

CHRIST COLLEGE (AUTONOMOUS), IRINJALAKUDA

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UG - COURSE OUTCOME (ACADEMIC YEAR 2021-'22)

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Name of the programme				Bachelor of Vocation Information Technology		
Short Name of the Programme				Bvoc IT		
Code of the Programme				CCAVIT		
Semester	Course code	Course Title	CO No:	Course Outcomes		
1	SDC1BA01	BUSINESS ANALYTICS	CO1	To understand how to integrate information technologies with data science methods to extract value from data sets		
			CO2	To understand how to select appropriate analytic tools for specific managerial issues		
			CO3	To be able to think critically about the business implications, meaningfulness and applicability of observed data patterns and analytical inferences		
			CO4	To have proficiency with several data-analytic tools to solve business problems		
			CO5	To get expertise in tools such as Excel and open source to interpret data		
	SDC1PP02	PYTHON PROGRAMMING, BASIC ELECTRONICS AND INTRODUCTION TO IOT PART A - PYTHON PROGRAMMING	CO1	To understand Problem solving and programming capability in Python		
			CO2	Acquire programming skills in core Python		
			CO3	Acquire Object Oriented Skills in Python		
			CO4	Develop the skill of designing Graphical user Interfaces in Python		
			CO5	To develop the ability to write database applications in Python		
		PART - B BASIC ELECTRONICS AND INTRODUCTION TO IOT	CO1	Understand the working of various semi-conductor devices		
			CO2	Develop analysis capability in BJT and FET Amplifier Circuits		
			CO3	Develop competence in frequency response analysis of discrete amplifiers		
			CO4	Develop design competence in signal and power amplifiers using BJT and FET		
			CO5	To understand the basic digital electronic gates		
	SDC1DB03	DATABASE MANAGEMENT SYSTEM: MONGO DB	CO1	Understand the use of Structured Query Language (SQL) and SQL syntax.		
			CO2	Apply normalization techniques to normalize the database		
			CO3	Understand the needs of database processing and to get trained in techniques for controlling the consequences of concurrent data access		
			CO4	Skilled in data modelling using the entity relationship and developing database designs.		
			CO5	Understand the relational model of data and usage of Relational Algebra.		
	SDC1DB05P	PRACTICAL PYTHON PROGRAMMING & DBMS				
	2	SDC2ME06	MICROSOFT EXCEL FOR VBA & SPSS	CO1	Understand the elements of human logic manifest in Excel's user interface, and some of the ways those elements manifest in Excel VBA	
				CO2	and VBA concepts	
				CO3	Understand the essentials of the Excel Developer tab and VBA Editor	
				CO4	Understand macro-less workbooks as opposed to VBA Macro (and VBA Function) enabled workbooks	
CO5				To get skilled in Data Analysis and Data Visualization		
SDC2DS07		INTRODUCTION TO DATA SCIENCE	CO1	An understanding of problems solvable with data science and an ability to attack them from a statistical perspective.		
			CO2	An understanding of when to use supervised and unsupervised statistical learning methods on labelled and unlabelled data-rich problems. Gain an in-depth understanding of data structures and data analysis to explore and visualise data for meaningful insights and identify relationships between large data sets.		
			CO3	Gain the skills and knowledge required to manage data science and analytics teams or projects at your organization		
			CO4	Understand the nuances and applications of descriptive, predictive, and prescriptive analytics to enhance analytical skills and make real-time, data-driven business decisions.		
			CO5	Learn to use analytical tool such as R to manipulate and analyse complex data sets and become proficient in building machine learning models using R.		
			CO6			

	SDC2DS08P	PRATICAL II: MICROSOFT EXCEL FOR DATA SCIENCE AND SPSS		
3	SDC3CN11	COMPUTER NETWORKS FOR IOT	CO1	Understand the basic taxonomy and terminology of the computer networking and enumerate the layers of OSI model.
			CO2	Understand Application layer and Presentation layer paradigms and protocols.
			CO3	Understand different protocols used in IOT
			CO4	Get skilled in Network layer routing protocols and IP addressing
			CO5	To get skilled in reading the fundamentals and basics of Physical layer, and will apply them in real time applications.
	SDC3ED12	ELECTRONICS DEVICES AND CIRCUIT DESIGN FOR IOT, IOT WITH RASPERRY Pi	CO1	To be able to analyze PN junctions in semiconductor devices under various conditions
			CO2	To be able to design and analyze simple rectifiers and voltage regulators using diodes
			CO3	Explore the design methodology of M2M Communication in Internet of Things
			CO4	To be able to Analyze various protocols for Internet of Things
			CO5	Realize the Internet of Things Ecosystem using Wireless Technologies.
SDC3PC13P	PRACTICAL 3:PYTHON FOR DATA SCIENCE& COMPUTER NETWORKS FOR IOT			
SDC3IR14P	PRACTICAL 4:BASICS OF IOT & IOT WITH RASPERRY Pi			
4	SDC4DS15	DATA SCIENCE WITH R AND PYTHON PROGRAMMING, EMBEDDED LINUX OS & ANDROID PROGRAMMING	CO1	Understand hardware and software design requirements of embedded systems
			CO2	Understand Android platform and architecture as well as UI designing.
			CO3	Understand the embedded systems' specification and develop software programs
			CO4	To integrate multimedia, camera and Location based services in Android Application
	SDC4DS17P	PRACTICAL V: DATA SCIENCE WITH R PROGRAMMING AND DATA VISUALISATION USING QlikView AND Power BI		
SDC4AL18P	PRATICAL 6:ANDRIOD & LINUX			
	SDC5ML20	MACHINE LEARNING USING PYTHON	CO1	To understand the basic concepts and techniques of Machine Learning
			CO2	To understand regression methods, classification methods, clustering methods.
			CO3	To understand Dimensionality reduction Techniques
			CO4	Understand the strengths and weaknesses of popular machine learning approaches.
			CO5	To be able to design and implement machine learning solutions to classification, regression, and clustering problems; and be able to evaluate and interpret the results of the algorithms
	SDC5BC21	BIG DATA &CLOUD PLATFORM FOR IOT	CO1	To Understand the challenges traditional data mining algorithms face when analyzing Big Data
			CO2	Get introduced the tools required to manage and analyze big data like Hadoop, NoSql MapReduce
			CO3	To understand fundamental techniques and principles in achieving big data analytics with scalability and streaming capability.
			CO4	Gain practical experience in the development of Cloud-based IoT systems and exposure to appropriate hardware and software platforms that underpin such development.
	SDC5HN22P	PRATICAL I:HADOOP & NO SQL DATABASE		
SDC5ML23P	PRACTICAL VIII: MACHINE LEARNING PYTHON AND DATA VISUALISATION USING TABLEAU			
			CO1	Understand to interpret literature with the purpose of formulating a project proposal

6		PROJECT	CO2	Get skilled in Planning, analyzing, designing and implementing a software project using SDLC model.	
			CO3	Learn to work as a team and to focus on getting a working project done within a stipulated period of time	
			CO4	Understand the concepts of design methodologies, testing methodologies & its implementation	
			CO5	Skilled in the technical report/thesis writing	
Name of the programme			Bachelor of Vocation Food Processing Technology		
Short Name of the Programme			Bvoc FPT		
Code of the Programme			CCAVFP		
Semester	Course code	Course Title	CO No:	Course Outcomes	
1	SDC1 FF01	FOOD CHEMISTRY, NUTRITION AND INSTRUMENTATION	CO1	To understand the chemistry of foods - composition of food, role of each component and their interaction	
			CO2	To understand how processing conditions are likely to change the reactivity of food components	
			CO3	To explain the chemistry of the most important food components, including their properties and reactions	
			CO4	Understand the relationship between nutrition and human wellbeing.	
			CO5	Apply their knowledge and laboratory skills to measure, control and modify the chemical and physical properties of food	
			CO6	To understand the principles behind some of the most common analytical techniques used in food analysis and to get skilled in it's usage	
			CO7	To understand the major chemical reactions that occur during food handling, processing and storage, including those that limit food shelf life	
	SDC1 FF02P	FOOD CHEMISTRY, NUTRITION, INSTRUMENTATION (PRACTICAL)			
	SDC1 BC 03	BAKERY AND CONFECTIONERY	CO1	To understand the fundamentals of baking and technology behind various bakery products	
			CO2	Understand the fundamentals of baking and to familiarise various kinds of ingredients used in baking.	
			CO3	To get skilled in preparation of different bakery items and bread making.	
			CO4	To develop skill in various baking procedures and to get working knowledge of equipment needed for baking so as to start independent unit.	
			CO5	To get trained in quality check and causes of spoilage in baking.	
			CO6	To get trained in quality check and causes of spoilage in baking.	
			CO7	To get trained in the technologies (equipment and process) for confectionary product preparations	
	SDC1 BC 04	BAKERY AND CONFECTIONERY (PRACTICAL)			
	2	SDC2 PF06	PRINCIPLES OF FOOD PRESERVATION	CO1	To study the systematic approach towards the basic and applied aspects of different preservation methods.
				CO2	To familiarize with various theoretical aspects of recent trends in food preservation
				CO3	To understand the method of action of different preservatives.
				CO4	To understand the different ways in which food spoilage occurs and the techniques to prevent it
				CO5	To get skilled in the appropriate usage of different preservatives that are used commonly in the industry.
CO6				To get skilled in the estimation of different preservatives in food samples that are used commonly in the industry	
SDC2 PF07P		PRINCIPLES OF FOOD PRESERVATION (PRACTICAL)			
SDC2 DT08		DAIRY TECHNOLOGY	CO1	To understand the chemistry of milk and its products, composition, role of each component and their interactions	
			CO2	To understand processing preservation and production of milk and milk products	
			CO3	To be able to evaluate the adulteration in milk and milk products	
			CO4	To get skilled in the quality check of Milk and milk products	
			CO5	To get trained in the preparation of different value added products of milk	

			CO6	To understand the working of a dairy unit in a real life situation.
	SDC2 DT09P	DAIRY TECHNOLOGY (PRACTICAL)		
3	SDC3 FM11	FOOD MICROBIOLOGY	CO1	To understand the structure and characteristics of different microorganism.
			CO2	To understand the concept of sterilisation and its importance in food processing
			CO3	To understand the spoilage in different food commodities by means of microorganisms
			CO4	To understand the importance of microbes in fermented food products
			CO5	To get skilled in aseptic culture techniques for bacteria
	SDC3 FM12P	FOOD MICROBIOLOGY (PRACTICAL)		
	SDC3 MT13	MILLING TECHNOLOGY	CO1	To understand various technologies in cereal and pulse processing and milling.
			CO2	Understand basic composition and structure of food grain
			CO3	Understand the basics of milling operations and byproducts utilization.
			CO4	To understand the production, distribution & storage of grains and their valued adds products
CO5			To understand the processing of pulses and oilseeds	
CO6			To understand the processing of spices	
SDC3 MT14P	MILLING TECHNOLOGY - (PRACTICAL)			
4	SDC4 TM16	TECHNOLOGY OF MEAT AND EGG	CO1	To understand the importance of livestock, egg and poultry in food security.
			CO2	To understand slaughter processes in meat animals and poultry
			CO3	To understand methods of processing and preservation of animal origin foods and byproduct utilisation in this sector.
			CO4	To understand egg production practices, egg preservation methods, factors affecting egg quality and measures of egg quality
			CO5	To get trained in the structure, composition and nutritional quality of animal origin food products
			CO6	To understand the methods of processing and preservation of animal origin food materials
			CO7	To get skilled in the preparation of different value added products using meat and egg.
	SDC4 TM17P	TECHNOLOGY OF MEAT AND EGG (PRACTICAL)		
	SDC4 FP18	FISH PROCESSING AND BYPRODUCT TECHNOLOGY	CO1	To get skilled in the manufacture different fish products and to be able to supervise a production centre
			CO2	To understand the microbiology of fish
			CO3	To get trained in different equipment used in fish processing
			CO4	To understand the principles of different fish preservation methods
			CO5	To get skilled in different fish preservation techniques
			CO6	To get skilled in different the preparation of different value added products using fish
	SDC4 FP19P	FISH PROCESSING AND BYPRODUCT TECHNOLOGY (PRACTICAL)		
	5	SDC5 TF21	TECHNOLOGY OF FRUITS AND VEGETABLES	CO1
CO2				To understand the concept of quality in relation to fruit and vegetable based products.
CO3				To understand maturity indices of fruits and vegetables
CO4				To get trained to develop different fruit products.
CO5				To get skilled in the usage of different equipment used in fruit processing and preservation.
CO6				To get skilled in the preparation of different value added products using fruits.
SDC5 TF22P		TECHNOLOGY OF FRUITS AND VEGETABLES (PRACTICAL)		
SDC5 SF23		SENSORY EVALUATION	CO1	To develop an understanding of psychology and sensory physiology
			CO2	To get trained to select and implement appropriate sensory methodology for a specified objectives

	SDC5 SE23	OF FOODS	CO3	To gain experience in data collection and interpretation of sensory data
			CO4	To develop and apply the skills to critique sensory methodology
	SDC5 SE24P	SENSORY EVALUATION OF FOODS (PRACTICAL)		
	SDC5 BU25	BYPRODUCT UTILIZATION AND WASTE MANAGEMENT	CO1	To get the deep knowledge about the type of waste, its generation and the importance of waste management
			CO2	To obtain knowledge about effluent treatment
			CO3	To understand the waste utilization in agro industries
			CO4	To understand the concept of waste utilization of animal and marine product industry
6	SDC6PR26Pr	PROJECT, PRODUCT DEVELOPMENT, IN-PLANT TRAINING	CO1	To get work experience in real life situation.
			CO2	To get the opportunity to implement the knowledge they aware for the betterment of industry.
			CO3	To improve the skills they acquire, and to be able for the development of new products which can help to become an entrepreneur.
Name of the programme			Bachelor of Arts, Malayalam	
Short Name of the Programme			B.A. Malayalam	
Code of the Programme			CCAMAR	
Semester	Course code	Course Title	CO No:	Course Outcomes
	MAL1A07(1)	മലയാളനൂഹിതയ്ക്ക് 1	CO1	മലയാളകവിയുടെ സഹായത്തോടെ നൂഹിതയുടെ കഥയെക്കുറിച്ച് വിശദമായി പഠിക്കുകയും മനസ്സിലാക്കുകയും ചെയ്യുന്നു.
			CO2	പരമപ്രായം കഴിഞ്ഞവരുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
			CO3	ഇതിൽ സൂചിപ്പിച്ചിട്ടുള്ള പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
			CO4	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
	MAL2 A08(1)	മലയാളനൂഹിതയ്ക്ക് 2	CO1	മലയാളകവിയുടെ സഹായത്തോടെ നൂഹിതയുടെ കഥയെക്കുറിച്ച് വിശദമായി പഠിക്കുകയും മനസ്സിലാക്കുകയും ചെയ്യുന്നു.
			CO2	ആധുനികകവിയുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
			CO3	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
			CO4	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
MAL3A09	മലയാളനൂഹിതയ്ക്ക് 3	CO1	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO2	പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO3	ആത്മീയത, ജീവചരിത്രം, സഞ്ചാരനൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
MAL4A10	മലയാളനൂഹിതയ്ക്ക് 4	CO1	ഭാഷ, എഴുത്തു വ്യവസ്ഥ, സാഹചര്യം, സാഹചര്യം എന്നിവയെക്കുറിച്ച് പഠിക്കുകയും മനസ്സിലാക്കുകയും ചെയ്യുന്നു.	
		CO2	വ്യവസ്ഥാപിതമായ പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO3	സാഹചര്യം കഴിഞ്ഞവരുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO4	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
MAL1A07(2)	മലയാളനൂഹിതയ്ക്ക് പഠനം 1	CO1	മലയാളനൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO2	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO3	മലയാളനൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
	MAL2A08(2)	മലയാളനൂഹിതയ്ക്ക് പഠനം 2	CO1	കവിയുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.
CO2			ആധുനികകവിയുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
CO3			നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
CO4			ആത്മീയത / ജീവചരിത്രം എന്നിവയെക്കുറിച്ച് പഠിക്കുകയും മനസ്സിലാക്കുകയും ചെയ്യുന്നു.	
MAL1A07(3)	മലയാളഭാഷയുടെയും നൂഹിതയുടെയും 1	CO1	മലയാളഭാഷയുടെയും നൂഹിതയുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO2	മലയാളകവിയുടെയും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	
		CO3	നൂഹിതയുടെയും മറ്റും പരിചരണവും സഹായവും നേടുന്നതിനുള്ള മാർഗ്ഗങ്ങളെക്കുറിച്ച് പഠിക്കുകയും കഴിയുന്നു.	

