
A01	B.Tech-Biotechnology	2019	16BT451	Drug Toxicity Evaluation	<ul style="list-style-type: none"> Skill development o Demonstrate cytotoxicity of pesticides on cell lines o Demonstrate effect of nanoparticles on DNA damage.
A01	B.Tech-Biotechnology	2019	16BT452	Metabolomics and Metabolic Engineering	<ul style="list-style-type: none"> Skill development o Optimize flux amplification in prokaryotic system. o Lipidomic profiling of yeast, Zeamays and E. coli. o Differentiate normal and cancer cells/mice models.
A01	B.Tech-Biotechnology	2019	16BT455	Nano Technology in Agricultral and Food Industries	<ul style="list-style-type: none"> Skill development 1. Synthesis and characterization of Nano particles. 2. Applications and modeling of Nanobiosensors. 3. Toxicity effects through different models.
A01	B.Tech-Biotechnology	2019	16BT456	Molecular Modeling & Drug Design	<ul style="list-style-type: none"> Skill development 1. Visualize tertiary protein using CN3D tool. 2. Retrieve protein structures. 3. Predict basic secondary structure. 4. CADD-computer assisted drug design 5. Perform structure and ligand based drug design.
A01	B.Tech-Biotechnology	2019	16BTES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A01	B.Tech-Biotechnology	2019	19BT101	Bioproducts and Bioentrepreneurship	<ul style="list-style-type: none"> Skill development o Models on renewable energy/biomass, biofuels, biogas. o Prepare vermicompost. o Case studies on green entrepreneurship.
A02	B.Tech-Chemical Engineering	2019	16CH401	Chemical Engineering Plant Design and Economics	<ul style="list-style-type: none"> Skill development o Identify a location for establishing a particular type of industry. o Design a typical master plot plan for a particular plant. o Perform the cost and profit analysis for a given type of plant. o Prepare the list of safety and loss prevention factors for a given plant. o Draw the combined detailed flow diagram for a given manufacturing process.
A02	B.Tech-Chemical Engineering	2019	16CH402	Chemical Process Equipment Design	<ul style="list-style-type: none"> Skill development o Draw shell and tube heat exchanger. o Calculate design parameters. o Calibration of Psychometer.
A02	B.Tech-Chemical Engineering	2019	16CH403	Optimization of Chemical Processes	<ul style="list-style-type: none"> Skill development o Formulation of objective functions. o Simulation using numerical methods and computer programming. o Graphical method using computational tool. o Simplex method using computational tool.
A02	B.Tech-Chemical Engineering	2019	16CH404	Transport Phenomena	<ul style="list-style-type: none"> Skill development o Estimation of transport properties like viscosity, conductivity and diffusivity using MAT Lab. o Property estimation using ASPEN Plus. o Velocity, temperature and concentration distributions using MAT Lab.
A02	B.Tech-Chemical Engineering	2019	16CH411	Project Work	Employability
A02	B.Tech-Chemical Engineering	2019	16CH412	Internship	Employability
A02	B.Tech-Chemical Engineering	2019	16CH440	Industrial Safety and Hazard Analysis	Employability
A02	B.Tech-Chemical Engineering	2019	16CH441	Extraction Metalurgy	Employability
A02	B.Tech-Chemical Engineering	2019	16CH442	Drug Design and Formulation	Employability
A02	B.Tech-Chemical Engineering	2019	16CH443	Polymer Testing Methods	Skill development
A02	B.Tech-Chemical Engineering	2019	16CH445	Energy Integraion	Employability
A02	B.Tech-Chemical Engineering	2019	16CH446	Food Safety and Public Health	Skill development(Providing the preventing methods for taking precautions to protect public health)
A02	B.Tech-Chemical Engineering	2019	16CHES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A02	B.Tech-Chemical Engineering	2019	19CH101	Chemical Engineering Thermodynamics-I	<ul style="list-style-type: none"> Skill development o Calibration of thermometer. o Conversion of work into heat using Joule's experiment. o Expansion of gas using Joule-Thomson effect.

A02	B.Tech-Chemical Engineering	2019	19CH102	Momentum Transfer	Skill development o Calibration of rotameter. o Separation of immiscible liquids using decanter. o Calibration of manometer. o Design of Venturi meter. o Design of Orifice meter.
A03	B.Tech-Civil Engineering	2019	16CE401	Design of Steel Structures	Skill development (Identify tension members in trusses)
A03	B.Tech-Civil Engineering	2019	16CE402	Engineering Geology	Employability (Distinguish geological formations)
A03	B.Tech-Civil Engineering	2019	16CE403	Estimation and Costing	Employability (Estimate quantities of various items of a residential building)
A03	B.Tech-Civil Engineering	2019	16CE405	Computer Applications In Civil Engineering	Entrepreneurship (Understand the limit state design of beams)
A03	B.Tech-Civil Engineering	2019	16CE408	Remote Sensing and GIS Application	Employability (Identify the outcome from aerial photographs)
A03	B.Tech-Civil Engineering	2019	16CE411	Project Work	Employability (Identify the outcome from aerial photographs equivalent method)
A03	B.Tech-Civil Engineering	2019	16CE412	Internship	Entrepreneurship (Field work and site constructions)
A03	B.Tech-Civil Engineering	2019	16CE440	Construction Methods and Equipments	Employability Selection of material for enhanced thermal environment.
A03	B.Tech-Civil Engineering	2019	16CE480	Advanced Structural Design	Skill development Design beams for limit state of collapse.
A03	B.Tech-Civil Engineering	2019	16CE481	Soil Dynamics and Machine Foundations	Skill development (Analyze various dynamic forces)
A03	B.Tech-Civil Engineering	2019	16CEES3	Employability Skills-III	Employability (Providing of modular course is gaining of adequate knowledge)
A03	B.Tech-Civil Engineering	2019	19CE101	Surveying and Levelling	Skill development Map a large area by using plane table after doing resection using two and three point problem methods
A03	B.Tech-Civil Engineering	2019	19CE102	Strength of Materials	Skill development Calculate biaxial stresses on an inclined plane
A04	B.Tech-Computer Science and Eng	2019	16CS401	Search Engines	Employability Removal of stop words in a document. Create an index for the document and Understand the importance of building a secondary index.
A04	B.Tech-Computer Science and Eng	2019	16CS402	Embedded Systems	Identify hardware and software components to build an embedded system. Porting of OS on to 8051/ ARM processor board and Demonstrate the interfacing of peripherals with 8051/ARM microcontroller.
A04	B.Tech-Computer Science and Eng	2019	16CS403	Information Security	Skill development Design and implementation of a secured client/server model and Build secured applications using sockets and TCP/IP.
A04	B.Tech-Computer Science and Eng	2019	16CS404	Mobile Communications	Skill development Choose medium access control mechanism for a given application, Distinguish among various wireless networks and Simulate the calling mechanism used in GPRS.
A04	B.Tech-Computer Science and Eng	2019	16CS411	Project Work	Employability Implementation of real-time projects to serve the societal needs.
A04	B.Tech-Computer Science and Eng	2019	16CS412	Internship	Employability Implementation of Industry development Project
A04	B.Tech-Computer Science and Eng	2019	16CS440	Mobile Ad hoc Networks	Design and simulate an ad hoc network for real-time applications and Develop routing algorithms using NS2.
A04	B.Tech-Computer Science and Eng	2019	16CS441	Pattern Recognition	Employability Matching one object and another object using morphological operations and Identify iris, thumb impression using feature selection approaches.
A04	B.Tech-Computer Science and Eng	2019	16CS442	Emerging Technologies	Implement of data types such as scalars, arrays, lists using Python and Develop functions using Python.
A04	B.Tech-Computer Science and Eng	2019	16CS443	Internet of Things	Employability Build applications using IoT.
A04	B.Tech-Computer Science and Eng	2019	16CS444	Optimization Techniques	Identify the feasible solutions for different use cases and Analyze and improve various strategies for games.
A04	B.Tech-Computer Science and Eng	2019	16CS445	Big Data and Analytic	Employability Develop programming and analytics for various statistical problems using R and Design classification models for various standard and user Datasets.
A04	B.Tech-Computer Science and Eng	2019	16CS446	Data Science Using Python	Employability (Utilization of data types such as lists, tuples, dictionaries and sets)
A04	B.Tech-Computer Science and Eng	2019	16CS447	Introduction to Big Data Analytics	Skill development (Large sets of data were stored and maintained in the Big Data Analytics)
A04	B.Tech-Computer Science and Eng	2019	16CS448	Python Programming	scripting language)
A04	B.Tech-Computer Science and Eng	2019	16CS457	Internet of Things	Employability Learn how IoT works in different domain applications by case studies. Learn Python programming language and Learn how to sense or actuate devices using Raspberri Pi kits.
