

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/REGIONAL(RL) NATIONAL(NL)//GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Zoology

B.Sc. Aquaculture (B.Sc. ABC)

Code	Title of Course	Need addressed				Description
2019-20						
		LL	RL	NL	GL	
AQU101C	Basic Principles of Aquaculture	✓	✓	✓	✓	Students learn about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at global ,Indian, Andhra Pradesh and Local level.Acquire knowledge on different types of ponds, their functional classification, and construction of ponds at all levels
AQU201C	Biology of Fin Fish and Shell fish	✓	✓	✓		Students understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish at first three levels Knowledge of feeding habits, breeding and methods of induced breeding are learnt at these levels
2020-21						
		LL	RL	NL	GL	
AQU101C	Basic Principles of Aquaculture	✓	✓	✓	✓	Students learn about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at global ,Indian, Andhra Pradesh and Local level.Acquire knowledge on different types of ponds, their functional classification, and construction of ponds at all levels
AQU201C	Biology of Fin Fish and Shell fish	✓	✓	✓		Students understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish at first three levels Knowledge of feeding habits, breeding and methods of induced breeding are learnt at these levels
AQU301C	Fish Nutrition and Feed Technology	✓	✓	✓		Understand nutritional requirements of cultivable fishes, FCR and know about feed manufacturing, storage methods of feeds and types of feeders at first three levels
AQU401C	Fresh Water and Brackish Water Aquaculture	✓	✓	✓	✓	Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India ,AP and Local levels.. Know about commercially valuable Fresh water and brackish water prawns and fishes of India and their culturing methods
2021-22						
		LL	RL	NL	GL	
AQUTIIA	Basic Principles of Aquaculture	✓	✓	✓	✓	Students learn about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at global ,Indian, Andhra Pradesh and Local level.Acquire knowledge on different types of ponds, their functional classification, and construction of ponds at all levels
AQTT21A	Biology of Fin Fish and Shell fish	✓	✓	✓		Students understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish at first three levels Knowledge of feeding habits, breeding and methods of induced breeding are learnt at these levels

AQU301C	Fresh Water and Brackish Water Aquaculture	✓	✓	✓	✓	Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India ,AP and Local levels.. Know about commercially valuable Fresh water and brackish water prawns and fishes of India and their culturing methods
AQU401C	Fish Nurtition and Feed Technology	✓	✓	✓		Understand nutritional requirements of cultivable fishes, FCR and know about feed manufacturing, storage methods of feeds and types of feeders at first three levels
AQU402C	Fish Health Management	✓	✓	✓		Students have knowledge about fish diseases and learn the importance of diagnostic tools in identification of diseases, application and development of vaccines at first three levels They know about production of disease-free seeds and good feed management
AQU-501	Fish Health management	✓	✓	✓		Students have knowledge about fish diseases and learn the importance of diagnostic tools in identification of diseases, application and development of vaccines at first three levels They know about production of disease-free seeds and good feed management
AQU502C	Extension ,Economics&Marketing	✓	✓	✓		Gain the Knowledge of basic concepts of economics,marketing with reference to fisheries and various factors influencing the fishery products price at first three levels.
AQU601C	Ornamental Fishery	✓	✓	✓	✓	Focus on the characters of commercially important ornamental fishes at all levels.Knowledge on construction of aquarium and analysis water quality parameters at all levels
AQU602C	Fish Processing Technology	✓	✓	✓		Students can be able to, deliver the different unit operations and its equipment's involved in fish processing at first three levels. Focus in .understanding of Packing, Cold Storage and Export of Fishery Products at these levels.
AQU603C	Fishery Microbiology and Fishery by-Products	✓	✓	✓	✓	Focus on the ecosystem and taxonomy of microbes and gain practical knowledge of Value-Added Products at all levels.
AQU604C	Quality Control in Processing Plants	✓	✓	✓	✓	The application of fish quality and quality standards gain the knowledge on different types of processing plants at all levels.Review of legislative approaches for the management of food safety.
2022-23						
		LL	RL	NL	GL	
AQUTIA	Basic Principles of Aquaculture	✓	✓	✓	✓	Students learn about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at global ,Indian, Andhra Pradesh and Local level.Acquire knowledge on different types of ponds, their functional classification, and construction of ponds at all levels
AQTT21A	Biology of Fin Fish and Shell fish	✓	✓	✓		Students understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish at first three levels Knowledge of feeding habits, breeding and methods of induced breeding are learnt at these levels
AQTT31A	Fresh Water and Brackish Water Aquaculture	✓	✓	✓	✓	Learn the Status, Scope and Prospects of fresh water aquaculture in the world, India ,AP and Local levels.. Know about commercially valuable Fresh water and brackish water prawns and fishes of India and their culturing methods
AQTT01	Fish Nurtition and Feed Technology	✓	✓	✓		Understand nutritional requirements of cultivable fishes, FCR and know about feed manufacturing, storage methods of feeds and types of feeders at first three levels

AQTT42	Fish Health Management Fisheries Economics, Extension and Marketing	✓	✓	✓		Students have knowledge about fish diseases and learn the importance of diagnostic tools in identification of diseases, application and development of vaccines at first three levels. Gain knowledge on the basic concepts of Economics and Marketing
SECAQU601 C	Aquarium management and Ornamental Fish culture	✓	✓	✓		Focus on the characters of commercially important ornamental fishes at first three levels. Knowledge on construction of aquarium and analysis water quality parameters
SECAQU602 C	Postharvest Technology of fish and fisheries	✓	✓	✓		Identify the types of preservation methods employed in aquaculture at all three levels. Students are able to choose the suitable processing methods in Aquaculture at first three levels.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Botany

B.Sc. BZC &B.Sc. Aquaculture

Code	Title of Course	Need addressed				Description
		LL	RL	NL	GL	
2018-19						
		LL	RL	NL	GL	
BOT101C	Microbial diversity,Algae and Fungi	✓	✓	✓	✓	Fungi are vital to world Ecology . Many fungi act as decomposers, breakingdown the dead body of Plants and Animals at all levels.
BOT201C	Diversity of Archaeogoniate and Plant Anatomy	✓	✓	✓	✓	Students understand and review the diversity of Archaeogoniates, Female reproductive organs and plant anatomy at all levels.
BOT301	Plant Taxonomy and Plant Physiology	✓	✓	✓	✓	Students become aware on different aspects of Taxonomical and physiological applications of plants at all levels.
BOT401	Plant Embryology and Plant Metabolism	✓	✓	✓	✓	Students under stand plant Embryology that deals with formation, structur, growth, development of embryo and plant metabolism
BOT 501	Cell biology,Genetics and Plant Breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation is undersood at three levels..Students under stand the importance of horticulture and crop improvement techniques for human welfare at all levels.
BOT 502	Plant Ecology and Phytogeography	✓	✓	✓	✓	It is concerned with geographical distribution of plant species, locally and globally and helps in understanding the distribution and abundance of plantsfrom local to global levels.
BOT601GE	Plant tissue culture and its biotechnological applications		✓	✓	✓	Plant tissue culture is widely used to produce clones of a plant in a method known as micropropagation so it is relevant at Regional, National and Global levels.
BOT602CE	Plant diversity and Human welfare	✓	✓	✓	✓	Plant diversity is related to human welfare at all levels. Loss of biodiversity threatens these ecosystem services and makes food production more expensive or impossible.
BOT603CE	Ethnobotany and Medicinal botany	✓	✓	✓	✓	Plants are used locally, regionally and Nationally for treatment of disease and health maintenance for thousands of years, and remain important staples of health and folk medicine.
BOT604CE	Pharmacognosy and Phyto Chemistry	✓	✓	✓	✓	Pharmacognosy deals with the natural drugs obtained from most plants relevant at all levels. Many important drugs including morphine, atropine, galanthamine, are obtained from natural sources.
2019-20						
		LL	RL	NL	GL	
BOT101C	Microbial diversity,Algae and Fungi	✓	✓	✓	✓	Fungi are vital to world Ecology . Many fungi act as decomposers, breakingdown the dead body of Plants and Animals at all levels.

BOT201C	Diversity of Archaeogoniate and Plant Anatomy	✓	✓	✓	✓	Students understand and review the diversity of Archaeogoniates, Female reproductive organs and plant anatomy at all levels.
BOT301	Plant Taxonomy and Plant Physiology	✓	✓	✓	✓	Students become aware on different aspects of Taxonomical and physiological applications of plants at all levels.
BOT401	Plant Embryology and Plant Metabolism	✓	✓	✓	✓	Students understand plant Embryology that deals with formation, structure, growth, development of embryo and plant metabolism
BOT 501	Cell biology, Genetics and Plant Breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation is understood at three levels..Students understand the importance of horticulture and crop improvement techniques for human welfare at all levels.
BOT 502	Plant Ecology and Phytogeography	✓	✓	✓	✓	It is concerned with geographical distribution of plant species, locally and globally and helps in understanding the distribution and abundance of plants from local to global levels.
BOT601GE	Plant tissue culture and its biotechnological applications			✓	✓	Plant tissue culture is widely used to produce clones of a plant in a method known as micropropagation so it is relevant at Regional, National and Global levels.
BOT602CE	Plant diversity and Human welfare	✓	✓	✓	✓	Plant diversity is related to human welfare at all levels. Loss of biodiversity threatens these ecosystem services and makes food production more expensive or impossible.
BOT603CE	Ethnobotany and Medicinal botany	✓	✓	✓	✓	Plants are used locally, regionally and Nationally for treatment of disease and health maintenance for thousands of years, and remain important staples of health and folk medicine.
BOT604CE	Pharmacognosy and Phyto Chemistry	✓	✓	✓	✓	Pharmacognosy deals with the natural drugs obtained from most plants relevant at all levels. Many important drugs including morphine, atropine, galanthamine, are obtained from natural sources.
2020-21						
		LL	RL	NL	GL	
BOT101C	Fundamentals of Microbes and Non Vascular plants	✓	✓	✓	✓	Microbes are vital to world as many act as decomposers, breaking down the dead body of plants and animals Nonvascular plants produce various nutrients that are passed to the soil and can be used by other plants. Hence applicable at all levels.
BOT201C	Basics of vascular plants and phytogeography	✓	✓	✓	✓	Vascular plants contribute to most of the food and feed production on earth and formation of wood, relevant at all levels. Phytogeography in terms of their origin, dispersal, and evolution is relevant at all levels.
BOT301C	Plant Taxonomy and Plant Physiology	✓	✓	✓	✓	Students become aware on different aspects of Taxonomical and physiological applications of plants at all levels.
BOT401C	Plant Embryology and Plant Metabolism	✓	✓	✓	✓	Students understand plant Embryology that deals with formation, structure, growth, development of embryo and plant metabolism
BOT 501C	Cell biology, Genetics and Plant Breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation is understood at three levels..Students understand the importance of horticulture and crop improvement techniques for human welfare at all levels.
BOT 502C	Plant Ecology and Phytogeography	✓	✓	✓	✓	It is concerned with geographical distribution of plant species, locally and globally and helps in understanding the distribution and abundance of plants from local to global levels.

BOT601GE	Plant tissue culture and its biotechnological applications		✓	✓	✓	Plant tissue culture is widely used to produce clones of a plant in a method known as micropropagation so it is relevant at Regional, National and Global levels.
BOT602CE	Plant diversity and Human welfare	✓	✓	✓	✓	Plant diversity is related to human welfare at all levels. Loss of biodiversity threatens these ecosystem services and makes food production more expensive or impossible.
BOT603CE	Ethnobotany and Medicinal botany	✓	✓	✓	✓	Plants are used locally, regionally and Nationally for treatment of disease and health maintenance for thousands of years, and remain important staples of health and folk medicine.
BOT604CE	Pharmacognosy and Phyto Chemistry	✓	✓	✓	✓	Pharmacognosy deals with the natural drugs obtained from most plants relevant at all levels. Many important drugs including morphine, atropine, galanthamine, are obtained from natural sources.
2021-22						
		LL	RL	NL	GL	
BOTT11A	Fundamentals of Microbes and Non Vascular plants	✓	✓	✓	✓	Microbes are vital to world as many act as decomposers, breaking down the dead body of plants and animals Nonvascular plants produce various nutrients that are passed to the soil and can be used by other plants. Hence applicable at all levels.
BOTT2IA	Basics of vascular plants and phytogeography	✓	✓	✓	✓	Vascular plants contribute to most of the food and feed production on earth and formation of wood, relevant at all levels. Phytogeography in terms of their origin, dispersal, and evolution is relevant at all levels.
BOT-301C	Anatomy of angiosperms, plant ecology and biodiversity	✓	✓	✓	✓	Study of the internal structure of plant organs like leaves and stems, relationships of plants with the physical and biotic environment is important at all levels Plant biodiversity offers multiple benefits to humans and so relevant at all levels.
BOT401C	Plant physiology and Plant metabolism	✓	✓	✓	✓	Students become aware on different aspects of physiological applications of plants and metabolism at all levels.
BOT402C	Cell biology, genetics and plant breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation is understood at three levels..Students understand the importance of horticulture and crop improvement techniques for human welfare at all levels.
BOT 501C	Cell biology, genetics and plant breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation is understood at three levels..Students understand the importance of horticulture and crop improvement techniques for human welfare at all levels.
BOT 502C	Plant ecology and phytogeography	✓	✓	✓	✓	It is concerned with geographical distribution of plant species, locally and globally and helps in understanding the distribution and abundance of plants from local to global levels.
BOT601GE	Plant tissue culture and its biotechnological applications		✓	✓	✓	Plant tissue culture is widely used to produce clones of a plant in a method known as micropropagation so it is relevant at Regional, National and Global levels.
BOT602CE	Plant diversity and Human welfare	✓	✓	✓	✓	Plant diversity is related to human welfare at all levels. Loss of biodiversity threatens these ecosystem services and makes food production more expensive or impossible.
BOT603CE	Ethnobotany and Medicinal botany	✓	✓	✓	✓	Plants are used locally, regionally and Nationally for treatment of disease and health maintenance for thousands of years, and remain important staples of health and folk medicine.

BOT604CE	Pharmacognosy and phytochemistry			✓	✓	Pharmacognosy deals with the natural drugs obtained from most plants relevant at all levels. Many important drugs including morphine, atropine, galanthamine, are obtained from natural sources.
2022-23						
		LL	RL	NL	GL	
BOT11A	Fundamentals of Microbes and Non Vascular plants	✓	✓	✓	✓	Microbes are vital to world as many act as decomposers, breaking down the dead body of plants and animals Nonvascular plants produce various nutrients that are passed to the soil and can be used by other plants. Hence applicable at all levels.
BOTT21A	Basics of vascular plants and phytogeography	✓	✓	✓	✓	Vascular plants contribute to most of the food and feed production on earth and formation of wood, relevant at all levels. Phytogeography in terms of their origin, dispersal, and evolution is relevant at all levels.
BOTT31A	Anatomy of angiosperms, plant ecology and biodiversity	✓	✓	✓	✓	Study of the internal structure of plant organs like leaves and stems, relationships of plants with the physical and biotic environment is important at all levels Plant biodiversity offers multiple benefits to humans and so relevant at all levels.
BOTT41A	Plant Physiology and metabolism		✓	✓	✓	Students become aware on different aspects of physiological applications of plants and metabolism at all levels.
BOTT42A	Cell biology, genetics and plant breeding		✓	✓	✓	Inheritance of various characters and the role of genetic variation. Helps to understand the process of evolution and its role in speciation. Students understand the importance of horticulture and crop improvement techniques for human welfare
SECBOT501/601	Plant Tissue culture		✓	✓	✓	With the knowledge of plant tissue culture plantlets are obtained in a very short time and new plants produced are disease-free.
SECBOT502/602	Mushroom Cultivation	✓	✓	✓	✓	Cultivation of mushrooms helps to convert agro-wastes into human food. Their cultivation provides employment as they are fast growing and are responsible for production of quality food.

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1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Chemistry

B.Sc.BZC,B.Sc.Aquaculture,MPC, MPCs,MCCs

Code	Title of Course	Need addressed				Description
		LL	RL	NL	GL	
2018-19						
CHE-101C	Inorganic & Organic Chemistry	✓	✓	✓	✓	Organic chemistry deals with carbon-containing compounds relevant to local, regional, national and Global needs. Inorganic chemistry, the study of the remaining carbon-containing subset of compounds is related to Regional, National and global needs.
CHE-201C	Physical and General Chemistry		✓	✓	✓	Physical chemistry is essential to understanding the other branches of chemistry and is the basis for understanding the thermodynamic influences that drive chemical reactions forward.
CHE-301C	Inorganic and Organic chemistry	✓	✓	✓	✓	As inorganic compounds are used as catalysts, pigments, coatings, surfactants, medicines, fuels it is applicable at all levels. Food, clothes, paper, ink, rubber, soap, perfumes, plastic, medicines indispensable to us for proper living are obtained by applying Organic chemistry, hence applicable at all levels.
CHE-401C	Spectroscopy and Physical chemistry			✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHE-501C	Inorganic, Organic & Physical Chemistry	✓	✓	✓	✓	Study of organic and inorganic chemistry enables in the preparation of Amino acids required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters.
CHE-502C	Inorganic, Organic & Physical Chemistry	✓	✓	✓	✓	Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters can be prepared by the study of the course. Physical chemistry deals with the principles of physics involved in chemical interactions and involved at all levels.
CHE-601GE	Analytical Methods In Chemistry		✓	✓	✓	The importance of analytical methodology is evident when examining the results of environmental monitoring programs and needed at regional, national and Global level.
CHE-602CE	Organic Spectroscopic Techniques			✓	✓	Organic Spectroscopy presents the derivation of structural information from UV, IR, Raman, ¹ H NMR, ¹³ C NMR, Mass and ESR spectral data in such a way that stimulates interest of students and researchers alike.
CHE-603CE	Advanced Organic Reactions	✓	✓	✓	✓	Physical and chemical characteristics are studied, as well as chemical reactivity, to better understand locally, regionally and nationally. The study of organic reactions covers the chemical synthesis of natural products, medicines, and polymers, as well as the laboratory and theoretical study of individual organic molecules.

CHE-604CE	Pharmaceutical And Medicinal Chemistry	✓	✓	✓	✓	Medicinal chemistry and pharmaceutical chemistry is the scientific branch a boundary between chemistry and pharmacology and deals with the design and development of pharmaceuticals related to local,,regional, national and global needs.
2019-20						
		LL	RL	NL	GL	
CHE-101C	Inorganic & Organic Chemistry	✓	✓	✓	✓	Organic chemistry deals with carbon-containing compounds relevant to local, regional, national and Global needs. Inorganic chemistry, the study of the remaining carbon-containing subset of compounds is related to Regional, and global needs.
CHE-201C	Physical and General Chemistry		✓	✓	✓	Physical chemistry is essential to understanding the other branches of chemistry and is the basis for understanding the thermodynamic influences that drive chemical reactions forward.
CHE-301C	Inorganic and Organic chemistry	✓	✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHE-401C	Spectroscopy and Physical chemistry			✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHE-501C	Inorganic ,Organic & Physical Chemistry	✓	✓	✓	✓	Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters.
CHE-502C	Inorganic ,Organic & Physical Chemistry	✓	✓	✓	✓	Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters and needed at all levels.
CHE-601GE	Analytical Methods In Chemistry		✓	✓	✓	The importance of analytical methodology is evident when examining the results of environmental monitoring programs. The purpose of a monitoring program
CHE-602CE	Organic Spectroscopic Techniques			✓	✓	Organic Spectroscopy presents the derivation of structural information from UV, IR, Raman, ¹ H NMR, ¹³ C NMR, Mass and ESR spectral data in such a way that stimulates interest of students and researchers alike.
CHE-603CE	Advanced Organic Reactions	✓	✓	✓	✓	Physical and chemical characteristics are studied, as well as chemical reactivity, to better understand locally, regionally and nationally. The study of organic reactions covers the chemical synthesis of natural products, medicines, and polymers, as well as the laboratory and theoretical study of individual organic molecules.
CHE-604CE	Pharmaceutical And Medicinal Chemistry	✓	✓	✓	✓	Medicinal chemistry and pharmaceutical chemistry is the scientific branch a boundary between chemistry and pharmacology and deals with the design and development of pharmaceuticals related to local,,regional, national and global needs.

2020-21

		LL	RL	NL	GL	
CHE-101C	Inorganic & Physical chemistry	✓	✓	✓	✓	Inorganic chemistry, the study of the remaining carbon-containing subset of compounds is related to Regional, and global needs. Physical chemistry is essential to understanding the other branches of chemistry and is the basis for understanding the thermodynamic influences that drive chemical reactions forward.
CHE-201C	Organic and General Chemistry		✓	✓	✓	General Chemistry is significant in our civilization because it affects our basic needs for food, clothing, shelter, health, energy, and clean air, water, and soil, among other things and so both organic and general are needed at all levels
CHE-301C	Inorganic and Organic chemistry	✓	✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHE-401C	Spectroscopy and Physical chemistry			✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHE-501C	Inorganic ,Organic & Physical Chemistry	✓	✓	✓	✓	Amino acids are required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters. And needed at all levels.
CHE-502C	Chemistry And Industry		✓	✓	✓	Industrial Chemistry is key to producing useful materials along with synthesizing chemicals in large quantities. Industrial chemists use these chemicals and other raw materials to manufacture more useful and complex products and needed at three levels
CHE-601GE	Analytical Methods In Chemistry			✓	✓	The importance of analytical methodology is evident when examining the results of environmental monitoring programs. The purpose of a monitoring program
CHE-602CE	Organic Spectroscopic Techniques		✓	✓	✓	Organic Spectroscopy presents the derivation of structural information from UV, IR, Raman, ^1H NMR, ^{13}C NMR, Mass and ESR spectral data in such a way that stimulates interest of students and researchers alike.
CHE-603CE	Advanced Organic Reactions	✓	✓	✓	✓	Physical and chemical characteristics are studied, as well as chemical reactivity, to better understand locally, regionally and nationally. The study of organic reactions covers the chemical synthesis of natural products, medicines, and polymers, as well as the laboratory and theoretical study of individual organic molecules.
CHE-604CE	Pharmaceutical And Medicinal Chemistry	✓	✓	✓	✓	Medicinal chemistry and pharmaceutical chemistry is the scientific branch a boundary between chemistry and pharmacology and deals with the design and development of pharmaceuticals related to local, regional, national and global needs.