	MAL2A08(3)	മലയാള ഭാഷയിൽ നൂറ് പതിനഞ്ചാം	CO1 CO2 CO3	മലയാള ഭാഷയുടെ നൂറ് പതിനഞ്ചാം നൂറ് പതിനഞ്ചാം
Name of the programme			Bachelor of Science, Geology	
Short Name of the Programme			B.Sc. Geology	
Code of the Programme			CCASGL	
Semester	Course code	Course Title	CO No:	Course Outcomes
	GEO1B01	ESSENTIALS OF GEOLOGY	CO1	Identify and define basic terms and concepts which are needed for advanced courses in Geology
			CO2	Students will be able to understand the fundamental geological processes
			CO3	Able to understand in detail about natural hazards.
	GEO2B03	DYNAMIC GEOLOGY AND GEOINFORMATICS	CO1	Able to understand different weathering processes and geological agents.
			CO2	Students will be able to understand the fundamentals of hydrogeology processes.
			CO3	Understand basic concepts and principles in Geoinformatics.
			CO4	Know about various applications of Geoinformatics (Geoinformatic applications in Geosciences (geology, groundwater, mineral exploration))
	GEO3B05	CRYSTALLOGRAPHY AND MINERALOGY	CO1	Basic terms and laws in crystallography
			CO2	Detailed study of different classes.
			CO3	Understand scope and aim of mineralogy
			CO4	Identification of physical properties of minerals.
	GEO4B07	OPTICAL AND DESCRIPTIVE MINERALOGY	CO1	Understand the fundamental principles of petrological microscope and its parts.
			CO2	Know about optical properties of minerals and its identification
			CO3	Learn about mode of occurrence and industrial uses of minerals.
	GEO5B09	STRUCTURAL GEOLOGY AND GEOTECTONICS	CO1	Ability to comprehend, apply, analyze, or evaluate the concepts about basic principles, analyses, methods and field characteristics of common geological structures, tectonic forces acting on the earth's surface, concept of theory of plate tectonics etc., which are needed for advanced courses in Structural Geology and Geotectonics.
			CO2	Students develop a basic understanding about different types of rock deformation, associated pressure, temperature conditions, stages of deformation.
			CO3	Students are exposed to geometric and genetic classification of types of different structures and associated deformation mechanism
			CO4	Students will be able to identify different tectonic deformation structures in Earth's surface
	GEO5B10	STRATIGRAPHY AND SEDIMENTOLOGY	CO1	The overview of the geological time scale
			CO2	Understanding of various stratigraphic laws & physical and biological criteria of correlation.
			CO3	The knowledge of broad classification of sedimentary rocks.
			CO4	Detailed understanding sedimentary structures and textures
			CO5	Learning of various sedimentary rocks
	GEO5B11	IGNEOUS PETROLOGY	CO1	Understanding of important structures and textures of igneous rocks.
CO2			Will learn about different classifications of igneous rocks.	
CO3			Will study reasons for diversity in igneous rocks.	
CO4			Crystallization behavior and petrogenetic significance of magmas.	
GEO5B12	METAMORPHIC PETROLOGY	CO1	Identify and define basic concept, factors and types of metamorphism	
		CO2	Identify different structures and textures of metamorphic rocks	
		CO3	Determine metamorphic grades and facies	
		CO4	Apprehend petrography and origin of various metamorphic rocks	
GEO6B17	PALAEONTOLOGY	CO1	The detailed learning of methods of fossil preservation and uses of fossils	
		CO2	The detailed understanding of morphology, classification and importance of foraminifera	

	GEO6B17	PALAEONTOLOGY	CO3	The detailed learning of different Phylum – Coelenterate, Hemichordata, Mollusca, Gastropoda, Cephalopoda, Brachiopoda, Echinodermata and Arthropoda
			CO4	The detailed understanding of plant fossils in India.
	GEO6B18	INDIAN GEOLOGY	CO1	Students can able to understand different stratigraphic distribution of Indian and their correlation with other geological settings.
			CO2	Can able to understand about the major geologic events in the earth history and major gaps
			CO3	Students will get a detailed understanding of Himalayan orogeny
	GEO6B19	ECONOMIC GEOLOGY	CO1	It helps to reflect classification of different mineral deposits in earth.
			CO2	It gives an idea about how prevailing geological features controls ore deposition and also serve as tools to find hidden treasure
			CO3	It gives an idea about the formation of mineral deposits
			CO4	It helps to give a brief knowledge about the mineral deposits of India
			CO5	It helps to know about the formation and different aspects related to Coal, crude oil and natural gas.
	GEO1B02(P)	FIELD GEOLOGY	CO1	Find out the natural examples which are studied in the theory classes
			CO2	Identify the structural features which are studied in the structural geology theory classes
			CO3	Observe and understand the process behind geomorphology and other geological phenomena
			CO4	Study the geological features using the live examples and extend the theory into field
	GEO2B04(P)	GEOINFORMATICS	CO1	Introduce the new software tools to the geology
			CO2	Preparing the geology works to do with the help of computers
			CO3	To familiar with the image enhancing techniques
			CO4	To familiar with remote sensing missions of the different countries especially India
	GEO3B06(P)	CRYSTALLOGRAPHY	CO1	Study of axial disposition, axial relationship and axial analysis of crystal systems
			CO2	Identification and description of crystal models in normal class
			CO3	Identification and description of simple twin models
	GEO4B08(P)	CRYSTALLOGRAPHY, MINERALOGY & GEOINFORMATICS	CO1	Study of axial disposition, axial relationship and axial analysis of crystal systems
			CO2	Identification and description of crystal models in normal class
			CO3	Identification and description of simple twin models
			CO4	Identification of mineral specimens based on physical properties.
			CO5	Identification of thin sections
			CO6	Introduce the new software tools to the geology
			CO7	Preparing the geology works to do with the help of computers
			CO8	To familiar with the image enhancing techniques
			CO9	To familiar with remote sensing missions of the different countries especially India
	GEO5B13(P)	STRUCTURAL GEOLOGY	CO1	Students will develop an ability to identify and explain different types of geological structures in the field, their geometries and types, and relate them to distinct deformation regime. ☐
			CO2	How to draw, interpret geological maps, construct geological cross sections, read topographic maps.
			CO3	Determine the thickness, width of an outcrop, attitude of a formation both by construction and calculation methods.
			CO4	Identify different types of geological structures in the map (horizontal bed, inclined bed, fold, fault, unconformity).
	GEO5B15(P)	PETROLOGY	CO1	Will identify and describe important igneous rock specimens
			CO2	Identification of thin sections of igneous rocks
			CO3	The preliminary identification of various sedimentary rocks
			CO4	Will able to understand the significance of various sedimentary structures
			CO5	Learning of various sedimentary textures of sedimentary rocks.
			CO6	Identify and define basic concept, factors and types of metamorphism
			CO7	Identify different structures and textures of metamorphic rocks
			CO8	Determine metamorphic grades and facies
			CO9	Apprehend petrography and origin of various metamorphic rocks

	GEO6B20(P)	STRUCTURAL AND ECONOMIC GEOLOGY	CO1	Students will develop an ability to identify and explain different types of geological structures in the field, their geometries and types, and relate them to distinct deformation regime. ☒
			CO2	How to draw, interpret geological maps, construct geological cross sections, read topographic maps.
			CO3	Determine the thickness, width of an outcrop, attitude of a formation both by construction and calculation methods.
			CO4	Identify different types of geological structures in the map (horizontal bed, inclined bed, fold, fault, unconformity).
			CO5	It helps the students to identify the Common Economically important minerals in Hand Specimen
	GEO6B21(P)	PETROLOGY AND PALAEOLOGY	CO1	Will identify and describe important igneous rock specimens
			CO2	Identification of thin sections of igneous rocks
			CO3	The preliminary identification of various sedimentary rocks
			CO4	Will able to understand the significance of various sedimentary structures
			CO5	Learning of various sedimentary textures of sedimentary rocks.
			CO6	Identify and define basic concept, factors and types of metamorphism
CO7	Identify different structures and textures of metamorphic rocks			
CO8	Determine metamorphic grades and facies			
CO9	Apprehend petrography and origin of various metamorphic rocks			
CO10	Students will able to identify megascopic fossils based on their morphological characters.			
CO11	Students will able to do the megascopic and microscopic identification of rocks			

ELECTIVE

	GL6B23(E01)	ENVIRONMENTAL GEOLOGY	CO1	The detailed learning about the environment
			CO2	The detailed understanding man made interactions and its impacts
			CO3	The detailed learning different types of pollutions
	GL6B23(E02)	DISASTER MANAGEMENT		
GL6B23(E03)	GEO EXPLORATION			
GL6B20(E04)	GEOTECHNICAL ENGINEERING			

Name of the programme **Bachelor of Science, Library Science**

Short Name of the Programme B.Lib.Sci

Code of the Programme CCBLS

Semester	Course code	Course Title	CO No:	Course Outcomes
	BLIS 01	Library, Information and Society	CO1	Comprehend the concept of information and the discipline of Library and Information Science.
			CO2	Understand the development of libraries.
			CO3	Classify libraries on the basis of their purpose and functions
			CO4	Know the role of libraries in the development of various aspects of society
			CO5	Comprehend the basic philosophy and laws of Library and Information Science
			CO6	Understand librarianship as a profession
	BLIS 02	Management of Libraries and Information Centres	CO1	Understand the concept and history of management
			CO2	Elaborate principles and functions of management
			CO3	Carry out various operations of Library and Information Centers
			CO4	Manage, preserve, and provide access to various print and non-print information sources
			CO5	Comprehend the concept of financial management and human resource management
			CO6	Maintain the library statistics and prepare annual report
			CO1	Understand, identify, and explore the different types of information sources
			CO2	Evaluate various types of information sources

	BLIS03	Information Sources, Systems and Services	C03	Explore, collate, and facilitate access to the electronic resources, such as e journals, e-books, databases, and institutional repositories	
			C04	Provide library services using sources such as blogs, portals, wikies, subject gateways, digital libraries	
			C05	Understand the concept of library resource sharing and consortia	
			C06	Comprehend the nature and functions of various information systems and networks	
	BLIS 04	Information Technology Theory	C01	Understand the structure of computer and functions of its various units.	
			C02	Plan and implement automation in library housekeeping operations and services	
			C03	Identify and state the features of telecommunication channels, modes, media, modulation, standards and protocols.	
			C04	Highlight the nature and components of computer networks and their protocols and standards.	
			C05	Examine the concept of library networks and highlight their types and importance	
	BLIS 05	Knowledge Organization – Library Classification Theory	C01	Explain the nature and attributes of universe of knowledge	
			C02	Elaborate meaning and types of subjects and modes of subject formation	
			C03	Illustrate knowledge as mapped in different classification schemes	
			C04	Express the meaning, purpose, functions, theories, and canons of library classification	
			C05	Discuss the characteristics, merits, and demerits of different species of library classification schemes	
			C06	Highlight salient features of major classification schemes. Review current trends in library classification	
	BLIS 06	Knowledge Organization – Library Cataloguing Theory Objectives	C01	Understand the concept of library catalogue	
			C02	Comprehend various inner and outer forms of library catalogue	
			C03	Understand the main and added entries of library catalogue	
			C04	Understand various approaches of deriving subject headings	
			C05	Know about the normative principles of cataloguing	
			C06	Understand the concept of co-operative and centralized cataloguing	
			C07	Explain the current trends in library cataloguing	
			C08	Know the standards for bibliographic interchange and communication	
	BLIS07	Knowledge Organization – Library Classification Practice	C01	Construct class numbers for documents with simple, compound and complex Subjects.	
			C02	Synthesize class numbers by using the standard subdivisions/common isolates/auxiliary tables	
			C03	Compile book numbers and be able to use index of the classification scheme	
	BLIS 08	Knowledge Organization – Library Cataloguing Practice	C01	Use the catalogue codes and standards	
			C02	Prepare catalogue entries for various types of information sources	
			C03	Derive subject headings using various methods and tools	
	BLIS 09	Information Technology Practical	C01	Create, edit, and manage files using Word Processing, Spread Sheet and Power Point Presentation software	
			C02	Carry out library housekeeping operations and Generate different types of report using library management software koha	
			C03	Search information from internet and databases adopting suitable search strategies	
	BLIS 10	Project Work and ViVa	C01	Students have to carry out project works under the guidance of a faculty member and prepare reports. The students should also appear for a viva-voce	
	BLIS A01	(Audit Course -1) Library Observation and Study	C01	Understand the activities and services in different types of libraries by participative and experimental learning	
	BLIS A02	(Audit Course -2) Greenstone Digital Library Software		Create full text database, digital archive/digital library using Greenstone digital library software. Understand metadata creation	
	Name of the programme			Bachelor of Science, Hotel Management & Catering	
	Short Name of the Programme			B.Sc. Hotel Mgt & Catering Science	
	Code of the Programme			CCAHMCS	
	Semester	Course code	Course Title	CO No:	Course Outcomes
	BSH/C 1B01	INTRODUCTION TO HOSPITALITY INDUSTRY	C01	Understand the hospitality industry and get introduced to the history of hotels, resorts and motels.	
			C02	Comprehend different types of hotels, hotel organizations and job description.	

			CO3	Get to know customer service and guest service.
			CO4	Apprehend areas of hospitality industry
	BSH2B02	ACCOMMODATION OPERATIONS	CO1	Get introduced to housekeeping and understand the importance of housekeeping in hospitality industry.
			CO2	Understand the organizational framework of housekeeping department.
			CO3	Learn bed making procedure, cleaning procedure and different types of cleaning
			CO4	Comprehend housekeeping procedure and public area cleaning
	BSH2B02 (P)	ACCOMMODATION OPERATIONS (PRACTICAL)	CO1	Identify and learn the use of cleaning equipment and cleaning agents
			CO2	Learn the process of bed making, the cleaning procedure of guest room and turn down service and second service.
			CO3	Apprehend standard supplies and setting of maid's cart and different types of trolleys
			CO4	Grasp guest room inspection and linen folding
	BSH3B03	FOOD AND BEVERAGE PRODUCTION – I	CO1	Get introduced to cookery.
			CO2	Understand the basic principles of food production.
			CO3	Comprehend the classification of meat, rice and pulses along with their methods of cooking.
			CO4	Learn about beverages, milk and milk products
	BSH3B03 (P)	FOOD AND BEVERAGE PRODUCTION – I (PRACTICAL)	CO1	Learn cutting of vegetables, preparation of stocks and sauces.
			CO2	Learn the production of soup.
			CO3	Learn the production of dishes with egg, fish, poultry, meat, potatoes and vegetables and also the production of salads and sandwiches.
			CO4	Learn the production of Indian cuisine.
	BSH3B04	FOOD AND BEVERAGE SERVICE-I	CO1	Get introduced to catering and classification of the catering industry.
			CO2	Study the department organization and staffing.
			CO3	Understand the use of operating equipment.
			CO4	Learn about menu and types of services
	BSH3B04 (P)	FOOD AND BEVERAGE SERVICE -I(PRACTICAL)	CO1	Get introduced to food and beverage areas.
			CO2	Acquire basic technical skill.
			CO3	Learn menu planning.
			CO4	Learn food and beverage service and breakfast service
	BSH4B05	FOOD AND BEVERAGE SERVICE-II	CO1	Study classification of beverages
			CO2	Understand bar and alcoholic beverages.
			CO3	Learn wines, Champagne, fortified wines and aperitifs
			CO4	Understand liqueurs, beer, cocktails and spirits
	BSH4B05(P)	FOOD AND BEVERAGE SERVICE-II(PRACTICAL)	CO1	Learn dispense bar -organizing Mise-en-place
			CO2	Understand Planning and operating food and beverage outlets
			CO3	Understand cocktails, mixed drinks and alcoholic beverages
			CO4	Learn matching wines with food
	BSH4B06	FOOD & BEVERAGE PRODUCTION – II	CO1	Get introduced to Indian Cookery
			CO2	Learn quantity food production and menu planning
			CO3	Understand international cuisine like sandwiches, charcutier, appetizers and garnishes
			CO4	Learn Bakery and confectionery
	BSH 4B06 (P)	FOOD & BEVERAGE PRODUCTION – II (PRACTICAL)	CO1	Learn the production of continental dishes
			CO2	Learn the production of Bread
			CO3	Learn the production of salad
			CO4	Learn the production of Dessert
	BSH5B07	INDUSTRIAL EXPOSURE TRAINING AND REPORT	CO1	Understand different operational departments in the hotel
			CO2	Developing the relationship
			CO3	Understand daily functions of various department in the hotel
			CO4	Learn standard operating procedures of departments
	BSH 5B08	COMPREHENSIVE SELF STUDY	CO1	Understand about hotel department
			CO2	Understand technical words using in core department
			CO3	Learn the functions of front office and Housekeeping
			CO4	Learn the functions of F&B Service and F&B Production
	BSH6B09	FRONT OFFICE OPERATION	CO1	Get introduced to hospitality industry and front office organization
			CO2	Learn Room Tariff, reservation and registration procedure
			CO3	Understand Guest services
			CO4	Learn Front office accounting
	BSH6B09 (P)	FRONT OFFICE OPERATIONS (PRACTICALS)	CO1	Learn and procedure of reservation and registration
			CO2	Understand guest history and telephone and housekeeping procedure
			CO3	Learn daily transactions and front office accounting procedure
			CO4	Role play