A04	B.Tech-Computer Science and Eng	2019	16CS470	Oracle Certified Java Programmer(OCJP)	Skill development (Design and Implement of new programs through databases level)
A04	B.Tech-Computer Science and Eng	2019	16CS470	Employability Skills-III	Employability (Providing of modular course is gaining of adequate knowledge)
A04	B.Tech-Computer Science and Eng	2019	19CS101	Programming for Problem Solving	Analysis of a given problem, Design of algorithm/ solution and Implementation (coding and unit testing) of algorithm
A04	B.Tech-Computer Science and Eng	2019	19CS102	Introduction to C Programming	Employability (Improve the skills of C programming for development of softwares)
A04	B.Tech-Computer Science and Eng	2019	19CS103	Programming for Problem Solving-I	Analysis of a given problem, Design of algorithm/ solution and Implementation (coding and unit testing) of algorithm
A04	B.Tech-Computer Science and Eng	2019	19CS104	Basics of Computer & Internet	Skill development Design of logical gates using propositions, Prove the basic mathematical theorems through direct or indirect proofs and Solving various types of problems on sets & relations
A04	B.Tech-Computer Science and Eng	2019	19CS105	Programming for Problem Solving-II	Analysis of the problem to be solved, Selection of static or dynamic data structures for a given problem and manipulation of data items and Application of various file operations effectively in solving real world problems
A04	B.Tech-Computer Science and Eng	2019	19CS106	Discrete Mathematics Structures	Skill development (Design of logical gates using propositions, Prove the basic mathematical theorems through direct or indirect proofs and Solving various types of problems on sets & relations.)
A04	B.Tech-Computer Science and Eng	2019	19CS107	C Programming for Problem Solving	the bugs)
A04	B.Tech-Computer Science and Eng	2019	19CS108	Computer Programming and Data Structures	language)
A04	B.Tech-Computer Science and Eng	2019	19CS109	C Programming for Problem Solving-II	problems)
A05	B.Tech-Electronics and Communic	2019	16EC401	Optical Communications	Choose the fiber to transmit 1 Gbps – 10 Gbps data over 500 meters distance. Find NA and attenuation of a given fibre.
A05	B.Tech-Electronics and Communic	2019	16EC402	Microwave and Radar Engineering	Characterize the given power coupling device. Find the Mechanical tuning range of the given Reflex Klystron.
A05	B.Tech-Electronics and Communic	2019	16EC403	Electronic Instrumentation	Skill development Measure electrical and electronic parameters using various instruments. Design of data acquisition systems using different sensors and transducers.
A05	B.Tech-Electronics and Communic	2019	16EC411	Project Work	Employability Implementation of real-time projects to serve the societal needs
A05	B.Tech-Electronics and Communic	2019	16EC412	Internship	Employability Implementation of Industry development Project.
A05	B.Tech-Electronics and Communic	2019	16EC450	Hardware Verification Techniques	Employability Choose an optimal test set for a digital circuit. Choose and realize an error free circuit.
A05	B.Tech-Electronics and Communic	2019	16EC451	Testing of VLSI Circuits	Employability Choose a VLSI circuit and verify. Verify a VLSI circuit and make it error free.
A05	B.Tech-Electronics and Communic	2019	16EC452	Nano Electronics	Skill development history, types and mechanism of Nano Technology.
A05	B.Tech-Electronics and Communic	2019	16EC460	Satellite Communications	Skill development Determine the global beam, zonal beam and spot beams of a given GEO SAT. Calculate longitude and latitude of the satellite for a given look angle.
A05	B.Tech-Electronics and Communic	2019	16EC461	Digital Image Processing	acquisition by using various resolution cameras and comparison of visual quality variation. Implement image processing algorithms like enhancement, Restoration, segmentation and compression.
A05	B.Tech-Electronics and Communic	2019	16EC470	High Speed Networks	Skill development throughput and speed of Vignans GBNKN. Determine the quality of internet broadband in terms of latency and jitter for IP based applications.
A05	B.Tech-Electronics and Communic	2019	16EC480	DSP Architectures and Programming	Skill development Implement adaptive LMS filter. Realize adaptive RLS filter. Implement Kalman filter.
A05	B.Tech-Electronics and Communic	2019	16EC481	Robotics and Automation	Skill development online and offline programs for a robot to perform specified tasks.

A05	B.Tech-Electronics and Communica	2019	16EC482	MEMS and NEMS	Skill development Technology required for fabrication of MEMS and NEMS devices.
A05	B.Tech-Electronics and Communica	2019	16EC490	Thermal Management of Electronics Systems	Entrepreneurship To measure the thermal reactions to evaluate machines
A05	B.Tech-Electronics and Communica	2019	16EC491	Introduction to Switch Mode Power	Entrepreneurship(To support electrical switching models for better use)
A05	B.Tech-Electronics and Communica	2019	16ECES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A05	B.Tech-Electronics and Communica	2019	19EC101	Network Theory	Measure the Resistance of any resistive Electrical Appliance like water heater, incandescent bulb. Design of smallsize house wiring system. Design circuits with suitable load to get maximum power from source.
A06	B.Tech-Electrical and Electronics E	2019	16EE401	Electric Drives	Skill development Simulate full controlled bridge converter fed DC Motor Using MATLAB.
A06	B.Tech-Electrical and Electronics E	2019	16EE403	Power System Operation and Control	Skill development Building Y-bus algorithm in MATLAB
A06	B.Tech-Electrical and Electronics E	2019	16EE405	Principles of Digital Signal Processing	Employability Test the stability of given third order filter
A06	B.Tech-Electrical and Electronics E	2019	16EE407	AI Techniques In Electrical Engineering	Employability Implement genetic algorithm for speed control of DC Motor
A06	B.Tech-Electrical and Electronics E	2019	16EE411	Project Work	Employability To learn and develop the new projects for the research based learning advanced level
A06	B.Tech-Electrical and Electronics E	2019	16EE412	Internship	Skill development Design DC-DC boost converter using microcontroller
A06	B.Tech-Electrical and Electronics E	2019	16EE451	Advanced Power System Engineering	Skill development Design of simple DAC for protection system
A06	B.Tech-Electrical and Electronics E	2019	16EE452	High Voltage Engineering	Skill development Testing of transformer oil and solid installation
A06	B.Tech-Electrical and Electronics E	2019	16EE453	Advanced Switch Gear for Power Systems	Employability Design microprocessor based Distance relay
A06	B.Tech-Electrical and Electronics E	2019	16EE454	Design of power electronic Systems	Skill development Design Flyback converter for Laptop charger
A06	B.Tech-Electrical and Electronics E	2019	16EE455	SMPS based Converters	Skill development Design DC-DC charge pumping voltage doubler circuit
A06	B.Tech-Electrical and Electronics E	2019	16EE456	Advanced Control Systems	Skill development Design state feedback controller for DC and AC motors
A06	B.Tech-Electrical and Electronics E	2019	16EE457	Energy Economics	Skill development Life cycle analysis of solar panel
A06	B.Tech-Electrical and Electronics E	2019	16EE458	Digital Control Systems	Skill development Design a fire alarm circuit using IC555
A06	B.Tech-Electrical and Electronics E	2019	16EE459	Solar Thermal Conversion Systems	Skill development Design a prototype of solar cooker
A06	B.Tech-Electrical and Electronics E	2019	16EES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A06	B.Tech-Electrical and Electronics E	2019	19EE101	Basics of Electrical and Electronics Engineering	Skill development o Decoding the value of resistors, Design and fabricate a simple loop permanent magnet generator and Design and fabricate a simple air cored transformer
A06	B.Tech-Electrical and Electronics E	2019	19EE102	Employability Products	Skill development o Trouble shooting of immersion heater and induction heaters. o Disassemble and Assemble of Domestic Appliances such as Mixer Grinder, Fan etc., o Design Electric Wiring system for a prototype house. o Design UPS for a defined load. o Configure a Wifi Router for required number of users.
A07	B.Tech-Information Technology	2019	16IT402	Mobile Application Development	Skill development Design and deploy a Student attendance monitoring system in android.
A07	B.Tech-Information Technology	2019	16IT411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A07	B.Tech-Information Technology	2019	16IT412	Internship	Employability: Implementation of Industry development Project.
A07	B.Tech-Information Technology	2019	16IT440	Enterprise Computing	needs)
A07	B.Tech-Information Technology	2019	16IT441	Agent Technologies	Skill development(To provide the technical support)
A07	B.Tech-Information Technology	2019	16IT442	Virtual Reality Systems	Skill development(Visually displayed systems to experiencing the best performance)
A07	B.Tech-Information Technology	2019	16IT443	Advanced Mobile Application Development Using Android	Skill development(To provide the better User Interface and simplifying the operating systems with advanced features)
A07	B.Tech-Information Technology	2019	16IT470	Mobile application development using	Skill development(To provide the better User Interface and simplifying the operating systems)
A07	B.Tech-Information Technology	2019	16ITES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A08	B.Tech-Mechanical Engineering	2019	16ME401	Industrial Engineering and Production Management	Skill development Describe and evaluate the social and economic environment of business.