2021-22

		LL	RL	NL	GL	
CHET11A	Inorganic and Physical Chemistry	✓	✓	✓	✓	Inorganic chemistry, the study of the remaining carbon-containing subset of compounds is related to Regional, and global needs. Physical chemistry is essential to understanding the other branches of chemistry and is the basis for understanding the thermodynamic influences that drive chemical reactions forward.
CHET21A	Organic and General Chemistry	✓	✓	✓	✓	General Chemistry is significant in our civilization because it affects our basic needs for food, clothing, shelter, health, energy, and clean air, water, and soil, among other things and so both organic and general are needed at all levels
CHE-301C	Organic chemistry and Spectroscopy			✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHE-401C	Inorganic, Organic and Physical chemistry		✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHE-402C	Inorganic, Organic and Physical chemistry	✓	✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHE-501C	Inorganic, Organic chemistry & Physical chemistry	✓	✓	✓	✓	Study of organic and inorganic chemistry enables in the preparation of Amino acids required for the synthesis of body protein and other important nitrogen-containing compounds, such as creatine, peptide hormones, and some neurotransmitters.
CHE-502C	Inorganic and Organic Physical Chemistry		✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHE-601GE	Analytical methods in Chemistry			✓	✓	The importance of analytical methodology is evident when examining the results of environmental monitoring programs. The purpose of a monitoring program Chromatography is an important biophysical technique that enables the separation, identification, and purification of the components of a mixture for qualitative and quantitative analysis.
CHE-602CE	Organic spectroscopic techniques			✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHE-603CE	Advanced Organic Reactions	✓	✓	✓	✓	Reaction names can also simply describe the reaction type, often by using the initials or referring to structural features. As an example, a very important field in chemical synthesis is carbon-carbon bond formation, and a great many name reactions exist that describe such transformations.

CHE-604CE	Pharmaceutical and Medicinal chemistry		✓	✓	✓	Medicinal chemistry and pharmaceutical chemistry is the scientific branch a boundary between chemistry and pharmacology and deals with the design and development of pharmaceuticals related to local,,regional, national and global needs.
2022-23						
		LL	RL	NL	GL	
CHET11A	Inorganic and physical chemistry			✓	✓	Inorganic chemistry, the study of the remaining carbon-containing subset of compounds is related to Regional, and global needs. Physical chemistry is essential to understanding the other branches of chemistry and is the basis for understanding the thermodynamic influences that drive chemical reactions forward.
CHET21A	Organic and General chemistry	✓	✓	✓	✓	General Chemistry is significant in our civilization because it affects our basic needs for food, clothing, shelter, health, energy, and clean air, water, and soil, among other things and so both organic and general are needed at all levels
CHET31A	Organic chemistry and Spectroscopy	✓	✓	✓	✓	Spectroscopy is used as a tool for studying the structures of atoms and molecules. The large number of wavelengths emitted by these systems makes it possible to investigate their structures in detail, including the electron configurations of ground and various excited states.
CHET01	Inorganic, Organic & Physical Chemistry		✓	✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
CHET41A	Inorganic and Physical chemistry			✓	✓	Organic chemistry plays an important part in our daily life because food, clothes, paper, ink, rubber, soap, perfumes, medicines etc. are indispensable to us for proper living. Organic compounds are important constituents of many products e.g., paint, food, plastic, explosive, medicine, petrochemical, pesticide etc.
SECICHE-501C/601C-6B	Analytical methods in chemistry-I			✓	✓	The importance of analytical methodology is evident when examining the results of environmental monitoring programs. The purpose of a monitoring program Chromatography is an important biophysical technique that enables the separation, identification, and purification of the components of a mixture for qualitative and quantitative analysis.
SECICHE-502C/602C-7B	Analytical methods in chemistry-II			✓	✓	Coordination chemistry can be used to calculate the hardness of the water. Nickel can be detected by treating it with dimethyl glyoxime (DMG); Nickel and DMG produce a red-coloured complex.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Post Graduate Programmes

Department of Commerce PG;M.Com

Code	Title of Course	Need addressed				Description
		LL	RL	NL	GL	
2018-19						
COM 101	Business Management	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
COM 102	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation and many other strategic decisions-making strategies
COM 103	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads,which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
COM 104	Entrepreneurship Development	✓	✓	✓	✓	Social media manager,Public relations manager,,Appraiser,Financial adviser,Marketing manager,Web developer,Sales manager,,Systems analyst.
COM 105	Information Technology for Business	✓	✓	✓		Information technology is building communications networks for a company, safeguarding data and information, creating and administering databases, helping employees troubleshoot problems with their computers or mobile devices, or doing a range of other work to ensure the efficiency and security of business information
COM 106	Quantitative Techniques for Business	✓	✓	✓	✓	A major benefit of using quantitative data is its objectivity. It relies on concrete numbers and fewer variables. This can help to remove biases from the research and make the findings more accurate. Another benefit is that it is often easier to obtain large sample
COM211	Business law	✓	✓	✓	✓	To Understand the complex legal structure that facilitates the working of the entire commercial sector
COM212	Financial Management	✓	✓	✓	✓	First and foremost, money management education can help students understand the value of money. Students who learn about budgeting, saving, and investing at a young age are more likely to make sound financial decisions in the future. This knowledge can help them avoid falling into debt or overspending.
COM213	Human Resources Management	✓	✓	✓		Managing personnel and client relations, for instance, is an essential skill that you'll pick up during the course. And this is one of those HR aspects that you can apply to any job role. Other valuable skills you'll learn will include leadership, management, organisation, multitasking, reporting, communication, etc.
COM214	Marketing Management	✓	✓	✓		Students can Understand the concepts of product ,price,place and promotion and identify the need of product mix and product line decisions.
COM215	Research methods and Business Analytics	✓	✓	✓		It equips students with the necessary tools and techniques to prepare a business research proposal, execute this proposal, and analyse and interpret the data.

COM216	E.Commerce	✓	✓	✓		The college students felt shopping through mobile saved a lot of time for them, the college students used the cell phones for various purposes with respect to e-commerce like recharging for internet and top-ups for their cell phones (78.3 %), booking tickets for movie/bus/train/flights (53.3%)
COM 301	Financial Accounting and Packages	✓	✓	✓		Human values includes morals, integrity, peaceful life, respecting others, honesty(Truthfulness and trustworthiness), caring, kindness, courage, sharing, time management, adjustment(co-operation)
COM 302	Business Communications	✓	✓	✓		Students take courses in both communication and business, focusing on interpersonal and organizational communication, media, public speaking and beyond. You'll learn effective communication skills that you can use and share with others to enhance communication in the workplace
COM 303	Corporate Accounting	✓	✓	✓		To prepare accounts, create cash flow statements, analyse financial reports, research the benefits of potential absorption or amalgamation, and work on consolidated balance sheets.
COM 304	Direct Taxes	✓	✓	✓		The student can build an idea about calculation of Income from different income heads and its taxability.
COM 305	Advanced Banking	✓	✓	✓	✓	Students will gain knowledge about reserve bank of India and functioning of Advanced Banking
COM 306	Insurance and Risk Management	✓	✓	✓		Risk management is all about identifying, analyzing, and responding to any risk factors that concern a company. To put it simply it is basically having a company's best interest as the prime objective or just looking after a company.
COM 307	Disaster Management	✓	✓	✓	✓	It plays a leading role in supporting and building the knowledge, capacity and skills of the community in comprehensive risk-based disaster management activities ranging from prevention, mitigation and preparedness to response and recovery and so neededat all levels
COM 401	Indian Financial System	✓	✓	✓		Financial systems promote the overall domestic and international economic and financial stability. They provide the framework for allowing economic transactions and implementing monetary policies. These policies help properly facilitate investments and exchanges, channeling savings into investments to support growth
COM 402	International Business	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
COM 403	E-Banking	✓	✓	✓	✓	Keeping the money in account keeps it safe and secure, thus helping them concentrate on other areas of concern. If going overseas for higher studies, you need the account for receiving scholarships, loans, or fund transfers.
COM 404	International Banking	✓	✓	✓	✓	Companies do business with international banks to help facilitate international business, the complexities of which can be quite costly. Individuals work with international banks for a number of reasons, including tax avoidance, probably the term you've heard the most in relation to offshore banking
COM 405	General Insurance	✓	✓	✓	✓	Any individual needs to have a general insurance policy owing to the risks posed by accidents, medical emergencies, natural calamities, and other unforeseen circumstances. The policy provides financial protection in case such situations arise in our lives

COM 406	Life Insurance	✓	✓	✓	✓	Buying life insurance protects your spouse and children from the potentially devastating financial losses that could result if something happened to you. It provides financial security, helps to pay off debts, helps to pay living expenses, and helps to pay any medical or final expenses.
2019-20						
		LL	RL	NL	GL	
COM 101	Business Management	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
COM 102	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation and many other strategic decisions-making strategies
COM 103	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
COM 104	Entrepreneurship Development	✓	✓	✓	✓	Social media manager, Public relations manager, Appraiser, Financial adviser, Marketing manager, Web developer, Sales manager, Systems analyst.
COM 105	Information Technology for Business	✓	✓	✓		Information technology is building communications networks for a company, safeguarding data and information, creating and administering databases, helping employees troubleshoot problems with their computers or mobile devices, or doing a range of other work to ensure the efficiency and security of business information
COM 106	Quantitative Techniques For Business	✓	✓	✓	✓	A major benefit of using quantitative data is its objectivity. It relies on concrete numbers and fewer variables. This can help to remove biases from the research and make the findings more accurate. Another benefit is that it is often easier to obtain large sample
COM211	Business law	✓	✓	✓	✓	To Understand the complex legal structure that facilitates the working of the entire commercial sector
COM212	Financial Management	✓	✓	✓	✓	First and foremost, money management education can help students understand the value of money. Students who learn about budgeting, saving, and investing at a young age are more likely to make sound financial decisions in the future. This knowledge can help them avoid falling into debt or overspending.
COM213	Human Resources Management	✓	✓	✓		Managing personnel and client relations, for instance, is an essential skill that you'll pick up during the course. And this is one of those HR aspects that you can apply to any job role. Other valuable skills you'll learn will include leadership, management, organisation, multitasking, reporting, communication, etc.
COM214	Marketing Management	✓	✓	✓		Students can Understand the concepts of product ,price,place and promotion and identify the need of product mix and product line decisions.
COM215	Research methods and Business Analytics	✓	✓	✓		It equips students with the necessary tools and techniques to prepare a business research proposal, execute this proposal, and analyse and interpret the data.

COM216	E.Commerce	✓	✓	✓		The college students felt shopping through mobile saved a lot of time for them, the college students used the cell phones for various purposes with respect to e-commerce like recharging for internet and top-ups for their cell phones (78.3 %), booking tickets for movie/bus/train/flights (53.3%)
COM 301	Financial Accounting and Packages	✓	✓	✓		Human values includes morals, integrity, peaceful life, respecting others, honesty(Truthfulness and trustworthiness), caring, kindness, courage, sharing, time management, adjustment(co-operation)
COM 302	Business Communications	✓	✓	✓		Students take courses in both communication and business, focusing on interpersonal and organizational communication, media, public speaking and beyond. You'll learn effective communication skills that you can use and share with others to enhance communication in the workplace
COM 303	Corporate Accounting	✓	✓	✓		To prepare accounts, create cash flow statements, analyse financial reports, research the benefits of potential absorption or amalgamation, and work on consolidated balance sheets.
COM 304	Direct Taxes	✓	✓	✓		The student can build an idea about calculation of Income from different income heads and its taxability.
COM 305	Advanced Banking	✓	✓	✓	✓	Students will gain knowledge about reserve bank of india and functioning of Advanced Banking
COM 306	Insurance and Risk Management	✓	✓	✓		Risk management is all about identifying, analyzing, and responding to any risk factors that concern a company. To put it simply it is basically having a company's best interest as the prime objective or just looking after a company.
COM 401	Indian Financial System	✓	✓	✓		Financial systems promote the overall domestic and international economic and financial stability. They provide the framework for allowing economic transactions and implementing monetary policies. These policies help properly facilitate investments and exchanges, channeling savings into investments to support growth
COM 402	International Business	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
COM 403	E-Banking	✓	✓	✓	✓	Keeping the money in account keeps it safe and secure, thus helping them concentrate on other areas of concern. If going overseas for higher studies, you need the account for receiving scholarships, loans, or fund transfers.
COM 404	International Banking	✓	✓	✓	✓	Companies do business with international banks to help facilitate international business, the complexities of which can be quite costly. Individuals work with international banks for a number of reasons, including tax avoidance, probably the term you've heard the most in relation to offshore banking
COM 405	General Insurance	✓	✓	✓	✓	Any individual needs to have a general insurance policy owing to the risks posed by accidents, medical emergencies, natural calamities, and other unforeseen circumstances. The policy provides financial protection in case such situations arise in our lives
COM 406	Life Insurance	✓	✓	✓	✓	Buying life insurance protects your spouse and children from the potentially devastating financial losses that could result if something happened to you. It provides financial security, helps to pay off debts, helps to pay living expenses, and helps to pay any medical or final expenses.

		LL	RL	NL	GL	
CO101	Management Theory and Practice	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
CO102	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation and many other strategic decisions-making strategies
CO103	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
CO104	Entrepreneurship Development	✓	✓	✓	✓	Social media manager, Public relations manager, Appraiser, Financial adviser, Marketing manager, Web developer, Sales manager, Systems analyst.
CO105	Information Technology for Business	✓	✓	✓		Information technology is building communications networks for a company, safeguarding data and information, creating and administering databases, helping employees troubleshoot problems with their computers or mobile devices, or doing a range of other work to ensure the efficiency and security of business information
CO106	Quantitative Techniques for Business	✓	✓	✓	✓	A major benefit of using quantitative data is its objectivity. It relies on concrete numbers and fewer variables. This can help to remove biases from the research and make the findings more accurate. Another benefit is that it is often easier to obtain large sample
COM211	Business law	✓	✓	✓	✓	To Understand the complex legal structure that facilitates the working of the entire commercial sector
COM212	Financial Management	✓	✓	✓	✓	First and foremost, money management education can help students understand the value of money. Students who learn about budgeting, saving, and investing at a young age are more likely to make sound financial decisions in the future. This knowledge can help them avoid falling into debt or overspending.
COM213	Human Resources Management	✓	✓	✓		Managing personnel and client relations, for instance, is an essential skill that you'll pick up during the course. And this is one of those HR aspects that you can apply to any job role. Other valuable skills you'll learn will include leadership, management, organisation, multitasking, reporting, communication, etc.
COM214	Marketing Management	✓	✓	✓		Students can Understand the concepts of product, price, place and promotion and identify the need of product mix and product line decisions.
COM215	Business Analytics and Research methods	✓	✓	✓		It equips students with the necessary tools and techniques to prepare a business research proposal, execute this proposal, and analyse and interpret the data.
COM216	E.Commerce	✓	✓	✓		The college students felt shopping through mobile saved a lot of time for them, the college students used the cell phones for various purposes with respect to e-commerce like recharging for internet and top-ups for their cell phones (78.3%), booking tickets for movie/bus/train/flights (53.3%)

CO311	Business Communications Skills	✓	✓	✓		Students take courses in both communication and business, focusing on interpersonal and organizational communication, media, public speaking and beyond. You'll learn effective communication skills that you can use and share with others to enhance communication in the workplace
CO312	Financial Institution and Markets	✓	✓	✓		Human values includes morals, integrity, peaceful life, respecting others, honesty(Truthfulness and trustworthiness), caring, kindness, courage, sharing, time management, adjustment(co-operation)
CO321	Advanced Cost Accounting	✓	✓	✓	✓	Advanced Cost Accounting helps to identify which customers, products, activities, and internal processes add value—and which do not. With this knowledge students can streamline or eliminate non-value-added processes for maximum bottom-line results applicable at all levels
CO322	Corporate Accounting	✓	✓	✓		To prepare accounts, create cash flow statements, analyse financial reports, research the benefits of potential absorption or amalgamation, and work on consolidated balance sheets.
CO331	Security Analysis and Portfolio Management		✓	✓	✓	Security analysis and portfolio management are two critical concepts that are fundamental to understanding the functioning of the financial markets. These concepts are used to make informed decisions regarding the allocation of their investments.
CO332	Bank Management	✓	✓	✓		Students will gain knowledge about management of different procedures in a bank relevant at first three levels
GE-04	Fundamentals of Goods and Service Tax	✓	✓	✓	✓	A student can know the tax exceptions per the sector being retained, services related to the education/higher education provided to the students are covered under the GST exception list.
CO411	Project Planning and Control	✓	✓	✓	✓	Project planning guarantees monitoring of the schedule and the budget at every stage.
CO412	International Business	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business and needed at all levels.
CO413	MOOCS Organizational Behaviour	✓	✓	✓	✓	The application of knowledge on organisational behaviour one can know about how people act within an organisation useful at all levels
CO431	International Banking			✓	✓	Companies do business with international banks to help facilitate international business, the complexities of which can be quite costly. Individuals work with international banks for a number of reasons, including tax avoidance, probably the term you've heard the most in relation to offshore banking
CO432	Financial Services	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies.it equips the students with the relevant knowledge and skills envisaged by the banking industry.
CO433	Banking & Technology	✓	✓	✓	✓	Maintenance and retrieval of documents and records in a bank becomes much faster and easier. with computerized banking. With a core banking system, all branches have access to common centralized data and are interconnected related at all levels
CO434	Insurance Products & Management	✓	✓	✓	✓	The course gives knowledge about financial assistance for the losses and damage. The basic function of all types of insurance coverages is to provide damage control to the insured needed at all levels.

		LL	RL	NL	GL	
CO311	Business Communications Skills	✓	✓	✓		Students take courses in both communication and business, focusing on interpersonal and organizational communication, media, public speaking and beyond. You'll learn effective communication skills that you can use and share with others to enhance communication in the workplace
CO312	Financial Institution and Markets	✓	✓	✓		Human values includes morals, integrity, peaceful life, respecting others, honesty(Truthfulness and trustworthiness), caring, kindness, courage, sharing, time management, adjustment(co-operation)
CO321	Advanced Cost Accounting	✓	✓	✓	✓	Advanced Cost Accounting helps to identify which customers, products, activities, and internal processes add value— and which do not. With this knowledge studenys can streamline or eliminate non-value-added processes for maximum bottom-line results applicable at all levels
CO322	Corporate Accounting	✓	✓	✓		To prepare accounts, create cash flow statements, analyse financial reports, research the benefits of potential absorption or amalgamation, and work on consolidated balance sheets.
CO331	Security Analysis and Portfolio Management		✓	✓	✓	Security analysis and portfolio management are two critical concepts that are fundamental to understanding the functioning of the financial markets. These concepts are used to make informed decisions regarding the allocation of their investments.
CO332	Bank Management	✓	✓	✓		Students will gain knowledge about management of different procedures in a bank relevant at first threel levels
GE-04	Fundamentals of Goods and Service Tax	✓	✓	✓	✓	A student can know the tax exceptions per the sector being retained, seVICES related to the education/ higher education provided to the students are covered under the GST exception list.
CO411	Project Planning and Control	✓	✓	✓	✓	Project planning guarantees monitoring of the schedule and the budget at every stage.
CO412	International Business	✓	✓	✓	✓	The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business and needed at all levels.
CO413	MOOCS Organizational Behaviour	✓	✓	✓	✓	The application of knowledge on organisational behaviour one can know about how people act within an organisation useful at all levels
CO431	International Banking			✓	✓	Companies do business with international banks to help facilitate international business, the complexities of which can be quite costly. Individuals work with international banks for a number of reasons, including tax avoidance, probably the term you've heard the most in relation to offshore banking
CO432	Financial Services	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-.banking companies.it equips the students with the relevant knowledge and skills envisaged by the banking industry.
CO433	Banking & Technology	✓	✓	✓	✓	Maintenance and retrieval of documents and records ina bank becomes much faster and easier. with computerized banking. With a core banking system, all branches have access to common centralized data and are interconnected related at all levels
CO434	Insurance Products & Management	✓	✓	✓	✓	The course gives knowledge about financial assistance for the losses and damage. The basic function of all types of insurance coverages is to provide damage control to the insured needed at all levels.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Commerce UG

B.Com General,Computer Applications & e - Commerce

Code	Title of Course	Need addressed				Description
		LL	RL	NL	GL	
2018-19						
CACC 101 G/C C	Fundamentals of Accounting – I	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance needed at all levels
CBO 102 G C	Business Organisation	✓	✓	✓		The Course provides the basic theoretical knowledge to design the organizational structure of company according to the Mission, objectives, Strategies, Market and Company product
CBOM102 C C	Business Organisation and management	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
CACC 201 G/C C	Fundamentals of Accounting - II	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance applicable at all levels
CBEN 202 G C	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
CCA301 G/CC	Corporate Accounting	✓	✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities. To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms at all levels.
CBS 302 G/C C	Business Statistics	✓	✓	✓	✓	It helps analyse the data available to business for making prudent business decision and also help to conduct research work and develops critical thinking
CBTP303 G/ C	Banking Theory and Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard to Organization working and importance of RBI
CASO 401 G/C	Accounting for Service Organisation	✓	✓	✓	✓	It helps analyse the data available to business for making prudent business decision
CBL 402 G/C C	Business Laws	✓	✓	✓		To Understand the complex legal structure that facilitates the working of the entire commercial sector
CIT 403 G C	Income Tax	✓	✓	✓		The student can build an idea about calculation of Income from different income heads and its taxability at first three levels.
CBL 501 (U)	Business Leadership	✓	✓	✓		The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.

CCOA-502 G/CC	Cost Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CGST 503 G/C	Goods and Service tax Fundamentals	✓	✓	✓		A student can know the tax exceptions per the sector being retained, services related to the education/ higher education provided to the students are covered under the GST exception list.
CTAX 503 C C	Taxation	✓	✓	✓		It is useful as a professional qualification per students in taxation, finance and accounting also provides a solid base in the field of taxation
CCG -504 G/C C	Commercial Geography	✓	✓	✓		It is a study of geography of transport system and it is a fundamental factor of mobility. Mobility is necessary for economic and social activities as well as for communication
CCB -505 (E) G/C	Central Banking	✓	✓	✓		Students will gain knowledge about reserve bank of india and functioning of RBI.
COMRFC 506 (E)	Rural and Farm Credit	✓	✓	✓		Rural & farm credit support students to develop leadership skills and agricultural knowledge, potentially propelling them into related careers
CEM 601 G/CC	Event Management	✓	✓	✓		Event management trains students in areas like evaluating, planning, budgeting, marketing, producing and executing an event
CM- 602GEG/C	Marketing	✓	✓	✓		Student will gain understanding of consumer buyer behaviour, pricing strategies and ethical concept of marketing. Enhance the students about decisions regarding promotion and distribution channels.
CAU-603GE G/C	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
CMA 604GE G/C	Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance at all levels.
CFS 605 CE G/C	Financial services	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies. It equips the students with the relevant knowledge and skills envisaged by the banking industry.
CMFS 606 CE G/C	Marketing of Financial services	✓	✓	✓		Students can gain knowledge on banking, savings and investments, insurance and debt and equity provides help both to the private citizens and business
2019-20						
		LL	RL	NL	GL	
CACC 101 G/C C	Fundamentals of Accounting – I	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance at all levels.
CBO 102 G C	Business Organisation	✓	✓	✓		The Course provides the basic theoretical knowledge to design the organizational structure of company according to the Mission, objectives, Strategies, Market G61:G73 and Company products
CBO102 C C	Business Organisation and management	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
CACC 201 G/C C	Fundamentals of Accounting - II	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance at all levels.