	BSH6B10	ACCOMMODATION MANAGEMENT	CO1	Get introduced to linen and uniform room management
			CO2	Understand the laundry department
			CO3	Learn interior design and flower arrangement
			CO4	Comprehend housekeeping supervision
	BSH 6B11	ROOMS DIVISION MANAGEMENT	CO1	Learn computer applications in front office
			CO2	Understand yield management
			CO3	Learn the process of evaluating hotel performance
			CO4	Understand the soft skills for hospitality and quality management
	BSH/C 6B12	FOOD AND BEVERAGE MANAGEMENT	CO1	Learn cost and sales dynamics
			CO2	Acquire inventory control and food and beverage control and budgetary control.
			CO3	Understand standard costing, variance analysis and breakeven
			CO4	Learn menu merchandising
Name of the programme			Bachelor of Arts, Economics	
Short Name of the Programme			B.A. Economics	
Code of the Programme			CCAECR	
Semester	Course code	Course Title	CO No:	Course Outcomes
1		MICRO ECONOMICS – I	CO1	To acquaint students with the fundamental concepts and principles to understand the Economic motives and behaviour patterns of an individual Consumer.
			CO2	To study the pattern of resource allocation for the well-being of the society.
			CO3	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy
			CO4	To study the concept of Welfare Economics and get to know the different concepts of Social Welfare.
			CO5	Summarize the law of diminishing marginal utility; describe the process of utility maximization.
			CO6	Calculate supply and demand elasticities, identify the determinants of price elasticity of demand and supply, and demonstrate the relationship between elasticity and total revenue.
			CO7	Describe the production function and the Law of Diminishing Marginal Productivity; calculate and
			CO8	Graph short-run and long-run costs of production
2		MACRO ECONOMICS I	CO1	Explain the various concepts and nature of Macroeconomics.
			CO2	Identify key macroeconomic indicators and measures of economics change, growth, and development.
			CO3	To know the various theories of Classical and Keynesian school of thought
			CO4	Identify the phases of the business cycle and the problems caused by cyclical fluctuations in the market economy
			CO5	Define money and the money supply; describe the process of money creation by the banking system and the role of the central bank.
3		QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS – I	CO1	To introduce various statistical tools to foster a research attitude in the students of Economics
			CO2	To enable the students to compute various methods of correlation and know the differences between correlation and regression.
			CO3	To compute and interpret simple linear regression between two variables
			CO4	To understand the basic matrix algebra and its various uses and applications.
			CO5	To give knowledge about various measurement of trend like semi average, moving average and least square
		MICROECONOMICS II	CO1	To know the idea of Producer's Equilibrium and Consumer's Equilibrium and the idea of different Cost curves and Revenue curves.
			CO2	To impart an understanding about the behaviour of the producer in different types of markets.
			CO3	To get to know the idea of how Products are priced and the idea of when price discrimination is possible.
			CO4	Identify the four market structures by characteristics; calculate and graph the profit maximizing price and quantity in the output markets by use of marginal analysis.
			CO5	Determine the profit maximizing price and quantity of resources in factor markets under perfect and imperfect competition by use of marginal analysis.
		QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS – II	CO1	To construct different types of index numbers and the importance of index numbers in Indian Economy.
			CO2	To introduce various statistical tools to foster a research attitude in the students of Economics
			CO3	To understand the theory of probability and its applications
			CO4	To use basic counting techniques (addition rule and multiplication rule,) to compute probability.
			CO5	To give knowledge about various measurement of trend like semi average, moving average and least square.

4		MACROECONOMICS – II	CO1	To understand the basic ISLM model and the general equilibrium analysis.
			CO2	Get an introduction to supply and demand and the basic forces that determine equilibrium in a market economy
			CO3	Identify the determinants of supply and demand; demonstrate the impact of shifts in both market supply and demand curves on equilibrium price and output.
			CO4	Construct the aggregate demand and aggregate supply model of the macro economy and use it to illustrate macroeconomic problems and potential monetary and fiscal policy solutions.
			CO5	Identify the phases of the business cycle and the problems caused by cyclical fluctuations in the market economy
5		FISCAL ECONOMICS	CO1	The students are expected to learn how the principles of economics can be applied to sound decision making in public finance, and expected to learn all the important economic issues that government agents face.
			CO2	Understand the role and functions of the government in a modern economy and issues related to market failure and government intervention
			CO3	Provide an understanding of concepts and theories of public economics and analyse the interrelationship between Centre, State and Local Governments.
			CO4	To study the recent trends in public expenditure, taxation and budgetary policy and understand the fiscal reforms in India.
		INDIAN ECONOMIC DEVELOPMENT	CO1	Develop ideas of the basic characteristics of Indian economy, its potential on natural resources
			CO2	Understand agriculture as the foundation of economic growth and development, analyse the progress and changing nature of agricultural sector and its contribution to the economy as a whole.
			CO3	To understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.
			CO4	To have knowledge about the issues in Indian Economy like planning, poverty, unemployment etc
		ECONOMICS OF CAPITAL MARKET	CO1	Explain how the capital markets operate and helps to identify the main participants
			CO2	To understand the evolution, working and role of Debt Market in India.
			CO3	To understand the role, functions of the various intermediaries and regulatory bodies.
			CO4	To provide an overview of the Indian equity market, growth and development.
			CO5	To understand the role and functions of the various intermediaries and regulatory bodies in the Indian Equity Market
			CO6	To introduce the concept of Merchant Banking and the role of merchant bankers in issue of various financial instruments.
			CO7	To study the issue of interational financial instruments such as ADRs and DRs.
		MATHEMATICAL ECONOMICS	CO1	Students would learn how to deal economic problems with the help of mathematics.
			CO2	Students would know different types of economic functions like utility functions, production functions etc.
			CO3	To give students a solid foundation in both mathematics and economics, stressing those areas of mathematics and statistics that are most relevant to economics and the parts of economics that emphasize the use of mathematics and statistics.
			CO4	The advance and technically rigorous nature of course would serve as an excellent foundation for students for studying economic with the help of mathematical tools.
			CO5	To apply mathematical techniques to the study of economic model, to formally represent economic relationships using mathematical forms & present several economic functions and their relations.
		FINANCIAL ECONOMICS	CO1	To introduce major financial instruments such as bonds, stocks, futures, and options and discuss techniques to value these diverse financial assets
CO2			Explain standard asset pricing models, their underlying assumptions, and their usefulness in financial decision making	
CO3			Apply general principles of asset pricing for evaluation of contingent contracts.	
CO4			Apply the principles that lead to the efficient formation of portfolios of stocks.	
CO5			Explain and demonstrate the use of derivatives	
INTERNATIONAL ECONOMICS		CO1	Familiarize both theoretical and empirical aspects of international economics and understand the consequences of global interdependence	
		CO2	Students would know the country's position regarding international trade, payments and foreign exchange.	
		CO3	The students would learn the methods regarding improvement in terms of trade, international debt and balance of payments positions	
			CO4	Understand the importance of international trade and analyse various international trade theories

6	DEVELOPMENT OF ECONOMIC THOUGHT	CO5	Understand the importance and way to regulate international trade and the national economy in the global context	
		CO6	Study the level of international financial flows and understand the functions of international institutions in the global economy	
		CO1	Gain knowledge of the origin and development of economic ideas	
		CO2	To learn and discuss, at an advanced undergraduate level, how the economic thought has evolved over time, introducing students to the critical comparison of the contributions of the main schools of economics: the classical, the marginalist revolution and its application to the theories of general and partial equilibrium, the current macroeconomic debate between the neo-classical and the Keynesian school	
		CO3	Gain confidence in evaluating economic ideas and understand the government policies from the perspectives of different economic ideas	
	ECONOMICS OF GROWTH AND DEVELOPMENT	CO1	Students would be acquainted with the various perspectives of economic growth and its relevance.	
		CO2	To promote understanding of theories of growth and development	
		CO3	To familiarize the students with contemporary issues in economic growth and development	
		CO4	Students would understand the conceptual bases of income measurement, physical quality of life index, poverty, inequality and development gap and role of various institutions in economic growth and development.	
		CO5	To know the policy analysis between developing and developed countries.	
6	ELECTIVE COURSE - BASIC ECONOMETRICS	CO1	To familiarise the students to study economics with an applied approach.	
		CO2	Students would gain understanding of primarily about estimation and hypothesis testing..	
		CO3	To introduce regression analysis to students so that they are able to understand its applications in different fields in economics	
		CO4	Students will be able to specify assumptions, formulate and estimate appropriate models, interpret the results and test their statistical significance.	
Name of the programme			Bachelor of Arts, English and History	
Short Name of the Programme			B.A. English & History	
Code of the Programme			CCADER	
Semester	Course code	Course Title	CO No: Course Outcomes	
	HIS1B01	TRENDS IN HISTORIOGRAPHY	CO1	Understand the development of History as a discipline
			CO2	To understand the various trends in the writing of History across the world
			CO3	To develop the skill among the students to write and learn History
	ENG1B01	INTRODUCING LITERATURE	CO1	To introduce students to the language of literature, i.e., the meaning-making devices, verb phrases, collocations, linkers, sense groups and their functions in the literary text.
			CO2	To train the students to identify the linguistic structures of poetic texts: symbols, metaphors, and other tropes and equip them in poetic conventions
			CO3	To recognize diverse points of view within a single text and to understand the rationale of polyphony
			CO4	To prepare students in reading literary/cultural texts closely, beyond the literal
	HIS2B02	Trends in Indian Historiography	CO1	To expose the evolution of History as a discipline in India
			CO2	To understand the paradigm shifts in the writing of History in India
			CO3	To familiarize the recent trends in the development of history writing
	ENG2B02	APPRECIATING POETRY	CO1	To introduce the students to the basic elements of poetry, including the stylistic and rhetorical devices employed in poetry, and to various genres of poetry
			CO2	To facilitate students to attain various perspective in reading poetry like gender, race, caste, ethnicity, religion, region, environment and nation
			CO3	To familiarize the learners with different forms of poetry written in British and American literature
	HIS3B04	INDIAN HISTORY-1	CO1	To understand the evolution and development of early society in India
			CO2	To create awareness about the culture and civilizations of ancient India
			CO3	To assimilate the recent approaches and developments early History
	ENG3B03	APPRECIATING PROSE	CO1	To familiarize the students with different types of prose writing
			CO2	To introduce to them the basic concepts of style and literary devices in prose
			CO3	To acquaint them with cultural diversity and divergence in perspectives
			CO4	To develop their critical thinking abilities and write creatively and critically
	HIS4B06	INDIAN HISTORY-2	CO1	To familiarize the students about cultural and economic developments in medieval India
			CO2	To explicate the nature and formation state society in medieval India
			CO3	To learn about the advent of religions and foreigners to India and their impact in the polity, society culture and fine arts
	ENG3B04	ENGLISH GRAMMAR AND USAGE	CO1	To familiarize the students with the key concepts of English grammar and to use them more sensitively in their day-to-day communication needs
			CO2	To help students towards a better language use through the understanding of the sentence patterns in English

			CO3	To help the students develop a sense of English grammar, idioms, syntax, semantics and their usage.
	HIS4 B20	Gender Studies	CO1	Explain conventional social norms about male-female dichotomy and can device policies and strategies to foster gender equality and gender justice
			CO2	Contribute to creative interventions that may result in a world with less inequality
			CO3	Critically interrogate and actively engage in social processes related to the construction of gender
			CO4	Analyse social and cultural phenomena through the lens of gender in a way that appreciates a range of disciplinary perspectives
	ENG4B06	LITERARY CRITICISM	CO1	To have an understanding of important texts and movements in the history of literary criticism
			CO2	To examine how literary criticism shapes literature and culture across centuries.
			CO3	To relate critical perspectives to the history of eastern and western ideas.
			CO4	To recognize and critique the major arguments underlying critical writings
	ENG5B23	APPRECIATING DRAMA	CO1	To introduce the students to the basic elements of drama, including the historical progress of drama in different continents
			CO2	To foster an ability in the students for appreciating drama as an art form
			CO3	To familiarize the students with the different genres and masters of drama
	ENG5B09	LANGUAGE AND LINGUISTICS	CO1	To lead to a greater understanding of the human mind, of human communicative action and relations through an objective study of language
CO2			To familiarize students with key concepts of Linguistics and develop awareness of latest trends in Language Study	
CO3			To help students towards a better pronunciation and to improve the general standard of pronunciation in every day conversation and in reading	
ENG6B11	VOICES OF WOMEN	CO1	To equip students to steer clear of misconceptions regarding women and to evolve a human perspective about them	
		CO2	To perceive gender as a social construct	
		CO3	To arouse a keen interest in analysing critically the diversity of women's experiences across the world and to marvel at their creative skills	
Name of the programme			Bachelor of Arts, Functional English	
Short Name of the Programme			B.A. Functional English	
Code of the Programme			CCAFER	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	FEN1B01	Communication Skills in English	CO1	To develop confidence to respond in English during situation where the use of English is imperative
			CO2	To develop fluency in actual conversation in the English language.
			CO3	To develop the speech skills necessary for confident and intelligent participation in group discussion and to make formal and extempore speeches in English.
			CO4	To develop the skills related to teamwork and to take up team leader roles in society as well as in future workplace.
	HIS1B01	Trends in Historiography	CO1	The course is designed to expose to the beginners of History a basic understanding regarding the evolution of History as a discipline.
			CO2	It will create awareness about the general development of History, History Writing and Thought around the world among the students.
CO3			It will also focus the methodological and philosophical shifts that have contributed to the growth of History as a discipline.	
2	FEN2B02	Advanced English Grammar	CO1	To enable the students to use English correctly and confidently in writing and speech.
			CO2	To foster communicative competence by improving grammatical skills.
			CO3	To introduce learners to the advanced areas of English grammar and usage
	HIS2B02	Indian Historiography	CO1	The primary objective of this course is to expose the basic understanding about the developments of Historical consciousness in India among the students.
			CO2	It also focuses to create awareness in the students about the major paradigm shifts in the Historical Writing and Thought in India.
	FEN3B03	Language and Technology	CO1	To help learners understand the impact of communication technology on English and its pedagogy.
			CO2	To expose them to the practical ways of using the internet for better acquisition of LSRW.
			CO3	To help learner integrate smartphones to English Language education effectively.
			CO4	To keep learners abreast of recent trends in instructional technology
				CO1

3	FEN3B04	Applied Phonetics	CO2	To provide learners listening and comprehension skills on internationally acceptable English.
			CO3	To make learners achieve a mastery over English pronunciation
			CO4	To give an understanding of phonetics.
	HIS3B03	Indian History I: State and Society in Early India	CO1	The course on State and Society in Early India aims to impart the evolution and development and formation of state and society in ancient India.
			CO2	This will provide a general awareness to the students about early history and culture of our society and debates about the developments take place in this period.
			CO3	It also enables the students to assimilate the latest research and studies going on in early history and culture of Indian society.
4	FEN4B05	Fundamentals of Linguistics	CO1	To introduce the basic concepts of Linguistics and to familiarize the students with the fundamentals of modern linguistics
			CO2	To familiarize the students with the origin and development of language with special reference to English
			CO3	To provide a brief historical survey of the development of Modern Linguistics
			CO4	To develop in them the ability to do intensive reading for identifying specific Information
	FEN4B06	Business English	CO1	To help students to learn the fundamentals of business correspondence.
			CO2	To get practical knowledge in business correspondence.
			CO3	To equip students with better employability skills.
	HIS4B04	Indian History II: State and Society in Medieval India	CO1	This course is to explicate the nature of state and society in Medieval India.
			CO2	It will help the students to understand the process of state formation, economic pattern and the social and cultural developments in the Medieval Indian society.
			CO3	It attempts to introduce the advent of a new religion, polity, economy and culture and its influences in the fine arts, culture and history of the nation.
			CO4	To make students familiar with the basic theories of translation and to enable them to translate different types of texts from their mother tongue to English and vice versa.
			CO5	To make the study of language inter-lingual by initiating the students to translate texts from regional languages into English and from English into regional languages.
5	FEN5B07	Translation Studies	CO1	To make students familiar with the basic theories of translation and to enable them to translate different types of texts from their mother tongue to English and vice versa.
			CO2	To make the study of language inter-lingual by initiating the students to translate texts from regional languages into English and from English into regional languages.
			CO3	To equip the students for the profession of translator in diverse fields by imparting training in translation.
	FEN5B08	Print Media	CO1	To create in the student an awareness of the basic theories and concepts related to communication and to give them basic training in writing for the newspaper.
			CO2	To introduce mass media and their characteristics to students.
			CO3	To familiarize them with the history and fundamentals of print media
			CO4	To familiarize them with the characteristics of print media content and be a stepping stone for the student to be a print media professional.
	FEN5B09	Theatre for Communication	CO1	To impart a general critical understanding of the history of theatre and performance as a powerful medium of creative communication practice
			CO2	To introduce the students to modern theatre practice with special focus on the proactive and interactive potential of drama and theatre.
			CO3	To stimulate creative exploration of ideas and expression of these ideas through dramatic forms and theatre conventions
	FEN5B10	Contemporary Literary Theory	CO1	To initiate students into 20th Century Literary Theories and Critical approaches
			CO2	To provide them exposure to diverse theoretical practices and its applications
			CO3	To make the students familiarize with contemporary theories and theoreticians
			CO4	To provide a larger framework of theory to enhance the taste of research
	5	HIS4B05	Gender Studies	CO1
CO2				It attempts to explain the socio-historical construction of sexual differences in the Indian society in a plural background.
CO3				The course visualises to understand the process of genderization takes place in the society and how it creates inequalities and how it becomes the basis of gender based violence in the society
CO4				It enables the students to develop a better human relationship in the society.
HIS5B06		Indian History III: State and Society in Modern India	CO1	The course on Modern Indian History is to inculcate among students about the development and growth of nationalism and national movement in the country.
			CO2	It will introduce the life and achievements of the men who fought for the nation and thereby it would be an inspiration for the youngsters to grow in patriotism and nationalism.
			CO3	It aims at framing the youth to be the future citizens of the nation and to participate them in the process of nation building.
			CO4	To initiate students into 20th Century Literary Theories and Critical approaches
			CO5	To provide them exposure to diverse theoretical practices and its applications
			CO6	To make the students familiarize with contemporary theories and theoreticians