A08	B.Tech-Mechanical Engineering	2019	16ME402	Operations Research	Skill development Recognize the importance of Operations Research and mathematical modeling for solving practical problems in industries.
A08	B.Tech-Mechanical Engineering	2019	16ME403	Refrigeration and Air Conditioning	Skill development Design and fabricate air conditioning system for a specific cooling load.
A08	B.Tech-Mechanical Engineering	2019	16ME411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A08	B.Tech-Mechanical Engineering	2019	16ME412	Internship	Employability: Implementation of Industry development Project.
A08	B.Tech-Mechanical Engineering	2019	16ME451	Advanced Fluid Mechanics	Skill development Analyze various flow related concepts like flow separation and wake generation.
A08	B.Tech-Mechanical Engineering	2019	16ME452	Advanced Heat Transfer	Skill development Identify modes and mechanisms of heat transfer.
A08	B.Tech-Mechanical Engineering	2019	16ME453	Flexible Manufacturing System	Skill development Identify the characteristics of robots.
A08	B.Tech-Mechanical Engineering	2019	16ME454	Fracture Mechanics	Skill development Estimate nature of failure and location.
A08	B.Tech-Mechanical Engineering	2019	16ME455	Non-Destructive Testing For Mechanical Engineers	Skill development Distinguish NDT from destructive testing
A08	B.Tech-Mechanical Engineering	2019	16ME456	Advanced Manufacturing Process	Skill development Identify the type of advanced manufacturing technique suitable for different materials
A08	B.Tech-Mechanical Engineering	2019	16ME457	Product Life Cycle Management	Skill development Formulate a process plan for production of Gear Box
A08	B.Tech-Mechanical Engineering	2019	16ME458	Artificial Intelligence for Robotics	Employability Implementation of Embedded controlled robots along with adding benefit to advance designs by using Artificial Intelligence)
A08	B.Tech-Mechanical Engineering	2019	16MEES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A08	B.Tech-Mechanical Engineering	2019	19ME101	Engineering Graphics and Design	Skill development Convert isometric views of objects into orthographic views and vice versa, Visualize the shape of 3D components and Create pictorial views by using AutoCAD
A08	B.Tech-Mechanical Engineering	2019	19ME102	Engineering Mechanics	Skill development (Solving classical mechanics problems involving system of forces)
A08	B.Tech-Mechanical Engineering	2019	19ME103	Workshop	Skill development To make wooden joints like Mortise and Tenon joint, Tap Joint which are used to prepare a wooden furniture and To prepare metal joints and metal sheet products like VJoint and trays by using mild steel flats and Galvanized iron sheets.
A10	B.Tech-Automobile Engineering	2019	16AE401	Automotive Fuels, Emissions and Control	Employability: Perform measurements on an engine using different fuels
A10	B.Tech-Automobile Engineering	2019	16AE402	Electronics and Micro Controllers	Skill development: Differentiate between different electronic components
A10	B.Tech-Automobile Engineering	2019	16AE406	Automotive Safety	models)
A10	B.Tech-Automobile Engineering	2019	16AE411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A10	B.Tech-Automobile Engineering	2019	16AE412	Internship	Employability: Implementation of Industry development Project.

A10	B.Tech-Automobile Engineering	2019	16AE415	Automotive Systems	Skill development(To provide better experience to automatic process using systems
A10	B.Tech-Automobile Engineering	2019	16AE441	Automotive Air Conditioning	Employability: Perform calculations on vapor compression refrigeration systems
A10	B.Tech-Automobile Engineering	2019	16AE442	Finite Element Methods	Skill development: Calculate stress and strain in 1D elements.
A10	B.Tech-Automobile Engineering	2019	16AE443	Transport Management	Employability: Apply personnel management strategies
A10	B.Tech-Automobile Engineering	2019	16AE444	Automotive Aerodynamics	Skill development: Estimate drag force, side forces, side thrusts etc.
A10	B.Tech-Automobile Engineering	2019	16AEES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A11	B.Tech-Textile Technology	2019	16TF401	Clothing Comfort	Employability o List out comfort aspect of clothing used for swim wear/ ski wear/ military wear. o Collect specifications of clothing for swim wear/ ski wear/military wear. o Designing a garment by considering thermal comfort for specific conditions. o Designing a garment by considering tailorability and drapability for normal wear. o Survey on physiological comfort and its relation with comfort and garment design.
A11	B.Tech-Textile Technology	2019	16TF402	Industrial Engineering for Textiles and Apparels	Employability o Prepare standard work procedures for group of activities. o Case study on plant layout. o Collect the different types of material handling techniques used in garment industry. o Compare WIP in different production systems. o Calculate the inventory cost for given conditions. o Compare the advantages of outsourcing.
A11	B.Tech-Textile Technology	2019	16TF403	Apparel Costing and Export Documentation	Employability o Prepare standard TECHPACK work given garment. o Calculate cost of garment from fiber stage o Analysis of types of cost for making a garment o Analyse various schemes available for garment exporters o Calculate cost incurred in exporting to various countries o Compare the advantages of EOU, Textile Parks SEZ etc.
A11	B.Tech-Textile Technology	2019	16TF404	Technical Textiles	Skill development o Collection of fibres used for a mulch mat/ geo-textile/ sutures/for various applications. o Design a fabric structure for a ballistic armor/ geo-textile/seat belt. o Interpret the results of permittivity and transitivity to the fabric thickness. o Analyse baby diaper/carry bag/tyre cord/ other technical textiles product. o Analyse shed cover, its design, coating and related information
A11	B.Tech-Textile Technology	2019	16TF405	Men, Women, Children Wear Construction Lab	Construction of Children's wear: 1. Children's baba suit 2. Children's rompers 3. Childr en's frock Construction of Men's casual wear: 4. Men's Bermudas 5. Men's shorts 6. Men's T-Shirt Construction of Men's formal wear 7. Men's formal shirt 8. Men's formal trousers 9. Men's casual trousers Construction of Men's under garments: 10. Briefs 11. Vests
A11	B.Tech-Textile Technology	2019	16TF406	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A11	B.Tech-Textile Technology	2019	16TF407	Internship	Employability: Implementation of Industry development Project.
A11	B.Tech-Textile Technology	2019	16TF450	Maintenance in Spinning	Employability o Collect the pictures of machine breakdown o Collect standard maintenance schedules from SITRA, BTRA o Design Maintenance schedules for a 30,000 spindleage spinning mill. o Analyse the components replacements schedule. o Prepare good house keeping practices in different department.
A11	B.Tech-Textile Technology	2019	16TF451	Mechanics of Weaving Machines	Employability o Calculate velocity and time using equation of motion and motion in a circle. o Design of cam for plain and twill weave. o calculate depth of warp shed. o Calculate power for picking in shuttle loom.
A11	B.Tech-Textile Technology	2019	16TF452	Advancements in Knitting Technology	Employability o Analysis of newly developed knitted constructions with spandex o Case study on techno economic study on advanced warp knitting . o Design of warp knitted structure for moisture management. o Collect specifications for spandex, Americana and modified Americana tricot. o Simulation for knitted fabric composites.
A11	B.Tech-Textile Technology	2019	16TF453	Functional Finishes	Skill development o Collect different types of finished fabrics in regular usage o List out Temporary and permanent finishes. o Compare fabric properties before and after softer finishing. o List out chemicals used for different finishes for specific fibers. o Collect the trade names and application methods of chemicals used for Finishing.
A11	B.Tech-Textile Technology	2019	16TTES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A11	B.Tech-Textile Technology	2019	19TT101	Textile Fibers	Skill development development synthetic fibers for design of textiles
A12	B.Tech-Agriculture Engineering	2019	16AG401	Agricultural Business Management	Employability: concepts from economics and business studies disciplines
A12	B.Tech-Agriculture Engineering	2019	16AG402	Farm Machinery and Equipment - II	Employability: Design and development of fruit harvesting tools.
A12	B.Tech-Agriculture Engineering	2019	16AG403	Soil and Water Engineering	Skill development. Measurement of sedimentation in rivers using various equipments
A12	B.Tech-Agriculture Engineering	2019	16AG411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A12	B.Tech-Agriculture Engineering	2019	16AG412	Internship	Employability: Implementation of Industry development Project.
A12	B.Tech-Agriculture Engineering	2019	16AG441	Automation in Food Industries	Employability: Design a layout of automated dairy industry.
A12	B.Tech-Agriculture Engineering	2019	16AG442	Food Processing Plant Design and Layout	Skill development: Design of storage structure for local crops.
A12	B.Tech-Agriculture Engineering	2019	16AG443	Human Engineering and Safety	Employability: Collection of anthropometric data of workers.