CBEN 202 G C	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future. It gives environmental awareness and provides an analysis of the global business environment and its impact on businesses.
CCA 301 G/C C	Corporate Accounting	✓	✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities. To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms.
CBS 302 G/C C	Business Statistics	✓	✓	✓	✓	It helps analyse the data available to business for making prudent business decisions and also help to conduct research work and develops critical thinking.
CBTP303 G C	Banking Theory and Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard to Organization working and importance of RBI.
CASO 401 G/C	Accounting for Service Organisation	✓	✓	✓	✓	It helps analyse the data available to business for making prudent business decisions at all levels.
CBL 402 G/C C	Business Laws	✓	✓	✓		To Understand the complex legal structure that facilitates the working of the entire commercial sector.
CIT 403 G C	Income Tax	✓	✓	✓		The student can build an idea about calculation of Income from different income heads and its taxability.
CBTP401 CC	Banking Theory and Practice	✓	✓	✓		The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
CBL 501 (U)	Business Leadership	✓	✓	✓		The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
CCOA 502 G/C C	Cost Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CTAX 503 C C	Taxation	✓	✓	✓		It is useful as a professional qualification for students in taxation, finance and accounting also provides a solid base in the field of taxation.
CGST 503 G/C	Goods & Service tax Fundamentals	✓	✓	✓	✓	A student can know the tax exceptions per the sector being retained, services related to the education/higher education provided to the students are covered under the GST exception list.
CCG 504 G/C C	Commercial Geography	✓	✓	✓		It is a study of geography of transport system and it is a fundamental factor of mobility. Mobility is necessary for economic and social activities as well as for communication.
CCB 505 CE G/C	Central Banking	✓	✓	✓		Students will gain knowledge about reserve bank of India and functioning of RBI.
CRC 506 CE G/C	Rural and Farm Credit	✓	✓	✓		Rural & farm credit support students to develop leadership skills and agricultural knowledge, potentially propelling them into related careers.
CEM 601 G/C C	Event Management	✓	✓	✓		Event management trains students in areas like evaluating, planning, budgeting, marketing, producing and executing an event.
CM 602 GE G/C	Marketing	✓	✓	✓		Students can understand the concepts of product, price, place and promotion and identify the need of product mix and product line decisions.

CAU 603 GE G/C	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
CMA 604 GE G/C	Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CFS 605 CE G/C	Financial Service	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies.it equips the students with the relevant knowledge and skills envisaged by the banking industry.
CMFS 606 CE G/C	Marketing of Financial service	✓	✓	✓		Students can gain knowledge on banking, savings and investments, insurance and debt and equity provides help both to the private citizens and businessat first three levels.
2020-21						
		LL	RL	NL	GL	
CACC 101 G/C C	Fundamentals of Accounting - 1	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance at all levels.
CBO 102 G/C	Business Organisation	✓	✓	✓		The Course provides the basic theoretical knowledge to design the organizational structure of company according to the Mission,objectivies,Strategies,Market and Company product
CBOM102 G/C	Business Organisation and management	✓	✓	✓		The students can involve in planning, organising, corordinating and directing a group of people to accomplish to achieve specific golas and objectives effectively and also students can manage their work force
CBEN 103 G/C	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads,which are likely to happen in the feature it gives environmental awareness and provides and analysis of the global business environment and its impact on businesses
CIP104G/CC	Insurance Promotion	✓	✓	✓		Students develop skills and their application for promoting insurance coverage at first three levels.
CACC 201 G/C C	Fundamentals of Accounting - II	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business financeat all levels.
BE 202 G/C C	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation amd many other strategic decisions-making strategies at local, regional and National levels.
CBTP 203 G/C	Banking Theory and Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structureof different financial institutions. To familiarize the students with regard of Organizationworkingand importanceof RBI
CCA 301G/CC	Corporate Accounting	✓	✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities .To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms
CBS 302 G/C C	Business Statistics	✓	✓	✓		It helps analyse the data available to business for making prudent business decision and also help to conduct research work and develops critical thinking

CBTP 303G / C	Banking Theory and Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
CASO 401 G/C	Accounting For Service Organisation	✓	✓	✓		It helps analyse the data available to business for making prudent business decision at local, regional and National levels.
CBTP 401 C C	Banking Theory and Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
CBL 402 G/C C	Business Law	✓	✓	✓		To Understand the complex legal structure that facilitates the working of the entire commercial sector
CIT 403G / C	Income Tax	✓	✓	✓	✓	The student can build an idea about calculation of Income from different income heads and its taxability.
CBL 501 (U)	Business Leadership	✓	✓	✓		The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
CCOA 502 G/C C	Cost Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CTAX 503 C C	Taxation	✓	✓	✓		It is useful as a professional qualification per students in taxation, finance and accounting also provides a solid base in the field of taxation
CGST 503 G/C	Goods & Service tax Fundamentals	✓	✓	✓	✓	A student can know the tax exceptions per the sector being retained, services related to the education/ higher education provided to the students are covered under the GST exception list.
CCG 504 G/C C	Commercial Geography	✓	✓	✓		It is a study of geography of transport system and it is a fundamental factor of mobility. Mobility is necessary for economic and social activities as well as for communication
CCB 505 CE G/C	Central Banking	✓	✓	✓		Students will gain knowledge about reserve bank of india and functioning of RBI.
CRC 506 CE G/C	Rural and Farm Credit	✓	✓	✓		Rural & farm credit support students to develop leadership skills and agricultural knowledge, potentially propelling them into related careers
CEM 601 G/C C	Event Management	✓	✓	✓		Event management trains students in areas like evaluating, planning, budgeting, marketing, producing and executing an event
CM 602 GE G/C C	Marketing	✓	✓	✓		Students can Understand the concepts of product ,price,place and promotion and identify the need of product mix and product line decisions.
CAU 603 GE G/C C	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
CMA 604 GE G/C C	Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.

CFS 605 CE G/C	Financial Service	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies. It equips the students with the relevant knowledge and skills envisaged by the banking industry.
CMFS 606 CE G/C	Marketing of Financial service	✓	✓	✓		Students can gain knowledge on banking, savings and investments, insurance and debt and equity provides help both to the private citizens and business
2021-22						
		LL	RL	NL	GL	
COM T 11B	Fundamentals of Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
COM T 12A	Business Organisation & management	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
COM T 13	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
COM T 14S	Entrepreneurship Development		✓	✓	✓	It leads the students to develop new products and services, stimulating investment, increasing productivity, and driving competitiveness.
COM T 21A	Financial Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
ECOT 22 B	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation and many other strategic decisions-making strategies
COM T 22B	Banking Theory & Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
CAD-201G/C	Advertising		✓	✓	✓	Students learn about the most common and proven marketing tools used by all sorts of companies. The goal of advertising is to reach the people who are willing to purchase products.
COM T 301G/CC	Online Business	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
CAA 302 G/C	Advance Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CBS 303 G/C	Business Statistics	✓	✓	✓		It helps analyse the data available to business for making prudent business decision and also help to conduct research work and develops critical thinking
CM 304 G	Marketing	✓	✓	✓		students can Understand the concepts of product, price, place and promotion and identify the need of product mix and product line decisions.

CCA-401G/C	Corporate Accounting	✓	✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities .To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms
CCMA402G/C	Cost and Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CIT-403G/C	Income Tax	✓	✓	✓	✓	The student can build an idea about calculation of Income from different income heads and its taxability.
CBL-404G/C	Business Law	✓	✓	✓		To Understand the complex legal structure that facilitates the working of the entire commercial sector
CAUD-405G	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
CGST-406G	Goods and Service Tax	✓	✓	✓		A student can know the tax exceptions per the sector being retained, services related to the education/ higher education provided to the students are covered under the GST exception list.
CBL 501 (U)	Business leadership	✓	✓	✓		The Course helps students to understand the leadership qualities and enhance decision making and problem solving and also to become a successful leader in business.
CCOA 502 G/C C	Cost Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
CTAX 503 C C	Taxation	✓	✓	✓		It is useful as a professional qualification per students in taxation, finance and accounting also provides a solid base in the field of taxation
CGST 503 G/C	Goods and Service Tax Fundamentals	✓	✓	✓	✓	A student can know the tax exceptions per the sector being retained, services related to the education/ higher education provided to the students are covered under the GST exception list.
CCG 504 G/C C	Commercial Geography	✓	✓	✓		It is a study of geography of transport system and it is a fundamental factor of mobility. Mobility is necessary for economic and social activities as well as for communication
CCB 505 CE G/C	Central Banking	✓	✓	✓		Students will gain knowledge about reserve bank of india and functioning of RBI.
CRC 506 CE G/C	Rural and Farm Credit	✓	✓	✓		Rural & farm credit support students to develop leadership skills and agricultural knowledge, potentially propelling them into related careers
CEM 601 G/C C	Event Management	✓	✓	✓		Event management trains students in areas like evaluating, planning,budgeting, marketing, producing and executing an event
CM 602 GE G/C C	Marketing	✓	✓	✓		students can Understand the concepts of product ,price,place and promotion and identify the need of product mix and product line decisions.
CAU 603 GE G/C C	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
CMA 604 GE G/C	Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.

CFS 605 CE G/C	Financial Service	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies. It equips the students with the relevant knowledge and skills envisaged by the banking industry.
CMFS 606 CE G/C	Marketing of Financial service	✓	✓	✓		Students can gain knowledge on banking, savings and investments, insurance and debt and equity provides help both to the private citizens and business
2022-23						
		LL	RL	NL	GL	
COM T 11B	Fundamentals of Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
COM T 12A	Business Organisation & management	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
COM T 13	Business Environment	✓	✓	✓		The Business Environment helps in understanding the threads, which are likely to happen in the future it gives environmental awareness and provides an analysis of the global business environment and its impact on businesses
COM T 14P	Principles of Management	✓	✓	✓		The students can involve in planning, organising, coordinating and directing a group of people to accomplish to achieve specific goals and objectives effectively and also students can manage their work force
COM T 15S	Insurance Promotion		✓	✓		Students will be able to comprehend pertaining skills and their application for promoting insurance coverage
COM T 21A	Financial Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
COM T 23B	Business Economics	✓	✓	✓		Students can rely on business economics for product research and development research allocation and many other strategic decisions-making strategies
COM T 22B	Banking Theory & Practice	✓	✓	✓		To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI
CAD-201G/C	Advertising		✓	✓	✓	The course helps students to reach more people within their target by messaging the appeals directly to them.
CR202G/C	Retailing		✓	✓		Retailer increases the value of the product by creating a place, time, and utility in the distribution of goods.
COM T 31	Advance Accounting	✓	✓	✓		The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
COM T 32	Business Statistics	✓	✓	✓		It helps analyse the data available to business for making prudent business decision and also help to conduct research work and develops critical thinking
COM T 33	Marketing	✓	✓	✓		Students can understand the concepts of product, price, place and promotion and identify the need of product mix and product line decisions.

COMT34	E-Commerce(e-com)	✓	✓	✓		Students understand the mechanism of E- commerce .Students are able to enhance their skills in operational services of E-Commerce and are able to create awareness among the public on commerce activities
COMT35S	Online Business		✓	✓	✓	As online business is significantly less expensive in operating costs than traditional businesses students can get self employment
COM36SI	Insurance Promotion		✓	✓		Students develop skills and their applications for promoting insurance coverage.
COMT41A	Corporate Accounting		✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities .To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms
COMT45	Cost and Management Accounting	✓	✓	✓	✓	The Course helps students as future sophisticated technical users of financial management information with a special focus on corporate and business finance.
COMT43A	Income Tax	✓	✓	✓	✓	The student can build an idea about calculation of Income from different income heads and its taxability.
COMT48	Taxation		✓	✓	✓	It is useful as a professional qualification per students in taxation, finance and accounting also provides a solid base in the field of taxation
COMT42A	Business Law	✓	✓	✓		To Understand the complex legal structure that facilitates the working of the entire commercial sector
COMT46	Auditing	✓	✓	✓		It equips students with the necessary skills to manage financial records, conduct audits and ensure compliance with tax laws. To make the students learn the basics of rights and duties regarding auditing and audit report
COMT44	Goods and Service Tax	✓	✓	✓		A student can know the tax exceptions per the sector being retained, services related to the education/ higher education provided to the students are covered under the GST exception list.
CACA 501 G/C/601 G/C	Advanced Cooperating Accounting	✓	✓	✓	✓	Make the students acquire the conceptual knowledge of corporate accounting of corporate entities .To make the students acquire the knowledge of capital structure and raising of capital amount for corporate business firms
CSSA 502 G/C/602 G/C	Software Solution to Accounting	✓	✓	✓		Students can understand the technical environment of accounting software. Students can apply basics of accounting software into business firms for accounting transactions and Understand the various versions of Tally and other softwares.
CAMP 503 G/C/603 G/C	Advertising and Media Planning	✓	✓	✓		Students can understand the role of advertising in business environment and acquire skills in creating and developing advertisements . Understand up-to-date advances in the current media industry.
CSPP 504 G/C /604 G/C	Sales Promotion and Practice	✓	✓	✓		Students can understand the concepts of creativity in sales promotion and enhance skills to motivate the salesperson to reach their targets and Develop the skills of designing of sales promotion events
CDM 505G	Digital Marketing	✓	✓	✓		Students able to analyze online Micro and Macro Environment . Students can able to designand create websites regarding online marketing

CSM 506 G	Service Marketing	✓	✓	✓		Students can impart knowledge about various financial services offered by banking and non-banking companies. It equips the students with the relevant knowledge and skills envisaged by the banking industry.
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A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Computer Science

B.Sc.MPCs,MCCs,MSCs,B.Com ComputerApplications, e-Commerce

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
CSC-101C	Computer Fundamentals & Photoshop	✓	✓	✓	✓	<p>Local:One of the most important reasons students need to study computer fundamentals and programming is because of the great rate at which the economy relies on digitalization</p> <p>Regional:Introduce graphic design to high school students, help them understand what graphic design is, and how to use it</p> <p>National:Optimize photos for online by selecting file formats and reducing file size. Save photos in various kind of formats. Use their creative thinking to perform multitudinous tasks.</p> <p>Global:WebComputer Fundamentals & Photoshop Course Outcome To explore basic knowledge on computers and Photoshop’s beauty from the practical to the painterly artistic and to understand how Photoshop will help you create your own successful images.</p>
CCSC-103C	Computer Fundamentals & Photoshop	✓	✓	✓	✓	<p>Local:One of the most important reasons students need to study computer fundamentals and programming is because of the great rate at which the economy relies on digitalization</p> <p>Regional:Introduce graphic design to high school students, help them understand what graphic design is, and how to use it</p> <p>National:Optimize photos for online by selecting file formats and reducing file size. Save photos in various kind of formats. Use their creative thinking to perform multitudinous tasks.</p> <p>Global:WebComputer Fundamentals & Photoshop Course Outcome To explore basic knowledge on computers and Photoshop’s beauty from the practical to the painterly artistic and to understand how Photoshop will help you create your own successful images.</p>
CSC-201C	Programming in C	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>

CCSC-203C	Enterprise Resource Planning	✓	✓	✓	✓	<p>Local:ERP systems can be used to reinforce many of the concepts covered in the business discipline</p> <p>Regional: Efforts to achieve greater curriculum integration in schools of business have included team teaching, student group projects, multidisciplinary cases, and, more recently,</p> <p>National:The effort and costs required to integrate Enterprise Resource Planning systems into course curricula are a significant investment of resources for any university.</p> <p>Global:the software provided learning benefits and improved the classroom learning experience</p>
CSC-301C	Object Oriented Programming Using Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CCSC-303C	Office Automation Tools	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC-401C	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
CCSC-403C	Business Analytics	✓	✓	✓	✓	<p>Local: An emphasis on quantitative skills For master’s degree programs in business analytics, curricula typically require 35 to 40 credit</p> <p>Regional: Analytics has become a new source of competitive advantage for many corporations. Today’s work force therefore must be cognizant of its power and value</p> <p>National:Explore the curriculum for Harvard Business Analytics Program to explore and sharpen your sharpen your core data analysis and management skills.</p> <p>Global:WEB TOOLS in Engineering was undertaken as one part of the Digital Library Network for Engineering and Technology (DLNET) grant funded by NSF</p>

CSC-501C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CSC-502C	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
CCSC 505C	Progammamg In C	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly. National:applying the basic programming principles of C language and basic mathematical knowledge. Choose a suitable C-construct to develop C code for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>

CCSC 506C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CCSC-507C	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-601 (GE)	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-602CE	PHP, My Sql&Word Press	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

CSC-603CE	Jquery/Ajax/JSON/ANGULAR JS	✓	✓	✓	✓	<p>Local: Angular component reference a DOM element from the template using in web pages.</p> <p>Regional: Advanced topics, including mouse events using the jQuery UI framework and some of the popular jQuery plugins used to extend the power of jQuery.</p> <p>National: Angular is employed for the development of websites and web apps. It is one of the most popular JavaScript frameworks, specially developed for simplifying single-page applications.</p> <p>Global:Advanced JavaScript, involves advanced aspects of the programming languages.</p>
COM-CSC-605	Tally	✓	✓	✓	✓	<p>Local: Tally has both a private and public education system.</p> <p>Regional: it means adopting different designs for learning to help make learning more meaningful for 21st-century learners.</p> <p>National: Instead of using the books and materials that our curriculum prescribes, we use more accessible texts, including news articles and other materials.</p> <p>Global: A curriculum may excel in one area and fall short in another, and it is important to record those differences.</p>
COM-CSC-606	E-Commerce	✓	✓	✓	✓	<p>Local: An e-Commerce jobcurriculum describes a role and skills needed to help facilitate e - Commerce sales</p> <p>Regional: Accordance with the requirements of an e-commerce curriculum, the distance learning system and user frameworks are designed.</p> <p>National: Knowledge components of e-commerce,E-commerce store fronts can be very sophisticated with features like database connectivity.</p> <p>Global: E-commerce as a substantial section of the MBA program plays a huge role in advancing and accelerating the market reach of students and enhances their ideas</p>
COM-CSC-607	Php& My Sql	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

2019-20

		LL	RL	NL	GL	
CSC-101C	Computer Fundamentals & Photoshop	✓	✓	✓	✓	<p>Local:One of the most important reasons students need to study computer fundamentals and programming is because of the great rate at which the economy relies on digitalization</p> <p>Regional:Introduce graphic design to high school students, help them understand what graphic design is, and how to use it</p> <p>National:Optimize photos for online by selecting file formats and reducing file size. Save photos in various kind of formats. Use their creative thinking to perform multitudinous tasks.</p> <p>Global:WebComputer Fundamentals & Photoshop Course Outcome To explore basic knowledge on computers and Photoshop’s beauty from the practical to the painterly artistic and to understand how Photoshop will help you create your own successful images.</p>
CCSC-103C	Computer Fundamentals & Photoshop	✓	✓	✓	✓	<p>Local:One of the most important reasons students need to study computer fundamentals and programming is because of the great rate at which the economy relies on digitalization</p> <p>Regional:Introduce graphic design to high school students, help them understand what graphic design is, and how to use it</p> <p>National:Optimize photos for online by selecting file formats and reducing file size. Save photos in various kind of formats. Use their creative thinking to perform multitudinous tasks.</p> <p>Global:WebComputer Fundamentals & Photoshop Course Outcome To explore basic knowledge on computers and Photoshop’s beauty from the practical to the painterly artistic and to understand how Photoshop will help you create your own successful images.</p>
CSC-201C	Programming in C	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CCSC-203C	Enterprise Resource Planning	✓	✓	✓	✓	<p>Local:ERP systems can be used to reinforce many of the concepts covered in the business discipline</p> <p>Regional: Efforts to achieve greater curriculum integration in schools of business have included team teaching, student group projects, multidisciplinary cases, and, more recently,</p> <p>National:The effort and costs required to integrate Enterprise Resource Planning systems into course curricula are a significant investment of resources for any university.</p> <p>Global:the software provided learning benefits and improved the classroom learning experience</p>

CSC-301C	Object Oriented Programming Using Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CCSC-303C	Office Automation Tools	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
ICT-II-301C	Internet Fundamentals And Web Tools	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC-401C	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>

CCSC-403C	Business Analytics	✓	✓	✓	✓	<p>Local: An emphasis on quantitative skills For master’s degree programs in business analytics, curricula typically require 35 to 40 credit</p> <p>Regional: Analytics has become a new source of competitive advantage for many corporations. Today’s work force therefore must be cognizant of its power and value</p> <p>National: Explore the curriculum for Harvard Business Analytics Program to explore and sharpen your sharpen your core data analysis and management skills.</p> <p>Global: WEB TOOLS in Engineering was undertaken as one part of the Digital Library Network for Engineering and Technology (DLNET) grant funded by NSF</p>
CSC-501C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CSC-502C	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
CCSC 505C	Progammamg In C	✓	✓	✓	✓	<p>Local: both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional: WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: applying the basic programming principles of C language and basic mathematical knowledge. Choose a suitable C-construct to develop C code for a given problem.</p> <p>Global: The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>

CCSC 506C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CCSC-507C	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-601 (GE)	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-602CE	PHP, My Sql&Word Press	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

CSC-603CE	Jquery/Ajax/JSON/ANGULAR JS	✓	✓	✓	✓	<p>Local: Angular component reference a DOM element from the template using in web pages.</p> <p>Regional: Advanced topics, including mouse events using the jQuery UI framework and some of the popular jQuery plugins used to extend the power of jQuery.</p> <p>National: Angular is employed for the development of websites and web apps. It is one of the most popular JavaScript frameworks, specially developed for simplifying single-page applications.</p> <p>Global:Advanced JavaScript, involves advanced aspects of the programming languages.</p>
COM-CSC-605	Tally	✓	✓	✓	✓	<p>Local: Tally has both a private and public education system.</p> <p>Regional: it means adopting different designs for learning to help make learning more meaningful for 21st-century learners.</p> <p>National: Instead of using the books and materials that our curriculum prescribes, we use more accessible texts, including news articles and other materials.</p> <p>Global: A curriculum may excel in one area and fall short in another, and it is important to record those differences.</p>
COM-CSC-606	E-Commerce	✓	✓	✓	✓	<p>Local: An e-Commerce jobcurriculum describes a role and skills needed to help facilitate e - Commerce sales</p> <p>Regional: Accordance with the requirements of an e-commerce curriculum, the distance learning system and user frameworks are designed.</p> <p>National: Knowledge components of e-commerce,E-commerce store fronts can be very sophisticated with features like database connectivity.</p> <p>Global: E-commerce as a substantial section of the MBA program plays a huge role in advancing and accelerating the market reach of students and enhances their ideas</p>
COM-CSC-607	Php& My Sql	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

2020-21

CSC		LL	RL	NL	GL	
CSC-101C	Problem Solving in 'C'	✓	✓	✓	✓	<p>Local: both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional: WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global: The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CCSC103C	Introduction To Information Technology	✓	✓	✓	✓	<p>Local: Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional: Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global: Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC201C	Data Structures Using 'c'	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
CCSC-203C	E-Commerce & Web Designing	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects related to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Curriculum is allined with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>

ICT-I-201	Information & Communication Technology	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC-301C	Object Oriented Programming Using Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CCSC-303C	Office Automation Tools	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
ICT-II-301C	Internet Fundamentals and Web Tools	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) can impact student learning when teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC-401C	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>