	HIS5B07	Kerala History I: State and Society in Early and Medieval Kerala	CO1	The course on Early and Medieval Kerala history would inculcate and enable them to understand the formation of state and society in the pre modern period at the regional level.
			CO2	It helps them to know more about their society and culture at the local level.
			CO3	Understanding the local and regional culture, traditions, history and movements enable them to develop a broader vision about the world
6	FEN6B11	English Language Teaching	CO1	To help learners understand the basic principles underlying the practice of teaching English as a second language.
			CO2	To expose them to the practical ways of teaching English language using different methods.
			CO3	To help learner develop a taste for teaching English effectively.
			CO4	To develop in learners ability for critical reflections on their own and fellow-learners' method of teaching English.
	FEN6B12	Electronic Media	CO1	To give the students basic training in writing for electronic media such as radio and TV and the Internet.
			CO2	To equip the learners with the practical skills needed to work in electronic media
	FEN6B13	Creative Writing	CO1	To familiarize the learners with all the basic concepts and components of different genres of creative writing.
			CO2	To ignite their creative writing talents through controlled and free practice.
			CO3	To develop their critical and analytical skills in appreciating works written by peers.
	FEN6B14	Film Studies	CO1	To introduce students to film studies as a discipline and to develop in them analytical and critical skills so that they can appreciate cinema as an independent art form.
			CO2	To prepare the students to find an entry point to the higher level of understanding of contemporary film theories.
	6	FEN6B15	Elective 1 – Language for Advertising : Theory and Practice	CO1
CO2				To examine communication and advertising theories and their relationship with consumer behaviour.
CO3				To develop knowledge of advertising strategy and planning.
CO4				To examine the importance and use of creativity in advertising.
FEN6B16		Elective 2 – Women Studies	CO1	To introduce students to experiences unique to women and to the fundamental precepts of the feminist movement
	CO2		To identify the polyphonic quality of women's voices.	
FEN6B17	Project	CO1	The project is expected to be a specimen document that reflects the student's competence in and mastery of English, ingenuity and workmanship. It provides space to the student's expression of her/his talent, potential and skill in creating his own artifact/product based on the knowledge and art he had acquired through the three-year programme.	
		CO2	The course offers a wide range of topics related to diverse functions of English such as Translation, Media writing, advertisements, investigative journalism and the like.	
6	HIS6B08	Indian History IV: Contemporary India	CO1	The course on Contemporary India is to understand the society where they live and enable them to live in a better manner.
			CO2	It will enable them to understand the social, economic and political developments in the post independent India and thereby to mould their life accordingly.
			CO3	It visualises to introduce the students about our diplomacy and relationships with the international community.
	HIS6B09	Kerala History II: State and Society in Modern Kerala	CO1	The course on Modern Kerala History intends to inculcate among the students the role and participation of their kith and kin in the nation building process at the regional level.
			CO2	It would enable them to understand values and ideas nourished and developed at the regional level and help them to imbibe it their life.
	HIS6B010	Dissertation	CO1	The Dissertation aims to develop a spirit of research aptitude among the students.
			CO2	It would improve their writing skill, critical thinking and the reasoning ability.
			CO3	The Dissertation would enable to develop their analytical abilities
			CO4	It also aims to extend their academic knowledge to the society and find solutions to the problems in the society they live
	Name of the programme			Bachelor of Science, Computer Science
Short Name of the Programme			B.Sc. Computer Science	
Code of the Programme			CCASCS	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	BCS1B01	Computer Fundamentals & HTML	CO1	To equip the students with fundamentals of Computer
			CO2	To learn the basics of Computer organization
			CO3	To equip the students to write algorithm and draw flow chart for solving simple problems
			CO4	To learn the basics of Internet and webpage design

2	BCS2B02	Problem Solving Using C	CO1	To equip the students with fundamental principles of Problem Solving aspects.
			CO2	To learn the concept of programming
			CO3	To study C language
	BCS2B03	Programming Laboratory I: HTML and Programming in C	CO1	To make the students learn web designing
			CO2	To make the students learn programming environments.
			CO3	To practice procedural programming concepts.
			CO4	To make the students equipped to solve mathematical or scientific problems using C
3	BCS3B04	Data Structures Using C	CO1	To introduce the concept of data structures
			CO2	To make the students aware of various data structures
			CO3	To equip the students implement fundamental data structures
4	BCS4B05	Database Management System and RDBMS	CO1	To learn the basic principles of database and database design
			CO2	To learn the basics of RDBMS
			CO3	To learn the concepts of database manipulation SQL
			CO4	To study PL/SQL language
	BCS4B06	Programming Laboratory II: Data Structures and RDBMS	CO1	To make the students equipped to solve mathematical or scientific problems using C
			CO2	To learn how to implement various data structures.
			CO3	To provide opportunity to students to use data structures to solve real life problems.
5	BCS5B07	Computer Organization and Architecture	CO1	To learn logic gates, combinational circuits and sequential circuits
			CO2	To learn basics of computer organization and architecture
	BCS5B08	Java Programming	CO1	To review on concept of OOP.
			CO2	To learn Java Programming Environments.
			CO3	To practice programming in Java.
			CO4	Knowledge in OOP & Programming
	BCS5B09	Web Programming using PHP	CO1	To review on concept of OOP.
			CO2	To learn Java Programming Environments.
			CO3	To practice programming in Java.
			CO4	To learn GUI Application development in JAVA
BCS5B10	Principles of Software Engineering	CO1	To learn engineering practices in Software development.	
		CO2	To learn various software development methodologies and practices.	
		CO3	To learn and study various Evaluation methods in Software Development.	
6	BCS6B11	Android Programming	CO1	To have a review on concept of Android programming.
			CO2	To learn Android Programming Environments.
			CO3	To practice programming in Android.
			CO4	To learn GUI Application development in Android platform with XML
	BCS6B12	Operating Systems	CO1	To learn objectives & functions of Operating Systems.
			CO2	To understand processes and its life cycle.
			CO3	To learn and understand various Memory and Scheduling Algorithms.
			CO4	To have an overall idea about the latest developments in Operating Systems
	BCS6B13	Computer Networks	CO1	To learn about transmissions in Computer Networks.
			CO2	To learn various Protocols used in Communication.
			CO3	To have a general idea on Network Administration.
	BCS6B14	Programming Laboratory III: Java and PHP Programming	CO1	To practice Java programming.
			CO2	To practice client side and server side scripting.
			CO3	To practice PHP Programming.
			CO4	To practice developing dynamic websites.
			CO5	To practice how to interact with databases through PHP.
	BCS6B15	Programming Laboratory IV: Lab Exam of Android and Linux Shell Programming	CO1	To practice Android programming.
			CO2	To practice user interface applications.
CO3			To develop mobile application.	
CO4			To practice shell programming	
BCS6B17	Industrial Visit and Project Work	CO1	To provide practical knowledge on software development process	
BCS6B16a	System Software	CO1	To build fundamental knowledge in system software.	
		CO2	To learn functions of various system software.	
		CO3	To learn specifically learn compilation process of a program.	
Name of the programme			Bachelor of Business Administration	
Short Name of the Programme			BBA	
Code of the Programme			CCABBA	
Semester	Course code	Course Title	CO No:	Course Outcomes
	BBA1B01	Management Theory and Practices	CO1	Discuss different schools of management thought
			CO2	Understand apply the concepts of planning, organizing, staffing and controlling for effective management
			CO3	Aware and apply the ethically and socially responsible behaviour in Management
			CO4	Aware and pursue the modern management practices in business

1	BBA1C01	Managerial Economics	CO1	Acquire knowledge regarding relevant economic concepts applicable in managerial decisions
			CO2	Design competition strategies, including costing, pricing, product differentiation and market environment according to the natures of products and the structures of the markets.
			CO3	Make optimal business decisions by integrating the concepts of economics
2	BBA2B02	Financial Accounting	CO1	Discuss and apply fundamental accounting concepts, principles and conventions
			CO2	Record basic accounting transactions and prepare annual financial statements for a sole proprietorship business
			CO3	Record accounting transactions in respect of hire purchase and instalment system and branches
	BBA3B03	Marketing Management	CO1	Understand and develop insights and knowledge base of various concepts that driving marketing strategies.
			CO2	Develop skills in organizing for effective marketing and in implementing the market planning process
3	BBA3B04	Corporate Accounting	CO1	Understand and apply fundamental IndASs on inventories, PPE, provisions, income tax, borrowing cost and intangible assets
			CO2	Prepare annual financial statements for companies and compute accounting ratios.
			CO3	Record accounting transactions in respect of redemption of preference shares and debentures
	BBA3B05	Financial Management	CO1	Understand and develop insights and knowledge base of various concepts of finance
			CO2	Develop skills for effective Financial, Investment and Dividend decisions making
	BBA3C02	Business Regulations	CO1	Analyse statutory provisions and the core concepts in business laws
			CO2	Analyze legal issues arising in day-to-day business operations prevalent in India
			CO3	Discuss possible solutions to issues in organisations in the frame work of business laws
	4	BBA4B06	Cost & Management Accounting	CO1
CO2				Aware as to cost consciousness and the various methods and techniques of costing
CO3				Understand cost and management accounting concepts and its application for decision making.
BBA4C03		Corporate Regulations	CO1	Understand the features and different types of companies
			CO2	Aware as to the formation of companies and also as to different documents of companies
			CO3	Understand the share capital and other relevant provisions of the same
			CO4	Understand the management, corporate governance, corporate social responsibility and some basic aspects of SEBI
			CO5	Understand the provisions of conducting meetings and also the winding up procedure of companies
BBA4C04		Quantitative Techniques for Business	CO1	Understand and develop insights and knowledge base of various concepts of Quantitative Techniques
			CO2	Develop skills for effectively analyze and apply Quantitative Techniques in decision making
5		BBA5B07	Human Resources Management	CO1
	CO2			Learn the latest trends in Human Resource Management
	BBA5 B08	Business Research Methods	CO1	Understand and develop insights and knowledge base of various concepts in Research
			CO2	Develop skills for conducting business research
	BBA5 B09	Operations Management	CO1	Understand the different concepts of operation Management
			CO2	Acquire the knowledge to make plans at the operational level of an industry
	BBA5 B10	Income Tax	CO1	To understand the latest provisions of Income Tax Act Law
CO2			Enable students to compute different heads of income as well as total income and tax liability	
BBA5 B11	Financial Markets and Institutions	CO1	To understand different aspects and components of financial Institutions and financial markets	
		CO2	To take rational decisions on financial market and institutions	
BBA5 B12	Organisational Behaviour	CO1	Understand the different concepts of Organisational Behaviour	
		CO2	Analyse individual and group behaviour	
		CO3	Understand and deal with organisational change, development and stress	

6	BBA5B13	Management Science	CO1	To learn different OR techniques useful in managerial decisions
	BBA5B14	Project Management	CO1	Understand the different concepts of managing a project
			CO2	Analyse the viability of a project
	BBA5B15	Financial Services	CO1	To aware of various financial services available in Indian financial system
			CO2	To provide an understanding of the various financial services and investment opportunities available in the country
	BBA5B16	Investment Management	CO1	To become aware of various investment opportunities from an investor's perspective of maximizing return on investment
			CO2	To provide a theoretical framework for the analysis and valuation of investments
	Name of the programme			Bachelor of Commerce, Professional
Short Name of the Programme			B.Com. Pro	
Code of the Programme			CCABCP	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	1.1 BCP	English		
	1.2 BCP	Second Language		
	1.3 BCP	Principles And Practice Of Accounting	CO1	To enable the students to acquire conceptual knowledge of the financial accounting principles and practices
			CO2	To equip the students with the skill of preparing accounts for various type of organisations
	1.4 BCP	Managerial Economics	CO1	To enable the students to understand micro and macro economic concepts relevant for business decisions
			CO2	To help the students to understand the Application of economic principles in business management
	1.5 BCP	Numerical Skills	CO1	To enable the students to acquire knowledge of mathematics and statistics.
			CO2	At the end of this course, the students should have understood set operations, matrix and mathematics of finance, descriptive statistical tools and their applications.
2	2.1 BCP	Financial Accounting	CO1	To equip the students with the skills of preparing financial statements for various types of organisations
			CO2	To enable the students to acquire knowledge about financial reporting standards and to understand corporate accounting methods
	2.2 BCP	Business Management and Entrepreneurship	CO1	To enable the students to understand the process of business management, its functions and familiarize with current management practices
			CO2	To familiarise the students with the concept of entrepreneurship and to identify and develop entrepreneurial skills
	2.3 BCP	BUSINESS REGULATIONS	CO1	To familiarise the students with certain statutes concerning and affecting business organisations in their operations
	2.4 BCP	BUSINESS COMMUNICATION	CO1	To equip the students effectively to acquire required skills to manage business communication as also to use electronic media for business communication
2.5 BCP	Quantitative Techniques For Business	CO1	To familiarize the students with the use of quantitative techniques in managerial decision making	
3	3.1 BCP	Corporate Accounting	CO1	To help the students to acquire conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements
	3.2 BCP	Income Tax Law And Practice	CO1	To provide basic knowledge and equip them with application of principles and provisions of Income Tax Act 1961
	3.3 BCP	Cost Accounting	CO1	To familiarize students with the various concepts and elements of cost
			CO2	To create cost consciousness among the students
	3.4 BCP	Marketing Management	CO1	To provide the students basic knowledge about the concepts,principles,tools and techniques of marketing and also modern methods and techniques of marketing
			CO2	To impart necessary knowledge which help the student to choose a career in the field of marketing
3.5 BCP	Corporate Regulations	CO1	To familiarize the students with corporate law and to make them aware of the importance of corporate governance in the management of organisations	
		CO2	To familiarize the students with the Companies Act 2013 and its important provisions as amended up to date	
4	4.1 BCP	Applied Cost Accounting	CO1	To acquaint the students with different methods and techniques of costing
	4.2 BCP	Business And Corporate Taxation	CO1	To acquaint the students with the theoretical and practical aspects of assessing business and corporate entities and familiarize with the procedure for filing of Income Tax returns
	4.3 BCP	Industrial and Labour Regulations	CO1	To enable the students to acquire knowledge about prominent industrial and labour laws
	4.4 BCP	Human Resource Management	CO1	To acquaint the students with the techniques and principles to manage human resources in an organisation
			CO2	To equip the students with basic knowledge and skills required for the acquisition,development and retention of human resources