A12	B.Tech-Agriculture Engineering	2019	16AG444	Machinery Systems for Precision Agriculture	Skill development: Use of PLC in equipment actuation
A12	B.Tech-Agriculture Engineering	2019	16AG445	Mechanics of Tillage and Traction	Skill development: Performance evaluation of cultivator.
A12	B.Tech-Agriculture Engineering	2019	16AG446	Watershed Planning and Management	Employability: Watershed management program based on survey.
A12	B.Tech-Agriculture Engineering	2019	16AGES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A12	B.Tech-Agriculture Engineering	2019	19AG101	Principles of Agronomy	Skill development Study on various fertilizers and weeds.
A12	B.Tech-Agriculture Engineering	2019	19AG102	Principle of Soil Science	Skill development Determination of Soil forming rocks and minerals, their classification
A12	B.Tech-Agriculture Engineering	2019	19AG103	Fluid Mechanics and Open Channel Hydraulics	Skill development Measure the depth of immersion of a floating object using the buoyancy principle.
A14	B.Tech-Bioinformatics	2019	16BI401	Structural Bioinformatics	Skill development: o Determine the structure of protein. o Identify domains in the gene sequences.
A14	B.Tech-Bioinformatics	2019	16BI402	Biomedical Informatics	Employability: o Acquire biomedical imaging data. o Evaluate biomedical and health information resources. o Use natural language processing in biomedicine.
A14	B.Tech-Bioinformatics	2019	16BI411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects

A14	B.Tech-Bioinformatics	2019	16BI412	Internship	Employability: Implementation of Industry development Project.
A14	B.Tech-Bioinformatics	2019	16BI450	Drug Design	Employability: o CAD/Computer assisted drug design o Perform structure and ligand based drug design o Evaluate drug toxicity
A14	B.Tech-Bioinformatics	2019	16BI451	Metagenomics	Skill development: o Case study on ecological metagenomics/restoration of abandoned mines. o Karyotype human chromosomes. o Seminar on neglected tropical diseases.
A14	B.Tech-Bioinformatics	2019	16BIES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A15	B.Tech-Food Technology	2019	16FT401	Beverage Technology	Skill development o Draw flowsheet for industrial production of beverages. o Identify flavor component in different beverages.
A15	B.Tech-Food Technology	2019	16FT402	Food Process Equipment Design	Employability o Solve numerical problems on equipment design.
A15	B.Tech-Food Technology	2019	16FT403	Meat, Fish and Poultry Process Technology	Skill development o Report on production and processing of local meat, fish and poultry products.
A15	B.Tech-Food Technology	2019	16FT404	Spices and Plantation Crops Process Technology	Skill development o Report on various adulterants used in spices and plantation products. o Flow chart of processing of local value added products of spices and condiments.
A15	B.Tech-Food Technology	2019	16FT411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A15	B.Tech-Food Technology	2019	16FT412	Internship	Employability: Implementation of Industry development Project.
A15	B.Tech-Food Technology	2019	16FT450	Post Harvest Management of Fruits and Vegetables	Skill development o Prepare a list of underutilized fruits and their physicochemical and health benefits. o Write a report on fresh cut fruits and vegetable status in India.
A15	B.Tech-Food Technology	2019	16FT451	Renewable Energy for Food Processing	Skill development o Report on geo thermal energy o Report on bio diesel from food industry waste
A15	B.Tech-Food Technology	2019	16FT452	Risk Analysis in Food Safety	Skill development o Identify various source of risk in food industry. o Preparation of report on various cases of risk analysis
A15	B.Tech-Food Technology	2019	16FT453	Bioprocess Engineering	Skill development o Design bio reactor. o Problems on design consideration of bio reactor
A15	B.Tech-Food Technology	2019	16FT454	Project Planning, Preparation and Management	Skill development o Propose a detailed project plan of any food commodity including cost analysis. o Perform cost benefit analysis of milk processing industry
A15	B.Tech-Food Technology	2019	16FTES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A16	B.Tech-Biomedical Engineering	2019	16BM401	Diagnostic and Therapeutic Equipments-II	Employability(Analyse the criticality of an instrument and trouble shoot it economically)
A16	B.Tech-Biomedical Engineering	2019	16BM402	Medical Image Processing	Employability(Image markings, segmentation and registration of images)
A16	B.Tech-Biomedical Engineering	2019	16BM403	Tele Medicine	Skill development(Safely transfer data wirelessly to meet data security)
A16	B.Tech-Biomedical Engineering	2019	16BM411	Project Work	projects)
A16	B.Tech-Biomedical Engineering	2019	16BM412	Internship	Employability(Implementation of Industry development Project.)
A16	B.Tech-Biomedical Engineering	2019	16BM440	Rehabilitation Engineering	Skill development(Impart engineering techniques for people with differently enabled.)
A16	B.Tech-Biomedical Engineering	2019	16BM441	Bio Metric Systems	Skill development (Determine the face an retinal recognition systems for performance evaluation)
A16	B.Tech-Biomedical Engineering	2019	16BM442	Intellectual property rights	Entrepreneurship(Compare intellectual work of an individual with existing patient. Compare intellectual work of an individual with existing patient.)
A16	B.Tech-Biomedical Engineering	2019	16BM450	Computer and Hardware Interfacing	Skill development(write a program to interface serial port with data acquisition)
A16	B.Tech-Biomedical Engineering	2019	16BM460	Virtual Reality	Prepare a flowchart for the production process of industrially important food products using biotechnology
A16	B.Tech-Biomedical Engineering	2019	16BM461	Soft Computing	Employability Track different human segment using virtual reality
A16	B.Tech-Biomedical Engineering	2019	16BM490	Medical Physics	Employability Calculate the radiotherapy and dose curves
A16	B.Tech-Biomedical Engineering	2019	16BMES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A17	B.Tech-Petroleum Engineering	2019	16PEES3	Employability Skills-III	Employability(Providing of modular course is gaining of adequate knowledge)
A17	B.Tech-Petroleum Engineering	2019	16PL401	Health, Safety and Environment Engineering	Employability o To supply chain and production techniques to industries
A17	B.Tech-Petroleum Engineering	2019	16PL402	Petroleum Engineering and Equipment Design	Skill development o Methodology for designing petroleum equipments. o Engineering drawing procedure for equipments. o Design of drill bits. o Design of surface facilities. o Design of stabilization and refinery equipments.
A17	B.Tech-Petroleum Engineering	2019	16PL403	Petroleum Reservoir Engineering-II	Skill development o Identify equipments required for production and refining of crude oil. o Analyze crude oil quality using standardized test methods. o Suggest catalyst for refining operations. o Proficiency on petrochemicals production methods.
A17	B.Tech-Petroleum Engineering	2019	16PL404	Enhanced Oil Recovery Methods	o Have the knowledge of that specific reservoir before designing of any EOR project. o Be a very good team members in the multidiscipline team where key decisions can be taken in this project work. o Be a very good operator and maintenance engineer of EOR techniques. o Take all safety precautions while handling of various types of chemicals used in EOR. o Become good reservoir managers / production engineers in monitoring the reservoir after post project activities. o Handle the wells during work over operations.
A17	B.Tech-Petroleum Engineering	2019	16PL411	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
A17	B.Tech-Petroleum Engineering	2019	16PL412	Internship	Employability: Implementation of Industry development Project.
A17	B.Tech-Petroleum Engineering	2019	16PL440	Natural Gas Processing	Skill development o Classify different liquefaction techniques o Understand different units in LNG processing and transportation o Have knowledge associated with safety aspects of LNG.
A17	B.Tech-Petroleum Engineering	2019	16PL441	Reservoir Stimulation	Skill development o Data requirements for the design of a fracturing task. o Pressure decline analysis and interpretation techniques. o Practical limitations in fracture design. o Prediction of fracture height and various approaches for post-treatment measurements. o Evaluation of post treatment and performance of fractured wells.
A17	B.Tech-Petroleum Engineering	2019	16PL442	Computational Fluid Dynamics	Skill development o Use of boundary conditions for solutions of these equations. o Understanding the role of finite elemental methods for solutions of fluid dynamics problems. o Understanding the concept of stability. o Understanding various software's available for solving fluid dynamics problems.
A17	B.Tech-Petroleum Engineering	2019	19PE101	Basics of Petroleum Engineering	o Case study on identification of rocks. o Projects on construction of geological maps like geological cross-section. o Thickness maps of various stratigraphic units.

C01	Master of Business Administration	2019	19MB101	Principles of Management and Organizational Behavior (PMOB)	Employability 1. Prepare list of corporate strategies that are adopted by Indian Companies to face the challenges of competition. 2. Select a successful retail store and give details of factor leading to its success. 3. Select a failed venture, if any known to you, and bring out reasons for its failure (Note what we learn from these success & failure stories). 4. Select a company and prepare a SWOT analysis for the same.
