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CBCS - New Regulation (2016-2017)

Course Outcomes of English

Course Code: S1-201

Course Name: English Portal (General English)

After completion of this course students will be able:	
CO 1:	To read and understand the differences in literary, figurative and derogatory meaning of the words in poems, prose lessons and short stories and cultivate intensive reading habit.
CO 2:	To improve word power and comprehend grammar effectively.
CO 3:	To use appropriate vocabulary and grammatical structures for a situation.
CO 4:	To develop writing skills efficiently on topics of interest or relevance.

Course Code: S2-201

Course Name: A Spectrum of Language Skills – (General English)

After completion of this course students will be able:	
CO 1:	To understand the importance of science and different cultures in the world and enable the concept of decision making.
CO 2:	To acquaint with the literary devices and expose to the greater philosophical aspects of nature and to sensitize to the feelings of women when they are discriminated in the society.
CO 3:	To know about human behavior and psychology, and comprehend the style and presentation of short stories of different writers.
CO 4:	To improve vocabulary, speak and write meaningfully, learn different writing genres like letters, essays, dialogues etc. grammatically.

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Course Code: S3-201

Course Name: English for Cognitive and Communication Skills (General English)

After completion of this course students will be able:	
CO 1:	To develop the skills of identifying and synthesizing information, acquire the skills of guessing the meaning of unfamiliar words that occur in a context and use them appropriately.
CO 2:	To perceive the deeper nuances of creativity, understand the abstract meaning of poetic language and develop language comprehension.
CO 3:	To know the family relationships in middle class Indian society and also diasporic struggle to keep one's own cultural identity against foreign cultures.
CO 4:	To perceive the evil tradition of performing child-marriages, social evils, the nuances in translating a play-regarding culture, settings, language etc.
CO 5:	To develop flexibility with language and proficiency with self-expression. To improve speaking and listening skills, collaborative play and also develop vocabulary with all fun.

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CBCS - New Regulation (2020-2021)

Course Outcomes of English

Course Code: NS 1- 101

Course Name: English Praxis - I – A Course in Communication and Soft Skills

By the end of this course students will be able:	
CO 1:	To understand the importance of Listening in communication and will try to become good listeners.
CO 2:	To understand the subtleties in English language pronunciation on learning speech sounds, syllables, stress and intonation and start to practice speaking in right accent.
CO 3:	To use grammar effectively in writing and speaking and demonstrate the use of good vocabulary.
CO 4:	To demonstrate an understanding of writing skills and can write paragraphs using perfect punctuation marks, right spellings etc.
CO 5:	To acquire ability to use Soft Skills in professional and daily life, and confidently use the tools of communication skills.

Course Code: NS 2- 101

Course Name: English Praxis - II – A Course in Reading and Writing Skills

By the end of this course students will be able:	
CO 1:	To see a broader perspective of the world, recognize relationship between ideas, events and facts; further build up a repository of vocabulary.
CO 2:	To comprehend different texts and interpret different types of texts, develop aesthetic sense and practice new vocabulary, language structures, rhyming devices etc.
CO 3:	To use reading skills effectively, analyse what is being read and get to know the importance of note making and note taking.
CO 4:	To understand how to read short stories and cultivate extensive reading habit. To use good writing strategies and write well for any purpose.
CO 5:	To improve writing skills independently for future needs, such as: Curriculum Vitae, Resume, Letters, E-Correspondence etc.

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Course Code: NS 3- 101

Course Name: English Praxis - III – A Course in Conversational Skills

By the end of this course students will be able:	
CO 1:	To comprehend nuances of speeches of great personalities, and speak fluently in English after thorough practice sessions.
CO 2:	To participate confidently in any social interaction.
CO 3:	To face any professional discourse, furthermore; to enhance employability skills.
CO 4:	To demonstrate critical thinking after participating in debates, role plays etc.
CO 5:	To enhance conversational skills by observing the professional interviews.