	4.5 BCP	E - Commerce Management	CO1	To enable the students to understand basics of E-Commerce and gain a practical orientation to E-Commerce and E-Business management
			CO2	To understand the mechanism for excelling in E-commerce based employment opportunities
5	5.1 BCP	Accounting For Managerial Decisions	CO1	To enable the students to understand the concept and relevance of Management Accounting
			CO2	To provide the students an understanding about the use of accounting and costing data for planning ,control and decision making
	5.2 BCP	Financial Management	CO1	To familiarize the students with the concepts,tools and practices of financial management and help them to gain knowledge of management and financing of working capital
			CO2	To impart knowledge about financing and investment decisions
	5.3 BCP	Auditing And Assurance	CO1	To impart knowledge about auditing principles,procedures and techniques in accordance with current legal requirements and professional standards
	5.4 BCP	Financial Markets and Services	CO1	To provide the students a basic knowledge of financial markets and services
	5.5 BCP	Business Research Methods	CO1	To enable students for acquiring basic knowledge in business research methods and to develop basic skills in them to conduct survey researches and case studies
5.6 BCP	Information Technology For Business	CO1	To make the students aware about office automation ,information system and communication technologies used in business	
		CO2	To enable the students to have thorough knowledge about database management systems and its relevance in various business enterprises	
6	6.1 BCP	Strategic Management	CO1	To develop an understanding of the general and competitive business environment
			CO2	To develop understanding of strategic management concepts and techniques
	6.2 BCP	Computerised Accounting	CO1	To enable the students to acquire basic knowledge in the computerised accounting systems and its applications in the area of business
			CO2	To equip the students to meet te demands of the industry by developing practical skills in the application of Tally package
	6.3 BCP	Indirect Taxes Law And Practice	CO1	To enable the students to understand the importance of Indirect Taxes in the Indian economy
			CO2	To impart basic knowledge about Excise Duty,Customs Duty, CST,VAT and Service Tax and the practical assessment of tax burden
	6.4 BCP	Banking And Insurance Management	CO1	To enable the students to acquire knowledge about basics of Banking and Insurance
			CO2	To familiarize the students with the modern trends in banking
	6.5 BCP	Corporate Governance And Business Ethics	CO1	To enable the students to understand the importance of corporate governance and ethics in business
			CO2	To have an understanding of ethical issues in business and to acquire knowledge and capability to develop ethical practices for effective management
Name of the programme				Bachelor of Commerce, Finance
Short Name of the Programme				B.Com Finance
Code of the Programme				CCABCM
Semester	Course code	Course Title	CO No:	Course Outcomes
1	BCM1B01	Business Management	CO1	To understand the process of business management and its functions
			CO2	To familiarize the students with current management practices
			CO3	To understand the importance of ethics in business
	BCM1A01	English		
	BCM1A02	English		
BCM1A07	Language			
	BCM1C01	Managerial Economics	CO1	To acquaint students with the basic principles of micro and macro economics for developing the understanding of theory of the firm,markets and the macro environment which would help them in managerial decision making processes
2	BCM2B02	Financial Accounting	CO1	To equip the students with the skill of preparing financial statements for various types of organizations
			CO2	To enable the students to acquire knowlodge about financial reporting standards and to understand corporate accounting methods
	BCM2A03	English		
	BCM2A04	English		
	BCM2A08	Language		
	BCM1C01	Managerial Economics	CO1	To acquaint students with the basic principles of micro and macro economics for developing the understanding of theory of the firm,markets and the macro environment which would help them in managerial decision making processes
	BCM3B03	Business Regulation	CO1	To familiarize the students with certain statutes concerning and affecting business organisations in their operations

3	BCM3B04	Corporate Accounting	CO1	To help the students to acquire conceptual knowledge of the fundamentals of the corporate accounting and the technoques of preparing the financial statements
	BCM3A11	Basic Numerical Methods	CO1	To acquire knowledge of numerical equations,matrices progressions,financial mathematics and descriptive statistics
			CO2	To understand numerical equations,matrix,progression,financial mathematics,descriptive statistics and their applications
	BCM3A12	Professional Business Skills	CO1	To update and expand basic informatics skills of the students
CO2			To equip the students to effectively utilize the digital knowledge resources for their study	
BCM3C03	Human Resources Management	CO1	To familiarize the students with the different aspects of managing human resource in an organisation	
		CO2	To equip the students with basic knowledge and skills required for the requisition,development and retention of human resources	
4	BCM4B05	Cost Accounting	CO1	To familiarize the students with the various concepts and elements of cost
			CO2	To create cost conciousness among the students
	BCM4B06	Corporate Regulations	CO1	To familiarize the students with corporate law and to make them aware of the importance of corporate governance in the management of the organizations
	BCM4A13	Entrepreneurship Development	CO1	To familiarize the students with the concept of entrepreneurship
			CO2	To identify and develop the entrepreneurial talents of the students
CO3	To generate innovative business ideas in the emerging industrial scenario			
BCM4A14	Banking and Insurance	CO1	To enable the students to acquire knowledge about basics of banking and insurance	
		CO2	To familiarize the students with the modern trends in banking	
BCM4C04	Quantitative Techniques for Business	CO1	To familiarize students with the use of quantitative techniques in managerial decision making	
5	BCM5B07	Accounting for Management	CO1	To enable the students to understand the concept and relevance of management accounting
	BCM5B08	Business Research Methods	CO1	To enable students for acquiring basic knowledge in business research methods and to develop basic skills in them to conduct survey researches and case studies
	BCM5B09	Income Tax Law and Accounts	CO1	To impart basic knowledge and equip students with application of principles and provisions Income- Tax Act,1961 amended up to date
	BCM5B10 (Elective - Finance)	Financial Markets and Services	CO1	To provide basic knowledge about the structure, organization and working of financial system in India
	BCM5B11 (Elective - Finance)	Financial Management	CO1	To familiarize the students with the concepts,tools and practices of financial management
			CO2	To learn about the decisions and processes of financial management in a business firm
	BCM5B10 (Elective - Taxation)	Principles of taxation	CO1	To provide knowledge on basic principles of taxation
			CO2	To familiarise the students with the structure of Indian Taxation system and constitutional provisions pertaining to taxes
BCM5B11 (Elective - Taxation)	Indirect Taxes Law and Practice	CO1	To enable the students to understand the importance of Indirect taxes in the Indian economy	
		CO2	To impart basic knowledge about Indirect taxes and the practical assessment of tax burden	
BCM5D01	Basic Accounting	CO1	To enable the students to acquire knowledge of Accounting Principles and Practice	
6	BCM6B12	Income Tax and GST	CO1	To impart basic knowledge and equip students with application of principles and provisions Income- Tax Act,1961 and GST Act 2016
	BCM6B13	Auditing and Corporate Governance	CO1	To provide knowledge of auditing principles and techniques and to familiarize the students with the understanding of issues and practices of corporate governance in the global and Indian context
	BCM6B14 (Elective- Finance)	Fundamentals of Investments	CO1	To familiarize the students with the world of investments
	BCM6B15 (Elective- Finance)	Financial Derivatives	CO1	To acquire knowledge about financial derivatives and their features
			CO2	To know about various risks associated with derivatives
	BCM5B14 (Elective - Taxation)	Income Tax Assessment	CO1	To provide practical skills on the computation of taxable income and tax liability of various assessees
			CO2	To familiarise the students with the procedure for filing of income tax returns
BCM5B15 (Elective - Taxation)	Corporate Taxation and Tax Planning	CO1	To familiarise the students with the latest provisions of the Indian Corporate Tax Laws and to learn about the computation of taxable income of companies	
		CO2	To acquaint with the concept of Tax Planning and Tax Management under Income Tax Law	
Name of the programme			Bachelor of Science, Zoology	
Short Name of the Programme			B.Sc. Zoology	
Code of the Programme			CCASZL	

Semester	Course code	Course Title	CO No:	Course Outcomes
1	ZOL1B01T	Animal Diversity:Non-Chordata Part -I	CO1	Describe the principles of classification and nomenclature
			CO2	Explain the five kingdom classification of living organisms
			CO3	Understand the concepts of classification of animals
			CO4	Explain the classification with examples and characteristic features of kingdom Protista and describe the morphology and structural organization of Paramecium
			CO5	Describe the characteristic features of subkingdom Mesozoa
			CO6	Explain the classification of phylum Porifera and elucidate the salient features of each class
			CO7	Describe the characteristic features of phylum Cnidaria and Ctenophora, illustrate the classification of phylum Cnidaria down to classes and explain the structural organization of <i>Obelia</i>
			CO8	Explain the salient features of phylum Platyhelminthes and illustrate its classification down to classes
			CO9	Explain the characteristic features and classification of super-phylum Aschelminthes and phylum Nematoda
			CO10	Elucidate the characters of Pseudocoelomate minor phyla Rotifera and Gastrotricha
2	ZOL2B02T	Animal Diversity:Non-Chordata Part -II	CO1	Explain the classification with examples and characteristic features of phylum Annelida and describe the morphology and structural organization of Nearthes
			CO2	Describe the distribution, peculiarities and affinities of phylum Onychophora
			CO3	Explain the classification of phylum Arthropoda;elucidate the salient features of each class and describe the morphology and structural organization of <i>Panaeus</i>
			CO4	Describe the characteristic features of phylum Mollusca, illustrate its classification down to classes and explain the structural organization of <i>Pila globosa</i>
			CO5	Explain the salient features of phylum Echinodermata and illustrate its classification down to classes
			CO6	Understand the salient features and affinities of phylum Hemichordata
			CO7	Elucidate the characters of coelomate minor phyla Phoronida, Ectoprocta and Echiura
3	ZOL3B03T	Animal Diversity :Chordata Pat I	CO1	Explain the characteristics of chordates and outline classification of the phylum Chordata
			CO2	Describe the salient features and affinities of subphylum Urochordata and its classification down to classes; elucidate the morphology and structural organization of <i>Ascidia</i>
			CO3	Explain the salient features and affinities of subphylum Cephalochordata with reference to <i>Branchiostoma</i>
			CO4	Describe the salient features of subphylum Vertebrata, illustrate its classification down to classes and elucidate the characteristics of division Agnatha (3 hrs)
			CO5	Enumerate the salient features of superclass Pisces and illustrate its classification down to orders and the morphology and structural organization of <i>Mugil cephalus</i>
			CO6	Describe the salient features and affinities of class Amphibia and its classification up to orders; explain the morphology and organ systems of <i>Hoplobatrachus tigerinus</i>
			CO7	Elucidate the characteristic features of the class Reptilia and its classification down to orders; describe the morphology and organ systems of <i>Calotes versicolor</i>
4	ZOL4B04T	Animal Diversity :Chordata Pat II	CO1	Describe the classification of class Aves down to orders, salient features of each order with suitable examples
			CO2	Describe the external characters and functional systems of <i>Columba livia</i>
			CO3	Enumerate the salient features and classification of class Mammalia down to orders with suitable examples
			CO4	Elucidate the external characters and functional systems of <i>Oryctolagus cuniculus</i>
			CO5	Compare the circulatory, excretory and nervous systems of vertebrates
4			CO1	Identify and describe specified protists and acoelomate & pseudocoelomate non- chordates and perform the culture of selected protists; understand the histological features of coelenterate, platyhelminth and nematode.

	ZOL4B05P	Practical I : Animal Diversity	CO2	Identify and describe specified coelomate non-chordates and the transverse sections of annelids; Perform mounting of the specified organs of selected non- chordates.
			CO3	Identify and describe specified chordates and specified bones of chordates; Prepare key for identification of venomous snakes; Perform mounting and dissection of specified organ systems of chordates.
			CO4	Identify and describe selected vertebrates and specified bones of vertebrates.
5	ZOL5B06T	Cell Biology and Genetics	CO1	Understand the principles and applications of various types of light microscopes, electron, Scanning-tunnelling and Atomic force microscope and illustrate the histological and histochemical processing of tissues.
			CO2	Explain the basic structure of a eukaryotic cell and the structure and functions of plasma membrane, mitochondria, lysosome, cytoskeletal elements and interphase nucleus
			CO3	Illustrate the nucleosome organization of chromatin and higher order structures; structure of chromosomes and giant chromosomes.
			CO4	Enumerate eukaryotic cell cycle and cell division by amitosis, mitosis and meiosis.
			CO5	Explain the causes of transformation, characteristics of transformed cells and the role of protooncogenes and tumor suppressor genes in malignant transformation; mechanism and significance of apoptosis.
			CO6	Enumerate allelic and non-allelic gene interactions; supplementary, complementary, polymeric, duplicate and modifying genes and polygenic inheritance.
			CO7	Illustrate multiple allelism and solve problems related to blood group inheritance.
			CO8	Explain characteristics of linkage groups and linkage map; crossing over and calculation of recombination frequency; sex-linked, sex-influenced and sex-limited characters; sex differentiation and disorders of sexual development .
			CO9	Describe the mechanisms of sex determination including chromosomal, genic, haploid-diploid mechanisms; the hormonal and environmental influence on sex determination and gynandromorphism.
			CO10	Explain mutagenesis, mutagens and chromosomal and gene mutations.
			CO11	Enumerate the classification and grouping of human chromosomes; numerical and mutational human autosomal and sex chromosomal anomalies; polygenic human traits and genetic counseling.
5	ZOL5B07T	Biotechnology, Microbiology and Immunology	CO1	Illustrate the steps in genetic engineering and animal cell culture .
			CO2	Explain transfection methods, transgenic animals and ethical issues of transgenic animals.
			CO3	Enumerate the applications of biotechnology.
			CO4	Understand the biological diversity of microbial forms and the various techniques for handling microbes in the laboratory.
			CO5	Enumerate the basic structure and life cycle of bacteria and virus.
			CO6	Understand the industrial and medical importance of microorganisms.
			CO7	Describe different types of immunity and the cells and organs of the immune system.
			CO8	Explain antigen, antibody, immunity and major histocompatibility complex.
			CO9	Enumerate autoimmune and immunodeficiency diseases and immunology of tumor and organ transplantation.
5		Biochemistry and Molecular Biology	CO1	Understand the elements of biological importance and the non-covalent interactions that stabilize biomolecules .
			CO2	Describe the classification, types, structure, reactions and biological roles of carbohydrates, and diabetes Type I and II.
			CO3	Enumerate the properties and classification of amino acids and their standard abbreviations; hierarchical levels of protein structure, classification, separation, purification and sequencing of proteins .
			CO4	Explain the classification and functions of lipids and fatty acids; chemistry and structure of nucleic acids and sequencing of DNA.
			CO5	Understand the classification, nomenclature and properties of enzymes; enzyme action, co-enzymes, cofactors, isozymes, ribozymes and allosteric enzymes.
			CO6	Explain glycolysis, Kreb's cycle, glycogenesis, glycogenolysis, gluconeogenesis, HMP pathway; amino acid and fatty acid oxidation and oxidative phosphorylation .
			CO7	Describe the mechanism of DNA duplication and the role of enzymes .

	ZOL5B08T		CO8	Understand the concept of gene and gene expression; genetic code and wobble hypothesis .
			CO9	Explain the mechanism of transcription and post-transcriptional modification of hnRNA.
			CO10	Enumerate the processes of translation and post-translational modification and targeting of peptides .
			CO11	Describe the regulation of <i>trp</i> operon, C-value, repetitive DNA, satellite DNA, selfish DNA, overlapping genes, pseudogenes, cryptic genes, transposons and retrotransposons .
			CO12	Explain the structure and life cycle of bacteriophages and the gene transfer mechanisms in bacteria .
5	ZOL5B09T	Methodolgy In Science,Biostatistics and Bioinformatics	CO1	Explain science, its importance, disciplines and the major steps in formulating a hypothesis, various hypothesis models, theory, law and importance of animal models, simulations and virtual testing.
			CO2	Illustrate the principles and procedures in designing experiments and elaborate the requirements for carrying out experiments.
			CO3	Describe the ethical concerns in practicing science.
			CO4	Understand the Scope and role of statistics; methods and procedures of sampling; Construction of tables, charts and graphs.
			CO5	Calculate central tendency and measures of dispersion and application of its knowledge on hypothesis testing as well as in problem solving.
			CO6	Enumerate major biological databases and database search engines.
			CO7	Perform DNA and protein sequence analysis, including sequence alignment and sequence similarity search using BLAST, FASTA, CLUSTAL W and CLUSTAL X .
			CO8	Understand molecular phylogenetics and tools and methods for construction of phylogenetic trees.
			CO9	Explain genome sequencing technologies, functional genomics, proteomic technologies and molecular docking and drug design .
6	ZOL6B15P	Practical II	CO1	Perform experiments in cell biology and genetics including demonstration of Barr body in buccal epithelial cells of man, polytene chromosome in the salivary glands of <i>D. melanogaster</i> larva, mitotic division in onion root tip cells, micrometry of microscopic objects, prepare whole mounts of microscopic objects, and calculate mitotic and metaphase index from slides.
			CO2	Enumerate the inheritance of major human genetic traits, pedigree chart, normal and abnormal human karyotypes, phenotypic differences of male and female <i>Drosophila</i> and solve problems on Monohybrid, dihybrid crosses, blood groups and sex-linked inheritance.
			CO3	Understand electrophoresis, PCR, Northern blotting, Southern blotting and Western blotting, DNA sequencing and fingerprinting and isolation of genomic DNA.
			CO4	Perform gram staining and preparation of culture media for bacteria and demonstrate bacterial motility by standard laboratory protocols.
			CO5	Understand the detection of human blood groups and organs of immune system
			CO6	Perform standard biochemical tests for the detection of reducing and nonreducing sugars, polysaccharides, proteins and lipids.
			CO7	Understand the staining of mitochondria, tissue homogenization and isolation of nuclei, effect of colchicines on cell division, extraction of DNA and polyacrylamide and agarose gel electrophoresis
			CO8	Solve basic problems in biostatistics and Bioinformatics
6	ZOL6B10T	Physiology and Endocrinology	CO1	Describe the regulation of digestion in man, nutrition in pregnancy and infancy, nutritional disorders, balanced diet, starvation, fasting and obesity.
			CO2	Understand the mechanism of transport and exchange of respiratory gases and its neurophysiological control and physiological problems in diving mammals, new-born and aged individuals.
			CO3	Describe functions, composition, coagulation, transfusion, agglutination and clinical analysis of blood, haemoglobinopathies, types of heart and common cardio-vascular problems.
			CO4	Understand the osmoregulatory mechanisms in animals; excretion and its hormonal control and common renal disorders in man.
			CO5	Explain the ultrastructure of skeletal muscles and biochemical events and energetics of muscle contraction.
			CO6	Understand the different types of nerve cells, glial cells and nerve fibres, and the mechanism of nerve impulse transmission