C01	Master of Business Administration	2019	19MB102	Marketing Management (MM)	1. Visit any website and list the promotion strategy of a sponsoring company. 2. Find out the promotion tools of any company. 3. Observe the Distribution Network of a Company 4. List out Product Line of a company and note line modernization or deletion. 5. Draw a Product Life Cycle with regard to a particular product of a company and observe its extension.
C01	Master of Business Administration	2019	19MB103	Managerial Economics (ME)	1. To conduct a survey on the practical application of laws of economics. 2. To collect data on sales of consumer durable goods and predict the sales for a later year. 3. To find different case studies relating to different market conditions and to do an analysis. 4. To find out low demand differentiates between normal and inferior goods. 5. To analyze the role of a business economist in the everyday functioning of an organization taking live examples.
C01	Master of Business Administration	2019	19MB104	Corporate Finance (CF)	1. To collect and scrutinize share application forms of IPOs. 2. To calculate the EPS of various companies. 3. To determine the operating cycle for a manufacturing and non – manufacturing firm. 4. To visit banks and collect information regarding short term and medium term finance offered by them. 5. To track the dividend policies of some well known companies.
C01	Master of Business Administration	2019	19MB105	Accounting for Managers (AFM)	Employability 1. Contact an NGO and find out their system of accounting. 2. Collect information with regard to the practical reasons for charging 3. Depreciation and the methods adopted for calculating the same. 4. Generate different types of financial and cost related reports using excel and tally. 5. Find out the accounting system adopted by a Sole Proprietor 6. Differences between Double Entry and Single Entry systems of Book-keeping. 7. Analyse the differences between Profit & Loss Account and Income & Expenditure Account/ Receipts & Payments Account.
C01	Master of Business Administration	2019	19MB106	Human Resource Management (HRM)	Employability 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
C01	Master of Business Administration	2019	19MB107	Business Statistics and Analytics for Decision making	1. Collect statistical information's from Magazines, Newspapers, Television, Internet etc., 2. Collect interesting statistical facts from various sources and paste it in your note book. 3. Collect a primary data about the mode of transport of yourschool students. Classify the data and tabulate it. 4. From the mark sheets of your class, form the frequencytables, less than and more than cumulative frequency tables. 5. Get the previous monthly expenditure of your family andinterpret it into bar diagram and pie diagram. Based on thedata, propose a budget for the next month and interpretedinto bar and pie diagram.Compare the two months expenditure through diagrams 6. Measure the heights and weights of your class students.Find the mean, median, mode and compare 7. Find the mean marks of your class students in various subjects. Analysis of data by computing standard deviation and coefficient of variation.
C01	Master of Business Administration	2019	19MB108	Business Research Methods (BRM)	formulate a topic for prospective research. 2. For a given topic – collect data through primary and secondary sources. 3. For a given data, analyze data using various statistical tools. 4. For a given case study, prepare a research report in the required format.)
C01	Master of Business Administration	2019	19MB109	Legal Environment for Business(LEB)	Employability 1. Draft a 'rent agreement' incorporating all the essential features of a valid agreement. 2. Draft the Memorandum of Association of a company. 3. Case laws 'involving points of law of contracts'. 4. Draft a complaint against 'unfair trade practice' adapted by a businessman – to the consumer forum. 5. List out the latest cases of both High Court and Supreme Court on Environmental issues with both facts and judgments [Atleast 2 cases]
C01	Master of Business Administration	2019	19MB110	Operations Management	1. Visit any factory and list out the physical facilities and type of production followed. 2. Visit any factory and prepare a report on the production planning and control activities 3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement. 4. List out the functions of materials management in an organization. 5. Visit any industry and list out the various quality measures /maintenance methodsadopted.
C01	Master of Business Administration	2019	19MB111	Business Environment & Ethics (BEE)	Employability 1. List out the various cyber offences and the penalties for the same. 2. List at least 3 MNCs of G-8 Countries operating in India along with products they manufacture. 3. Collect the latest Fiscal, Monetary Policies on business 4. Students are expected to study any five CSR initiatives by Indian organizations and submit a report for the same. 5. A group assignment on "The relationship between Business houses and Society in Indian Context and relating the same with respect to the models studied. 6. Mini Project: Collect details of unethical practices by businesses in today's context in the areas of Production, Marketing, HRM, and Financial services and make a report. 7. Case studies/Role plays related ethical issues in business with respect to Indian context.
C01	Master of Business Administration	2019	19MB112	IT Lab	Skill development Identification of the peripherals of a computer, components in a CPU and its functions. Draw the block diagram of the CPU along with the configuration of each peripheral.
C01	Master of Business Administration	2019	19MB113	Business Communication(BC) Lab	Skill development Prepare a draft letter to the project manager which Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
C01	Master of Business Administration	2019	19MB115	Essential Skills for Managers-I	Skill development(Organizing skills and managing office works and employees)
C01	Master of Business Administration	2019	19MB116	Essential Skills for Managers II Lab	(monitoring)
C01	Master of Business Administration	2019	19MB117	Analytical Skills for Managers –I Lab	Employability(Analytical skills that can develop to produce the potential knowledge in manager level)
C01	Master of Business Administration	2019	19MB118	Analytical Skills for Managers II Lab	in laboratory)
D01	Master of Computer Applications	2019	18MC201	Programming Through Python	Employability Utilization of data types such as lists, tuples, dictionaries and sets
D01	Master of Computer Applications	2019	18MC202	Computer Networks	Skill development Identify Various network devices
D01	Master of Computer Applications	2019	18MC203	Database Management Systems	Skill development Design of ER Diagrams for the development of Web applications
D01	Master of Computer Applications	2019	18MC204	Data Mining	Skill development Prediction of weather conditions with the help of data mining techniques
D01	Master of Computer Applications	2019	18MC205	Software Engineering	Skill development Make a list of possible risks and prepare a mitigation plan
D01	Master of Computer Applications	2019	18MC206	Web Scripting Through Php & Mysql	Employability Design an application to perform various operations of a real world problem
D01	Master of Computer Applications	2019	18MC207	Operating Systems	Skill development Identification and installation of various operating systems

D01	Master of Computer Applications	2019	18MC208	Mobile Application Development	Employability Installation of Android Studio and required plug-ins
D01	Master of Computer Applications	2019	18MC209	formal Languages and Automata Theory	Skill development Conversion of NFA to DFA
D01	Master of Computer Applications	2019	18MC210	Cloud Computing	Employability Program data intensive parallel applications in the cloud
D01	Master of Computer Applications	2019	18MC211	Linux Basics and Shell Programming Lab	Employability Use Bash for Shell Scripts for a given problem statement
D01	Master of Computer Applications	2019	18MC213	Seminar	Skill development Seminar on emerging technologies in computer applications
D01	Master of Computer Applications	2019	18MC216	Mini Project-I	Employability (To develop the mini project based learning to identify the potential tasks)
G18	Ph.D - Agriculture Engineering	2019	PH298	Applied Instrumentation	Employability
G18	Ph.D - Agriculture Engineering	2019	PH299	Advances in Ergonomics	Employability
G18	Ph.D - Agriculture Engineering	2019	PH300	Testing And Evaluation Of Tractors And Farm Equipment	Employability
G18	Ph.D - Agriculture Engineering	2019	PH301	Design And Analysis Of Renewable Energy Conversion Systems	Employability
G30	Ph.D - Physics	2019	PH292	LITHOGRAPHIC TECHNIQUES FOR DEVICE FABRICATION	Employability
G30	Ph.D - Physics	2019	PH293	NANOMAGNETISM- FUNDAMENTALS AND APPLICATIONS	Employability
G30	Ph.D - Physics	2019	PH294	NANOSENSORS	Employability
G30	Ph.D - Physics	2019	PH295	PHYSICS AND CHEMISTRY OF SOLIDS	Employability
G30	Ph.D - Physics	2019	PH296	PHYSICS OF THE SEMICONDUCTOR	Employability
G30	Ph.D - Physics	2019	PH297	QUANTUM PHYSICS FOR NANOTECHNOLOGIES	Employability
G32	Ph.D - Mathematics	2019	PH281	Differential equations	Employability
G32	Ph.D - Mathematics	2019	PH282	FUZZY MATHEMATICS	Employability
G32	Ph.D - Mathematics	2019	PH283	Fuzzy Topology	Employability
G32	Ph.D - Mathematics	2019	PH284	Harmonic Analysis	Employability
G32	Ph.D - Mathematics	2019	PH285	Parallel Iterative methods for Partial Differential Equations	Employability
G32	Ph.D - Mathematics	2019	PH286	Soft Topology	Employability
G32	Ph.D - Mathematics	2019	PH288	STOCHASTIC MODELING	Employability
G32	Ph.D - Mathematics	2019	PH289	Symmetries and Differential Equations	Employability
G32	Ph.D - Mathematics	2019	PH290	Theory of Semirings	Employability
G32	Ph.D - Mathematics	2019	PH291	TOPICS IN ANALYSIS	Employability
J01	Bachelor of Computer Applications	2019	18BC201	Programming through Python	Employability Utilization of data types such as lists, tuples, dictionaries and sets
J01	Bachelor of Computer Applications	2019	18BC202	Web Scripting through Php & Mysql	Employability Design and develop a user interface for Web applications
J01	Bachelor of Computer Applications	2019	18BC203	Database Management Systems	Employability Design of ER Diagram for the development of Web applications
J01	Bachelor of Computer Applications	2019	18BC204	Computer Networks	Skill development Identifying Various network devices
J01	Bachelor of Computer Applications	2019	18BC205	Web Technology	Skill development Installation and Configure of Web Server
J01	Bachelor of Computer Applications	2019	18BC206	Software Engineering	Employability Make a list of possible risks and prepare a mitigation plan
J01	Bachelor of Computer Applications	2019	18BC207	Management Science	Skill development Plan and Control the HR function effectively
J01	Bachelor of Computer Applications	2019	18BC208	Organizational Behaviour	Skill development Interpret Key concepts and theories
J01	Bachelor of Computer Applications	2019	18BC209	Seminar	Skill development Seminar on emerging technologies in computer applications
J01	Bachelor of Computer Applications	2019	18BC210	Mini Project-I	Employability (Implementation of Industry development Project)
J01	Bachelor of Computer Applications	2019	18BC212	Statistical Programming In R	Employability (by using R programming to design and perform the statistical analysis systems on R)
J01	Bachelor of Computer Applications	2019	18BC214	Embedded Systems	Employability (To perform the systems level while using embedded systems)
K01	Bachelor of Business Administratic	2019	17BB301	Strategic Management	Employability Select a high profile industry such as IT or Entertainment Industry. Identify major Competitors and analyze the type of corporate level of strategies being used by firms.