CCSC 403C	PROGMAMMING IN C	✓	✓	✓	✓	<p>Local: both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional: WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global: The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CSC-501C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CSC-502C	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
CCSC-505C	Object Oriented Programing using JAVA	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>

CCSC 506C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CCSC-507C	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-601(GE)	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-602CE	PHP, MySql & Word Press	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

CSC-603CE	Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS	✓	✓	✓	✓	<p>Local: Angular component reference a DOM element from the template using in web pages.</p> <p>Regional: Advanced topics, including mouse events using the jQuery UI framework and some of the popular jQuery plugins used to extend the power of jQuery.</p> <p>National: Angular is employed for the development of websites and web apps. It is one of the most popular JavaScript frameworks, specially developed for simplifying single-page applications.</p> <p>Global:Advanced JavaScript, involves advanced aspects of the programming languages.</p>
CCSC 605CE	TALLY	✓	✓	✓	✓	<p>Local: Italy has both a private and public education system.</p> <p>Regional: it means adopting different designs for learning to help make learning more meaningful for 21st-century learners.</p> <p>National: Instead of using the books and materials that our curriculum prescribes, we use more accessible texts, including news articles and other materials.</p> <p>Global: A curriculum may excel in one area and fall short in another, and it is important to record those differences.</p>
CCSC-606CE	E-COMMERCE	✓	✓	✓	✓	<p>Local: An e-Commerce jobcurriculum describes a role and skills needed to help facilitate e - Commerce sales</p> <p>Regional: Accordance with the requirements of an e-commerce curriculum, the distance learning system and user frameworks are designed.</p> <p>National: Knowledge components of e-commerce,E-commerce store fronts can be very sophisticated with features like database connectivity</p> <p>Global: E-commerce as a substantial section of the MBA program plays a huge role in advancing and accelerating the market reach of students and enhances their ideas</p>
CCSC-607CE	PHP& MY SQL	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

2021-22

CSCT11B	Problem Solving in ‘C’	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CABT11A	Information Technology	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSCT11B	E-Commerce and Web Designing	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects related to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Curriculum is allined with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSCT21B	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>

CABT21A	E-COMMERCE & WEB DESIGNING	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects related to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Curriculum is allined with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CABT21A	Information Technolgy	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CABT22A	Computer Applications	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSC-301C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>

CCSC -301C	Progammamg In C	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National:applying the basic programming principles of C language and basic mathematical knowledge. Choose a suitable C-construct to develop C code for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CSCT01	OOP's with Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CSCT41C	Operating System	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global:Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>
CCSC401G	Data Base Management System	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>

CCSC402G	OOP's with Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CSC-501C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CSC-502C	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
CCSC-505C	Object Oriented Programing using JAVA	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>

CCSC 506C	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CCSC-507C	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-601(GE)	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
CSC-602CE	PHP, MySql & Word Press	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

CSC-603CE	Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS	✓	✓	✓	✓	<p>Local: Angular component reference a DOM element from the template using in web pages.</p> <p>Regional: Advanced topics, including mouse events using the jQuery UI framework and some of the popular jQuery plugins used to extend the power of jQuery.</p> <p>National: Angular is employed for the development of websites and web apps. It is one of the most popular JavaScript frameworks, specially developed for simplifying single-page applications.</p> <p>Global:Advanced JavaScript, involves advanced aspects of the programming languages.</p>
CCSC 605CE	TALLY	✓	✓	✓	✓	<p>Local: Tally has both a private and public education system.</p> <p>Regional: it means adopting different designs for learning to help make learning more meaningful for 21st-century learners.</p> <p>National: Instead of using the books and materials that our curriculum prescribes, we use more accessible texts, including news articles and other materials.</p> <p>Global: A curriculum may excel in one area and fall short in another, and it is important to record those differences.</p>
CCSC-606CE	E-COMMERCE	✓	✓	✓	✓	<p>Local: An e-Commerce jobcurriculum describes a role and skills needed to help facilitate e - Commerce sales</p> <p>Regional: Accordance with the requirements of an e-commerce curriculum, the distance learning system and user frameworks are designed.</p> <p>National: Knowledge components of e-commerce,E-commerce store fronts can be very sophisticated with features like database connectivity.</p> <p>Global: E-commerce as a substantial section of the MBA program plays a huge role in advancing and accelerating the market reach of students and enhances their ideas</p>
CCSC-607CE	PHP& MY SQL	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>

2022-23

CSCT11B	Problem Solving in ‘C’	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CSBT11A	Information Technology	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CCSC101	Computer Applications	✓	✓	✓	✓	<p>Local:Information and Communications Technology (ICT) impacts student learning as the teachers are digitally literate and understand how to integrate it into curriculum.</p> <p>Regional:Educational resources and digital tools help to improve the classroom atmosphere and make the teaching-learning process more compelling.</p> <p>National: resource, websites, e- learning environment, e -commerce, online learning and networking</p> <p>Global:Developmental Supervision (MS) Curriculum and Instruction, New Literacies and Global Learning (MS) Counselor Education .</p>
CSCT21B	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>

CABT21A	E-Commerce & Web Designing	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects related to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Curriculum is allined with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
ECCS21A	Programming in C	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CSCT37	Daata Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
CABT31A	Programming with C & C++	✓	✓	✓	✓	<p>Local:both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional:WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global:The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>

CSCT11B	Problem solving in C	✓	✓	✓	✓	<p>Local: both versatile and popular, allowing it to be used in a vast array of applications and technologies.</p> <p>Regional: WebWord Processors C Has Become Very Popular for Various Reasons One of the early programming languages. Still, the best programming language to learn quickly.</p> <p>National: Applying the basic programming principles of C language and basic mathematical knowledge. a suitable C-code can be developed for a given problem.</p> <p>Global: The problem that we want to solve can come from any real-world problem or perhaps even from the abstract world.</p>
CSCT01/CC SCT42	Object Oriented Programming using Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
CSCT41C	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>
CABT41A/E CCSCT42	Data Base Management System	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>

ECCSCT41	OOP's using Java	✓	✓	✓	✓	<p>Local: Introduction to Object Oriented Programming , Procedural programming vs. OOP; Classes; Encapsulation.</p> <p>Regional: Object-oriented programming is a programming paradigm where everything is represented as an object. Objects pass messages to each other.</p> <p>National: OOP is meant to decompose systems into interacting state machines.</p> <p>Global: Procedural programming vs. OOP</p>
SECCST01	Web Interface Designing Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
SECCSCT02	Web Applications Development using PHP and MYSQL	✓	✓	✓	✓	<p>Local: Full-text mysql dbTable is useful to connect database and design in dynamic web pages</p> <p>Regional: Products Customers Orders PHP + MySQL Database System PHP combined with MySQL are cross-platform to develop Windows and serve on a Unix platform</p> <p>National: PHP Web Development is important in desining the front end and data base connectivity.</p> <p>Global:MySQL is an open-source relational database management system (RDBMS). It is the most popular database system used with PHP</p>
SECCAT01	Big Data Analytics Using R	✓	✓	✓	✓	<p>Local: Partner with local companies to provide real-world big data analytics projects and insights into local data analytics needs</p> <p>Regional: Highlight the potential of big data analytics to provide localized insights and solutions for regional issues, considering diverse geographical, economic, and social factors.</p> <p>National: Focus on big data analytics applications that contribute to national initiatives, such as optimizing public services, enhancing agriculture, or advancing research in data-related fields.</p> <p>Global: Cover big data analytics concepts that align with global data trends, including large-scale data processing, predictive analytics, and real-time data insights.</p>

SECCAT07	Data Science using Python	✓	✓	✓	✓	<p><u>Local:</u> Focus on analyzing local datasets or relevant data sources to solve problems specific to the region</p> <p><u>Regional:</u> Foster collaboration between students from different disciplines to solve interdisciplinary regional problems using Python</p> <p><u>National:</u> Emphasize Python tools for data analysis and visualization to enable data-driven decision making at the national level.</p> <p><u>Global:</u> Integrate Python problem-solving projects that address pressing global challenges, such as climate change, poverty, healthcare access, or digital inclusion.</p>
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A.G & S.G Siddhartha Degree College of Arts & Science, Vuyyuru (Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL) / NATIONAL(NL) / REGIONAL(RL) / GLOBAL(GL) DEVELOPMENTAL NEEDS

Post Graduate Programmes

Department of Computer Science (PG)

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
MCS10116	Object Oriented Programming Systems	✓	✓	✓	✓	<p>Local: Collaborate with local businesses to provide internship opportunities for students, allowing them to apply OOP concepts in a real-world setting</p> <p>Regional: Design projects that tackle regional challenges or issues, encouraging students to develop solutions relevant to the region.</p> <p>National: Foster partnerships with prominent national tech companies for research, development, and job placement.</p> <p>Global: Incorporate international best practices in object-oriented programming, ensuring graduates are globally competitive.</p>
MCS10216	Computer Organization	✓	✓	✓	✓	<p>Local: Focus on computer organization principles that align with local industries and technology trends, preparing students for careers in the local job market.</p> <p>Regional: Provide strategies and solutions that address the resource constraints faced by certain regions, such as limited access to electricity or internet connectivity.</p> <p>National: Integrate topics that support the country's technological advancement and goals, such as high-performance computing, cybersecurity, or digital infrastructure development.</p> <p>Global: Cover computer organization concepts that are relevant to global technology trends, such as parallel processing, energy efficiency, and cloud computing.</p>
MCS10316	Discrete Mathematical Structures	✓	✓	✓	✓	<p>Local: Establish partnerships with local universities or organizations to promote knowledge exchange and collaborative research in the field.</p> <p>Regional: Encourage collaboration with institutions and universities in the same region for research projects and knowledge sharing.</p> <p>National: Provide resources and training for educators to effectively teach discrete mathematics in accordance with national guidelines.</p> <p>Global: Stay updated on global technology and industry trends related to discrete mathematics, and integrate relevant topics into the curriculum.</p>

MCS10416	Database Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
MCS10516	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
MCS 20216	Operation Research	✓	✓	✓	✓	<p>Local: Incorporate local case studies and examples that demonstrate how operations research techniques can solve problems specific to the local community or businesses.</p> <p>Regional: Integrate regional challenges and scenarios that require operations research techniques to find solutions specific to the regional context.</p> <p>National: Ensure the curriculum aligns with national industry standards and practices, preparing students for careers in national businesses and government agencies.</p> <p>Global: Include international case studies and best practices in operations research to ensure that graduates are competitive on a global scale.</p>
MCS20316	Theory Of Computations	✓	✓	✓	✓	<p>Local: Incorporate examples and case studies that relate to the local language structure or cultural aspects, making the content more relatable to students.</p> <p>Regional: Offer modules or assignments that cater to specific regional needs and challenges, such as language preservation, translation, or multilingual communication.</p> <p>National: Provide a solid theoretical foundation that supports research and innovation in national priority areas, such as natural language understanding, cryptography, or compiler design.</p> <p>Global: Integrate topics related to global technology trends, such as automation, artificial intelligence, and algorithm design, which have broad applications worldwide.</p>

MCS20416	Object Oriented Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
MCS20516	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>
MSC208P16	Technical Report Writing	✓	✓	✓	✓	<p>Local: Teach students how to adapt their writing style to local communication norms and expectations.</p> <p>Regional: Integrate regional case studies and examples that highlight specific technical communication challenges and solutions relevant to the regional context.</p> <p>National: Collaborate with national industries and organizations to identify specific technical writing needs and tailor the curriculum accordingly.</p> <p>Global: Emphasize the importance of adapting communication styles for global audiences and provide guidance on cross-cultural communication.</p>
MCS30116	Cryptography & Network Security	✓	✓	✓	✓	<p>Local: Address local cybersecurity threats, challenges, and vulnerabilities, emphasizing solutions that are pertinent to the local technology landscape.</p> <p>Regional: Address regional data protection regulations and cultural factors that impact cryptography and network security practices</p> <p>National: Focus on cryptography and network security techniques that contribute to national cybersecurity initiatives, incident response, and digital sovereignty.</p> <p>Global: Cover cryptography and network security concepts that align with global cybersecurity trends, including encryption, authentication, and secure communications in a globally interconnected environment.</p>

MCS30216	Design and Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
MCS30316	Data Ware Housing and Data Mining	✓	✓	✓	✓	<p>Local: Address data quality, availability, and collection challenges specific to the local context, preparing students to work with real-world local data</p> <p>Regional: Offer projects that cater to specific regional data sources and challenges, fostering a deeper understanding of data mining's applicability to regional contexts.</p> <p>National: Focus on data mining techniques that contribute to national initiatives, such as analyzing demographic data for social welfare programs or optimizing transportation networks.</p> <p>Global: Cover data mining techniques that are relevant to global data trends, such as analyzing large-scale datasets, social media data, and global supply chain optimization.</p>
MCS30416	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
MCS305C16	Software Testing	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>

MCS40116	Dot Net Programming	✓	✓	✓	✓	<p>Local: Collaborate with local businesses to offer internship opportunities for students to gain practical experience.</p> <p>Regional: Encourage students to participate in regional tech events, conferences, and networking opportunities to build regional connections.</p> <p>National: Establish partnerships with national tech companies for research, development, and job placement opportunities.</p> <p>Global: Emphasize the ethical considerations and global impact of technology, emphasizing social responsibility in Dot Net programming.</p>
MCS40216	Mobile Computing	✓	✓	✓	✓	<p>Local: Collaborate with local companies to provide students with opportunities for internships, projects, or guest lectures focused on local mobile computing needs</p> <p>Regional: Design mobile computing projects that tackle regional challenges or explore regional cultural considerations.</p> <p>National: Incorporate discussions on national regulations, data privacy laws, and security standards that affect mobile app development within the country.</p> <p>Global: Integrate international best practices in mobile computing, ensuring that graduates are competitive on a global scale.</p>
MCS403A16	Cloud Computing	✓	✓	✓	✓	<p>Local: Highlight how cloud computing can enhance business continuity and disaster recovery for local businesses and organizations.</p> <p>Regional: Highlight how cloud computing enables scalable solutions for regional challenges, such as regional e-commerce platforms or collaborative research initiatives.</p> <p>National: Focus on cloud computing concepts that contribute to national IT goals, innovation, and economic growth.</p> <p>Global: Cover cloud computing concepts that align with global technology trends, such as multi-cloud deployments, serverless architecture, and edge computing.</p>
2019-20						
		LL	RL	NL	GL	
MCS10116	Object Oriented Programming Systems	✓	✓	✓	✓	<p>Local: Collaborate with local businesses to provide internship opportunities for students, allowing them to apply OOP concepts in a real-world setting</p> <p>Regional: Design projects that tackle regional challenges or issues, encouraging students to develop solutions relevant to the region.</p> <p>National: Foster partnerships with prominent national tech companies for research, development, and job placement.</p> <p>Global: Incorporate international best practices in object-oriented programming, ensuring graduates are globally competitive.</p>

MCS10216	Computer Organization	✓	✓	✓	✓	<p>Local: Focus on computer organization principles that align with local industries and technology trends, preparing students for careers in the local job market.</p> <p>Regional: Provide strategies and solutions that address the resource constraints faced by certain regions, such as limited access to electricity or internet connectivity.</p> <p>National: Integrate topics that support the country's technological advancement and goals, such as high-performance computing, cybersecurity, or digital infrastructure development.</p> <p>Global: Cover computer organization concepts that are relevant to global technology trends, such as parallel processing, energy efficiency, and cloud computing.</p>
MCS10316	Discrete Mathematical Structures	✓	✓	✓	✓	<p>Local: Establish partnerships with local universities or organizations to promote knowledge exchange and collaborative research in the field.</p> <p>Regional: Encourage collaboration with institutions and universities in the same region for research projects and knowledge sharing.</p> <p>National: Provide resources and training for educators to effectively teach discrete mathematics in accordance with national guidelines.</p> <p>Global: Stay updated on global technology and industry trends related to discrete mathematics, and integrate relevant topics into the curriculum.</p>
MCS10416	Database Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
MCS10516	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>

MCS 20216	Operation Research	✓	✓	✓	✓	<p>Local: Incorporate local case studies and examples that demonstrate how operations research techniques can solve problems specific to the local community or businesses.</p> <p>Regional: Integrate regional challenges and scenarios that require operations research techniques to find solutions specific to the regional context.</p> <p>National: Ensure the curriculum aligns with national industry standards and practices, preparing students for careers in national businesses and government agencies.</p> <p>Global: Include international case studies and best practices in operations research to ensure that graduates are competitive on a global scale.</p>
MCS20316	Theory Of Computations	✓	✓	✓	✓	<p>Local: Incorporate examples and case studies that relate to the local language structure or cultural aspects, making the content more relatable to students.</p> <p>Regional: Offer modules or assignments that cater to specific regional needs and challenges, such as language preservation, translation, or multilingual communication.</p> <p>National: Provide a solid theoretical foundation that supports research and innovation in national priority areas, such as natural language understanding, cryptography, or compiler design.</p> <p>Global: Integrate topics related to global technology trends, such as automation, artificial intelligence, and algorithm design, which have broad applications worldwide.</p>
MCS20416	Object Oriented Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
MCS20516	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>

MSC208P16	Technical Report Writing	✓	✓	✓	✓	<p>Local: Teach students how to adapt their writing style to local communication norms and expectations.</p> <p>Regional: Integrate regional case studies and examples that highlight specific technical communication challenges and solutions relevant to the regional context.</p> <p>National: Collaborate with national industries and organizations to identify specific technical writing needs and tailor the curriculum accordingly.</p> <p>Global: Emphasize the importance of adapting communication styles for global audiences and provide guidance on cross-cultural communication.</p>
MCS30116	Cryptography & Network Security	✓	✓	✓	✓	<p>Local: Address local cybersecurity threats, challenges, and vulnerabilities, emphasizing solutions that are pertinent to the local technology landscape.</p> <p>Regional: Address regional data protection regulations and cultural factors that impact cryptography and network security practices</p> <p>National: Focus on cryptography and network security techniques that contribute to national cybersecurity initiatives, incident response, and digital sovereignty.</p> <p>Global: Cover cryptography and network security concepts that align with global cybersecurity trends, including encryption, authentication, and secure communications in a globally interconnected environment.</p>
MCS30216	Design and Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
MCS30316	Data Ware Housing and Data Mining	✓	✓	✓	✓	<p>Local: Address data quality, availability, and collection challenges specific to the local context, preparing students to work with real-world local data</p> <p>Regional: Offer projects that cater to specific regional data sources and challenges, fostering a deeper understanding of data mining's applicability to regional contexts.</p> <p>National: Focus on data mining techniques that contribute to national initiatives, such as analyzing demographic data for social welfare programs or optimizing transportation networks.</p> <p>Global: Cover data mining techniques that are relevant to global data trends, such as analyzing large-scale datasets, social media data, and global supply chain optimization.</p>

MCS30416	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
MCS305C16	Software Testing	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
MCS40116	Dot Net Programming	✓	✓	✓	✓	<p>Local: Collaborate with local businesses to offer internship opportunities for students to gain practical experience.</p> <p>Regional: Encourage students to participate in regional tech events, conferences, and networking opportunities to build regional connections.</p> <p>National: Establish partnerships with national tech companies for research, development, and job placement opportunities.</p> <p>Global: Emphasize the ethical considerations and global impact of technology, emphasizing social responsibility in Dot Net programming.</p>
MCS40216	Mobile Computing	✓	✓	✓	✓	<p>Local: Collaborate with local companies to provide students with opportunities for internships, projects, or guest lectures focused on local mobile computing needs</p> <p>Regional: Design mobile computing projects that tackle regional challenges or explore regional cultural considerations.</p> <p>National: Incorporate discussions on national regulations, data privacy laws, and security standards that affect mobile app development within the country.</p> <p>Global: Integrate international best practices in mobile computing, ensuring that graduates are competitive on a global scale.</p>

MCS403A16	Cloud Computing	✓	✓	✓	✓	<p>Local: Highlight how cloud computing can enhance business continuity and disaster recovery for local businesses and organizations.</p> <p>Regional: Highlight how cloud computing enables scalable solutions for regional challenges, such as regional e-commerce platforms or collaborative research initiatives.</p> <p>National: Focus on cloud computing concepts that contribute to national IT goals, innovation, and economic growth.</p> <p>Global: Cover cloud computing concepts that align with global technology trends, such as multi-cloud deployments, serverless architecture, and edge computing.</p>
2020-21						
		LL	RL	NL	GL	
20MCS101	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
20MCS102	Programming and Problem solving using Python	✓	✓	✓	✓	<p>Local: Focus on analyzing local datasets or relevant data sources to solve problems specific to the region</p> <p>Regional: Foster collaboration between students from different disciplines to solve interdisciplinary regional problems using Python</p> <p>National: Emphasize Python tools for data analysis and visualization to enable data-driven decision making at the national level.</p> <p>Global: Integrate Python problem-solving projects that address pressing global challenges, such as climate change, poverty, healthcare access, or digital inclusion.</p>
20MCS103	Computer Organization	✓	✓	✓	✓	<p>Local: Focus on computer organization principles that align with local industries and technology trends, preparing students for careers in the local job market.</p> <p>Regional: Provide strategies and solutions that address the resource constraints faced by certain regions, such as limited access to electricity or internet connectivity.</p> <p>National: Integrate topics that support the country's technological advancement and goals, such as high-performance computing, cybersecurity, or digital infrastructure development.</p> <p>Global: Cover computer organization concepts that are relevant to global technology trends, such as parallel processing, energy efficiency, and cloud computing.</p>

20MCS104	Formal Languages and Automata Theory	✓	✓	✓	✓	<p>Local: Incorporate examples and case studies that relate to the local language structure or cultural aspects, making the content more relatable to students.</p> <p>Regional: Offer modules or assignments that cater to specific regional needs and challenges, such as language preservation, translation, or multilingual communication.</p> <p>National: Provide a solid theoretical foundation that supports research and innovation in national priority areas, such as natural language understanding, cryptography, or compiler design.</p> <p>Global: Integrate topics related to global technology trends, such as automation, artificial intelligence, and algorithm design, which have broad applications worldwide.</p>
20MCS201	Design & Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
20MCS202	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
20MCS203	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>

20MCS204	Data Base Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
MCS30116	Cryptography & Network Security	✓	✓	✓	✓	<p>Local: Address local cybersecurity threats, challenges, and vulnerabilities, emphasizing solutions that are pertinent to the local technology landscape.</p> <p>Regional: Address regional data protection regulations and cultural factors that impact cryptography and network security practices</p> <p>National: Focus on cryptography and network security techniques that contribute to national cybersecurity initiatives, incident response, and digital sovereignty.</p> <p>Global: Cover cryptography and network security concepts that align with global cybersecurity trends, including encryption, authentication, and secure communications in a globally interconnected environment.</p>
MCS30216	Design and Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
MCS30316	Data Ware Housing and Data Mining	✓	✓	✓	✓	<p>Local: Address data quality, availability, and collection challenges specific to the local context, preparing students to work with real-world local data</p> <p>Regional: Offer projects that cater to specific regional data sources and challenges, fostering a deeper understanding of data mining's applicability to regional contexts.</p> <p>National: Focus on data mining techniques that contribute to national initiatives, such as analyzing demographic data for social welfare programs or optimizing transportation networks.</p> <p>Global: Cover data mining techniques that are relevant to global data trends, such as analyzing large-scale datasets, social media data, and global supply chain optimization.</p>