			CO7	Understand the types, physiology and significance of bioluminescence, and the structure and functions of electric organs.
			CO8	Describe invertebrate neuro-endocrine organs and hormones, vertebrate endocrine glands, their hormones and functions.
			CO9	Understand the concept of neurosecretion and the mode of action of peptide and steroid hormones.
6	ZOL6B11T	Reproductive and Developmental Biology	CO1	Explain the reproductive strategies in invertebrates and vertebrates and structural and functional features of human reproductive system
			CO2	Describe process of fertilization, pregnancy, gestation, placentation, parturition and lactation in humans.
			CO3	Explain the scope of reproductive technologies in infertility management; prenatal diagnostic techniques and methods of fertility control
			CO4	Understand the phases and theories of development, and classification of eggs
			CO5	Enumerate the types of cleavage, arrangement of blastomeres, germ layers and their derivatives, cell lineage in Planocera and different types of blastula.
			CO6	Illustrate the early developmental process of egg in <i>Amphioxus</i> , frog, chick and man
			CO7	Explain the basics of cell differentiation and its genetic control, stem cells and applications of stem cell technology
			CO8	Describe parthenogenesis, types, and significance
			CO9	Explain fate map construction, Spemann's constriction experiments on amphibian embryos, organizers in development, embryonic induction, gradient experiments in sea urchin eggs, cloning experiments in sheep and teratogenesis
6	ZOL6B12T	Environmental and Conservation Biology	CO1	Explain the structure of ecosystem and its functioning through energy flow and nutrient cycling .
			CO2	Enumerate biogeochemical cycles and understand the concept of limiting factors.
			CO3	Describe the ecology of population, community and habitat as a self regulating system
			CO4	Understand various types of population interactions and appraise the co-evolution .
			CO5	Comprehend the diverse environmental and sustainability challenges ranging from local to global and the establishment of perfect harmony between economic development, social issues and environmental conservation.
			CO6	Enumerate the several tools and techniques employed for studies on populations, communities and ecosystems.
			CO7	Understand the threats to biodiversity, and strategies adapted for the conservation of diversity of organisms.
			CO8	Describe the various international strategies for conserving biodiversity.
			CO9	Describe the toxic chemicals, their toxicity levels and the health hazards caused by them .
6	ZOL6B13T	Ethology, Evolution and Zoogeography	CO1	Describe the patterns and mechanisms of animal behaviour.
			CO2	Illustrate biological rhythms and the chemical basis of communication.
			CO3	Identify major evolutionary transitions over time, and explain the tools and evidences that support current hypotheses of the history of life on earth .
			CO4	Describe the evidences for evolution and its required corollaries .
			CO5	Explain the various theories of evolution .
			CO6	Describe the mechanisms by which evolution occurs .
			CO7	Recognize the significance of reproductive isolation in reducing gene flow between populations, biological and morphological species concepts and distinguish between prezygotic and postzygotic barriers to reproduction .
			CO8	Review the events in human evolution .
			CO9	Explain ecological and historical foundations for understanding the distribution and abundance of species, and their changes over time and comprehend the basic principles of biogeography as a discipline .
6	ZOL6B14(F)02T	Aquaculture, Animal husbandry and Poultry	CO1	Explain aquaculture and the process of prawn, mussel and pearl culture.
			CO2	Illustrate the methodology of pisciculture and understand common culture fishes and ornamental fishes.
			CO3	Identify major fishing crafts and gear and enumerate fish utilization and preservation

	ZOL6B16P	Husbandry and Poultry Science	CO4	Enumerate the poultry rearing techniques and understand major breeds of fowl.
			CO5	Understand the major breeds of cattle, cattle feeds and diseases of cattle.
			CO6	Illustrate the steps in dairy processing and identify the role of dairy development in rural economy .
6	ZOL6B16P	Practical III	CO1	Perform standard laboratory experiments for the estimation of Hb, presence of hCG/abnormal constituents in urine, detection of blood pressure, bleeding and clotting time and identification of formed elements in blood.
			CO2	Identify selected stages in the development of frog and chick and chosen larval forms of invertebrates and vertebrates.
			CO3	Carry out experiments of laboratory standards to estimate water quality parameters including, dissolved Oxygen, Carbon dioxide, hardness and pH; determination of adulteration of selected food items and identify marine planktons and soil organisms
			CO4	Demonstrate the behavioural response of earthworm/dipteran larva to selected stimuli
			CO5	Describe homologous , analogous and vestigial organs, connecting links, adaptive radiation and evolution of man
			CO6	Illustrate zoogeographical realms, Wallace line, Weber line, Wallacea and the distribution of <i>Peripatus</i> , lung fishes, <i>Sphenodon</i> , monotremes and marsupials
			CO7	Identify the normal and selected abnormal human karyotypes and inheritance of chosen traits from pedigree charts/describe ornamental and other culture fishes/ describe chosen beneficial and harmful insects
Name of the programme			Bachelor of Science, Food Technology	
Short Name of the Programme			B.Sc. FT	
Code of the Programme			CCASFT	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	FTL 1 B 01	PERSPECTIVES OF FOOD SCIENCE AND TECHNOLOGY	CO1	The basic knowledge of food science and technology.
			CO2	structure and composition of different types of foods
			CO3	Basics of quality assessment, nutritional factors and health foods
			CO4	Knowledge in Food additives (Preservatives,colors and improvers)
			CO5	An idea about journals, research centers and leading industries
FTL 1 B 02 P	PERSPECTIVES OF FOOD SCIENCE AND TECHNOLOGY	CO1		
2	FTL 2 B 03	FOOD MICROBIOLOGY	CO1	Student will have knowledge on history of microbiology.
			CO2	Understand concept of growth and reproduction of bacteria ,relevance of microscopy.
			CO3	Understand the basic microbial structure, function and study the comparative characteristics of prokaryotes and eukaryotes and understand the structural similarities and differences among them
	FTL 2 B 04 P	FOOD MICROBIOLOGY-1	CO1	Understand various accessories for microbiology practical
			CO2	develop skill to stain bacterial cell
3	FTL 3 B 05	FOOD ENGINEERING	CO1	Identify the mechanisms by which various unit operations in food processing optimizfood quality and extend shelf life of foods
			CO2	Understand principles of heat and mass transfer phenomena
			CO3	Describe the theories of refrigeration and freezing
			CO4	Understand rheological characteristics of foods
				CO5
FTL 3 B 06 P	FOOD PROCESSING AND PRESERVATION	CO1		
4	FTL 4 B 07	FOOD CHEMISTRY & ANALYTICAL INSTRUMENTATION	CO1	Exposure to various Instrumental analysis of foods which needed for statutory requirements
			CO2	Understand the constituents of foods which are always amenable during processing
			CO3	Knowledge of minor constituents useful to get organoleptic character of foods
FTL 4 B 08 P	FOOD CHEMISTRY & ANALYTICAL INSTRUMENTATION	CO1		
	FTL 5 B 09	FOOD MICROBIOLOGY-II	CO1	Understand microbiological techniques for the isolation of pure culture of Micro organisms
			CO2	To understand spoilage organisms ,growth factors and control.

5	FTL 5 B 9	FOOD MICROBIOLOGY -I	CO3	To know the effect of fermentation in food production and how it influence the microbiological quality and status of food product.
			CO4	To perform and analyze the microbiological safety of milk and water
	FTL 5 B 10	CEREALS, PULSES AND OIL SEEDS TECHNOLOGY	CO1	Familiarize on milling technologies of rice & wheat
			CO2	Knowledge on baking technologies of bread, cake, biscuit and confectionary
			CO3	Knowing the processing methods of pulses, nuts and oilseeds
			CO4	Detailed description of millet chemistry
			CO5	Understand the master technologies of thermal food industries
	FTL 5 B 11	FOOD PRESERVATION & PACKAGING TECHNOLOGY	CO2	Signify the importance of various drying methods
			CO3	Make knowledge of pros and cons of low temperature preservation
			CO4	Rely on ancient fermentation method and its applications.
CO5			Clear the usual confusion for using various preservatives	
CO6			Dominate the common reservation techniques with the recent and advanced one	
CO7			To be competitive with innovative ideas for developing substantial consumer products	
CO7			To be competitive with innovative ideas for developing substantial consumer products	
FTL 5 B 12 P	CEREALS, PULSES & OIL SEEDS TECHNOLOGY	CO1		
FTL 5 B 13 P	FOOD MICROBIOLOGY -II	CO1	To study the methods of isolation and culturing of microorganisms	
		CO2	Incoming raw material such as meat	
		CO3	Water -treated & raw water for coliforms Microbial flora in foods such as milk	
		CO4	to analyze the different types of specimens microbiologically:	
FT 5 B 14 P	ANALYSIS OF FOODS	CO1		
6	FTL 6 B 15 E	DAIRY TECHNOLOGY	CO1	Lists the components of milk.
			CO2	Signify the importance of physico chemical properties of milk
			CO3	Providing the importance of dairy processing technologies and equipments used
			CO4	Make more knowledge on different types of market milk and fermented
			CO5	Provide more information on CIP methods
	FTL 6 B 16	TECHNOLOGY OF ANIMAL FOODS	CO1	Understand the importance of safe slaughtering methods and its
			CO2	Innovative ideas on the production of various products
			CO3	Describe the methods of preservation of different animal products based
			CO4	Quality parameters of egg and the preservation methods from ancient to
			CO5	A clear idea on fish processing Technology
	FTL 6 B 17	FOOD SAFETY, FOOD LAWS & REGULATIONS	CO1	Upon completion of the food safety regulations and packaging paper: Students will recognize the national and international standards of food
			CO2	Students can take new concept of food plant sanitation
			CO3	Students can implement the updated FSSAI
	FTL 6 B 18	TECHNOLOGY OF FRUITS,	CO1	
FTL 6 B 19 P	TECHNOLOGY OF FRUITS, VEGETABLES, SPICES &	CO1		
FTL 6 B 20 P	TECHNOLOGY OF ANIMAL FOODS	CO1	To determine the acidity of milk, curd, butter	
		CO2	By using Gerber method we can check the fat of milk	
		CO3	By using lactometer we can check the purity of cow's milk	
		CO4	Different kinds of tests are performing to determine the adulteration of	
Name of the Programme			Bachelor of Science. Mathematics	
Short Name of the Programme			B Sc. Maths	
Code of the Programme			CCASMT	
Semester	Course code	Course Title	CO No:	Course Outcomes
	MT1B01	Basic Logic and Number Theory	CO1	To analyse hypothesis and conclusions of mathematical statements
			CO2	To apply the logical structure of proofs and work symbolically with connectives
			CO3	To identify and apply various properties of and and relating to Integers including
			CO4	To understand the concept of congruence and use various theorems related to
			CO5	To identify certain number theoretic functions and their properties
	MT2B02	Calculus of single variable-1	CO1	To give an account of the concept of functions and their graphs
			CO2	To determine the limit, continuity and differentiability of a function
			CO3	To use derivatives in applications
			CO4	To familiar with integration and Fundamental Theorem of Calculus
			CO5	To use integrals for the computation of area of surface of revolution, arc length,
	MT3B03	Calculus of single variable-2	CO1	To define the logarithmic and exponential functions and examine their properties
			CO2	To study about inverse trigonometric functions and hyperbolic functions
			CO3	To discuss the methods of finding limits of functions in indeterminate forms
			CO4	To introduce the idea of improper integrals
			CO5	To understand the concepts of sequence and series
			CO6	To develop power series representation of real valued functions
			CO7	To discuss about parametric equation of curves and polar coordinate system
			CO8	For detailed study of plane and space curves
	MT4B04	Linear Algebra	CO1	To solve systems of linear equations
			CO2	To understand the concept of matrices, operations on matrices and its properties
			CO3	To understand the concept of vector spaces

			CO4	To learn deeply about matrix transformations and determine eigen values of a
			CO5	To understand the concept of inner product and orthogonalization
	MT5B05	Abstract Algebra	CO1	To focus on Symmetric functions.
			CO2	To learn the concept of equivalence relation and partition
			CO3	To understand the concepts of groups, subgroups, homomorphism and
			CO4	To get the idea of Cosets, Rings and Integral domain.
	MT5B06	Basic Analysis	CO1	To deduce basic properties of real number system
			CO2	To know about sequence and series
			CO3	To understand some basic topological properties of real number system
			CO4	To get a rigorous introduction to algebraic, geometric and topological
	MT5B07	Numerical Analysis	CO1	To understand several methods to find out the approximate numerical
			CO2	To learn concepts of various difference operators
			CO3	To understand the concept of interpolation and also learn some well
			CO4	To understand a few techniques for numerical differentiation and
			CO5	To find out numerical approximations to solutions of initial value problems
	MT5B08	Linear Programming	CO1	To mathematically formulate real problem in a systematic way and its
			CO2	To systematic study of a given problem and solving it using different
			CO3	To study various methods to optimize a transportation problem
			CO4	To acquit with various methods to optimize an assignment problem
			CO5	To analyse the duality of a given linear programming problem
	MT5B09	Introduction to Geometry and Theory of Equations	CO1	To understand some properties of conics such as parabola, hyperbola and
			CO2	To discuss Euclidean Geometry
			CO3	To explain affine transformations and parallel projections
			CO4	To discuss fundamental theorem of affine geometry
			CO5	To discuss projective geometry
			CO6	To identify certain number theoretic functions and their properties
			CO7	To have insight in division of polynomials and Taylor Formula.
			CO8	To demonstrate the Fundamental Theorem of Algebra.
			CO9	To analyse the location and describe the nature of the roots of ewua
			CO10	To Discuss the solution of an equation by Cardens Formula and Ferrari
	MT5D01 Open Course	Applied Calculus	CO1	To discuss about functions and continuity of functions
			CO2	To create a basic knowledge differentiation
			CO3	To apply the concepts of differentiation in Economics and graphing of function
			CO4	To study about exponential and logarithmic functions
			CO5	To generate an idea of basic integration
	MT6B10	Real Analysis	CO1	To understand the fundamental results of continuous functions on intervals
			CO2	To identify the difference between pointwise continuity and uniform continuity
			CO3	To understand the significance of uniform continuity
			CO4	To develop the notion of Riemann integrability of a function
			CO5	To understand some basic and fundamental results of integration theory
			CO6	To understand classes of functions that are always integrable
			CO7	To understand the difference between pointwise and uniform convergence of
			CO8	To understand the notion of improper integrals, their convergence, principal
			CO9	To learn the properties of and relationship among two important improper
	MT6B11	Complex Analysis	CO1	To develop the relation between analytic functions and its power series
			CO2	To analyze the properties of Mobius transformation.
			CO3	To develop theorems of complex integration
			CO4	To classifying singularities of functions and Laurent series development
	MT6B12	Calculus of Multi Variable	CO1	To acquaint with the concepts of limit and continuity on multivariable
			CO2	To get an introduction on Directional derivatives, Gradient vectors, tangent
			CO3	To know the concept of extremas of functions of two variables and Lagrange
			CO4	To understand the techniques like line integrals, surface integrals, double
			CO5	To learn three major results viz. Green's theorem, Gauss's theorem and Stokes'
	MT6B13	Differential Equations	CO1	For identification of the areas where the modelling process results in a
			CO2	To discuss methods to solve DEs that are in linear, separable and in exact forms
			CO3	To develop theory and method for solving a second order linear homogeneous
			CO4	To understand the series solution method for homogeneous equations with
			CO5	To develop the method for solving partial differential equations using the method
	MT6B14(E02) - Elective	Topology of Metric spaces	CO1	To explain the concepts metric spaces and norms on linear spaces
			CO2	To discuss open, closed and dense subsets
			CO3	To introduce topologies
			CO4	To discuss convergence and Cauchy sequence
			CO5	To differentiate point wise and uniform convergence
			CO6	To discuss continuity and connectedness
Name of the Programme			Bachelor of Science, Psychology	
Short Name of the Programme			B.Sc. Psychology	
Code of the Programme			CCASPY	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	PSY1B01	BASIC THEMES IN PSYCHOLOGY- I	CO1	To generate interest in Psychology
			CO2	To make familiar the basic concept of the field of Psychology with an emphasis
			CO3	To understand the basics of various theories in Psychology
			CO4	To provide basic knowledge about systems and processes like attention, learning
2	PSY2B01	BASIC THEMES IN PSYCHOLOGY- II	CO1	To generate interest in Psychology
			CO2	To make familiar the basic concept of the field of Psychology with an emphasis
			CO3	To understand the basics of various theories in Psychology
			CO4	To provide basic knowledge about systems and processes like cognition, memory,