K01	Bachelor of Business Administratic	2019	17BB302	Enterprise Resource Planning	Employability (Collect the responses of managers in implementation of ERP)
K01	Bachelor of Business Administratic	2019	17BB303	Goods & Service Tax	Skill development (Tax implemented for economy growth)
K01	Bachelor of Business Administratic	2019	17BB304	Project Management	Employability 1. Bring out the role of GST in being tax guardian to end-users. 2. Filing of Tax 3. What is the impact of GST on banking sector? 4. Case studies on banking sector
K01	Bachelor of Business Administratic	2019	17BB305	Entrepreneurship Behaviour	Employability 1. Convert your business ideas by drafting a business plan and carefully evaluate the possible business opportunities. 2. Prepare a brief case study based on any successful local entrepreneur by analyzing the failures and success factors. 3. List out and analyze the profiles of any three new age Entrepreneurs. 4. Visit the DIC and make list of the various existing institutions supporting Entrepreneurs in Andhrapradesh and analyze the facilities provided by them. 5. Answer for a most lecture by an entrepreneur of your choice
K01	Bachelor of Business Administratic	2019	17BB306	Operations Research	Employability Be able to build and solve Transportation Models and Assignment Models.
K01	Bachelor of Business Administratic	2019	17BB307	Organizational Behaviour	Employability 1. Survey on resistance to changing policies in The Banking Sector, The IT Sector 2. Undertake a study to find out the various nonfinancial incentives used to motivate employees. 3. A study in job enrichment and factors contributing to absenteeism and employee turnover in any industry of your choice. 4. Analyze the characteristics and components of attitudes. 5. Perform a study on the determinants of personality of a group of individuals. 6. Analyze the organizational culture and climate in the BPO industry. 7. Conduct a study on the reasons for attrition in the BPO industry.
K01	Bachelor of Business Administratic	2019	17BB308	Digital Marketing	Entrepreneurship 1. To get well versed with Google AdWords and Google tools 2. Free tools for website designing. 3. Understanding the various measures taken to relate to enhance Public relations. 4. Create and maintain a page on Social Media Eg: Facebook- Twitter- InstagramLinkedin. 5. Help a start up promote their local business using Google AdWords or Facebook Promotes.
K01	Bachelor of Business Administratic	2019	17BB309	Marketing Research	Employability 1. To collect the data regarding any phenomenon in the form of both primary and secondary. 2. To make out an effective research design process for an identified problem. 3. Appropriate questionnaires can be designed to fulfill the research objectives. 4. Association and Variance analysis can be measured between variables. 5. Causal relationship between the variables can be analyzed.
K01	Bachelor of Business Administratic	2019	17BB310	Innovation and Product Development	Employability 1. Visit any software company and identify how they manage the innovation. 2. Prepare a report on Technology transfer models followed by a company that you have visited recently. 3. Identify the new product development (NPD) strategies followed by a company known to you. 4. Prepare a report on new product opportunities generated through packaging in the recent past. 5. Select a product, conduct market research and prepare market survey report.

K01	Bachelor of Business Administration	2019	17BB311	Retailing Management	<ol style="list-style-type: none"> 1. To collect information regarding some of the major retail brand names in the world. 2. To study the advantages and disadvantages in the retail sector. 3. To study the role of malls in retail marketing. 4. A report to be made on industries directly dependent on different modes of transport systems in India. 5. Changes in retail chain management.
K01	Bachelor of Business Administration	2019	17BB312	Advertising and Brand Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Build a model of Promotion mix which gives the best utilitarian value for the business firms. 2. Appropriate media plans can be developed. 3. Adequate knowledge on advertising agencies in India. 4. Brand building can be planned effectively for different segments. 5. Case study development on Brand repositioning.
K01	Bachelor of Business Administration	2019	17BB313	Consumer Behavior	<p>Employability</p> <ol style="list-style-type: none"> 1. Collect five print ads of products, which are directed at the life style segments. Describe the lifestyle that these ads focus on. 2. Construct a brand personality inventory for two different brands in the same product category. Ask five of your friends to rate each brand on ten different personality dimensions
K01	Bachelor of Business Administration	2019	17BB314	Services Marketing	<p>Employability</p> <ol style="list-style-type: none"> 1. Find five effective service advertisements in newspapers and magazines. According to the criteria given in this chapter, identify why they are effective. Critique them using the list of criteria and discuss ways they could be improved. 2. Consider that you are the owner of a new private college and can prepare a value/price package that is appealing to students. Describe your approach. How does it differ from existing offerings?
K01	Bachelor of Business Administration	2019	17BB315	Sales & Distribution Management	<ol style="list-style-type: none"> 1. To collect information regarding some of the major retail brand names in the world. 2. To study the advantages and disadvantages in the retail sector. 3. To study the role of malls in retail marketing. 4. A report to be made on industries directly dependent on different modes of transport systems in India. 5. Changes in retail chain management.
K01	Bachelor of Business Administration	2019	17BB316	Tourism Marketing	<p>Employability</p> <p>Prepare a report on competitive analysis of the tourism destination</p>
K01	Bachelor of Business Administration	2019	17BB317	Security Analysis and Portfolio Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Read any two related international treaties & write a report 2. Project on security analysis 3. Project on portfolio management
K01	Bachelor of Business Administration	2019	17BB318	Financial Derivatives	<p>Employability</p> <ol style="list-style-type: none"> 1. To study the role of derivatives in financial markets 2. Project on financial derivatives 3. What is role of financial derivatives
K01	Bachelor of Business Administration	2019	17BB319	International Financial Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Read any two related international treaties & write a report. 2. Follow any latest cross-border merger and evaluate its outcomes. 3. Work out on cross-currency valuations. 4. Evaluate the role of any two International Agencies. 5. Bring out the role of GST in being tax guardian to endusers.