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CBCS NEW REGULATION (2020-2021)

COURSES OUTCOMES OF TELUGU

COURSE CODE:NS -111

BOOK NAME -KAVYA SUDHA (BSC /B.COM/ BBA)

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CO1	కవిత్రయం శ్రీనాథుడు పోతన పెద్దన్న మొదలైన వారి పద్య సాహిత్యాన్ని అర్థం చేసుకుంటారు.
CO2	పాఠ్య ప్రణాళికను ప్రాచీన సాహిత్య సంబంధ పాఠ్యాంశాలను మాధుర్యాన్ని విద్యార్థులు ఉపయోగించుకుంటారు.
CO3	తెలుగు సాహిత్యంలో నన్నయ్య నన్నే చోటులు తిక్కన శ్రీనాథుడు ముళ్ళ రచించిన పాఠ్యాంశాలను కవుల కవిత్రయల మాధుర్యాన్ని ఆస్వాదించే అవకాశం కలుగుతుంది.
CO4	దీనితోపాటు సందులు సమాసాలు చందస్సు అలంకారాలు కూడా నేర్పడం వల్ల సాంప్రదాయ సాహిత్య అవగాహన సులభం అవుతుంది.
CO5	భాష పట్ల గౌరవంతో పాటు ఉన్నతమైన మానవీయ విలువలు నేర్పడం ఆధారంగా ఎంపిక చేసిన ఈ పాఠ్యాంశాలు విద్యార్థుల భావి జీవితానికి పునాదులు అవుతాయి.

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COURSE CODE: NS 2-111

BOOK NAME: ADHUNIKA BHARTI

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CO1	వెయ్యి సంవత్సరాల సుదీర్ఘమైన చరిత్ర కలిగినది తెలుగు సాహిత్యం నన్నయతో ప్రారంభమైన సాహిత్యం సంస్కృతంలో వేద వ్యాస రచించిన మహాభారత అనువాదంతో ప్రారంభమైనది అప్పటినుండి తెలుగు సాహిత్యం పై సంస్కృత ప్రభావం అత్యధికంగా ఉండేది.
CO2	సాహిత్య సంబంధమైన విషయాలన్నిటిలో తెలుగు సాహిత్యం సంస్కృత సాహిత్యం అడుగుజాడల్లోనే నడిచింది. తెలుగు మీద కూడా ఆంగ్ల ప్రభావం ప్రభావం మొదలైన విషయాలు తెలుసుకుంటారు.
CO3	కవితా ప్రక్రియల్లో కథా నవల విమర్శ జీవిత చరిత్ర స్వీయ చరిత్ర విమర్శ మొదలైన ముఖ్యమైన విషయాలను తెలుసుకుంటారు
CO4	ఆత్మవిశ్వాసం దృఢ సంకల్పం పట్టుదల స్వభావం మరియు స్వీయ ఆత్మ పరిశీలన దేశభక్తి మరియు ఆధునికవిత్వాన్ని చదవడానికి కృషిని మెచ్చుకోవడం.
CO5	భాష లక్షణాలతో కూడిన నాటిక ప్రక్రియను విద్యార్థులకు తెలపడం ఉదాహరణకి యక్షగానం నాటికను ఎంపిక చేయడం మరియు నవల స్వరూప స్వభావాలను విద్యార్థులు తెలుసుకోవడానికి ఎంపిక చేయడం.

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COURSE CODE: NS 3-111

BOOK NAME: SRUJANA BHARATI

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CO1	జనరల్ తెలుగు విద్యార్థులకు భాషా నైపుణ్యాలను సృజనాత్మక నైపుణ్యాలను పెంపొందించే లక్ష్యంతో ప్రయోజనాత్మకమైన ప్రణాళికను రూపొందించుట.
CO2	సృజనాత్మక రచనలైన కవిత్వ రచన వ్యాసరచన వంటి అంశాలను విద్యార్థులకు అభివృద్ధిని అనుసరించి రచన అభిలాష పెంపొందించుకొనుట.
CO3	పత్రికల పరిశీలన పత్రిక భాష శైలి పత్రిక రచన వార్త రచన సంపాదకీ రచన వంటి అంశాలు విద్యార్థులు అధ్యయనం చేయడం వలన పత్రికా రంగంలో వార్త విలేకరుగా, ఉపసంపాదకులుగా, సంపాదకులుగా, ఉపాధి అవకాశాలను పెంపొందించవచ్చు.
CO4	ప్రసార మాధ్యమాలకు సంబంధించి వీడియో రచన నాటికలు టెలివిజన్ రచన యాంకరింగ్ వంటి ప్రయోజనాత్మక అంశాల ద్వారా ప్రసారం మాధ్యమాల రచయితలుగా ఉపాధి మార్గాలు పెంపొందించుట.
CO5	అత్యాధునిక సాంకేతిక రూపాలైన యూట్యూబ్, ఫేస్బుక్,ట్విట్టర్ బ్లాక్ ,వాట్సాప్ అంటే అంశాలు విద్యార్థులకు ఎంతో ప్రయోజనాలు కలుగుట వాటి పట్ల విషయాలను తెలుపుట మంచి చెడు విషయాలను కూడా వివరించుట.