MCS30416	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
MCS305C16	Software Testing	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>
MCS40116	Dot Net Programming	✓	✓	✓	✓	<p>Local: Collaborate with local businesses to offer internship opportunities for students to gain practical experience.</p> <p>Regional: Encourage students to participate in regional tech events, conferences, and networking opportunities to build regional connections.</p> <p>National: Establish partnerships with national tech companies for research, development, and job placement opportunities.</p> <p>Global: Emphasize the ethical considerations and global impact of technology, emphasizing social responsibility in Dot Net programming.</p>
MCS40216	Mobile Computing	✓	✓	✓	✓	<p>Local: Collaborate with local companies to provide students with opportunities for internships, projects, or guest lectures focused on local mobile computing needs</p> <p>Regional: Design mobile computing projects that tackle regional challenges or explore regional cultural considerations.</p> <p>National: Incorporate discussions on national regulations, data privacy laws, and security standards that affect mobile app development within the country.</p> <p>Global: Integrate international best practices in mobile computing, ensuring that graduates are competitive on a global scale.</p>

MCS403A16	Cloud Computing	✓	✓	✓	✓	<p>Local: Highlight how cloud computing can enhance business continuity and disaster recovery for local businesses and organizations.</p> <p>Regional: Highlight how cloud computing enables scalable solutions for regional challenges, such as regional e-commerce platforms or collaborative research initiatives.</p> <p>National: Focus on cloud computing concepts that contribute to national IT goals, innovation, and economic growth.</p> <p>Global: Cover cloud computing concepts that align with global technology trends, such as multi-cloud deployments, serverless architecture, and edge computing.</p>
2021-22						
		LL	NL	RL	GL	
20CS1T1	Problem Solving Using Python Programming	✓	✓	✓	✓	<p>Local: Focus on analyzing local datasets or relevant data sources to solve problems specific to the region</p> <p>Regional: Foster collaboration between students from different disciplines to solve interdisciplinary regional problems using Python</p> <p>National: Emphasize Python tools for data analysis and visualization to enable data-driven decision making at the national level.</p> <p>Global: Integrate Python problem-solving projects that address pressing global challenges, such as climate change, poverty, healthcare access, or digital inclusion.</p>
20CS1T2	Computer Organization	✓	✓	✓	✓	<p>Local: Focus on computer organization principles that align with local industries and technology trends, preparing students for careers in the local job market.</p> <p>Regional: Provide strategies and solutions that address the resource constraints faced by certain regions, such as limited access to electricity or internet connectivity.</p> <p>National: Integrate topics that support the country's technological advancement and goals, such as high-performance computing, cybersecurity, or digital infrastructure development.</p> <p>Global: Cover computer organization concepts that are relevant to global technology trends, such as parallel processing, energy efficiency, and cloud computing.</p>
20CS1T3	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>

20CS1T4	Database Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
20CS1T5	Theory of Computation	✓	✓	✓	✓	<p>Local: Incorporate examples and case studies that relate to the local language structure or cultural aspects, making the content more relatable to students.</p> <p>Regional: Offer modules or assignments that cater to specific regional needs and challenges, such as language preservation, translation, or multilingual communication.</p> <p>National: Provide a solid theoretical foundation that supports research and innovation in national priority areas, such as natural language understanding, cryptography, or compiler design.</p> <p>Global: Integrate topics related to global technology trends, such as automation, artificial intelligence, and algorithm design, which have broad applications worldwide.</p>
20CS3T1	Internet of Things (IoT)	✓	✓	✓	✓	<p>Local: Address the local technology ecosystem and resources available for IoT implementation, highlighting compatibility and integration with existing infrastructure.</p> <p>Regional: Encourage collaboration between students from different regions to explore how IoT can address regional challenges, such as environmental monitoring, disaster response, or supply chain optimization.</p> <p>National: Align the curriculum with the country's IoT initiatives, emphasizing areas such as smart manufacturing, energy management, or infrastructure optimization.</p> <p>Global: Cover IoT concepts and applications that are relevant to global technology trends, including interconnected devices, data analytics, and sustainability solutions.</p>
20CS3T2	Cryptography & Network Security	✓	✓	✓	✓	<p>Local: Address local cybersecurity threats, challenges, and vulnerabilities, emphasizing solutions that are pertinent to the local technology landscape.</p> <p>Regional: Address regional data protection regulations and cultural factors that impact cryptography and network security practices</p> <p>National: Focus on cryptography and network security techniques that contribute to national cybersecurity initiatives, incident response, and digital sovereignty.</p> <p>Global: Cover cryptography and network security concepts that align with global cybersecurity trends, including encryption, authentication, and secure communications in a globally interconnected environment.</p>

20CS3T3	Design & Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
20CS3T4	Data Mining Techniques	✓	✓	✓	✓	<p>Local: Address data quality, availability, and collection challenges specific to the local context, preparing students to work with real-world local data</p> <p>Regional: Offer projects that cater to specific regional data sources and challenges, fostering a deeper understanding of data mining's applicability to regional contexts.</p> <p>National: Focus on data mining techniques that contribute to national initiatives, such as analyzing demographic data for social welfare programs or optimizing transportation networks.</p> <p>Global: Cover data mining techniques that are relevant to global data trends, such as analyzing large-scale datasets, social media data, and global supply chain optimization.</p>
21CS3OEL2	Web Programming	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
20CS2T1	Computer Networks	✓	✓	✓	✓	<p>Local: Address network challenges specific to the region, such as limited connectivity options or rural network expansion. Regional: Encourage collaboration among students from different regions to explore how computer networks can address regional connectivity challenges and opportunities.</p> <p>National: Focus on computer network concepts and practices that contribute to national technological goals, innovation, and economic growth.</p> <p>Global: Cover computer network concepts and trends relevant to a globally interconnected world, including cloud computing, edge computing, and international data exchange.</p>

20CS2T2	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
20CS2T3	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
20CS2T4	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>
21MCS402	Big Data and Analytics	✓	✓	✓	✓	<p>Local: Partner with local companies to provide real-world big data analytics projects and insights into local data analytics needs</p> <p>Regional: Highlight the potential of big data analytics to provide localized insights and solutions for regional issues, considering diverse geographical, economic, and social factors.</p> <p>National: Focus on big data analytics applications that contribute to national initiatives, such as optimizing public services, enhancing agriculture, or advancing research in data-related fields.</p> <p>Global: Cover big data analytics concepts that align with global data trends, including large-scale data processing, predictive analytics, and real-time data insights.</p>

21MCS403	Artificial Intelligence & Machine Learning	✓	✓	✓	✓	<p>Local: Prepare students for local job markets by focusing on AI and machine learning skills that are in demand within the local tech industry.</p> <p>Regional: Highlight the importance of using region-specific data for training AI models that cater to regional contexts and challenges.</p> <p>National: Provide a strong foundation in AI and machine learning to support research and innovation in national priority sectors, such as healthcare, agriculture, or energy.</p> <p>Global: Cover AI and machine learning concepts that align with global technology trends, including deep learning, natural language processing, and autonomous systems.</p>
21MCS404	Cloud Computing	✓	✓	✓	✓	<p>Local: Highlight how cloud computing can enhance business continuity and disaster recovery for local businesses and organizations.</p> <p>Regional: Highlight how cloud computing enables scalable solutions for regional challenges, such as regional e-commerce platforms or collaborative research initiatives.</p> <p>National: Focus on cloud computing concepts that contribute to national IT goals, innovation, and economic growth.</p> <p>Global: Cover cloud computing concepts that align with global technology trends, such as multi-cloud deployments, serverless architecture, and edge computing.</p>
21MCS401	MOOCS (PHP & MySQL)	✓	✓	✓	✓	<p>Local: Partner with local companies to provide real-world PHP and MySQL projects that solve local business challenges.</p> <p>Regional: Encourage collaboration among students from different regions to explore how PHP and MySQL can be used to address regional web development needs and opportunities.</p> <p>National: Focus on PHP and MySQL skills that contribute to national IT goals, such as promoting digital literacy, e-governance, and local software development.</p> <p>Global: Discuss global ethical and security considerations in web development using PHP and MySQL, including issues related to data privacy, cybersecurity, and user trust.</p>
2022-23						
		LL	NL	RL	GL	
22CS2T1	Computer Networks	✓	✓	✓	✓	<p>Local: Address network challenges specific to the region, such as limited connectivity options or rural network expansion. Regional: Encourage collaboration among students from different regions to explore how computer networks can address regional connectivity challenges and opportunities.</p> <p>National: Focus on computer network concepts and practices that contribute to national technological goals, innovation, and economic growth.</p> <p>Global: Cover computer network concepts and trends relevant to a globally interconnected world, including cloud computing, edge computing, and international data exchange.</p>

22CS2T2	Data Structures	✓	✓	✓	✓	<p>Local: Emphasize practical examples and case studies relevant to local industries and challenges</p> <p>Regional: Offer specialized modules or projects that address the unique needs of different regions within the country</p> <p>National: Focus on data structures that contribute to economic growth areas, such as technology, manufacturing, agriculture, or services</p> <p>Global: Cover data structures that are relevant to global technology trends and emerging fields (e.g., artificial intelligence, internet of things, blockchain).</p>
22CS2T3	Web Technologies	✓	✓	✓	✓	<p>Local: Incorporate web programming examples and projects that relate to local businesses, allowing students to develop skills relevant to the local job market.</p> <p>Regional: Cover web programming techniques that support multilingual content and localized user experiences, catering to different languages and cultural contexts.</p> <p>National: Align the curriculum with national technology priorities and industries, emphasizing areas such as e-commerce, digital government services, or online education.</p> <p>Global: Cover techniques for integrating web services and APIs that enable global connectivity and data exchange.</p>
22PG201	Research Methodology& IPR	✓	✓	✓	✓	<p>Local: Introduce students to research methodologies that are relevant to the local academic and research environment, including local research priorities and challenges.</p> <p>Regional: Encourage collaboration among students from different regions to explore research and IP practices across various regional contexts.</p> <p>National: Align the curriculum with the country's national research priorities and initiatives, emphasizing areas such as scientific innovation, technology transfer, and research commercialization.</p> <p>Global: Explore ethical considerations in global research collaborations, including issues of cultural sensitivity, data sharing, and responsible dissemination of research findings.</p>
22CS2E1	Software Engineering	✓	✓	✓	✓	<p>Local: Use case studies and projects that reflect local business needs and challenges, demonstrating how software engineering principles can be applied to address specific local problems.</p> <p>Regional: Encourage students to design software solutions that contribute to regional development goals, such as healthcare, education, or environmental sustainability.</p> <p>National: Focus on software engineering practices that contribute to the country's software development ecosystem, emphasizing areas such as cybersecurity, digital transformation, or government software projects.</p> <p>Global: Cover software engineering practices that are applicable on a global scale, including topics like distributed systems, cloud computing, and global collaboration.</p>

20CS4M1	MOOCS	✓	✓	✓	✓	<p>Local: Introduce students to the local education landscape, exploring how MOOCs can complement traditional education methods and address local educational challenges.</p> <p>Regional: Encourage collaboration among students from different regions to discuss the potential for cross-regional MOOC offerings and the sharing of educational resources.</p> <p>National: Explore ways to integrate MOOCs into formal education systems, discussing potential collaboration between MOOC platforms and educational institutions.</p> <p>Global: Cover the role of MOOCs in creating a global learning community, promoting knowledge exchange, and facilitating international collaboration.</p>
20CS4T1	Big Data and Analytics	✓	✓	✓	✓	<p>Local: Partner with local companies to provide real-world big data analytics projects and insights into local data analytics needs</p> <p>Regional: Highlight the potential of big data analytics to provide localized insights and solutions for regional issues, considering diverse geographical, economic, and social factors.</p> <p>National: Focus on big data analytics applications that contribute to national initiatives, such as optimizing public services, enhancing agriculture, or advancing research in data-related fields.</p> <p>Global: Cover big data analytics concepts that align with global data trends, including large-scale data processing, predictive analytics, and real-time data insights.</p>
21MCS403	Artificial Intelligence & Machine Learning	✓	✓	✓	✓	<p>Local: Prepare students for local job markets by focusing on AI and machine learning skills that are in demand within the local tech industry.</p> <p>Regional: Highlight the importance of using region-specific data for training AI models that cater to regional contexts and challenges.</p> <p>National: Provide a strong foundation in AI and machine learning to support research and innovation in national priority sectors, such as healthcare, agriculture, or energy.</p> <p>Global: Cover AI and machine learning concepts that align with global technology trends, including deep learning, natural language processing, and autonomous systems.</p>
21MCS404	Cloud Computing	✓	✓	✓	✓	<p>Local: Highlight how cloud computing can enhance business continuity and disaster recovery for local businesses and organizations.</p> <p>Regional: Highlight how cloud computing enables scalable solutions for regional challenges, such as regional e-commerce platforms or collaborative research initiatives.</p> <p>National: Focus on cloud computing concepts that contribute to national IT goals, innovation, and economic growth.</p> <p>Global: Cover cloud computing concepts that align with global technology trends, such as multi-cloud deployments, serverless architecture, and edge computing.</p>

22CS1T1	Programming and Problem Solving Using Python	✓	✓	✓	✓	<p>Local: Focus on analyzing local datasets or relevant data sources to solve problems specific to the region</p> <p>Regional: Foster collaboration between students from different disciplines to solve interdisciplinary regional problems using Python</p> <p>National: Emphasize Python tools for data analysis and visualization to enable data-driven decision making at the national level.</p> <p>Global: Integrate Python problem-solving projects that address pressing global challenges, such as climate change, poverty, healthcare access, or digital inclusion.</p>
22CS1T2	Database Management Systems	✓	✓	✓	✓	<p>Local: Incorporate examples and projects that reflect the specific needs and applications of local industries, preparing students for relevant job opportunities.</p> <p>Regional: Encourage collaboration between students from different regions to explore how database management can address regional challenges, such as resource allocation, disaster management, or healthcare data integration.</p> <p>National: Focus on DBMS concepts and practices that support the development of a robust national data infrastructure, considering aspects such as data security, interoperability, and scalability.</p> <p>Global: Cover advanced topics in data security and privacy to address the challenges of global data management and compliance with international regulations.</p>
22CS1T3	Formal Languages and Automata Theory	✓	✓	✓	✓	<p>Local: Incorporate examples and case studies that relate to the local language structure or cultural aspects, making the content more relatable to students.</p> <p>Regional: Offer modules or assignments that cater to specific regional needs and challenges, such as language preservation, translation, or multilingual communication.</p> <p>National: Provide a solid theoretical foundation that supports research and innovation in national priority areas, such as natural language understanding, cryptography, or compiler design.</p> <p>Global: Integrate topics related to global technology trends, such as automation, artificial intelligence, and algorithm design, which have broad applications worldwide.</p>
22CS1T4	Operating Systems	✓	✓	✓	✓	<p>Local: Focus on operating systems and concepts that are relevant to local industries and job markets, preparing students for local employment opportunities.</p> <p>Regional: Consider the regional technology landscape and industry trends when teaching operating system principles and practices.</p> <p>National: Provide a solid foundation in operating systems to support research and innovation in national priority areas, such as system security, cloud computing, and high-performance computing.</p> <p>Global: Discuss ethical considerations related to operating systems on a global scale, including topics such as digital rights, open-source software, and responsible computing.</p>

22PG101	Personality Development through Life Enlightenment Skills	✓	✓	✓	✓	<p>Local: Promote community involvement and social responsibility, encouraging students to contribute positively to their local communities</p> <p>Regional: Encourage cross-regional interactions among students to foster a sense of regional identity and understanding, while also promoting unity and collaboration.</p> <p>National: Address skills and attributes that are valuable for national workforce development, including professionalism, leadership, and teamwork.</p> <p>Global: Discuss how personality development contributes to becoming responsible global citizens, emphasizing qualities like empathy, cultural awareness, and global-mindedness.</p>
22CS3E1	Design & Analysis of Algorithms	✓	✓	✓	✓	<p>Local: Focus on algorithm design and analysis relevant to local industries, businesses, or sectors, ensuring that students are prepared for jobs in the local job market.</p> <p>Regional: Encourage collaboration between students from different regions, fostering a cross-regional exchange of algorithmic ideas and solutions.</p> <p>National: Provide a solid foundation in algorithmic analysis to support research and innovation in national priority areas, such as optimization, cryptography, or computational biology.</p> <p>Global: Explore algorithmic techniques that are relevant to global technology trends, such as machine learning, distributed computing, and network optimization.</p>
22CS3E2	Data Mining Techniques	✓	✓	✓	✓	<p>Local: Address data quality, availability, and collection challenges specific to the local context, preparing students to work with real-world local data</p> <p>Regional: Offer projects that cater to specific regional data sources and challenges, fostering a deeper understanding of data mining's applicability to regional contexts.</p> <p>National: Focus on data mining techniques that contribute to national initiatives, such as analyzing demographic data for social welfare programs or optimizing transportation networks.</p> <p>Global: Cover data mining techniques that are relevant to global data trends, such as analyzing large-scale datasets, social media data, and global supply chain optimization.</p>
22CS3E3	Cryptography & Network Security	✓	✓	✓	✓	<p>Local: Address local cybersecurity threats, challenges, and vulnerabilities, emphasizing solutions that are pertinent to the local technology landscape.</p> <p>Regional: Address regional data protection regulations and cultural factors that impact cryptography and network security practices</p> <p>National: Focus on cryptography and network security techniques that contribute to national cybersecurity initiatives, incident response, and digital sovereignty.</p> <p>Global: Cover cryptography and network security concepts that align with global cybersecurity trends, including encryption, authentication, and secure communications in a globally interconnected environment.</p>

22CS3E5	Internet of Things	✓	✓	✓	✓	<p><u>Local:</u> Address the local technology ecosystem and resources available for IoT implementation, highlighting compatibility and integration with existing infrastructure.</p> <p><u>Regional:</u> Encourage collaboration between students from different regions to explore how IoT can address regional challenges, such as environmental monitoring, disaster response, or supply chain optimization.</p> <p><u>National:</u> Align the curriculum with the country's IoT initiatives, emphasizing areas such as smart manufacturing, energy management, or infrastructure optimization.</p> <p><u>Global:</u> Cover IoT concepts and applications that are relevant to global technology trends, including interconnected devices, data analytics, and sustainability solutions.</p>
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A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Economics; BA

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
ECO-101C	MICRO ECONOMICS	✓	✓	✓	✓	Micro Economics is the field of Economics that looks at the economic behaviour of individuals, house holds and companies applicable at all levels
CBE-103GC	BUSINESS ECONOMICS	✓	✓	✓	✓	This represents how the Micro Economic theories are useful to business activities in all levels and is also useful to the entrepreneurship
ECO-201C	MICRO ECONOMICS-PRODUCTION AND PRICE THEORY	✓	✓	✓	✓	Knowledge on the course helps Companies to determine the prices in a competitive market and usually the price demanded by consumers is the same supplied by producers. That results in economic equilibrium.
CBE-203GC	BUSINESS ECONOMICS	✓	✓	✓	✓	This represents how the Micro Economic theories are usefull to business activities in all levels. This is also usefull to the entrepreneurship
CBE-203C	BUSINESS ECONOMICS	✓	✓	✓	✓	This reprasents how the Micro Economic theories are usefull to business activities in all levels. This is also usefull to the entrepreneurship
ECO-301C	MACRO ECONOMICS- NATIONAL INCOME EMPLOYMENT AND MONEY	✓	✓	✓	✓	Knowledge on the course helps Companies to determine the prices in a competitive market and usually the price demanded by consumers is the same supplied by producers. That results in economic equilibrium.
ECO-401C	BANKING AND INTERNATIONAL TRADE	✓	✓	✓	✓	It helps us to understand the roles of Banking system in improving the Banking activities and economic development and how to improve the international trade and impact the trade policies and world economy
ECO-501C	ECONOMIC DEVELOPMENT AND INDIAN ECONOMY	✓	✓	✓	✓	The Economy of the Indian subcontinent was the largest in the world foremost of recorded history. It equips students with theoretical,policy issues related to Indian economy
ECO-502C	INDIAN AND ANDHRA PRADESH ECONOMY	✓	✓	✓	✓	The Economy of India and Andhra Pradesh is Primarily dependens on Agriculture
ECO-601GE	AGRICULTURAL ECONOMICS	✓	✓	✓	✓	Agricultural Economics studyprovides information to students on how societies use avalible resources to meet the needs of the people
ECO-602CE	AGRI BUSINESS ENVIRONMENT IN ANDHRA PRADESH	✓	✓	✓	✓	Agri Business involves all the steps required to send an Agricultural good to market,namely production processing and distribution
ECO-603CE	AGRICULTURAL OUTPUT MARKETING	✓	✓	✓	✓	Agricultural marketing is a process which start with a decision to produce a saleable form of commodity and involves all the aspects of market structural systems.
ECO-604CE	PROJECT WORK	✓	✓	✓	✓	Project proposal is the brief summary of the goals,objectives,report and analysis of the topic chosen.

2019-20

		LL	RL	NL	GL	
ECO-101C	MICRO ECONOMICS AND CONSUMER BEHAVIOUR	✓	✓	✓	✓	Micro Economics is the field of Economics that looks at the economic behaviour of individuals, house holds and companies at all levels.
CBE-103GC	BUSINESS ECONOMICS	✓	✓	✓	✓	This represents how the Micro Economic theories are useful to business activities in all levels which is also useful to the entrepreneurship
ECO-201C	MICRO ECONOMICS-PRODUCTION AND PRICE THEORY	✓	✓	✓	✓	Micro Economics is the field of Economics that looks at the economic behaviours of individuals, House holds and Companies
CBE-203GC	BUSINESS ECONOMICS	✓	✓	✓	✓	This represents how the Micro Economic theories are usefull to business activities in all levels. This is also usefull to the entrepreneurship
CBE-203C	BUSINESS ECONOMICS	✓	✓	✓	✓	This represents how the Micro Economic theories are usefull to business activities in all levels. This is also usefull to the entrepreneurship
ECO-301C	MACRO ECONOMICS- NATIONAL INCOME EMPLOYMENT AND MONEY	✓	✓	✓	✓	Knowledge on the course helps Companies to determine the prices in a competitive market and usually the price demanded by consumers is the same supplied by producers. That results in economic equilibrium.
ECO-401C	BANKING AND INTERNATIONAL TRADE	✓	✓	✓	✓	It helps us to understand the roles of Banking system in improving the Banking activities and economic development and how to improve the international trade and impact the trade policies and world economy
ECO-501C	ECONOMIC DEVELOPMENT AND INDIAN ECONOMY	✓	✓	✓	✓	The Economy of the Indian subcontinent was the largest in the world foremost of recorded history. It equips students with theoritical,policy issues related to Indian economy
ECO-502C	INDIAN AND ANDHRA PRADESH ECONOMY	✓	✓	✓	✓	The Economy of India and Andhra Pradesh is Primarily dependens on Agriculture
ECO-601GE	AGRICULTURAL ECONOMICS	✓	✓	✓	✓	Agricultural Economics studyprovides information to students on how societies use available resources to meet the needs of the people
ECO-602CE	AGRI BUSINESS ENVIRONMENT IN ANDHRA PRADESH	✓	✓	✓	✓	Agri Business involves all the steps required to send an Agricultural good to market,namely production processing and distribution
ECO-603CE	AGRICULTURAL OUTPUT MARKETING	✓	✓	✓	✓	Agricultural marketing is a process which start with a decision to produce a saleable form of commodity and involves all the aspects of market structural systems.
ECO-604CE	PROJECT WORK					Project proposal is the brief summary of the goals,objectives,report and analysis of the topic chosen.