K01	Bachelor of Business Administration	2019	17BB320	Mergers & Acquisitions	<p>Employability</p> <ol style="list-style-type: none"> 1 Evaluate pros & cons of M&A Deals 2. Evaluate financing options
K01	Bachelor of Business Administration	2019	17BB321	Banking and Financial Services	<p>Employability</p> <p>Visit a bank and collect information regarding short term and medium term finance offered by them.</p>
K01	Bachelor of Business Administration	2019	17BB322	Strategic Financial Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Project on strategic financial management 2. Role play on the project 3. Case studies discussion in the class
K01	Bachelor of Business Administration	2019	17BB323	Financial Markets and Institutions	<ol style="list-style-type: none"> 1. To collect information regarding the various services offered by banks. 2. To track the changes in services offered by banks over the years. 3. To collect a sample tripartite lease agreement. 4. To collect complete details regarding companies funded by venture capitalists. 5. To study the role of derivatives in financial markets. 6. To visit a bank and collect information regarding the risk management tools offered by them with respect to derivatives
K01	Bachelor of Business Administration	2019	17BB324	Foreign Exchange & Risk Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Work out on cross-currency valuations.. 2. Project on foreign exchange 3. Project on risk management
K01	Bachelor of Business Administration	2019	17BB325	Project Finance	<p>Employability</p> <ol style="list-style-type: none"> 1. A case study on different types of finance techniques 2. Group discussion on long run and short run finances 3. Presentations on finances of the project 4. Project approval methods and techniques
K01	Bachelor of Business Administration	2019	17BB326	Commodities Market	<p>Employability</p> <p>Select some listed companies and compare and analyze their stock values.</p>
K01	Bachelor of Business Administration	2019	17BB327	Industrial Relations and Labour Laws	<p>Employability</p> <ol style="list-style-type: none"> 1. Conduct a Study on effectiveness of TU in APSRTC in selected units 2. Find out the collective Bargaining procedure in selected sugar factory 3. Analyse the effectiveness of The Workmen's Compensation Act, 1923 – The ESI Act, 1948 – The Payment of Wages Act, 1936 – in any manufacturing sector 4. The Minimum Wages Act, 1948 – The Payment of Bonus Act, 1965 – The Payment of Gratuity Act, 1972 – The EPF Act, 1952 in any pharma company
K01	Bachelor of Business Administration	2019	17BB328	Performance and Compensation Management	<p>Employability</p> <ol style="list-style-type: none"> 1. Find out staffing strategy of any 2 companies 2. Conduct a survey on importance of Compensation in any 2 IT based companies 3. Study Attracting strategies of any 2 companies of financial institution 4. List out the latest trends in Recruitment 5. Study orientation programs offered by any 2 companies of IT sector
K01	Bachelor of Business Administration	2019	17BB329	Talent Planning and Acquisition	<p>Employability</p> <ol style="list-style-type: none"> 1. Find out staffing strategy of any two companies 2. Conduct a survey on importance of HR planning in any 2 IT based companies 3. Study Attracting strategies of any 2 companies of financial institution. 4. List out the latest trends in Recruitment
K01	Bachelor of Business Administration	2019	17BB330	Strategic and International HRM	<p>Employability</p> <ol style="list-style-type: none"> 1. Chart out the methods of appraising employees of any (one) organization of your choice. 2. List out the HR policies of any one company. 3. Select any two companies of your choice and write its HR policies 4. List out any 5 (five) welfare techniques for employees. 5. Draft the executive development plan of any company. 6. A study of different recruitment models in companies can be made.
K01	Bachelor of Business Administration	2019	17BB331	Learning and Development	<p>Employability</p> <ol style="list-style-type: none"> 1. List out Training practices of any 2 telecommunication companies 2. Conduct a study on designing Training programs of banking sector 3. Study the effectiveness of Training programs of any 2 service sector related companies 4. Find out group building activities of any MNC company 5. Analyse any special issues of T&D programs)
K01	Bachelor of Business Administration	2019	17BB332	HR Analytics and Metrics	<p>Employability</p> <ol style="list-style-type: none"> 1. Identify the applications of business analytics in HR 2. Collect the data from various industries and present the data suitable visualizations techniques.

K01	Bachelor of Business Administration	2019	17BB333	Talent Management & Succession Planning	Employability 1. Find out staffing strategy of any two companies 2. Conduct a survey on importance of HR planning in any 2 IT based companies 3. Study Attracting strategies of any 2 companies of financial institution 4. List out the latest trends in Recruitment
K01	Bachelor of Business Administration	2019	17BB334	Organization Development and Change	1. Survey on resistance to changing policies in The Banking Sector, The IT Sector 2. Undertake a study to find out the various nonfinancial incentives used to motivate employees 3. A study in job enrichment and factors contributing to absenteeism and employee turnover in any industry of your choice. 4. Analyze the characteristics and components of attitudes. 5. Perform a study on the determinants of personality of a group of individuals. 6. Analyze the organizational culture and climate in the BPO industry. 7. Conduct a study on the reasons for attrition in the BPO industry.
K01	Bachelor of Business Administration	2019	17BB335	Industrial and Organizational Psychology	Employability 1. Identify the leadership styles of any 2 organisations 2. Survey the Job satisfaction levels of any BPO company
K01	Bachelor of Business Administration	2019	17BB336	Leadership & People Management	Employability Identify the traits of a business leader
K01	Bachelor of Business Administration	2019	17BB337	SIP Review	Employability Prepare a project report in the specialization domain
K01	Bachelor of Business Administration	2019	17BB338	Management Thesis	Employability Prepare a report on the contemporary study with respect to your domain
K01	Bachelor of Business Administration	2019	17BB339	Analytical Skills for Managers-I	Employability 1. Solves Arithmetic and Reasoning Problems assigned by the faculty 2. Assignment: Student exhibits better analytical skills and aptitude skills. 3. Group activity: Student develops interpretational skills.
K01	Bachelor of Business Administration	2019	17BB340	Analytical Skills for Managers-II	Employability 1. Solves Arithmetic and Reasoning Problems assigned by the faculty. 2. Assignment: Student exhibits better analytical skills and aptitude skills. 3. Group activity: Student develops interpretational skills.
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS038	Ring Theory and Vector Calculus	Skill development 1. To know the principles of abstract algebra . understand the theorems and problems. 2. Know and understand the definition and theorems of Vector Calculus. Apply the theories in every branch of Science and also in commerce.
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS039	Linear Algebra	Skill development 1. Provides an overview of current research on the nature of difficulties and students' thought processes in the context of learning linear algebra
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS040	Sampling Techniques and Design of Experiments	Skill development (a class activity designed to help students understand how to select a sample using the systematic sampling technique as well as introduce them to some of the sampling features. Designing experiments in view of the principles of replication, randomization and local control for any agricultural field)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS041	Sampling Techniques and Design of Experiments Lab	Skill development (a class activity designed to help students understand how to select a sample using the systematic sampling technique as well as introduce them to some of the sampling features. Designing experiments in view of the principles of replication, randomization and local control for any agricultural field in laboratory level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS042	Quality, Reliability	Skill development (Improvement on the classroom teaching method of Quality Management and Reliability. Construction of various control charts on different manufacturing process to study the quality of the process)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS043	Quality, Reliability Lab	Skill development (To maintain the quality and reliability of the materials)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS044	DBMS	Employability (Working with computational databases for the storage data and retrieval from database)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS045	DBMS Lab	Employability (Working with computational databases for the storage data and retrieval from database in laboratory level)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS046	Software Engineering	Skill development (To learn and develop the engineering skills for the development of software programs)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS047	Software Engineering Lab	Skill development (To learn and develop the engineering skills for the development of software programs advanced level in labs)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS048	Laplace Transformations	Skill development Once a dynamic model has been developed, it can be solved for a variety of conditions that include changes in the input variables or variations in the model parameters. The transient responses of the output responses of the output variables are calculated by numerical integration after specifying both the initial conditions and the inputs as functions of time. Laplace transform is a mathematical tool which can significantly reduce the effort required to solve and analyze linear differential equations. A major benefit is that this transformation converts ordinary differential equations to algebraic equations, which can simplify the mathematical manipulations required to obtain a solution or perform an analysis. Laplace transform is used for solving differential and integral equations
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS049	Numerical Analysis	Skill development 1. Graphical Euler's Method: Enter the differential equation Change the values of the number of Euler steps, number of steps between plotted points, change in t for plotted points, and graph 2. Numerical Euler's method: Enter the differential equation and select Euler format Use six different values of h the stepsize Confirm the expected relationship between h and size of the final t-value Estimate the number of Euler steps needed to have a final accuracy
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS050	Number Theory	Skill development 1. Combinatorial objects are everywhere. How many ways are there to make change for \$1 using unlimited numbers of coins of all denominations? Each way is a combinatorial object. AMOF is part encyclopedia and part calculator, a teaching tool that generates
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS051	Integral Transformations	Skill development (The Center for Mathematical Talent (CMT) at the Courant Institute of Mathematical Sciences coordinates activities for students in the New York City area who would like more mathematics than is included in the usual mathematics classroom)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS052	Advanced Numerical Analysis	Skill development 1. Graphing and exploring simple interest and compound interest. Examples of interest earned on one dollar at 6 percent compounded daily, monthly, quarterly, annually. Patterns, infinite sequence
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS053	Mechanics	Skill development Introduction to the Golden Ratio and Fibonacci Sequence. Instead of simply supplying definitions and asking the student to engage in mindless practice, students work through several activities to discover the applications of the Golden Ratio and Fibonacci
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS054	Fluid Mechanics	Skill development From drinking fountains at playgrounds, water systems in homes, and working bathrooms at schools to hydraulic bridges and levee systems, fluid mechanics are an essential part of daily life. Fluid mechanics, the study of how forces are applied to fluids, is outlined in this unit as a sequence of two lessons and three corresponding activities. The first lesson provides a basic introduction to Pascal's law, Archimedes' principle and Bernoulli's principle and presents fundamental definitions, equations and problems to solve with students, as well as engineering applications.