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CBCS - New Regulation (2020-2021)

Course Outcomes of Sanskrit

Course Code: NS 1- 121

Course Name: Sanskrit - Amruthavani - 1

By the end of this course students will be able:	
CO 1:	To understand of literature and appreciate the development of Sanskrit Literature.
CO 2:	To negotiate texts independently with grammatical analysis and poetic excellence. Develop knowledge to understand the Sanskrit Language on becoming proficient in grammar topics.
CO 3:	To acquaint with the ancient poems of Valmiki's "Arya Padukabhisekham and Vedavyasa's "Yakshaprasnalu". To inculcate responsibility towards the society and patriotism on reading the modern poetry.
CO 4:	To develop worldly wisdom, spirituality on reading the discourses of 'Swamy Vivekananda'.
CO 5:	To understand the impact of good and evil deeds, honesty, patriotism, sacrifice, generosity and virtues on reading prose.

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Course Code: NS 2- 121

Course Name: Sanskrit - Amruthavani - 2

By the end of this course students will be able:	
CO 1:	To understand the gradual change of Sanskrit literature from 'Vedic Literature to Purana'.
CO 2:	To comprehend old poetry, appraising of nature, and knowing the importance of women empowerment, women education, kindness, celibacy etc.
CO 3:	To build up confidence, determination, perseverance nature and worldly wisdom, self-introspection, patriotism and appreciation the efforts of soldiers on reading the modern poetry.
CO 4:	To understand the different writers' prose writing styles in terms of diction, vocabulary, grammar, syntax etc.

Course Code: NS 3- 121

Course Name: Sanskrit - Amruthavani - 3

By the end of this course students will be able:	
CO 1:	To know the origin and development of Sanskrit Prose Literature.
CO 2:	To know about the importance of prose romances and fables of Sanskrit.
CO 3:	To analysis compound formation and Upanishad like "Sishyanushasanam", "Sraddatrayavibhagayoga" in Mahabharatham.
CO 4:	To read and understand the texts independently and learn to use figures of speech in their creative Sanskrit writing.
CO 5:	To learn "Halanth Sabdas" for proper pronunciation.

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Hindi

PROGRAMME CODE : – B.Sc &B.Com (CA)

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-1(NS1-131)	Hindi - GADHYA SANDESH-1	Introduction of Hindi literature through Hindi verses. To help students master Hindi language through grammar. Enhancing human values through Hindi stories. Introduction to Letter Writing. Introducing Hindi English words.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-2 (NS2-131)	Hindi-GADHYASANDESH -2	IntroductionofHindiliteraturethroughHindiverses. Tohelpstudents, masterHindilanguagethroughgrammar.Enhancinghumanvalues throughHindistories.IntroductiontoLetterWriting.IntroducingHindiEnglishwords.

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-3 (NS3-131)	Hindi-KAVYA DEEP	IntroductionofHindiliteraturethroughHindiverses. Thousand years history of hindi literature. Tohelpstudents, knowledge gain from general essays. masterHindilanguagethroughgrammar.Enhancinghumanvalues throughHindistories.IntroductiontoLetterWriting.IntroducingHindiEnglishword

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BachelorofScience

CourseOutcomesofComputerScience

Coourse code:C1

Course Name: ProgramminginC

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	Familiariseoperatingsystems,programminglanguages,peripheraldevices,networking,multimediaandinternet
CO2	Understandbinary,hexadecimalandoctalnumbersystemsandtheirarithmetic.
CO3	Understandhowlogiccircuits andBooleanalgebraformsas thebasics ofdigitalcomputer
CO4	DemonstratethebuildingupofSequentialandcombinationallogicfrombasicgates.