2020-21

		LL	RL	NL	GL	
ECO-101C	MICRO ECONOMIC ANALYSIS					Micro Economics is the field of Economics that looks at the economic behaviours of individuals, House holds and Companies
ECO-201C	MACRO ECONOMIC ANALYSIS	✓	✓	✓	✓	Macro Economics takes a wider view and the looks at the economies on a much larger scale in all levels
ECO-301C	MACRO ECONOMICS- NATIONAL INCOME,EMPLOYMENT AND MONEY	✓	✓	✓	✓	Macro Economics takes a wider view and the looks at the economies on a much larger scale in all levels

ECO-401C	BANKING AND INTERNATIONAL TRADE	✓	✓	✓	✓	It helps us to understand the roles of Banking system in improving the Banking activities and economic development and how to improve the international trade and impact the trade policies and world economy
ECO-501C	ECONOMIC DEVELOPMENT AND INDIAN ECONOMY	✓	✓	✓	✓	The Economy of the Indian subcontinent was the largest in the world foremost of recorded history it equips students with theoretical, policy issues related to Indian economy
ECO-502C	INDIAN AND ANDHRA PRADESH ECONOMY	✓	✓	✓	✓	The Economy of Indian and Andhra Pradesh is primarily dependent on Agriculture
ECO-601GE	AGRICULTURAL ECONOMICS	✓	✓	✓	✓	Agricultural Economics is the study of how societies use available resources to meet the needs of the people at all levels.
2021-22						
		LL	RL	NL	GL	
ECO-101C	MICRO ECONOMIC ANALYSIS	✓	✓	✓	✓	Micro Economics is the field of Economics that looks at the economic behaviours of individuals, House holds and Companies at all levels.
ECO-T21B	MACRO ECONOMIC ANALYSIS	✓	✓	✓	✓	Macro Economics takes a wider view and looks at the economies on a much larger scale in all levels
ECO-301C	DEVELOPMENT ECONOMICS	✓	✓	✓	✓	Students acquire the knowledge about the theories of development and under development and so needed at all levels
FM-301	FINANCIAL MARKETS	✓	✓	✓	✓	Know the concepts relating to the markets and different avenues of investment
ECO-401C	ECONOMIC DEVELOPMENT IN INDIA AND ANDHRA PRADESH	✓	✓	✓	✓	Leading issues of Indian Economic development with reference to potential for growth obstacles and policy responses
ECO-402C	STATISTICAL METHODS FOR ECONOMICS	✓	✓	✓	✓	Analysis and solution methods are done using given data and information applicable at all levels.
ECO-501C	ECONOMIC DEVELOPMENT AND INDIAN ECONOMY	✓	✓	✓	✓	The Economy of the Indian subcontinent was the largest in the world foremost of recorded history. It equips students with theoretical, policy issues related to Indian economy
ECO-502C	INDIAN AND ANDHRA PRADESH ECONOMY	✓	✓	✓	✓	The Economy of India and Andhra Pradesh primarily depends on and so needed at all levels.
ECO-601GE	AGRICULTURAL ECONOMICS	✓	✓	✓	✓	Agricultural Economics study provides information to students on how societies use available resources to meet the needs of the people
2022-23						
		LL	RL	NL	GL	
ECO-T11B	MICRO ECONOMIC ANALYSIS	✓	✓	✓	✓	Micro Economics is the field of Economics that looks at the economic behaviours of individuals, House holds and Companies at all levels.
ECO-T21B	MACRO ECONOMIC ANALYSIS	✓	✓	✓	✓	Macro Economics takes a wider view and looks at the economies on a much larger scale in all levels
ECO-T31B	DEVELOPMENT ECONOMICS	✓	✓	✓	✓	Students acquire the knowledge about the theories of development and under development
SDC-ECO-T01	FINANCIAL MARKETS	✓	✓	✓	✓	Know the concepts relating to the markets and different avenues of investment and so needed at all levels.

ECO-T41	ECONOMIC DEVELOPMENT IN INDIA AND ANDHRA PRADESH		✓	✓	✓	Leading issues of Indian Economic development with reference to potential for growth obstacles and policy responses are applicable at regional, National and Global Level.
ECO-T42	STATISTICAL METHODS FOR ECONOMICS	✓	✓	✓	✓	Analysis and solution methods are done using given data and information useful at all levels.
ECO-601C	INSURANCE SERVICES	✓	✓	✓	✓	Students are able to acquaint with the knowledge about principles and functioning of insurance .
ECO-602C	BANKING AND FINANCIAL SERVICES	✓	✓	✓	✓	Students are able to acquaint the knowledge about deposits, loans and digital banking systems at all levels.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of English

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
ENG 101C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.
ENG 201C	General English	✓	✓	✓	✓	
CSS 201C	Communication and Soft Skills - I	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
ENG 301C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.
CSS 301C	Communication and Soft Skills - II	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
CSS 401C	Communication and Soft Skills - III	✓	✓	✓	✓	
2019-20						
		LL	RL	NL	GL	
ENG 101C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.
ENG 201C	General English	✓	✓	✓	✓	
CSS 201C	Communication and Soft Skills - I	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
ENG 301C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.
CSS 301C	Communication and Soft Skills - II	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
CSS 401C	Communication and Soft Skills - III	✓	✓	✓	✓	

2020-21

		LL	RL	NL	GL	
ENGT11B	English Praxis Course – I, A Course in Communication and Soft Skills	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
ENGT21B	English Praxis Course – II, A Course in Communication and Soft Skills	✓	✓	✓	✓	Reading and writing skills are integral to personal growth, education, professional success, and effective global communication. These skills empower individuals to engage with the world, express themselves, and contribute to the betterment of society.
JR201	Journalistic Reporting	✓	✓	✓	✓	Journalistic reporting offers a wide range of opportunities at local, national, and international levels, each with its unique challenges and rewards.
BC201	Business Communication	✓	✓	✓	✓	Strong business communication skills open doors to a world of global opportunities. They enable individuals and organizations to navigate the complexities of the global marketplace, build relationships, and thrive in a diverse and interconnected business environment.
ENG 301C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.
CSS 401C	Communication and Soft Skills - III	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.

2021-22

		LL	RL	NL	GL	
ENGT11B	English Praxis Course – I, A Course in Communication and Soft Skills	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
ENGT21B	English Praxis Course – II, A Course in Communication and Soft Skills	✓	✓	✓	✓	Reading and writing skills are integral to personal growth, education, professional success, and effective global communication. These skills empower individuals to engage with the world, express themselves, and contribute to the betterment of society.
ENG 301C	General English	✓	✓	✓	✓	English proficiency is often a valuable asset when it comes to getting a job, especially in today's globalized and interconnected world.

2022-23

		LL	RL	NL	GL	
ENGT11B	English Praxis Course – I, A Course in Communication and Soft Skills	✓	✓	✓	✓	Communication skills are a global necessity that affect nearly every aspect of our lives. As the world becomes more interconnected, the ability to communicate effectively across various contexts and platforms is essential for personal, professional, and societal growth.
ENGT21B	English Praxis Course – II, A Course in Reading and Writing Skills	✓	✓	✓	✓	Reading and writing skills are integral to personal growth, education, professional success, and effective global communication. These skills empower individuals to engage with the world, express themselves, and contribute to the betterment of society.

ENG T01A	English Praxis Course – III, A Course in Conversational Skills	✓	✓	✓	✓	Conversational skills are a universal need that facilitate connections, understanding, and cooperation across cultures and contexts. These skills empower individuals to navigate various social interactions, contribute positively to their communities, and build a more interconnected world.
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A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Environmental Studies

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
ENS101	Environmental Studies	✓	✓	✓	✓	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.
HVPE101	Human Values &Professional Ethics	✓	✓	✓	✓	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperit.Understanding harmony in the family and society,Gaining competence in Professional Ethics.
ENP403	Entrepreneurship	✓	✓	✓	✓	This course prepares participants for a future career as entrepreneurs.It is designed to give participants practical insights into those business aspects of finance that are particularly important during a firm’s early development phases, and to make them more effective in managing and growing the start-up firm.
2019-20						
		LL	RL	NL	GL	
ENS101	Environmental Studies	✓	✓	✓	✓	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.
HVPE101	Human Values &Professional Ethics	✓	✓	✓	✓	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity,Understanding harmony in the family and society,Gaining competence in Professional Ethics.
ENP403	Entrepreneurship	✓	✓	✓	✓	This course prepares participants for a future career as entrepreneurs.It is designed to give participants practical insights into those business aspects of finance that are particularly important during a firm’s early development phases, and to make them more effective in managing and growing the start-up firm.
2020-21						
		LL	RL	NL	GL	
ENS101	Environmental Studies	✓	✓	✓	✓	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.
HVPE101	Human Values &Professional Ethics	✓	✓	✓	✓	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity,Understanding harmony in the family and society,Gaining competence in Professional Ethics.

ENP403	Entrepreneurship	✓	✓	✓	✓	This course prepares participants for a future career as entrepreneurs. It is designed to give participants practical insights into those business aspects of finance that are particularly important during a firm's early development phases, and to make them more effective in managing and growing the start-up firm.
2021-22						
		LL	RL	NL	GL	
LST06	Environmental Studies	✓	✓	✓	✓	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.
LST01	Human Values & Professional Ethics	✓	✓	✓	✓	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity, Understanding harmony in the family and society, Gaining competence in Professional Ethics.
2022-23						
		LL	RL	NL	GL	
LST06	Environmental Studies	✓	✓	✓	✓	Evaluate the ways and ill effects of destruction of environment, population explosion on ecosystems and global problems consequent to anthropogenic activities.
LST01	Human Values & Professional Ethics	✓	✓	✓	✓	Understanding Value Education, its need in modern days, the basic human aspirations of happiness and prosperity, Understanding harmony in the family and society, Gaining competence in Professional Ethics.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Hindi

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
HIN101C	General Hindi	✓	✓	✓	✓	Students recognize human values and be ready for social welfare. Recognizing the feelings of the modern era and facing social problems they will be moving forward continuously.
HIN201C	General Hindi	✓	✓	✓	✓	Through the analysis of the subject, students will move forward in fulfilling the social responsibilities. The knowledge measurement of the students will increase through the lessons taken and they will also be ahead in their field.
HIN301C	General Hindi	✓	✓	✓	✓	Through this course, social reforms, human values increase in the students. The importance of Hindi language and poetry can be found through the history of Hindi literature.
2019-20						
		LL	RL	NL	GL	
HIN101C	General Hindi	✓	✓	✓	✓	Students recognize human values and be ready to for social welfare. Recognizing the feelings of the modern era and facing social problems they will be moving forward continuously.
HIN201C	General Hindi	✓	✓	✓	✓	Through the analysis of the subject, students will move forward in fulfilling the social responsibilities. The knowledge measurement of the students will increase through the lessons taken and they will also be ahead in their field.
HIN301C	General Hindi	✓	✓	✓	✓	Through this course, social reforms, human values increase in the students. The importance of Hindi language and poetry can be found through the history of Hindi literature.
2020-21						
		LL	RL	NL	GL	
HIN101C	General Hindi	✓	✓	✓	✓	Students recognize human values and be ready for social welfare. Recognizing the feelings of the modern era and facing social problems they will be moving forward continuously.
HIN201C	General Hindi	✓	✓	✓	✓	Through the analysis of the subject, students will move forward in fulfilling the social responsibilities. The knowledge measurement of the students will increase through the lessons taken and they will also be ahead in their field.
HIN301C	General Hindi	✓	✓	✓	✓	Through this course, social reforms, human values increase in the students. The importance of Hindi language and poetry can be found through the history of Hindi literature.
2021-22						
		LL	RL	NL	GL	
HINT11A	General Hindi	✓	✓	✓	✓	Students recognize human values and be ready for social welfare. Recognizing the feelings of the modern era and facing social problems they will be moving forward continuously.

HIN201C	General Hindi	✓	✓	✓	✓	Through the analysis of the subject, students will move forward in fulfilling the social responsibilities. The knowledge measurement of the students will increase through the lessons taken and they will also be ahead in their field.
HIN 301C	General Hindi	✓	✓	✓	✓	Through this course, social reforms, human values increase in the students. The importance of Hindi language and poetry can be found through the history of Hindi literature.
2022-23						
		LL	RL	NL	GL	
HINT11A	General Hindi	✓	✓	✓	✓	Students recognize human values and be ready for social welfare. Recognizing the feelings of the modern era and facing social problems they will be moving forward continuously.
HINT21A	General Hindi	✓	✓	✓	✓	Through the analysis of the subject, students will move forward in fulfilling the social responsibilities. The knowledge measurement of the students will increase through the lessons taken and they will also be ahead in their field.
HINT01A	General Hindi	✓	✓	✓	✓	Through this course, social reforms, human values increase in the students. The importance of Hindi language and poetry can be found through the history of Hindi literature.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of History; BA

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
HIS 101C	Ancient Indian History and Culture		✓	✓		To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India. Describe Prehistory – Pro to History – Analyse Early Human Settlements at regional and National levels.
HIS 201C	Early Mediaeval Indian History & Culture	✓	✓	✓	✓	Understand the Socio-Economic conditions of Badami, Vengi Chalukyans- their contribution to Art and Literature at all levels..
HIS 301C	Late mediaeval and colonial History of India	✓	✓	✓		Students learn about a series of Islamic invasions occurred during the Late Medieval period, conquering massive portions of Northern India, occupying Delhi sultanate and ruled until the 16th century
HIS401C	Social reform movement and freedom struggle			✓	✓	Understand the Gandhi's role in Indian National movement. Comparison of Nationalist movement pre Gandhi – post Gandhi era.
HIS501C	Age of Rationalism and Humanism -The world Between 15 th &18th century			✓	✓	Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
HIS 502C	History & Culture of Andhra Desa-12th Century to 19th Century AD	✓	✓			To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIS 601 GE	History of the modern Europe-19th century to 1945 AD			✓	✓	To understand the efforts of Bismark for the Unification of Germany andMazini, Count covour Garibaldi. For the unification of Italy.
2019-20						
		LL	RL	NL	GL	
HIS 101C	Ancient Indian History and Culture		✓	✓		To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India. Describe Prehistory – Pro to History – Analyse Early Human Settlementsat regional and national Levels.
HIS 201C	Early Mediaeval Indian History & Culture	✓	✓	✓	✓	Understand the Socio-Economic conditions of Badami, Vengi Chalukyans- their contribution to Art and Literature at all levels..
HIS 301C	Late mediaeval and colonial History of India	✓	✓	✓		Students learn about a series of Islamic invasions occurred during the Late Medieval period, conquering massive portions of Northern India, occupying Delhi sultanate and ruled until the 16th century
HIS401C	Social reform movement and freedom struggle			✓	✓	Understand the Gandhi's role in Indian National movement. Comparison of Nationalist movement pre Gandhi – post Gandhi era.

HIS501C	Age of Rationalism and Humanism -The world Between 15 th &18th century			✓	✓	Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
HIS 502C	History & culture of Andhra Desa-12th Century to 19th Century AD	✓	✓			To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIS 601 GE	History of the modern Europe-19th century to 1945 AD			✓	✓	To understand the efforts of Bismark for the Unification of Germany andMazini, Count covour Garibaldi. For the unification of Italy.
2020-21						
		LL	RL	NL	GL	
HIS 101C	Ancient Indian History and culture from Indus valley civilization to 13 th Century AD	✓	✓	✓		To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India. Describe Prehistory – Pro- History – Analyse Early Human Settlements and Know about Indus Valley Civilization.
HIS 201C	Medieval Indian History & Culture	✓	✓	✓	✓	Understand the Socio-Economic conditions of Badami, Vengi Chalukyans- their contribution to Art and Literature at all levels..
HIS 301C	Late Medieval and colonial History of India	✓	✓	✓		Students learn about a series of Islamic invasions occurred during the Late Medieval period, conquering massive portions of Northern India, occupying Delhi sultanate and ruled until the 16th century
HIS401C	Social reform movement and freedom struggle			✓	✓	Understand the Gandhi's role in Indian National movement. Comparison of Nationalist movement pre Gandhi – post Gandhi era.
HIS501C	Age of Rationalism and Humanism -The World between 15 th &18th century			✓	✓	Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
HIS 502C	History & culture of Andhra Desa-12th Century to 19th Century AD	✓	✓			To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIS 601 GE	History of the modern Europe-19th century to 1945 AD			✓	✓	To understand the efforts of Bismark for the Unification of Germany andMazini, Count covour Garibaldi. For the unification of Italy.
2021-22						
		LL	RL	NL	GL	
HIS T 11B	Ancient Indian History and culture from Indus valley civilization to 13 th Century AD		✓	✓		To understand the sources of various periods to reconstruct Indian History –Identify geographical features of India. Describe Prehistory to History – Analyse Early Human Settlements- Indus Valley Civilization.
HIST 21B	Mediaeval Indian History & Culture	✓	✓	✓		Medieval Indian history indicates the time frame between the end Gupta Empire, which was in the 6th century AD, and the beginning of the Mughal Empire, which was in 1526.
HIST 301	Modern Indian History & Culture(1764-1947AD)			✓		To understand about the Socio-religious reform movement in 19th Century and self respect movements.

HIST 401	History & culture of Andhra(1512-1956AD)			✓	✓	To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIST402	History of Modern World(15th century AD to 1945)			✓	✓	To understand the efforts of Bismark for the Unification of Germany andMazini, Count covour Garibaldi. For the unification of Italy.
HIS501C	Age of Rationalism and Humanism -The world Between 15 th &18th century	✓	✓			Assess the causes and effects of Renaissance, Reformation and Counter Reformation movements.
HIS 502C	History & culture of Andhra Desa-12th Century to 19th Century AD			✓	✓	To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIS 601 GE	History of the modern Europe- 19th century to 1945 AD				✓	To understand the efforts of Bismark for the Unification of Germany andMazini, Count covour Garibaldi. For the unification of Italy.
2022-23						
		LL	RL	NL	GL	
HIS T11B	Ancient Indian History and Culture from Indus valley civilization to 13th Century AD		✓	✓		Describe Prehistory – Pro to History – Analyse Early Human Settlements- Indus Valley Civilization.
HIST 21B	Mediaeval Indian History & Culture(1206AD to1764AD)	✓	✓	✓		Medieval Indian history indicates the time frame between the end Gupta Empire, which was in the 6th century AD, and the beginning of the Mughal Empire, which was in 1526.
HIST 31A	Modern Indian History & Culture(1764-1947AD)			✓		To understand about the Socio-religious reform movement in 19th C. and self respect movements.
HIST 401	History & culture of Andhra (1512 to1956)			✓	✓	To understand the Socio-Economic changes in Andhra Pradesh and emergence of Telugu Desam Party
HIST 402	History of Modern World (15th century AD to 1945AD)			✓	✓	Learnt about revolution and their impact world had idea about the unification of Italy and Germany
SECHIS601	Tourism and Hospitality Services	✓	✓			Underastand the spirit of teamwork, acknowledge the importance of guest service and satisfaction
SECHIS602	Tourism Guidance and Operating Skills			✓	✓	Acquire tour guiding,operating and soft skills plan and organize tour operations efficiently

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1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Mathematics

B.Sc.MPC,MPCs,MCCs &MSCs

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
MAT-101	Differential Equations		✓	✓	✓	Solve Complex real world problems by modeling them as differeantial Equation
MAT -201	Solid Geometry	✓	✓	✓	✓	Concepts of Solid Geometry are applied in Construction field in Local/Regional/Global Seenario
MAT- 301	Abstract Algebra and Real Analysis-I	✓	✓	✓	✓	Error Correlation in digital Networking and digital ratio is done using the concepts of group theory at all levels.
MAT -401	Abstract Algebra and Real Analysis-II			✓	✓	The Course develops apptitude skills needed to compete Nationally and Globally
MAT - 501	Ring Theory and Vector Calculus				✓	Used extensively in Physics and Engineering,especially in the description of electro magnetic field and fluid flow
MAT - 502	Linear Algebra	✓	✓	✓	✓	Concepts of Eigen values taught in the course are applied in the design applicable at all levels.
MAT 601 GE	Numerical Analysis	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology needed at all levels.
MAT 602CE	Integral Transforms and Applications	✓	✓	✓	✓	It is broadly used in telecommunications system for modulation and demodulation for voice signals
MAT 603CE	Advanced Numerical Analysis	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
2019-20						
		LL	RL	NL	GL	
MAT-101	Differential Equations		✓	✓	✓	Solve Complex real world problems by modeling them as differeantial Equation
MAT -201	Solid Geometry	✓	✓	✓	✓	Concepts of Solid Geometry are applied in Construction field in Local/Regional/Global Seenario
MAT- 301	Abstract Algebra and Real Analysis-I	✓	✓	✓	✓	Error Correlation in digital Networking and digital ratio is done using the concepts of group theory
MAT -401	Abstract Algebraand Real Analysis -II			✓	✓	The Course develops apptitude skills needed to compete Nationally and Globally
MAT - 501	Ring Theory and Vector Calculus				✓	Use extensively in Physics and Engineering,especially in the description of electro magnetic field and fluid flow
MAT - 502	Linear Algebra	✓	✓	✓	✓	Concepts of Eigen values taught in the course are applied in the design
MAT 601 GE	Numerical Analysis	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology

MAT 602CE	Integral Transforms and Applications	✓	✓	✓	✓	It is broadly used in telecommunications system for modulation and demodulation for voice signals
MAT 603CE	Advanced Numerical Analysis	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
2020-21						
		LL	RL	NL	GL	
MAT-101C	Differential Equations		✓	✓	✓	Solve Complex real world problems by modeling them as differeantial Equation
MAT 201	Solid Geometry	✓	✓	✓	✓	Concepts of Solid Geometry are applied in Construction field in Local/Regional/Global Seenario
MAT 301 C	Abstract Algebra &RealAnalysis	✓	✓	✓	✓	Error Correlation in digital Networking and digital ratio is done using the concepts of group theory
MAT 401	Abstract Algebra &Real Analysis -II			✓	✓	The Course develops apptitude skills needed to compete Nationally and Globally
MAT - 501C	Ring Theory and Vector Calculus	✓	✓	✓	✓	Concepts of Eigen values taught in the course are applied in the design
MAT - 502C	Linear Algebra	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology
MAT 601 GE	Numerical Analysis	✓	✓	✓	✓	It is broadly used in telecommunications system for modulation and demodulation for voice signals
MAT 602CE	Integral Transforms and Applications	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
MAT 603CE	Advanced Numerical Analysis	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
2021-22						
		LL	RL	NL	GL	
MATT11A	Differential Equations		✓	✓	✓	Solve Complex real world problems by modeling them as differeantial Equation at regional, National and global levels
MAT T21B	Real Analysis		✓	✓	✓	The Course develops apptitude skills needed to complete in nationally and globally
MAT 301	Abstract Algebra	✓	✓	✓	✓	Error Correlation in digital Networking and digital ratio is done using the concepts of group theory needed at all levels.
MAT 401	Real Analysis			✓	✓	The Course develops apptitude skills needed to compete Nationally and Globally
MAT 402	Linear Algebra	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology
MAT - 501C	Ring Theory and Vector Calculus	✓	✓	✓	✓	Concepts of Eigen values taught in the course are applied in the design and neededat all levels.
MAT - 502C	Linear Algebra	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology and applicable at all levels.
MAT 601 GE	Numerical Analysis	✓	✓	✓	✓	It is broadly used in telecommunications system for modulation and demodulation for voice signals

MAT 602CE	Integral Transforms and Applications	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
MAT 603CE	Advanced Numerical Analysis	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology
2022-23						
		LL	RL	NL	GL	
MATT11A	Differential Equations		✓	✓	✓	Solve Complex real world problems by modeling them as differeantial Equation at Regional, National and Global levels
MATT21B	Real Analysis		✓	✓	✓	The Course develops apptitude skills needed to compete nationally and globally
MATT31	Absrtact Algebra	✓	✓	✓	✓	Error Correlation in digital Networking and digital ratio is done using the concepts of group theory applicable at all levels.
LSC003	Analytical Skills	✓	✓	✓	✓	It is used in all the fields for simple mathematical calculation as well as all compititive exams
MATT01A	Solid Geometry	✓	✓	✓	✓	Concepts of Solid Geometry are applied in Construction field in Local/Regional/Global Seenario
MATT41A	Linear Algebra	✓	✓	✓	✓	Numerical methods has wide application in science,engineering and technology at all levels.
SECMAT 501/601	Multiple Integrals And Applicationsof Vector Calculus	✓	✓	✓	✓	Concepts of Eigen values taught in the course are applied in the design and is needed at all levels.
SECMAT 502/602	Integral Transforms & Applications	✓	✓	✓	✓	Advance Numerical Analysis has wide application in science,Engineering and Technology

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Post Graduate Programmes

Department of Chemistry

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
OCH101	General chemistry		✓	✓	✓	Students have knowledge on volumetric analysis, gravimetric analysis required for pharma companies around the world
OCH102	Inorganic chemistry-1		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and Universities
OCH103	Organic chemistry-1	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
OCH104	Physical chemistry-1		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
OCH201	Organic spectroscopy		✓	✓	✓	Studying Organic Molecules Spectrum provides opportunities Globally, Nationally and Locally
OCH202	Inorganic chemistry-2		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
OCH203	Organic chemistry-2	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
OCH204	Physical chemistry-2		✓	✓	✓	Studying physic chemistry makes students to focus on thermodynamics, electrochemistry
OCH301	Advanced organic spectroscopy	✓	✓	✓	✓	Education regarding IR, NMR, UV. IR provides opportunities around the country and World
OCH302	Organic reaction & mechanisms	✓	✓	✓	✓	Focus on course helps students to understand about organic reaction mechanisms which is of global interest
OCH303	Organic synthesis		✓	✓	✓	Focus on organic synthesis enables students to use various reagents for designing new drugs in pharmaceutical companies
OCH304	Organometallic chemistry, Heterocyclic chemistry and Natural products			✓	✓	Learning about natural products ,creates knowledge of steroids and hormones used in various industries Nationally and Internationally.
2019-20						
		LL	RL	NL	GL	
OCH101	General chemistry		✓	✓	✓	Students have knowledge on volumetric analysis, gravimetric analysis required for pharma companies around the world
OCH102	Inorganic chemistry-1		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
OCH103	Organic chemistry-1	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes

OCH104	Physical chemistry-1		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
OCH201	Organic spectroscopy		✓	✓	✓	Studying Organic Molecules Spectrum provides opportunities Globally, Nationally and Locally
OCH202	Inorganic chemistry-2		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
OCH203	Organic chemistry-2	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
OCH204	Physical chemistry-2		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
OCH301	Advanced organic spectroscopy	✓	✓	✓	✓	Education regarding IR, NMR, UV. IR provides opportunities around the country and world
OCH302	Organic reaction & mechanisms	✓	✓	✓	✓	Focus on course helps students to understand about organic reaction mechanisms which is of global interest
OCH303	Organic synthesis		✓	✓	✓	Focus on organic synthesis enables students to use various reagents for designing new drugs in pharmaceutical companies
OCH304	Organometallic chemistry, Heterocyclic chemistry and Natural products			✓	✓	Learning about natural products, creates knowledge of steroids and hormones used in various industries Nationally and Internationally.
2020-21						
		LL	RL	NL	GL	
CH1T1	General chemistry		✓	✓	✓	Students have knowledge on volumetric analysis, gravimetric analysis required for pharma companies around the world
CH1T2	Inorganic chemistry-1		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
CH1T3	Organic chemistry-1	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
CH1T4	Physical chemistry-1		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
CH2T1	Organic spectroscopy		✓	✓	✓	Studying Organic Molecules Spectrum provides opportunities Globally, Nationally and Locally
CH2T2	Inorganic chemistry-2		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
CH2T3	Organic chemistry-2	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
CH2T4	Physical chemistry-2		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
200ECH	Chemistry in daily life	✓	✓	✓	✓	Creates knowledge on vitamins, hormones, steroids, and their dosage.
OCH301	Advanced organic spectroscopy	✓	✓	✓	✓	Education regarding IR, NMR, UV. IR provides opportunities around the country and world

OCH302	Organic reaction & mechanisms	✓	✓	✓	✓	Focus on course helps students to understand about organic reaction mechanisms which is of global interest
OCH303	Organic synthesis		✓	✓	✓	Focus on organic synthesis enables students to use various reagents for designing new drugs in pharmaceutical companies
OCH304	Organometallic chemistry, Heterocyclic chemistry and Natural products			✓	✓	Learning about natural products ,creates knowledge of steroids and hormones used in various industries Nationally and Internationally.
2021-22						
		LL	RL	NL	GL	
20CH1T1	General chemistry		✓	✓	✓	Students have knowledge on volumetric analysis, gravimetric analysis required for pharma companies around the world
20CH1T2	Inorganic chemistry-1		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
20CH1T3	Organic chemistry-1	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
20CH1T4	Physical chemistry-1		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
20CH2T1	Organic spectroscopy		✓	✓	✓	Studying Organic Molecules Spectrum provides opportunities Globally, Nationally and Locally
20CH2T2	Inorganic chemistry-2		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and universities
20CH2T3	Organic chemistry-2	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
20CH2T4	Physical chemistry-2		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
20OECH	Chemistry in daily life	✓	✓	✓	✓	Creates knowledge on vitamins, hormones, steroids, and their dosage.
20CH3T1	Advanced organic spectroscopy	✓	✓	✓	✓	Education regarding IR, NMR, UV. IR provides opportunities around the country and world
20CH3T2	Organic reaction & mechanisms	✓	✓	✓	✓	Focus on course helps students to understand about organic reaction mechanisms which is of global interest
20CH3T3A	Organic synthesis		✓	✓	✓	Focus on organic synthesis enables students to use various reagents for designing new drugs in pharmaceutical companies
20CH3T4B	Chemistry of Natural products			✓	✓	Learning about natural products ,creates knowledge of steroids and hormones used in various industries Nationally and Internationally.
20CH4T1	Organic chemistry-1(MOOCs)	✓	✓	✓	✓	Organic structure and their mechanism provides scope. For higher research in National and Global institutes
20CH4T2B	Green chemistry	✓	✓	✓	✓	Learnings green synthesis creates awareness locally as well as around the country and globally
20CH4T3A	Techniques for modern industrial applications		✓	✓	✓	Covers qualitative and quantitative analytical techniques using instruments
20CH4T4	Organometallic reagents		✓	✓	✓	Creates knowledge on vitamins ,hormones, steroids and their dosage

2022-23

		LL	RL	NL	GL	
22CH1T1	General chemistry		✓	✓	✓	Students have knowledge on volumetric analysis, gravimetric analysis required for pharma companies around the world
22CH1T2	Inorganic chemistry-1		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in National level and Universities
22CH1T3	Organic chemistry-1	✓	✓	✓	✓	Organic structure and their mechanism provides scope for higher research in National and Global institutes
22CH1T4	Physical chemistry-1		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
22PG101	Personality development through life enlightenment skills	✓	✓	✓	✓	Personality development is useful for students all over the world.
22CH2T1	Advanced Inorganic chemistry		✓	✓	✓	Studying structure and nature of bonding makes scope for further research in national level and universities
22CH2T2	Advanced Organic chemistry	✓	✓	✓	✓	Organic structure and their mechanism provides scope. For higher research in National and Global institutes
22CH2T3	Advanced Physical chemistry		✓	✓	✓	Studying physical chemistry makes students to focus on thermodynamics, electrochemistry
22CH2E1	Molecular spectroscopy		✓	✓	✓	Studying Organic Molecules Spectrum provides opportunities globally, National levels and locally
22PG201	Research methodology & Intellectual property	✓	✓	✓	✓	Students learning research methodology acquired position in research and also intellectual property for rights creates positions globally
2OCH3T1	Advanced organic spectroscopy	✓	✓	✓	✓	Education regarding IR, NMR, UV. IR provides opportunities around the country and world
2OCH3T2	Organic reaction & mechanisms	✓	✓	✓	✓	Focus on course helps students to understand about organic reaction mechanisms which is of global interest
2OCH3T3A	Organic synthesis		✓	✓	✓	Focus on organic synthesis enables students to use various reagents for designing new drugs in pharmaceutical companies
2OCH3T4B	Chemistry of Natural products			✓	✓	Learning about natural products, creates knowledge of steroids and hormones used in various industries Nationally and Internationally.
20OECH	Polymer chemistry	✓	✓	✓	✓	Focus on Polymers Chemistry is a requirement all over the nation and world.
22CH4T1	Analytical chemistry-1(MOOCs)		✓	✓	✓	Analytical techniques are useful all over the globe.
22CH4T2B	Green chemistry	✓	✓	✓	✓	Learning green synthesis creates awareness locally as well as around the country and globally
22CH4T3A	Techniques for modern industrial applications		✓	✓	✓	Covers qualitative and quantitative analytical techniques using instruments
22CH4T4	Organo metallic reagents		✓	✓	✓	Creates knowledge on vitamins, hormones, steroids and their dosage

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1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Political Science; BA

Code	Title of Course	Need addressed				Description
		LL	RL	NL	GL	
2018-19						
POL 101	Basic Concepts of Political Science		✓	✓	✓	Knowledge on the course is used in survey research, statistical analysis, quantitative analysis ,qualitative research, comparative research, operations, research, systems analysis, case studies, experimental research, project management.
POL 201	Concepts Theories and Institutions		✓	✓	✓	It is used in a body of knowledge connected to the phenomena of the state at the broadest level. Various scholars have advanced distinct perspectives on political theory at different eras.
POL 301	Indian Constitution	✓	✓	✓	✓	It helps by separating forces of the three hands of government in setting restrictions for the executive and also judiciary. The constitution performs an important role in guarding human rights as contained in the Fundamental Rights
POL 401	Indian Political Process	✓	✓	✓		Political process theory, is an approach of social movements that is heavily influenced by political sociology. It argues that success or failure of social movements is affected primarily by political opportunities.
POL 501C	Indian Political Thought		✓	✓	✓	Indian political thought is important because it allows to critically examine the political decisions and policies of a society. It provides a comprehensive understanding of the matters like justice, liberty, freedom and equality.
POL 502C	Western Political Thought			✓	✓	It has given the traditional western values such as democracy, nationalism, liberty, justice, and above all, the two parallel pillars—idealism and realism, on which the rest of the major frameworks of political theory within which most theorists operate.
POL 601 GE	Local Self Government in Andhra Pradesh	✓	✓	✓		It helps the local government bodies to plan for economic and social development. The local self-governments are also authorised to impose, collect, and manage taxes. Additionally, they should be eligible to become a member of the state legislature.
POL 602CE	International Relations			✓	✓	International relations allows nations to cooperate with one another, pool resources, and share information as a way to face global issues that go beyond any particular country or region. Contemporary global issues include pandemics, terrorism, and the environment.
POL 603CE	Indian Foreign Policy			✓	✓	It is used in strengthening the security of the State vis-à-vis other countries. Promote cooperation between different nations, economically, commercially, and culturally. Protect the culture and values of society. Develop and consolidate the rule of law, ensuring the economic and social well-being of citizens.

POL 604CE	Contemporary Global Issues- Project Work		✓	✓	✓	Global Awareness in the Classroom help to learn several issues of the global society. Students learn about facing environmental, social, and economic problems all over the world like Deforestation, poaching, and pollution leading to several pressing concerns like global warming and climate change.
2019-20						
		LL	NL	RL	GL	
POL 101	Basic Concepts of Political Science		✓	✓	✓	Knowledge on the course is used in survey research, statistical analysis, quantitative analysis ,qualitative research, comparative research, operations, research, systems analysis, case studies, experimental research, project management.
POL 201	Concepts Theories and Institutions		✓	✓	✓	It is used in a body of knowledge connected to the phenomena of the state at the broadest level. Various scholars have advanced distinct perspectives on political theory at different eras.
POL 301	Indian Constitution	✓	✓	✓	✓	It helps by separating forces of the three hands of government in setting restrictions for the executive and also judiciary. The constitution performs an important role in guarding human rights as contained in the Fundamental Rights
POL 401	Indian Political Process	✓	✓	✓		Politic+G36:G41al process theory, is an approach of social movements that is heavily influenced by political sociology. It argues that success or failure of social movements is affected primarily by political opportunities.
POL 501C	Indian Political Thought		✓	✓	✓	Indian political thought is important because it allows to critically examine the political decisions and policies of a society. It provides a comprehensive understanding of the matters like justice, liberty, freedom and equality.
POL 502C	Western Political Thought			✓	✓	It has given the traditional western values such as democracy, nationalism, liberty, justice, and above all, the two parallel pillars—idealism and realism, on which the rest of the major frameworks of political theory within which most theorists operate.
POL 601 GE	Local Self Government in Andhra Pradesh	✓	✓	✓		It helps the local government bodies to plan for economic and social development. The local self-governments are also authorised to impose, collect, and manage taxes. Additionally, they should be eligible to become a member of the state legislature.
POL 602CE	International Relations			✓	✓	International relations allows nations to cooperate with one another, pool resources, and share information as a way to face global issues that go beyond any particular country or region. Contemporary global issues include pandemics, terrorism, and the environment.
POL 603CE	Indian Foreign Policy			✓	✓	It is used in strengthening the security of the State vis-à-vis other countries. Promote cooperation between different nations, economically, commercially, and culturally. Protect the culture and values of society. Develop and consolidate the rule of law, ensuring the economic and social well-being of citizens.
POL 604CE	Contemporary Global Issues- Project Work		✓	✓	✓	Global Awareness in the Classroom help to learn several issues of the global society. Students learn about facing environmental, social, and economic problems all over the world like Deforestation, poaching, and pollution leading to several pressing concerns like global warming and climate change.

2020-21

		LL	RL	NL	GL	
POLT11B	Introduction to Political Science		✓	✓	✓	The course provides information about the structure and functions of state and central governments, knowledge about the Constitution and laws of the State. It helps students to understand about the organs of the government i.e., legislature, executive and judiciary and their functions.
POLT21B	Basic Organs of Government		✓	✓	✓	To understand the historical growth of the idea of fundamental human rights and create an awareness on directive principles of state policy. To learn the contents of Indian constitution and how the supreme court and other court functions and develop an awareness foreign and state constitutions.
POLT301C	Indian Government and Politics	✓	✓	✓		To Understand the legislative procedures which ensure the orderly conduct of business in our parliament and state legislative assemblies in India.
POLT401C	Indian Political Process	✓	✓	✓		To understand the dynamics of Indian political system and awareness of voting importance in the society.
POL501C	Indian Political Thought		✓	✓		A basic tenet of Hindu political thought was the belief that the king must regard himself not as the creator of the law but only as its guardian. The Narada-Smṛiti is an exception. In this work the royal decree is regarded as legitimate in its own right. For Example Manu Dharma is source of Indian Law.
POL502C	Western Political Thought		✓	✓	✓	It has given the traditional western values such as democracy, nationalism, liberty, justice, and above all, the two parallel pillars—idealism and realism, on which rest the major frameworks of political theory within which most theorists operate.
POL 601 GE	Local Self Government in Andhra Pradesh	✓	✓	✓		It help the local government bodies to plan for economic and social development. The local self-governments are also authorised to impose, collect, and manage taxes. Additionally, they should be eligible to become a member of the state legislature.
POL 602CE	International Relations			✓	✓	International relations allows nations to cooperate with one another, pool resources, and share information as a way to face global issues that go beyond any particular country or region. Contemporary global issues include pandemics, terrorism, and the environment.
POL 603CE	Indian Foreign Policy			✓	✓	It uses in Strengthen the security of the State vis-à-vis other countries. Promote cooperation between different nations, economically, commercially, and culturally. Protect the culture and values of society. Develop and consolidate the rule of law, ensuring the economic and social well-being of citizens.
POL 604CE	Contemporary Global Issues-Project Work			✓	✓	Global Awareness in the Classroom help to learn several issues of the global society. Students learn about facing environmental, social, and economic problems all over the world like Deforestation, poaching, and pollution leading to several pressing concerns like global warming and climate change.

2021-22

		LL	RL	NL	GL	
POLT11B	Introduction to Political Science		✓	✓	✓	Apply them to field relevant situations and support their application with appropriate evidence. Compare and evaluate the merits of multiple policies, theories or concepts from different disciplinary perceptions
POLT21B	Basic Organs of Government		✓	✓	✓	To understand the historical growth of the idea of fundamental human rights and create an awareness on directive principles of state policy. To learn the contents of Indian constitution and how the supreme court and other court functions and develop an awareness foreign and state constitutions.
POL301C	Indian Government and Politics	✓	✓	✓		To Understand the legislative procedures which ensure the orderly conduct of business in our parliament and state legislative assemblies in India.
POL401C	Indian Political Process	✓	✓	✓		To understand the dynamics of Indian political system and awareness of voting importance in the society.
POLT402C	Westren Political Thought		✓	✓	✓	To understand the political thoughts in medieval period and how it laid foundation to modern. To demonstrate how government politics people by democracy and individual people.
POL501C	Indian Political Thought		✓	✓		A basic tenet of Hindu political thought was the belief that the king must regard himself not as the creator of the law but only as its guardian. The Narada-Smrti is an exception. In this work the royal decree is regarded as legitimate in its own right. For Example Manu Dharma is sorces of Indian Law.
POL502C	Westren Political Thought		✓	✓	✓	It has given the traditional western values such as democracy, nationalism, liberty, justice, and above all, the two parallel pillars—idealism and realism, on which rest the major frameworks of political theory within which most theorists operate.
POL 601 GE	Local Self Government in Andhra Pradesh	✓	✓	✓		It help the local government bodies to plan for economic and social development. The local self-governments are also authorised to impose, collect, and manage taxes. Additionally, they should be eligible to become a member of the state legislature.
POL 602CE	International Relations		✓	✓	✓	International relations allows nations to cooperate with one another, pool resources, and share information as a way to face global issues that go beyond any particular country or region. Contemporary global issues include pandemics, terrorism, and the environment.
POL 603CE	Indian Foreign Policy		✓	✓	✓	It uses in Strengthen the security of the State vis-à-vis other countries. Promote cooperation between different nations, economically, commercially, and culturally. Protect the culture and values of society. Develop and consolidate the rule of law, ensuring the economic and social well-being of citizens.
POL 604CE	Contemporary Global Issues-Project Work			✓	✓	Global Awareness in the Classroom help to learn several issues of the global society. Students learn about facing environmental, social, and economic problems all over the world like Deforestation, poaching, and pollution leading to several pressing concerns like global warming and climate change.

2022-23

		LL	RL	NL	GL	
POLT11B	Introduction to Political Science		✓	✓	✓	Apply them to field relevant situations and support their application with appropriate evidence. Compare and evaluate the merits of multiple policies, theories or concepts from different disciplinary perceptions
POLT21B	Basic Organs of Government		✓	✓	✓	To understand the historical growth of the idea of fundamental human rights and create an awareness on directive principles of state policy. To learn the contents of Indian constitution and how the supreme court and other court functions and develop an awareness foreign and state constitutions.
POLT31	Indian Government and Politics		✓	✓		To Understand the legislative procedures which ensure the orderly conduct of business in our parliament and state legislative assemblies in India.
POLT41	Indian Political Process		✓	✓		To understand the dynamics of Indian political system and awareness of voting importance in the society.
POLT42	Westren Political Thought		✓	✓	✓	To understand the political thoughts in medieval period and how it laid foundation to modern situations To demonstrate how government politics people by democracy and individual people.
SECPOL601	E-Governance		✓	✓	✓	Students understand the growing needs of E-Governance in improving transparency in the system of governance. Provide the practical knowledge about the effective delivery of citizen services through online mode.
SECPOL602	Local-Administration	✓	✓	✓	✓	Develop communication skills to interact with the elected members and officials. Enhance skills for observation, organizing, networking, documentation.

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS						
Under Graduate Programmes						
Department of Telugu						
Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
TEL 101	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
TEI 201	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
TEL 301	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
LEP-404	Leadership Education	✓	✓			స్థానికం ఈ కోర్సు విద్యార్థులకు నాయకత్వం, మానవ సంబంధాలు, సామాజిక నీతి, సాంకేతిక ప్రగతి, మరియు అంతర రాష్ట్రీయ సంబంధాలను చర్చించడానికి అవకాశాలు అందిస్తుంది. ప్రాంతీయం ఈ కోర్సు విద్యార్థులకు నైతిక మరియు సామాజిక మౌలికతలను ప్రతిపాదిస్తుంది. సామాజిక మరియు నైతిక నియమాలను పాటించడంలో సహాయపడుతుంది
2019-20						
		LL	NL	RL	GL	
TEL 101C	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.