3	PSY3B01	PSYCHOLOGICAL MEASUREMENT AND TESTING	CO1	To offer foundation on psychological measurement and testing	
			CO2	To provide the basis of test construction and to build up skills on developing	
			CO3	To familiarize the uses of psychological tests	
			CO4	To make aware of ethical principals in testing	
		EXPERIMENTAL PSYCHOLOGY PRACTICAL I	CO1	To nurture the ability in students to understand himself/herself and other	
			CO2	To develop the skills of testing and scientific reporting in psychology.	
			CO3	To familiarize the students to various psychological tests and assessment tools.	
			CO4	To generate an interest in working of the community with a psychological outlook	
4	PSY4B01	INDIVIDUAL DIFFERENCES	CO1	To provide theoretical knowledge about systems and processes like intelligence	
			CO2	To understand the history of intelligence and Personality Testing	
			CO3	To familiarize the student with various types of tests in Psychology	
			CO4	To nurture the ability in students to understand himself/herself and other	
	PSY4B02	EXPERIMENTAL PSYCHOLOGY PRACTICAL I	CO1	To nurture the ability in students to understand himself/herself and other	
			CO2	To develop the skills of testing and scientific reporting in psychology.	
			CO3	To familiarize the students to various psychological tests and assessment tools.	
			CO4	To generate an interest in working of the community with a psychological outlook	
5	PSY5B01	ABNORMAL PSYCHOLOGY-I	CO5	To enable students to understand the concepts of abnormal behavior	
			CO6	To develop awareness about different types of anxiety and stress disorders	
			CO7	To encourage the students to know different therapeutic techniques in	
	PSY5B02	SOCIAL PSYCHOLOGY	CO8	Understand and explain behavior in social settings	
			CO9	Explain the psychological aspects of various social phenomena	
	PSY5B03	DEVELOPMENTAL PSYCHOLOGY –I	CO10	To create awareness about the management of human behaviour in group	
			CO11	To study human development in Psychological Perspectives	
	PSY5B04	PSYCHOLOGICAL COUNSELLING	CO12	To create awareness about major Psychological changes along with physical and	
			CO13	To acquire theoretical knowledge in the areas of psychological counseling	
	PSYB05	HEALTH PSYCHOLOGY	CO14	To understand the applications of counseling in various settings	
			CO15	To practice counseling techniques through role plays	
			EXPERIMENTAL PSYCHOLOGY PRACTICAL II	CO16	To understand the Psychological, behavioral and cultural factors contributing to
				CO17	To study the management of different illnesses
		EXPERIMENTAL PSYCHOLOGY PRACTICAL III	CO18	To nurture the ability in students to understand himself/herself and other	
			CO19	To develop the skills of testing and scientific reporting in psychology.	
			CO20	To familiarize the students to various psychological tests and assessment tools.	
			CO21	To generate an interest in working of the community with a psychological outlook	
			CO22	To nurture the ability in students to understand himself/herself and other	
			CO23	To develop the skills of testing and scientific reporting in psychology.	
			CO24	To familiarize the students to various psychological tests and assessment tools.	
			CO25	To generate an interest in working of the community with a psychological outlook	
6	PSY6B01	ABNORMAL PSYCHOLOGY- II	CO1	To develop awareness about major psychological disorders	
			CO2	To acquaint the students with causes of major psychological disorders	
	PSY6B02	APPLIED SOCIAL PSYCHOLOGY	CO1	To familiarize the theoretical concept and research methods in applied	
			CO2	To give knowledge about application of Social Psychology in different areas like clinical, Educational, health and media.	
			CO3	To understand the major social issues in India	
	PSY6B03	DEVELOPMENTAL PSYCHOLOGY –II	CO1	To study emotional and social development of life span periods.	
			CO2	To study the vocational development and adjustments in adulthood.	
			CO3	To understand the period of late adulthood.	
PSY6B04	LIFE SKILL EDUCATION: APPLICATIONS AND TRAINING	CO1	To promote life skill education		
		CO2	To develop abilities for adaptive and positive behavior		
		CO3	To enhance self-confidence and self-esteem		
PSY6B06	EXPERIMENTAL	CO1			
PSY6B07	EXPERIMENTAL	CO1			
PSY6B08	PROJECT	CO1			
Name of the Programme			Bachelor of Computer Application		
Short Name of the Programme			BCA		
Code of the Programme			CCABCA		
Semester	Course code	Course Title	CO No:	Course Outcomes	
1	BCA1B01	Computer Fundamentals & HTML	CO1	To equip the students with fundamentals of Computer	
			CO2	To learn the basics of Computer organization	
			CO3	To equip the students to write algorithm and draw flow chart for solving simple	
			CO4	To learn the basics of Internet and webpage design	
2	BCA2B02	Problem Solving Using C	CO1	To equip the students with fundamental principles of Problem Solving aspects.	
			CO2	To learn the concept of programming	
			CO3	To study C language	
			CO4	To equip the students to write programs for solving simple computing problems	
	BCA2B03	Programming Laboratory I:HTML and Programming in C	CO1	To make the students learn web designing	
			CO2	To make the students learn programming environments.	
			CO3	To practice procedural programming concepts.	
			CO4	To make the students equipped to solve mathematical or scientific problems	
3	BCA3B04	Data Structures Using C	CO1	To introduce the concept of data structures	
			CO2	To make the students aware of various data structures	
			CO3	To equip the students implement fundamental data structures	
4	BCA4B05	Database Management System and RDBMS	CO1	To learn the basic principles of database and database design	
			CO2	To learn the basics of RDBMS	
			CO3	To learn the concepts of database manipulation SQL	
			CO4	To study PL/SQL language	
		Programming Laboratory	CO1	To make the students equipped to solve mathematical or scientific problems	

	BCA4B06	II-Data Structures and RDBMS	CO2	To learn how to implement various data structures.
			CO3	To provide opportunity to students to use data structures to solve real life
5	BCA5B07	Computer Organization and Architecture	CO1	To learn logic gates, combinational circuits and sequential circuits
			CO2	To learn basics of computer organization and architecture
	BCA5B08	Java Programming	CO1	To review on concept of OOP.
			CO2	To learn Java Programming Environments.
			CO3	To practice programming in Java.
			CO4	To learn GUI Application development in JAVA
	BCA5B09	Web Programming using PHP	CO1	To review on concept of OOP.
			CO2	To learn Java Programming Environments.
			CO4	To learn GUI Application development in JAVA
	BCA5B10	Principles of Software Engineering	CO1	To learn engineering practices in Software development.
			CO2	To learn various software development methodologies and practices.
			CO3	To learn and study various Evaluation methods in Software Development
6	BCA6B11	Android Programming	CO1	To have a review on concept of Android programming.
			CO2	To learn Android Programming Environments.
			CO3	To practice programming in Android.
			CO4	To learn GUI Application development in Android platform with XML
	BCA6B12	Operating Systems	CO1	To learn objectives & functions of Operating Systems.
			CO2	To understand processes and its life cycle.
			CO3	To learn and understand various Memory and Scheduling Algorithms.
			CO4	To have an overall idea about the latest developments in Operating Systems
	BCA6B13	Computer Networks	CO1	To learn about transmissions in Computer Networks.
			CO2	To learn various Protocols used in Communication.
			CO3	To have a general idea on Network Administration.
	BCA6B14	Programming Laboratory III-Java and PHP Programming	CO1	To practice Java programming.
			CO2	To practice client side and server side scripting.
			CO3	To practice PHP Programming.
			CO4	To practice developing dynamic websites.
	BCA6B15	Programming Laboratory IV-Android and Linux Shell Programming	CO1	To practice Android programming.
			CO2	To practice user interface applications.
			CO3	To develop mobile application.
			CO4	To practice shell programming
	Name of the Programme			Bachelor of Social Work
Short Name of the Programme			BSW	
Code of the Programme			CCABSW	
Semester	Course code	Course Title	CO No.	Course Outcomes
1	BSW1 B01	Introduction to Social Work	CO1	Understand the history of Social Work Profession in India & abroad
			CO2	Understand the basic values and principles of Social Work profession
			CO3	Understand the basic concepts relevant to Social Work practice.
2	BSW 2B 02	Fields of Social Work	CO1	Create awareness about enlarging scope of Social Work profession
			CO2	Familiarize with problems in various fields of Social Work
			CO3	Acquire skills for working in different areas of Social Work
3	BSW 3B 03	Introduction to Social Case Work	CO1	To understand the basic concepts in Social Case Work
			CO2	To acquaint the students with the process of Social casework
			CO3	To develop in students the necessary attitude and skills to practice Social case work
	BSW 3 B 04	Introduction to Social Group Work	CO1	To understand the scope of Group Work in social work intervention
			CO2	To familiarize with group formation, group work process & evaluation
			CO3	Develop skills and attitudes for participatory group work
4	BSW 4 B 05	Introduction to Community Organisation and Social Action	CO1	Understand the elements of Community Organisation practice.
			CO2	Develop skills and attitudes for participatory community work.
			CO3	
			CO4	
5	BSW 5 B 07	Introduction to Social Work Administration	CO1	To study Voluntary Agency Administration
			CO2	To study legal aspects of Social Work Administration
			CO3	To create awareness about the various social welfare programmes implemented by Central & State Governments
	BSW 5 B 08	Rural and Urban Community Development	CO1	
			CO2	
			CO3	
	BSW 5 B 09	Introduction to Social Work Research and	CO1	To develop a scientific approach for systematic procedure in social work research
			CO2	To familiarize with various statistical techniques for analyzing data
	BSW 5 B 10	Gandhian Philosophy and Social Work	CO1	To create insight about the basic concepts of Gandhi & his views on society,development, industrialization, economics &education
CO2			To know the relevance of Gandhian philosophy & application of Gandhian model of development in dealing with social problems	
	BSW 6 B 11	Project Planning and Management for Social Work	CO1	To provide basic knowledge in project management
			CO2	To help the students to acquire skill in preparation, management, monitoring and evaluation of projects for social work intervention
			CO3	To equip the students to write independent project proposals
	BSW 6 B 12	Legal Information for Social Workers	CO1	To provide an overview of social legislation and familiarize students with
			CO2	To educate the students about the existing judicial system & itsfunctioning
		Community Health and Health Care Services	CO1	To understand the concept of health & its various perspectives
			CO2	To familiarize with various health problems & its impact on communities
			CO3	To develop skills for planning and implementing community health programmes

6	BSW 6 B 13		CO4	To study role of social workers in community health programmes
	BSW 6 B 16	Elective 1. Gender and Development in Social Work	CO1	To understand key concepts, issues in gender and development
			CO2	To give awareness about reciprocal relationship between women & men in society
			CO3	To create awareness about the magnitude of gender disparities in the present
	BSW 6 B 17	Elective 2. Social Movements and Social Development	CO1	To develop a meaningful understanding about past & present social movements
			CO2	To equip students to examine social realities from different perspectives
			CO3	To familiarize with the contemporary discourse on social movements & social
	BSW 6 B 18	Elective 3. Social Work with elderly	CO1	To understand the concepts of aging, geriatric care and Social Work
			CO2	To understand the problems faced by aged.
			CO3	To study the role of Social Work interventions in caring for the Aged
	SGY1 (2) C01	Complimentary 1. Principles of Sociology	CO1	Understanding that society can be studied scientifically
			CO2	Recognises some contributions of the social sciences in understanding contemporary social realities
			CO3	Developing a sociological perspective on current issues
	SGY3 (4) C02	Complimentary 2. Sociology of Indian society	CO1	Getting acquaintance with the sociological perspective for understanding the
			CO2	Understanding nature of various social institutions in Indian Society
			CO3	Gaining exposure to sociological perspectives on contemporary social issues
	PSY1C05	Complimentary 3. Psychological Processes	CO1	To generate interest in Psychology
			CO2	To familiarize the students with the concepts of basic psychological processes
			CO3	To understand the basics of various theories in Psychology
			CO4	To provide basic knowledge about systems and processes like attention, learning
CO5			To provide basic knowledge about systems and processes like cognition, intelligence and personality	
PSY3C06	Complimentary 4. Lifespan Development and Health Psychology	CO1	To study human development in Psychological Perspectives	
		CO2	To create awareness about major Psychological changes along with physical and cognitive development	
		CO3	To study emotional , social development and adjustments of life span periods.	
		CO4	To understand the Psychological, behavioral and cultural factors contributing to physical and mental health	
		CO5	To study the management of different illnesses	
Name of the Programme			Bachelor of Arts. English Literature	
Short Name of the Programme			B.A. English Literature	
Code of the Programme			CCAAGR	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	ENG1B01	INTRODUCING LITERATURE	CO1	To introduce students to the language of literature, i.e., the meaning-making
			CO2	To train the students to identify the linguistic structures of poetic texts: symbols,
			CO3	To recognize diverse points of view within a single text and to understand the
			CO4	d. To prepare students in reading literary/cultural texts closely, beyond the literal
			CO5	To enable students to recognize the dominant voice/s within the text and its
			CO6	To encourage questioning the text in order to perceive marginalized voices - the
			CO7	To comprehend how the subaltern perspectives question and counter the
2	ENG2B02	APPRECIATING POETRY	CO1	To introduce the students to the basic elements of poetry, including the stylistic
			CO2	To facilitate students to attain various perspective in reading poetry like gender,
			CO3	To familiarize the learners with different forms of poetry written in British and
			CO4	To create an awareness among the learners about different forms and themes of
3	ENG3B03	APPRECIATING PROSE	CO1	To familiarize the students with different types of prose writing.
			CO2	To introduce to them the basic concepts of style and literary devices in prose.
			CO3	To acquaint them with cultural diversity and divergence in perspectives.
			CO4	To develop their critical thinking abilities and write creatively and critically.
3	ENG3B04	ENGLISH GRAMMAR AND USAGE	CO1	To familiarize the students with the key concepts of English grammar and to use
			CO2	To help students towards a better language use through the understanding of the
			CO3	To help the students develop a sense of English grammar, idioms, syntax,
			CO4	To develop the logical and analytical skills in the use of language for
			CO5	To familiarize students with contemporary English usage
4	ENG4B05	APPRECIATING FICTION	CO1	To help students discover the pleasures in reading fiction.
			CO2	To aid students gain an insight into the human condition and the complexities of
			CO3	To acquaint the students with different types of fiction and analyze them.
4	ENG4B06	LITERARY CRITICISM	CO1	To have an understanding of important texts and movements in the history of
			CO2	To examine how literary criticism shapes literature and culture across centuries.
			CO3	To recognize and critique the major arguments underlying critical writings.
			CO4	To relate critical perspectives to the history of eastern and western ideas.
5	ENG5B07	APPRECIATING DRAMA AND THEATRE	CO1	To introduce the students to the basic elements of drama, including the historical
			CO2	To foster an ability in the students for appreciating drama as an art form.
			CO3	To familiarize the students with the different genres and masters of drama.
			CO4	To facilitate the learners to critically go beyond the theatrical performances to
5	ENG5B08	LITERARY THEORY	CO1	To cultivate among the students an understanding of important texts and
			CO2	To enable the learners to critically approach literature and culture in the context
			CO3	To enrich the students through various perspectives of thinking and critique the
			CO4	To promote a pluralistic perspective of culture and literature in a multicultural
5	ENG5B09	LANGUAGE AND LINGUISTICS	CO1	To lead to a greater understanding of the human mind, of human communicative
			CO2	To familiarize students with key concepts of Linguistics and develop awareness of
			CO3	To help students towards a better pronunciation and to improve the general
			CO4	To help the students develop a sense of English grammar, syntax and usage.
			CO5	To improve writing and speech skills.
5	ENG5B10	INDIAN WRITING IN ENGLISH	CO1	To provide an overview of the various phases of the evolution of Indian writing in
			CO2	To introduce students to the thematic concerns, genres and trends of Indian