M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS055	Graph Theory	Skill development 1. Hamilton made valuable contributions to various different fields of science; algebra, optics, dynamics and quantum mechanics. Of interest to pure mathematicians is his pioneering work in the discovery of Quaternions, involving the extension of the concept of complex numbers into four dimensions. He may also be considered as the inventor of the 'cross product' and 'dot product' of vector algebra. 2. In graph theory, a cycle which visits every vertex in a graph exactly once is known as a Hamiltonian Cycle. The still-unsolved Travelling Salesman Problem is a variation on this principle, where a tour of minimum length must be found which visits each vertex at least once.
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS056	Applied Graph Theory	Skill development 1. In 1857, in his spare time Hamilton invented The Icosian Game, based on the twenty vertices of an Icosahedron. The simple nature of the game was that the player, given the first five vertices, had to complete the route through the remaining fifteen vertices without repeats. 2. The game was subsequently sold to a London games dealer, John Jaques & Sons, who marketed it in two forms – flat for parlour use and hand-held for journeys – under the name "Around the World". The game was not a commercial success and Hamilton, who was paid £25 outright, had the better part of the bargain!
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS057	Applied Statistics	Skill development Skills related to construct index numbers for quantity, price and cost of living index numbers for a locality. Construct chain based index numbers for stock prices. Finding time series and applying forecast models to the essential commodities
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS058	Computer Programming and Data Analytics	Skill development (To write the programming language for development of applications and data analysis)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS059	Operations Research	Skill development (Techniques in OR have been effectively used to complement the traditional theoretical presentation in an introductory operation and production management course. Formulate LPP for different processes and find the optimum quantities of the decision variables. Applying game theory techniques, CP/M techniques in operations management)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS060	Econometrics	Skill development (Fitting econometric models for price of different commodities. The pit market experiment can be run with little effort using playing cards. The various experiments conducted made the module much more interesting, understandable and most importantly enjoyable)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS061	Operating Systems	Employability (Identification and installation of various operating system)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS062	Computer Network	Employability (To monitor the signal processing networks)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS063	Web Technologies	Employability (development of scripting languages for web application)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS064	Foundations of Data Science	Employability (Storage of large sets of data in the database and maintenance by applying data science)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS065	Big Data Technology	Employability (Storage of large sets of data in the database and maintenance by applying big data analytics)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS066	Computing for Data Analysis	Skill development (To solve the errors in coding for data analysis)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS067	Distributed Systems	Employability (To provide the service and business work models of computers)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS068	Cloud Computing	Skill development (Maintenance of data in cloud platforms for longer storage)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS069	Grid Computing	Employability (To support the data working flow while using grid computing)
M01	B.Sc. (Mathematics, Statistics and Computer Science)	2019	17HS099	Project Work	Employability Implementation of real-time projects to serve the societal needs/ Industry oriented projects
N01	Bachelor of Pharmacy	2019	18BP031	Pharmaceutical Organic Chemistry II – Theory	1. Prepare the chart for various aromatic functional groups 2. Prepare the chart for structure of benzene, Orbital picture, resonance in benzene 3. Prepare the chart for Reactions of benzene 4. Prepare the chart for Structure and uses of DDT, Saccharin, BHC and Chloramine 5. Prepare the chart for Acid value, Saponification value, Ester value, Iodine value, Acetyl value, Reichert Meisl (RM) value
N01	Bachelor of Pharmacy	2019	18BP032	Physical Pharmaceutics I – Theory	Employability 1. Solubility of drugs 2. States of Matter and properties of matter 3. Physicochemical properties of drug molecules 4. Complexation and protein binding
N01	Bachelor of Pharmacy	2019	18BP033	Pharmaceutical Microbiology – Theory	Employability 1. Focus microscope with different magnifications 2. Demonstrate autoclave and hot air oven 3. Sterilize different media and glassware 4. Prepare of different culture media 5. Inoculate the microbes by using different techniques 6. Demonstrate simple, gram, and acid fast staining 7. Determine the motility of bacteria 8. Perform the sterility test for various pharmaceuticals
N01	Bachelor of Pharmacy	2019	18BP034	Pharmaceutical Engineering – Theory	Employability 1. Basic Principles and methodology of simple distillation, flash distillation 2. Heat transfer mechanisms 3. mechanism of size separation 4. Edge runner mill & end runner mill)
N01	Bachelor of Pharmacy	2019	18BP035	Pharmaceutical Organic Chemistry II – Practical	1. Prepare the chart for various aromatic functional groups 2. Prepare the chart for structure of benzene, Orbital picture, resonance in benzene 3. Prepare the chart for Reactions of benzene 4. Prepare the chart for Structure and uses of DDT, Saccharin, BHC and Chloramine 5. Prepare the chart for Acid value, Saponification value, Ester value, Iodine value, Acetyl value, Reichert Meisl (RM) value
N01	Bachelor of Pharmacy	2019	18BP036	Physical Pharmaceutics I – Practical	Employability 1. Solubility of drugs 2. States of Matter and properties of matter 3. Physicochemical properties of drug molecules 4. Complexation and protein binding)
N01	Bachelor of Pharmacy	2019	18BP037	Pharmaceutical Microbiology – Practical	Employability 1. Focus microscope with different magnifications 2. Demonstrate autoclave and hot air oven 3. Sterilize different media and glassware 4. Prepare of different culture media 5. Inoculate the microbes by using different techniques 6. Demonstrate simple, gram, and acid fast staining 7. Determine the motility of bacteria 8. Perform the sterility test for various pharmaceuticals
N01	Bachelor of Pharmacy	2019	18BP038	Pharmaceutical Engineering – Practical	Employability 1. Basic Principles and methodology of simple distillation, flash distillation 2. Heat transfer mechanisms 3. mechanism of size separation 4. Edge runner mill & end runner mill)

N01	Bachelor of Pharmacy	2019	18BP041	Pharmaceutical Organic Chemistry III-Theory	Employability 1. Prepare the chart for basic concepts of stereochemistry 2. Prepare the chart for Metal hydride reduction and Clemensen reduction 3. Prepare the chart for Birch reduction, Wolff Kishner's reduction. 4. Prepare the chart for Oppenauer-oxidation and Dakin reaction 5. Prepare the chart for Beckmann's rearrangement and Schmidt rearrangement 6. Prepare the chart for Claisen-Schmidt condensation
N01	Bachelor of Pharmacy	2019	18BP042	Medicinal Chemistry I – Theory	1. Prepare the chart for basic concepts like Ionization, Solubility, Partition Coefficient, Hydrogen bonding 2. Prepare the chart for basic concepts like Protein binding, Chelating, Bioisosterism, Optical and Geometrical isomerism. 3. List out the Factors affecting drug metabolism 4. Prepare the chart on SAR of Sympathomimetic agents
N01	Bachelor of Pharmacy	2019	18BP043	Physical Pharmaceutics II – Theory	Employability 1. Organization Structure of a Hospital, and Medical staffs involved in the hospital 2. Adverse drug reaction reporting and management 3. Dispensing of proprietary products
N01	Bachelor of Pharmacy	2019	18BP044	Pharmacology I – Theory	Employability 1. Collect the 2ml of blood from rabbit 2. Prepare the serum and plasma from the given blood sample 3. Administer the drug to the rat 4. Identify the effect of given drug sample on the locomotor activity 5. Prepare the setup for recording the Dose response curve
N01	Bachelor of Pharmacy	2019	18BP045	Pharmacognosy and Phytochemistry I – Theory	Employability 1. Study of biological source, chemical nature and uses of drugs 2. Role of Pharmacognosy in allopathy 3. detailed study of Primary metabolites
N01	Bachelor of Pharmacy	2019	18BP046	Medicinal Chemistry I – Practical	1. Prepare the chart for basic concepts like Ionization, Solubility, Partition Coefficient, Hydrogen bonding 2. Prepare the chart for basic concepts like Protein binding, Chelating, Bioisosterism, Optical and Geometrical isomerism. 3. List out the Factors affecting drug metabolism 4. Prepare the chart on SAR of Sympathomimetic agents
N01	Bachelor of Pharmacy	2019	18BP047	Physical Pharmaceutics II – Practical	Skill development(To study Physical Pharmaceutics in laboratory level to develop practical skills advanced level)
N01	Bachelor of Pharmacy	2019	18BP048	Pharmacology I – Practical	Skill development(To study Physical Pharmaceutics in laboratory level to develop practical skills)
N01	Bachelor of Pharmacy	2019	18BP049	Pharmacognosy and Phytochemistry I – Practical	Skill development(To study Pharmacognosy and Phytochemistry to develop the chemical and pharmacological skills)
All B.Tech Programmes		2019	16ES003	Employability Skills-III	Employability(To develop the employability skill while using communication and experimental level of skills)


REGISTRAR

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