TEL-201	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
TEL301	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
2022-23						
		LL	NL	RL	GL	
TELT11A	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
TELT21A	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.
TELT01A	General Telugu	✓	✓			స్థానికం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాషా, సంస్కృతి, సాహిత్య, చరిత్ర మరియు కళలను మన స్థానిక పరిసరాలలో కలిగి ఉంచే విధానంగా విశ్లేషిస్తుంది. ప్రాంతీయం: ఈ కోర్సు విద్యార్థులకు తెలుగు భాష మరియు సాహిత్యం గురించి వివరణాత్మక అనుభవం అందించేందుకు సహాయపడుతుంది.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Zoology

B.Sc.BZC

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RL	NL	GL	
ZOO-101C	Biology of Non Chordates	✓	✓	✓	✓	Awareness is created about the diversity of invertebrate fauna in the world. The student learns to identify and classify invertebrate species available in the local environment,regional, National and all over the world
ZOO-201C	Biology of chordates	✓	✓	✓	✓	Awareness is created about the diversity of Chordate fauna in the world. The student learns to identify and classify Chordate species available in the local environment and all over the world
ZOO-301C	Cytology,Genetics and Evolution		✓	✓	✓	The syllabus of Cytology describe various aspects of cell organelles their structure and functions. Genetics describe mechanisms of gene action and variations in gene and chromosome during development.Evolution explains how life developed on Earth and how different species are connected.
ZOO-401C	Embryology ,Physiology and Ecology		✓	✓	✓	Embryology is central to evolutionary developmental biology which deals with the development of egg upto its birth. Physiology deals with the regulation of digestion mechanism of transport and exchange of respiratory gases,impulse transmission and hormonal effects on reproductive system. Ecology provides knowledge of the interdependence between people and nature
ZOO-501C	Animal Biotechnology		✓	✓	✓	Biotechnology has applications in manufacturing medicines, chemicals,enzymes, antibiotics and therapeutic proteins
ZOO-502C	Animal Husbandry	✓	✓	✓	✓	Animal husbandry helps in the proper management of animals . It employs a large number of farmers and thus raises their standard of living. It helps in crossbreeding to produce high-yielding breeds of animals. Provides self employment and become a Enterprenuer
ZOO-601A(EL)	Immunology		✓	✓	✓	Immunology has applications in numerous disciplines of medicine, particularly in the fields of organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology.
ZOO-602B1(CL)	Principles of Aquaculture	✓	✓	✓	✓	Aquaculture helps in food production related to local, regional and global needs. Helps in identification of fish and prawn species at all levels.
ZOO-603B2(CL)	Aquaculture Management	✓	✓	✓	✓	Management of water quality parameters,health and Feed parameters
ZOO-604B3(CL)	Postharvesting Technology	✓	✓	✓	✓	Students become aware of handling and storage of fish, Fish Preservation, preparation of Byproduct and awareness of sanitation methods and Good manufacturing Practices

2019-20

		LL	RL	NL	GL	
ZOO-101C	Biology of Non Chordates	✓	✓	✓	✓	Awareness is created about the diversity of invertebrate fauna in the world. The student learns to identify and classify invertebrate species available in the local environment, regional, National and all over the world
ZOO-201C	Biology of chordates	✓	✓	✓	✓	Awareness is created about the diversity of Chordate fauna in the world. The student learns to identify and classify Chordate species available in the local environment and all over the world
ZOO-301C	Cytology ,Genetics and Evolution		✓	✓	✓	The syllabus of Cytology describe various aspects of cell organelles their structure and functions. Genetics describe mechanisms of gene action and variations in gene and chromosome during development. Evolution explains how life developed on Earth and how different species are connected.
ZOO-401C	Embryology ,Physiology and Ecology		✓	✓	✓	Embryology is central to evolutionary developmental biology which deals with the development of egg upto its birth. Physiology deals with the regulation of digestion mechanism of transport and exchange of respiratory gases, impulse transmission and hormonal effects on reproductive system. Ecology provides knowledge of the interdependence between people and nature
ZOO-501C	Animal Biotechnology		✓	✓	✓	Biotechnology has applications in manufacturing medicines, chemicals, enzymes, antibiotics and therapeutic proteins
ZOO-502C	Animal Husbandry	✓	✓	✓	✓	Animal husbandry helps in the proper management of animals . It employs a large number of farmers and thus raises their standard of living. It helps in crossbreeding to produce high-yielding breeds of animals. Provides self employment and become a Entrepreneur
ZOO-601GE	Immunology		✓	✓	✓	Immunology has applications in numerous disciplines of medicine, particularly in the fields of organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology.
ZOO-602CE	Principles of Aquaculture	✓	✓	✓	✓	Aquaculture helps in food production related to local, regional and global needs. Helps in identification of fish and prawn species at all levels.
ZOO-603CE	Aquaculture Management	✓	✓	✓	✓	Management of water quality parameters, health and Feed parameters
ZOO-604CE	Postharvesting Technology	✓	✓	✓	✓	Students become aware of handling and storage of fish, Fish Preservation, preparation of Byproduct and awareness of sanitation methods and Good manufacturing Practices

2020-21

		LL	RL	NL	GL	
ZOO-101	Biology of Non Chordates	✓	✓	✓	✓	Awareness is created about the diversity of invertebrate fauna in the world. The student learns to identify and classify invertebrate species available in the local environment, regional, National and all over the world
ZOO-201	Animal Diversity- Biology of Chordates	✓	✓	✓	✓	Awareness is created about the diversity of Chordate fauna in the world. The student learns to identify and classify Chordate species available in the local environment and all over the world

ZOO-301C	Cytology ,Genetics and Evolution		✓	✓	✓	The syllabus of Cytology describe various aspects of cell organelles their structure and functions. Genetics describe mechanisms of gene action and variations in gene and chromosome during development.Evolution explains how life developed on Earth and how different species are connected.
ZOO-401C	Embryology ,Physiology and Ecology		✓	✓	✓	Embryology is central to evolutionary developmental biology which deals with the development of egg upto its birth. Physiology deals with the regulation of digestion mechanism of transport and exchange of respiratory gases,impulse transmission and harmonal effects on reproductive system. Ecology provides knowledge of the interdependence between people and nature
ZOO-501C	Animal Biotechnology		✓	✓	✓	Biotechnology has applications in manufacturing medicines, chemicals,enzymes, antibiotics and therapeutic proteins
ZOO-502C	Animal Husbandry	✓	✓	✓	✓	Animal husbandry helps in the proper management of animals . It employs a large number of farmers and thus raises their standard of living. It helps in crossbreeding to produce high-yielding breeds of animals. Provides self employment and become a Enterprenuer
ZOO-601GE	Immunology		✓	✓	✓	Immunology has applications in numerous disciplines of medicine, particularly in the fields of organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology.
ZOO-602CE	Principles of Aquaculture	✓	✓	✓	✓	Aquaculture helps in food production related to local, regional and global needs. Helps in identification of fish and prawn species at all levels.
ZOO-603CE	Aquaculture Management	✓	✓	✓	✓	Management of water quality parameters,health and Feed parameters
ZOO-604CE	Postharvesting Technology	✓	✓	✓	✓	Students become aware of handling and storage of fish, Fish Preservation, preparation of Byproduct sand awareness of sanitation methods and Good manufacturing Practices
2021-22						
		LL	RL	NL	GL	
ZOOTIA	Animal Diversity -I Biology of Non -Chordates	✓	✓	✓	✓	Awareness is created about the diversity of invertebrate fauna in the world. The student learns to identify and classify invertebrate species available in the local environment,regional, National and all over the world
ZOO T21A	Anima Diversity-II Biology of Chordates	✓	✓	✓	✓	Awarenessis created about the diversity of Chordate fauna in the world. The student learns to identify and classify Chordate species available in the local environment and all over the world
ZOO-301C	Cell Biology ,Genetics,Molecular Biology and Organic Evolution		✓	✓	✓	The syllabus of Cytology describe various aspects of cell organelles their structure and functions. Genetics describe mechanisms of gene action and variations in gene and chromosome during development.Evolution explains how life developed on Earth and how different species are connected.Molecular Biology helps in understanding the techniques involved in creation of new products and gene editing tools
PF-301	Poultry farming(SDC)	✓	✓	✓	✓	Breeding and rearing of layers and broilers, practicing methods and management practices and economics of poultry farming

ZOO 401	Animal Physiology, Cellular Metabolism and Embryology		✓	✓	✓	Embryology is central to evolutionary developmental biology which deals with the development of egg upto its birth. Physiology deals with the regulation of digestion mechanism of transport and exchange of respiratory gases, impulse transmission and hormonal effects on reproductive system. Ecology provides knowledge of the interdependence between people and nature
ZOO 402	Immunology and Animal Biotechnology		✓	✓	✓	Biotechnology has applications in manufacturing medicines, chemicals, enzymes, antibiotics and therapeutic proteins
ZOO-501	Animal Biotechnology			✓	✓	Biotechnology has applications in manufacturing medicines, chemicals, enzymes, antibiotics and therapeutic proteins
ZOO-502	Animal Husbandry	✓	✓	✓	✓	Animal husbandry helps in the proper management of animals . It employs a large number of farmers and thus raises their standard of living. It helps in crossbreeding to produce high-yielding breeds of animals. Provides self employment and become a Enterprenuer
ZOO 601	Immunology	✓	✓	✓	✓	Immunology has applications in numerous disciplines of medicine, particularly in the fields of organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology.
2022-23						
		LL	RL	NL	GL	
ZOOT11A	Animal Diversity-I Biology of Non Chordates	✓	✓	✓	✓	Awareness is created about the diversity of invertebrate fauna in the world. The student learns to identify and classify invertebrate species available in the local environment, regional, National and all over the world
ZOOT21A	Animal Diversity- Biology of Chordates	✓	✓	✓	✓	Awareness is created about the diversity of Chordate fauna in the world. The student learns to identify and classify Chordate species available in the local environment and all over the world
LSCZOOT01	Health & Hygiene(LSC)	✓	✓	✓	✓	Study leads to the understanding of Good food habits, balanced diet and hygienic habits that prevent the spread of infectious disease
ZOOT31A	Cell Biology Cellular metabolism, Genetics Organic Evolution and Animal Behaviour		✓	✓	✓	The syllabus of Cytology describe various aspects of cell organelles their structure and functions. Genetics describe mechanisms of gene action and variations in gene and chromosome during development. Evolution explains how life developed on Earth and how different species are connected. Molecular Biology helps in understanding the techniques involved in creation of new products and gene editing tools
ZOOT41A	Embryology Animal Physiology Animal Ecology		✓	✓	✓	Embryology is central to evolutionary developmental biology which deals with the development of egg upto its birth. Physiology deals with the regulation of digestion mechanism of transport and exchange of respiratory gases, impulse transmission and hormonal effects on reproductive system. Ecology provides knowledge of the interdependence between people and nature
ZOOT01	Immunology and Animal Biotechnology		✓	✓	✓	Immunology has applications in numerous disciplines of medicine, particularly in the fields of organ transplantation, oncology, rheumatology, virology, bacteriology, parasitology, psychiatry, and dermatology. Biotechnology has applications in medicines, enzymes and antibiotics
SEC-6A 501/601	Sustainable Aquaculture management	✓	✓	✓	✓	Aquaculture helps in food production related to local, regional and global needs. Helps in identification of fish and prawn species at all levels.

SEC7A 502/602	Postharvest Technology	✓	✓	✓	✓	Students become aware of handling and storage of fish, Fish Preservation, preparation of Byproducts and awareness of sanitation methods and Good manufacturing Practices
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A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Physics

Code	Title of Course	Need addressed				Description
2018-19						
		LL	RI	NL	GL	
PHY-101C	MECHANICS AND PROPERTIES OF MATTER	✓	✓	✓	✓	Knowledge created on mechanics and properties of matter which has uses in daily life like seat belts in the cars, Railway tracks are applicable at all levels
PHY-201C	WAVES AND OSCILLATIONS		✓	✓	✓	The knowledge on electromagnetic waves are used from local level like TV, RADIO'S to National level as in ISRO, NASA and Globally in scientific instruments to study earth, solar system etc..
PHY-301C	WAVE OPTICS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are needed at all levels.They deals with the determination of behaviour and the properties of light
PHY-401C	THERMODYNAMICS AND RADIATION PHYSICS			✓	✓	These are used to explain the construction of Solar Panels ,Thermal Heating Systems,Infrared Cameras , Thermometers, Aerospace Industriesneeded at National and Global levels
PHY-501C	ELECTRICITY,MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity,magnetism and electronics one can make motors go,and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHY-502 C	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations.and these theories are used in latest technologies.
PHY-601 GE	ANALOG AND DIGITAL ELECTRONICS	✓	✓	✓	✓	Analog electronics can be used to amplify signals and perform a wide variety of other functions. Some common components used in analog electronics include resistors, capacitors, inductors, and transistorsneeded at all levels. Digital electronics use discrete signals to represent and process information.
PHY-602CE	INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER	✓	✓			Students learn the usage of Embedded systems in office machines, robots, home appliances, motor vehicles and a number of other gadgets useful at all levels.
PHY-603CE	COMPUTATIONAL METHODS AND PROGRAMMING	✓	✓			Students will make predictions of the system's behaviour under different conditions and will be able to do programming at local,Regional and National Levels
PHY-604 CE	ELECTRONIC INSTRUMENTATION	✓	✓			Students will learn the functioning of instruments like voltmeter, ammeter used as a dial and pointer to determine the value of measuring quantityneeded at local and regional levels.

2019-20

		LL	RL	NL	GL	
PHY-101C	MECHANICS AND PROPERTIES OF MATTER	✓	✓	✓	✓	Knowledge created on mechanics and properties of matter which has uses in daily life like seat belts in the cars, Railway tracks are applicable at all levels
PHY-201C	WAVES AND OSCILLATIONS		✓	✓	✓	The knowledge on electromagnetic waves are used from local level like TV, RADIO'S to National level as in ISRO, NASA and Globally in scientific instruments to study earth, solar system etc..
PHY-301C	WAVE OPTICS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are needed at all levels.They deals with the determination of behaviour and the properties of light
PHY-401C	THERMODYNAMICS AND RADIATION PHYSICS			✓	✓	These are used to explain the construction of Solar Panels ,Thermal Heating Systems,Infrared Cameras , Thermometers, Aerospace Industriesneeded at National and Global levels
PHY-501C	ELECTRICITY,MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity,magnetism and electronics one can make motors go,and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHY-502 C	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations.and these theories are used in latest technologies.
PHY-601 GE	ANALOG AND DIGITAL ELECTRONICS	✓	✓	✓	✓	Analog electronics can be used to amplify signals and perform a wide variety of other functions. Some common components used in analog electronics include resistors, capacitors, inductors, and transistorsneeded at all levels. Digital electronics use discrete signals to represent and process information.
PHY-602CE	INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER	✓	✓			Students learn the usage of Embedded systems in office machines, robots, home appliances, motor vehicles and a number of other gadgets useful at all levels.
PHY-603CE	COMPUTATIONAL METHODS AND PROGRAMMING	✓	✓			Students will make predictions of the system's behaviour under different conditions and will be able to do programming at local,Regional and National Levels
PHY-604 CE	ELECTRONIC INSTRUMENTATION	✓	✓			Students will learn the functioning of instruments like voltmeter, ammeter used as a dial and pointer to determine the value of measuring quantityneeded at local and regional levels.

2020-21

		LL	RL	NL	GL	
PHY-101C	MECHANICS ,WAVES AND OSCILLATIONS	✓	✓	✓	✓	Awareness created on mechanics , students will identify the applications in daily life, seat belts in the cars is the example of concept of inertia,Railway tracks are examples of uniform circular motion .The knowledge on electromagnetic waves are used from local level like TV, RADIO'S to National level as in ISRO, NASA and Globally in scientific instruments to study earth, solar system etc..

SDCPHYT01	ELECTRICAL APPLIANCES	✓	✓			Students will learn mechanism about electrical appliances and their usage in daily life useful mostly at local and regional levels
PHY-201C	WAVE AND OSCILLATIONS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are needed at all levels. They deal with the determination of behaviour and the properties of light
SDCPHYT02	SOLAR ENERGY	✓	✓	✓	✓	Students know the importance of sustainable and renewable solar energy in future, and reduce the usage of traditional energy needed at all levels
PHY-301C	WAVE OPTICS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are needed at all levels. They deal with the determination of behaviour and the properties of light
PHY-401C	THERMODYNAMICS AND RADIATION PHYSICS			✓	✓	These are used to explain the construction of Solar Panels, Thermal Heating Systems, Infrared Cameras, Thermometers, Aerospace Industries used at national and Global Levels
PHY-501C	ELECTRICITY, MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity, magnetism and electronics one can make motors go, and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHY-502 C	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations, and these theories are used in latest technologies.
PHY-601 GE	ANALOG AND DIGITAL ELECTRONICS	✓	✓	✓	✓	Analog electronics can be used to amplify signals and perform a wide variety of other functions. Some common components used in analog electronics include resistors, capacitors, inductors, and transistors needed at all levels. Digital electronics use discrete signals to represent and process information.
PHY-602CE	INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER	✓	✓			Students learn the usage of Embedded systems in office machines, robots, home appliances, motor vehicles and a number of other gadgets useful at all levels.
PHY-603CE	COMPUTATIONAL METHODS AND PROGRAMMING	✓	✓			Students will make predictions of the system's behaviour under different conditions and will be able to do programming at local, Regional and National Levels
PHY-604 CE	ELECTRONIC INSTRUMENTATION	✓	✓			Students will learn the functioning of instruments like voltmeter, ammeter used as a dial and pointer to determine the value of measuring quantity needed at local and regional levels.
2021-22						
		LL	RL	NL	GL	
PHY-101C	MECHANICS, WAVES AND OSCILLATIONS	✓	✓	✓	✓	Awareness created on mechanics, students will identify the applications in daily life, seat belts in the cars is the example of concept of inertia, Railway tracks are examples of uniform circular motion. The knowledge on electromagnetic waves are used from local level like TV, RADIO'S to National level as in ISRO, NASA and Globally in scientific instruments to study earth, solar system etc..
PHYT21B	WAVE OPTICS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are needed at all levels. They deal with the determination of behaviour and the properties of light

PHY-301C	THERMODYNAMICS AND RADIATION PHYSICS			✓	✓	These are used to explain the construction of Solar Panels ,Thermal Heating Systems,Infrared Cameras , Thermometers, Aerospace Industriesused at national and Global Levels
PHY-401C	ELECTRICITY,MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity,magnetism and electronics one can make motors go,and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHY-402C	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations.and these theorys are used in latest technologies.
PHY-501C	ELECTRICITY,MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity,magnetism and electronics one can make motors go,and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHY-502 C	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations.and these theorys are used in latest technologies.
PHY-601 GE	ANALOG AND DIGITAL ELECTRONICS	✓	✓	✓	✓	Analog electronics can be used to amplify signals and perform a wide variety of other functions. Some common components used in analog electronics include resistors, capacitors, inductors, and transistorsneede at all levels. Digital electronics use discrete signals to represent and process information.
PHY-602CE	INTRODUCTION TO MICROPROCESSOR AND MCROCONTROLLER	✓	✓			Students learn the usage of Embedded systems in office machines, robots, home appliances, motor vehicles and a number of other gadgets useful at all levels.
PHY-603CE	COMPUTATIONAL METHODS AND PROGRAMMING	✓	✓			Students will make predictions of the system's behaviour under different conditions and will be able to do programming at local,Regional and National Levels
PHY-604 CE	ELECTRONIC INSTRUMENTATION	✓	✓			Students will learn the functioning of instruments like voltmeter, ammeter used as a dial and pointer to determine the value of measuring quantityneeded at local and regional levels.
2022-23						
		LL	RL	NL	GL	
PHYT11B	MECHANICS ,WAVES AND OSCILLATIONS	✓	✓	✓	✓	Awareness created on mechanics , students will identify the applications in daily life, seat belts in the cars is the example of concept of inertia,Railway tracks are examples of uniform circular motion .The knowledge on electromagnetic waves aee used from local level llike TV, RADIO'S to National level as in ISRO, NASA and Globally in scientific instruments to study earth, solar system etc..
SDCPHYT01	ELECTRICAL APPLIANCES	✓	✓			Students will learn mechanism about electrical appliances and their usage in daily lifeuseful mostly at local and regional levels
PHYT21C	WAVE OPTICS	✓	✓	✓	✓	Wave optics explains about optical instruments such as cameras, microscopes and telescopes that are neede at all levels.They deals with the determination of behaviour and the properties of light

PHYT31A	HEAT AND THERMODYNAMICS			✓	✓	The World we live in today relies on Thermodynamics that gives the foundation for heat engines, power plants, chemical reactions, refrigerators, and many more important concepts.
SDCPHYT02	SOLAR ENERGY	✓	✓	✓	✓	Students know the importance of sustainable and renewable solar energy in future, and reduce the usage of traditional energy needed at all levels
PHYT41A	ELECTRICITY, MAGNETISM AND ELECTRONICS	✓	✓	✓	✓	With the knowledge on electricity, magnetism and electronics one can make motors go, and prepare Magnets used in Motors, Solenoids, Wind Mills, Speakers, Computer Hard Drives, Generators etc. needed at all levels
PHYT01	MODERN PHYSICS			✓	✓	The course explains the breakthroughs that happened after Newton's laws, Maxwell's equations, and these theories are used in latest technologies.
SECPHY501 C / 601C	APPLICATIONS OF ELECTRICITY	✓	✓	✓	✓	Electricity and Electronics applications are used in our daily life, such as a fan regulator, air-conditioning, induction cooking, light dimmer, emergency lights, vacuum cleaners, personal computers, UPS, battery charges needed at all levels
SECPHY502 C / 602C	ELECTRONIC INSTRUMENTATION	✓	✓			Students will learn the functioning of instruments like voltmeter, ammeter used as a dial and pointer to determine the value of measuring quantity needed at local and regional levels.

A.G & S.G Siddhartha Degree College of Arts & Science,Vuyyuru(Autonomous)

1.1.CURRICULUM RELEVANCE IN RELATION TO LOCAL(LL)/NATIONAL(NL)/REGIONAL(RL)/GLOBAL(GL) DEVELOPMENTAL NEEDS

Under Graduate Programmes

Department of Statistics

Code	Title of Course	Need addressed				Description
2021-22						
		LL	RL	NL	GL	
STAT11B	Descriptive Statistics And Theory Of Probability	✓	✓	✓	✓	Knowledge of various types of data, their organization and evaluation of summary measures such as non- central and central moments, measures of skewness and kurtosis is needed from local to Global level
STAT21C	Probability Distributions and Statistical Methods	✓	✓	✓	✓	Students obtain knowledge of applications on standard continuous distributions in respect of usage in day-to-day life.
2022-23						
		LL	NL	RL	GL	
STAT11B	Descriptive Statistics And Theor	✓	✓	✓	✓	Knowledge of various types of data, their organization and evaluation of summary measures such as non- central and central moments, measures of skewness and kurtosis is needed from local to Global level
STAT21C	Probability Distributions and Statistical Methods	✓	✓	✓	✓	Students obtain knowledge of applications on standard continuous distributions in respect of usage in day-to-day life.
STAT31C	Statistical Inference	✓	✓	✓	✓	Obtain the knowledge on Exact sampling distributions and their application towards real world examples
STAT41B	Sampling Techniques and Design of Experiments	✓	✓	✓	✓	To understand the principles and principal steps of sampling, and different sampling techniques. Apply different sampling techniques to take samples and compute unbiased estimates and confidence limits of population parameters.
STAT01	Applied Statistics	✓	✓	✓	✓	Obtain the knowledge on asses the population growth by using vital statistics,SQC mainley used in Quality Checking