		ENGLISH	CO3	To expose students to the pluralistic aspects of Indian culture and identity
6	ENG6B11	VOICES OF WOMEN	CO1	To equip students to steer clear of misconceptions regarding women and to
			CO2	To arouse a keen interest in analysing critically the diversity of women's
			CO3	To perceive gender as a social construct
			CO3	To expose the students to the pluralistic aspects of Indian culture and identity
6	ENG6B12	CLASSICS OF WORLD LITERATURE	CO1	To acquaint the students with the classic literatures and thereby composite
			CO2	To enable students to develop cross cultural perspectives
			CO3	To enhance the literary sensibility of students
6	ENG6B13	FILM STUDIES	CO1	To appreciate film as an art form and its aesthetics
			CO2	To understand how film connects with history, politics, technology, psychology
			CO3	To critically appraise the nature of representation on screen and how class, race
			CO4	To develop analytical skills so that the student can produce informed and
6	ENG6B14	NEW LITERATURES IN ENGLISH	CO1	To expose the students to diverse cultures and modes of expression.
			CO2	To enable them to explore issues of cultural plurality and hybridity
			CO3	To expose the learners to literary negotiations of colonization and decolonization,
6	ENG6B17	WRITING FOR THE MEDIA	CO1	To familiarize the students with the latest trends in media
			CO2	To understand the specificities and possibilities of the different kinds of media
			CO3	To impart necessary technical writing skills
6	ENG6B21	PROJECT	CO1	To develop writing skills
			CO2	To learn to integrate writing and thought and to apply the conventions of
			CO3	To cultivate, in the students, an urge for research.
Name of the programme			Bachelor of Science. Physics	
Short Name of the Programme			B.Sc. Physics	
Code of the Programme			CCASPH	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	PHY1B01	METHODOLOGY OF SCIENCE AND BASIC MECHANICS	CO1	Understand the features, methods and limitations of science
			CO2	Understand and apply the basic concepts of Newtonian Mechanics to physical
			CO3	Understand and apply the basic idea of work-energy theorem to physical systems
			CO4	Understand and apply the rotational dynamics of rigid bodies
			CO5	Understand the basic ideas of elasticity
2	PHY2B02	MECHANICS	CO1	Understand the features of non-inertial systems and fictitious forces
			CO2	Understand and analyze the features of central forces with respect to planetary
			CO3	Understand the basics ideas of harmonic oscillations
			CO4	Understand and analyze the basics concepts of wave motion
3	PHY3B03	ELECTRODYNAMICS I	CO1	Understand and apply the fundamentals of vector calculus
			CO2	Understand and analyze the electrostatic properties of physical systems
			CO3	Understand the mechanism of electric field in matter.
			CO4	Understand and analyze the magnetic properties of physical systems
			CO5	Understand the mechanism of magnetic field in matter.
4	PHY4B04	ELECTRODYNAMICS II	CO1	Understand the basic concepts of electrodynamics
			CO2	Understand and analyze the properties of electromagnetic waves
			CO3	Understand the behavior of transient currents
			CO4	Understand the basic aspects of ac circuits
			CO5	Understand and apply electrical network theorems
5	PHY5B06	COMPUTATIONAL PHYSICS	CO1	Understand the Basics of Python programming
			CO2	Understand the applications of Python modules
			CO3	Understand the basic techniques of numerical analysis
			CO4	Understand and apply computational techniques to physical problems
5	PHY5B07	QUANTUM MECHANICS	CO1	Understand the particle properties of electromagnetic radiation
			CO2	Describe Rutherford – Bohr model of the atom
			CO3	Understand the wavelike properties of particles
			CO4	Understand and apply the Schrödinger equation to simple physical systems
			CO5	Apply the principles of wave mechanics to the Hydrogen atom
5	PH5B08	OPTICS	CO1	Understand the fundamentals of Fermat's principles and geometrical optics
			CO2	Understand and apply the basic ideas of interference of light
			CO3	Understand and apply the basic ideas of diffraction of light
			CO4	Understand the basics ideas of polarization of light
			CO5	Describe the basic principles of holography and fibre optics
5	PHY5B09	ELECTRONICS (ANALOG & DIGITAL)	CO1	Understand the basic principles of rectifiers and dc power supplies
			CO2	Understand the principles of transistor
			CO3	Understand the working and designing of transistor amplifiers and oscillators
			CO4	Understand the basic operation of Op – Amp and its applications
			CO5	Understand the basics of digital electronics
6	PHY6B10	THERMODYNAMICS	CO1	Understand the zero and first laws of thermodynamics
			CO2	Understand the thermodynamics description of the ideal gas
			CO3	Understand the second law of thermodynamics and its applications
			CO4	Understand the basic ideas of entropy
			CO5	Understand the concepts of thermodynamic potentials and phase transitions
6	PHY6B11	STATISTICAL PHYSICS, SOLID STATE PHYSICS, SPECTROSCOPY & PHOTONICS	CO1	Understand the basic principles of statistical physics and its applications
			CO2	Understand the basic aspects of crystallography in solid state physics
			CO3	Understand the basic elements of spectroscopy
			CO4	Understand the basics ideas of microwave and infra red spectroscopy
			CO5	Understand the fundamental ideas of photonics
6	PHY6B12	NUCLEAR PHYSICS AND PARTICLE PHYSICS	CO1	Understand the basic aspects of nuclear structure and fundamentals of
			CO2	Describe the different types of nuclear reactions and their applications
			CO3	Understand the principle and working of particle detectors
			CO4	Describe the principle and working of particle accelerators

			CO5	Understand the basic principles of elementary particle physics
6	PHY6B13	RELATIVISTIC MECHANICS AND ASTROPHYSICS	CO1	Understand the fundamental ideas of special relativity
			CO2	Understand the basic concepts of general relativity and cosmology
			CO3	Understand the basic techniques used in astronomy
			CO4	Describe the evolution and death of stars
			CO5	Describe the structure and classification of galaxies
6	PHY6B14	ELECTIVE -1-BIOMEDICAL PHYSICS	CO1	Understand the basic principles of biophysics
			CO2	Understand the fundamentals of medical instrumentation
			CO3	Understand the principles of ultrasound and x-ray imaging
			CO4	Understand the basic principles of NMR
			CO5	Describe the applications of lasers in medicine
6	PHY6B14	ELECTIVE -2- NANOSCIENCE AND TECHNOLOGY	CO1	Understand the elementary concepts of nanoscience
			CO2	Understand the electrical transport mechanisms in nanostructures
			CO3	Understand the applications of quantum mechanics in nanoscience
			CO4	Understand the fabrication and characterization techniques of nanomaterials
			CO5	Enumerate the different applications of nanotechnology
6	PHY6B14	ELECTIVE -2-MATERIALS SCIENCE	CO1	Understand the basic ideas of bonding in materials
			CO2	Describe crystalline and non crystalline materials
			CO3	Understand the types of imperfections and diffusion mechanisms in solids
			CO4	Describe the different properties of ceramics and polymers
			CO5	Describe the different types of material analysis techniques
4	PHY4B05	PRACTICAL I	CO1	Apply and illustrate the concepts of properties of matter through experiments
			CO2	Apply and illustrate the concepts of electricity and magnetism through
			CO3	Apply and illustrate the concepts of optics through experiments
			CO4	Apply and illustrate the principles of electronics through experiments
6	PHY6B15	PRACTICAL II	CO1	Apply and illustrate the concepts of properties of matter through experiments
			CO2	Apply and illustrate the concepts of electricity and magnetism through
			CO3	Apply and illustrate the concepts of optics and spectroscopy through experiments
			CO4	Apply and illustrate the principles of heat through experiments
6	PHY6B16	PRACTICAL III	CO1	Apply and illustrate the principles of semiconductor diode and transistor through
			CO2	Apply and illustrate the principles of transistor amplifier and oscillator through
			CO3	Apply and illustrate the principles of digital electronics through experiments
			CO4	Analyze and apply computational techniques in Python programming
6	PHY6B17(P)	PROJECT	CO1	Understand research methodology
			CO2	Understand and formulate a research project
			CO3	Design and implement a research project
			CO4	Identify and enumerate the scope and limitations of a research project
6	PHY6B17(R)	RESEARCH METHODOLOGY (In lieu of Project)	CO1	Understand research methodology
			CO2	Understand the concept of measurement in research
			CO3	Understand the significance and limitations of experimentation in research
			CO4	Understand and formulate a research project, ethics and responsibility of
5	PHY5D01(1)	OPEN COURSE: NON CONVENTIONAL ENERGY SOURCES	CO1	Understand the importance of non conventional energy sources
			CO2	Understand basic aspects of solar energy
			CO3	Understand basic principles of wind energy conversion
			CO4	Understand the basic ideas of geothermal and biomass energy and recognize
			CO4	Understand the basic ideas of oceans and chemical energy resources and
1	PHY1C01	Complementary-1- Properties of matter & Thermodynamics	CO1	Understand the basic principles of elasticity
			CO2	Understand the concepts of surface tension
			CO3	Understand the aspects of viscosity
			CO4	Understand the basic principles of thermodynamics
2	PHY2C02	Complementary-2-Optics, Laser & Electronics	CO1	Understand the basic concepts of interference and diffraction
			CO2	Understand the concepts of polarization
			CO3	Understand the fundamentals of electronics
			CO4	Understand the important principles of laser physics
3	PHY3C03	Complementary-3- Mechanics, Relativity, Waves and Oscillations	CO1	Understand the basic ideas of frames of reference and the principles of
			CO2	Understand the concepts of relativity
			CO3	Understand the basic ideas of oscillations and waves
			CO4	Understand the basic ideas of modern physics
4	PHY4C04	Complementary-4- Electricity, Magnetism and Nuclear physics	CO1	Understand the basic ideas of static and current electricity
			CO2	Understand the concepts of magnetism
			CO3	Describe the fundamental concepts of nuclear physics
			CO4	Understand the basic ideas of cosmic rays and elementary particles
1 to 4	PHY4C05	Complementary-5- PRACTICALS I	CO1	Apply and illustrate the concepts of properties of matter through experiments
			CO2	Apply and illustrate the concepts of electricity and magnetism through
			CO3	Apply and illustrate the concepts of optics through experiments
			CO4	Apply and illustrate the principles of electronics through experiments
Name of the Programme			Bachelor of Science. Chemistry	
Short Name of the Programme			B.Sc. Chemistry	
Code of the Programme			CCASCH	
Semester	Course code	Course Title	CO No:	Course Outcomes
1	CHE1B01	Theoretical and Inorganic Chemistry- I	CO1	To apply the methods of a research project.
			CO2	To understand the principles behind volumetry.
			CO3	To analyse the characteristics of different elements.
			CO4	To distinguish between different acid base concepts.
			CO5	To analyse the stability of different nuclei.
			CO1	To understand the importance and the impact of quantum revolution in science.

2	CHE2B02	Theoretical and Inorganic Chemistry- II	C02	To understand and apply the concept that the wave functions of hydrogen atom
			C03	To understand that chemical bonding is the mixing of wave functions of the two
			C04	To understand the concept of hybridization as linear combination of orbitals of
			C05	To inculcate an atomic/molecular level philosophy in the mind.
3	CHE3B03	PHYSICAL CHEMISTRY - I	C01	To understand the properties of gaseous state and how it links to thermodynamic
			C02	To understand the concepts of thermodynamics and it's relation to statistical
			C03	To apply symmetry operations to categorize different molecules.
4	CHE4B04	ORGANIC CHEMISTRY – I	C01	To apply the concept of stereochemistry to different compounds.
			C02	To understand the basic concepts of reaction mechanism.
			C03	To analyse the mechanism of a chemical reaction.
			C04	To analyse the stability of different aromatic systems.
4	CHE4B05(P)	INORGANIC CHEMISTRY PRACTICAL – I	C01	To enable the students to develop skills in quantitative analysis and preparing
			C02	To understand the principles behind quantitative analysis.
			C03	To apply appropriate techniques of volumetric quantitative analysis in
			C04	To analyse the strength of different solutions.
5	CHE5B06	INORGANIC CHEMISTRY – III	C01	To understand the principles behind quantitative and quantitative analysis.
			C02	To understand basic processes of metallurgy and to analyse the merits of
			C03	To understand the applications of different inorganic polymers.
			C04	To analyse different polluting agents.
			C05	To apply the principles of solid waste management.
5	CHE5B07	ORGANIC CHEMISTRY – II	C01	To understand the difference between alcohols and phenols.
			C02	To understand the importance of ethers and epoxides.
			C03	To apply organometallic compounds in the preparation of different functional
			C04	To apply different reagents for the inter conversion of aldehydes, carboxylic
			C05	To apply active methylene compounds in organic preparations.
5	CHE5B08	PHYSICAL CHEMISTRY – II	C01	To apply the concept of kinetics, catalysis and photochemistry to various
			C02	To characterise different molecules using spectral methods.
			C03	To understand various phase transitions and its applications.
6	CHE6B09	INORGANIC CHEMISTRY – IV	C01	To understand the principles behind different instrumental methods.
			C02	To distinguish between lanthanides and actinides.
			C03	To appreciate the importance of CFT.
			C04	To understand the importance of metals in living systems.
			C05	To distinguish geometries of coordination compounds.
6	CHE6B10	ORGANIC CHEMISTRY – III	C01	To elucidate the structure of simple organic compounds using spectral
			C02	To understand the basic structure and tests for carbohydrates.
			C03	To understand the basic components and importance of DNA.
			C04	To understand the basic structure and applications of alkaloids and terpenes.
			C05	To distinguish different pericyclic reactions.
6	CHE6B11	PHYSICAL CHEMISTRY – III	C01	To understand the basic concepts of electrochemistry.
			C02	To understand the importance of colligative properties.
			C03	To relate the properties of materials/solids to the geometrical properties and
6	CHE6B12	Advanced and Applied Chemistry	C01	To understand the importance of nanomaterials.
			C02	To appreciate the importance of green approach in chemistry.
			C03	To understand the uses and importance of computational calculations in
			C04	To understand the role of chemistry in human happiness index and life
6	CHE6B13(E1)	Elective 1. INDUSTRIAL CHEMISTRY	C01	To understand the importance of petrochemicals.
			C02	To appreciate the importance and to familiarise the opportunities of
			C03	To analyse the role of catalysts in industrial processes.
6	CHE6B13(E2)	Elective 2. POLYMER CHEMISTRY	C01	To understand various classification of polymers and types of
			C02	To understand the important characteristics of polymers such as average
			C03	To appreciate the importance of processing techniques.
			C04	To characterise different commercial polymers and to understand the
6	CHE6B13(E3)	Elective 3. MEDICINAL AND ENVIRONMENTAL CHEMISTRY	C01	To understand the importance of drugs in human health.
			C02	To understand the facts about common diseases and treatment.
			C03	To identify the presence of toxic substances in atmosphere.
			C04	To apply chemistry in treatment of water and sewage.
6	CHE6B14(P)	PHYSICAL CHEMISTRY PRACTICAL	C01	To enable the students to develop analytical skills in determining the physical
			C02	To develop skill in setting up an experimental method to determine the physical
			C03	To understand Conductometry.
6	CHE6B15(P)	ORGANIC CHEMISTRY PRACTICAL	C01	To enable the students to develop analytical skills in organic qualitative analysis.
			C02	To develop talent in organic preparations to ensure maximum yield.
			C03	To apply the concept of melting or boiling points to check the purity of
			C04	To analyse and characterise simple organic functional groups.
			C05	To analyse individual amino acids from a mixture using chromatography.
6	CHE6B16(P)	INORGANIC CHEMISTRY PRACTICAL-II	C01	To enable the students to develop analytical skills in inorganic quantitative
			C02	To understand the principles behind gravimetry and to apply it in quantitative
			C03	To understand the principles behind colorimetry and to apply it in quantitative
6	CHE6B17(P)	INORGANIC CHEMISTRY PRACTICAL-III	C01	To enable the students to develop skills in inorganic quantitative analysis.
			C02	To understand the principles behind inorganic mixture analysis and to apply it in
			C03	To analyse systematically mixtures containing two cations and two anions.
6	CHE6B18(Pr)	PROJECT WORK	C01	To understand the scientific methods of research project.
			C02	To apply the scientific method in life situations.
			C03	To analyse scientific problems systematically.
1	CHE1C01	Complementary Course I: GENERAL CHEMISTRY	C01	To understand and to apply the theories of quantitative and qualitative analysis.
			C02	To understand the theories of chemical bonding.
			C03	To appreciate the uses of radioactive isotopes.

			CO4	To understand the importance of metals in biological systems.
2	CHE2C02	Complementary Course II: PHYSICAL CHEMISTRY	CO1	To understand the importance of free energy in defining spontaneity.
			CO2	To realise the theories of different states of matter and their implication.
			CO3	To understand the basic principles of electrochemistry.
			CO1	To understand the basic concepts involved in reaction intermediates.
3	CHE3C03		CO2	To realise the importance of optical activity and chirality.
			CO3	To appreciate the importance of functional groups and aromatic stability.
			CO4	To understand the basic structure and importance of carbohydrates, nucleic
			CO1	To understand the basic concepts behind colloidal state and nanochemistry.
4	CHE4C04	Complementary Course IV: PHYSICAL AND APPLIED CHEMISTRY	CO2	To understand the importance of green chemistry and pollution prevention.
			CO3	To appreciate the importance of different separation methods and spectral
			CO4	To understand the extent of chemistry in daily life.
			CO1	To enable the students to develop analytical skills in inorganic quantitative
	CHE4C05(P)	Complementary Course V: CHEMISTRY PRACTICAL	CO2	To analyse systematically mixtures containing two cations.
			CO1	Understand the basics of polymer chemistry.
5	CHE5D02	Open Course 2: CHEMISTRY IN DAILY LIFE	CO2	Explain the functions of biomolecules, vitamins, enzymes, hormones and nucleic
			CO3	Describe food additives and food habits.
			CO4	Explain the uses of pesticides and fertilizers and their impacts on the
			CO5	Understand advantages and disadvantages of cleansing agents and cosmetics.
			CO6	Recognize the common classes of drugs in pharmaceutical industry and their
			CO7	Understand the basic concepts and processes in petroleum industry.