Course Code:C2

Course Name: Data Structures using C

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	Familiarise in programminglanguages
CO2	Understand the basic datastructures.
CO3	Understandhowlogic of programmiing
CO4	Demonstrate the building blocks of data sttructures.

PapercodeC3

CourseName: DataBaseManagement System

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	DescribeDBMSarchitecture,physicalandlogical databasedesigns,databasemodeling,relational,hierarchicalandnetworkmodels.
CO2	Identifybasicdatabasestoragestructuresandaccesstechniquessuchasfileorganizations,indexing methodsincludingB-tree,andhashing.
CO3	LearnandapplyStructuredquerylanguage(SQL)fordatabasedefinitionanddatabasemanipulation

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CO4	Demonstrateanunderstandingofnormalizationtheoryandapplysuchknowledgetothenormalizationofadatabase
CO5	Understandvarioustransactionprocessing,concurrencycontrolmechanismsanddatabaseprotectionmechanisms.

Paper Code:C4

CourseName:ObjectOrientedProgrammingusingJAVA

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	**Engineeringknowledge**:Applytheknowledgeofmathematics,science,engineeringfundamentals,and anengineeringspecializationtothe solutionofcomplexengineeringproblems
CO2	**Foundation of mathematical concepts:** Abilitytoapplytheacquiredknowledge of basicskills,principlesofcomputing,mathematicalfoundations,algorithmicprinciples,modelinganddesignofcomputer-basedsystemsinsolvingrealworldengineeringProblems
CO3	**Software Development and Research Ability:** Ability to understand the structure anddevelopment methodologies of software systems. Possess professional skills and knowledge of softwaredesignprocess.Familiarityandpracticalcompetencewithabroadrangeofprogramminglanguageand open sourceplatforms.Useknowledgein various domainstoidentifyresearchgapsandhencetoprovidesolutiontonewideasandinnovations
CO4	**SuccessfulCareer:**Abilitytoupdateknowledgecontinuouslyinthetoolslike,Computing, Communicationtomeettheindustryrequirementsincreatinginnovativecareerpathsforimmediateemployementandforhigherstudies.

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CourseCode: c5

Course Name:Operatinng Systems

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	Know Computer System resources and the role of operating system in resource management with algorithms
CO2	Understand Operating Systems Architectural design and its services
CO3	Gain knowledge of various types of operating systems including Unix
CO4	Understand various process management concepts including scheduling synchronization and deadlocks
CO5	Have a basic Knowledge about multithreading
CO6	Describe the functions of a contemporary operating system

CourseCode:c6C

CourseName:DATA SCIENCE

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	Develop relevant programming abilities
CO2	Demonstrate proficiency with statistical analysis of data
CO3	Develop the ability to build and assess database models
CO4	Demonstrate skill in data management
CO5	Apply data science concepts and methods to solve problems in real-world contexts and will communicate these solutions

Course Code:7c

CourseName:Python for Datascience

Uponcompletionofthiscourse,thestudentwillbeableto:	
CO1	Toidentify the need for datascience and solve basic problems using python built in data types and their methods
CO2	Todesign an application with user defined modules and packages using OOP concept
CO3	To Employ efficient storage and data operations using numpy arrays
CO4	ToApply powerful data manipulations using Pandas
CO5	ToprovidesolutionsbyidentifyingandformulatingITrelatedproblems

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B.Sc.MPCS(Mathematics, Physics, Computer Science)

- Create deep interest in learning mathematics. Develop broad and balanced knowledge and understanding of definitions, concepts, principles and theorems.
- Familiarize the students with suitable tools of mathematical analysis to handle issues and problems in mathematics and related sciences.
- Enhance the ability of learners to apply the knowledge and skills acquired by them during the programme to solve specific theoretical and applied problems in mathematics.
- Provide students/learners sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas on multiple disciplines concerned with mathematics encourage the students to develop a range of generic skills helpful in employment, internships and social activities.
- To learn the basic laws of Physics and understand the various phenomenonsthat occur in nature using various mathematical & computational tools and theorems. To perform experiments and interpret the results of observation, including making an assessment of experimental uncertainties.
- Empowering the students with quantitative and analytic skills needed for analysing data and solving problems of modern technology.
- Understanding the link between various branches science and working towards the betterment of human kind and environment.
- Using the science for living a responsible life and understanding the limitations of the various physics laws and their applications without creating chaos in nature Have advanced level of understanding in various areas of Physics which is necessary in pursuing higher education in Physics.
- The ability to apply problem solving skills, The knowledge of computer science to analyse and develop solution to real world Problems related to data structure, web design, networking of varying complexity.

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- The ability to employ modern computer languages, environments and platforms in creating innovative career paths in the field of computer science.
- Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.

B.Sc.MECS (Mathematics, Electronics, Computer Science)

- Create deep interest in learning mathematics. Develop broad and balanced knowledge and understanding of definitions, concepts, principles and theorems.
- Familiarize the students with suitable tools of mathematical analysis to handle issues and problems in mathematics and related sciences.
- Enhance the ability of learners to apply the knowledge and skills acquired by them during the programme to solve specific theoretical and applied problems in mathematics.
- Provide students/learners sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas on multiple disciplines concerned with mathematics Encourage the students to develop a range of generic skills helpful in employment, internships and social activities.
- Graduates will be able to apply fundamentals of electronics in various domains of analog and digital systems.
- Design and analyse various functional elements of different modes of communication systems and signal processing.
- Ability to apply knowledge of logical computing relevant and appropriate to the domain thus promoting peace and harmony in the society.
- Learning advanced techniques in electronics adequate for pursuing higher education. Understanding basic principles of today's exciting development in electronics thus coping up with latest technology and preparing for worldwide opportunity.

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- The ability to apply problem solving skills, The knowledge of computer science to analyze and develop solution to real world Problems related to data structure, web design, networking of varying complexity.
- The ability to employ modern computer languages, environments and platforms in creating innovative career paths in the field of computer science.
- Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.

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Bachelor of Computer Science

Programme Outcomes

1. PO1: Relevance of the Principles: To understand the basic laws of nature, fundamental principles, and the scientific theories related to various phenomena and their relevance in the day-to-day life.
2. PO2: Critical Thinking, Problem Solving Skills: Acquire the skills in handling scientific instruments, planning and performing in laboratory experiments. The skills of observations and drawing logical inferences from the scientific experiments.
3. PO3: Interdisciplinary learning: Realizing that knowledge of subjects in other branches such as humanities, performing arts, social sciences etc. can have greater influence and inspiration in evolving new scientific theories and inventions, and understanding the importance of interdisciplinary study in every walk of life.
4. PO4: Moral and Ethical Values: To imbibe ethical, moral and social values in personal and social life leading to highly cultured, civilized and responsible personality development.
5. PO5: Scientific Temper: Analyzing the given scientific data critically and systematically and the ability to draw the objective conclusions. Acquire the knowledge with facts and figures related to various subjects in department of Computer Scienceetc.
6. PO6: Technical and Intellectual proficiency: To give a glimpse of designing solutions for communication problems with specific needs with appropriate technology thus developing healthy competition and setting parameters for excellence

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DEPARTMENT OF ELECTRONICS

Program outcomes, Program specific outcomes and Course outcomes PROGRAM: BSc. M.E.Cs

Program Outcome (PO)

PO1: To read, understand and interpret physical information – verbal, mathematical and graphicaland to impart skills required to gather information from resources and use them.

PO2: To give need based education in Electronics of the highest quality at the undergraduate level and tooffer courses to the choice of the students.

PO3: To perform experiments and interpret the results of observation, including making anassessment of experimental uncertainties.

PO4: To provide an intellectually stimulating environment to develop skills and enthusiasms ofstudents to the best of their potential.

Program Specific Outcome (PSO)

PS1: To provide in depth knowledge of scientific and technological aspects of Electronics.

PS2: To familiarize with current and recent technological developments.

PS3: To enrich knowledge through programmes such as project lab and seminars. PS4: To train students in skills related to electronics industry and market.

PS5: To create foundation for research and development in Electronics

PS6: To develop analytical abilities towards real world problems.

PS7: To help student's build-up a progressive and successful career in Electronics.

PS8: To produce electronic professionals who can be directly employed or start his/her own work as Electronic circuit Designer, Electronics consultant, testing professional, Service engineer andeven an entrepreneur in electronic industry.

PS9: To train students to a level where they can readily compete for seats for advanced degreecourses like MSc (Electronics) and other related disciplines.

Course Outcome (CO)

SEMESTER I: 1.Circuit theory and Electronics Devices

CO1: The course is intended to introduce the students to the basics and laws of DC and AC

CO2: To Analyze the circuits using passive elements

CO3: To familiarize with basic electronic devices.

CO4: To understand the concept of Power supply

SEMESTER II: 2.*Digital Electronics*

CO1: This course aims to get a pre-requisite knowledge on Number systems

CO2: To understand the concepts of Combinational circuits and Sequential Digital Circuits.

CO3: To understand the different types of Memories.

SEMESTER III: 3.Analog circuits and Communication

CO1: To understand the concepts of Liner integrated circuits like Op-amp, filters

CO2: To get an awareness on Modulation and it's types.

CO3: It also focuses on Transmitters and Receivers.

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SEMESTER IV:

4. Microprocessor systems

CO1: To understand basic architecture of 16-bit and 32-bit.
CO2: To understand how to write the ALP programs for 8051.
CO3: To understand how to interface the peripheral devices with 8085.
CO4: To understand the one more architecture of ARM.

5. Microcontroller and Interfacing.

CO1: To understand basic concepts of microcontroller based systems.
CO2: To understand how to write the ALP programs for 8051.
CO3: To understand how to interface the peripheral devices with 8051.

SEMESTER V:

6C: VLSI Design

CO1: To understand How to Design VLSI IC.
CO2: To understand How to Design VLSI IC CMOS fabrication.
CO3: To understand different types of languages of VLSI.
CO4: To understand how to write the programs for VLSI.

7C: Data Communication and Networking..

CO1: To understand basic components needed for communication.
CO2: To understand Different types of Networking and Topologies.
CO3: To understand Different types of conversions.

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Department Profile: Physics

The Department of Physics is established in the year 1999 with an UG Course- B.Sc (Maths, Physics, and Computer Science).

The Department has equipped with latest laboratory which enables the students to have the best practical knowledge to compete with the Industrial needs.

The Department organized webinars, Quizzes & Competitions. The Department consistently encourages the students to participate in Sports, NSS and other extracurricular activities.

The Department adopted and made the ICT in teaching techniques effectively.

Vision:

"Education for all and Quality education at affordable cost".

Mission:

"To bring out the best in each and every student and motivate them to carve their path in contemporary society emboldened with knowledge and skills, keeping morality and ethics as underlying forces".

Courses / Programs offered:

Level	Course
UG	B.Sc (MPCS)- Mathematics, Physics, Computer Science

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Course Structure under CBCS:

Year	Sem	Course	Title of the Course	Internal Marks	External Marks	Total Marks
I	I	I	Mechanics, Waves and Oscillations	25	75	100
			Practical Course- I	-	50	50
	II	II	Wave Optics	25	75	100
			Practical Course- II	-	50	50
II	III	III	Heat and Thermodynamics	25	75	100
			Practical Course- III	-	50	50
	IV	IV	Electricity, Magnetism and Electronics	25	75	100
			Practical Course- IV	-	50	50
		V	Modern Physics			
			Practical Course- V	-	50	50
III	V	VI	Low Temperature Physics Refrigeration	25	75	100
			Practical Course- VI	-	50	50
		VII	Solar Energy and Applications	25	75	100
			Practical Course- VII	-	50	50
	VI		Six Months Internship Program			

- Participation of Interdisciplinary Courses and the departments/ units involved : NIL
- Participation of the department in the courses offered by other departments : NIL
- Courses collaboration with other universities, Industries, foreign institutions : NIL
- Details of courses/ programmes discontinued (if any) with reasons : NIL

Number of teaching posts:

Post	Sanctioned	Filled
Teaching	02	02

Program outcomes, Program specific outcomes & Course outcomes:

Program outcomes	
PO1	**Critical Thinking:** The curriculum made for the betterment of the students; enhance the ability and thinking power of the students.
PO2	**Effective Communication:** The complete medium of program is learning in English so students will communicate well in the English. Which helps in effective Communication
PO3	**Social Interaction:** Due to continuous interaction with students in terms of various programme run by department i.e. Curiosity Thirsty For Knowledge programme, Celebration of 'Birth Day' of Teaching Staff and Students, Extension activity. Helps to increase Social Interaction.
PO4	**Effective Citizenship:** Being the students of Physics they have to communicate with people, They have developedskills in Interactions among themselves in PPT Competition under curiosity programme.
PO5	**Ethics:** The subject teaches students about the ethical approach, not to waste electricity.
PO6	**Environment and Sustainability:** Conservation practices are studied for sustainable development

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Programme Specific outcomes	
PSO1	Students are expected to acquire a core knowledge in physics, including the major premises of classical mechanics, quantum mechanics, electromagnetic theory, electronics, optics, special theory of relativity and modern physics.
PSO2	Students are also expected to develop written and oral communication skills in Communicating physics-related topics.
PSO3	Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and Processes. Not only that they are expected to have an understanding of the Analytical methods required to interpret and analyze results and draw conclusions as supported by their data.
PSO4	Students will develop the proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.
PSO5	Students will learn the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility.
PSO6	Apply conceptual understanding of the physics to general real-world situations.
PSO7	Describe the methodology of science and the relationship between observation and theory.
PSO8	Learn to minimize contributing variables and recognize the limitations of Equipment. Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.
PSO9	Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.
PSO10	Develop the following experimental tools: Numerically model simple physical systems using Euler's method, curve fitting, and error analysis.
PSO11	Analyze physical problems and develop correct solutions using natural laws and Principles of Physics

Course Outcomes:

SEM-1: MECHANICS, WAVES AND OSCILLATIONS	
CO1	Understand Newton's laws of motion and motion of variable mass system and its application to rocket motion and the concepts of impact parameter, scattering cross section
CO2	Apply the rotational kinematic relations, the principle and working of gyroscope and it applications and the precessional motion of a freely rotating symmetric top
CO3	Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation.
CO4	Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence
CO5	Examine phenomena of simple harmonic motion and the distinction between undamped, damped and forced oscillations and the concepts of resonance and quality factor with reference to damped harmonic oscillator.
CO6	Appreciate the formulation of the problem of coupled oscillations and solve them to obtain normal modes of oscillation and their frequencies in simple mechanical systems
CO7	Figure outthe formation of harmonics and overtones in a stretched string and acquire the knowledge on Ultrasonic waves, their production and detection and their applications in different fields

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	SEM-II: WAVE OPTICS
CO1	Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude
CO2	Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating
CO3	Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
CO4	Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity
CO5	Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields
CO6	Explain about the different aberrations in lenses and discuss the methods of minimizing them
CO7	Understand the basic principles of fibreoptic communication andexplore the field of Holography and Nonlinear optics and their applications
	SEM-III: HEAT AND THERMODYNAMICS
CO1	Understand the basic aspects of kinetic theory of gases, Maxwell-Boltzman distribution law, equipartition of energies, mean free path of molecular collisions and the transport phenomenon in ideal gases
CO2	Gain knowledge on the basic concepts of thermodynamics, the first and the second law of thermodynamics, the basic principles of refrigeration, the concept of entropy, the thermodynamic potentials and their physical interpretations
CO3	Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency
CO4	Develop critical understanding of concept of Thermodynamic potentials, the formulation of Maxwell's equations and its applications.
CO5	Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at low temperatures
CO6	Examine the nature of black body radiations and the basic theories
	SEM-IV: ELECTRICITY, MAGNETISM AND ELECTRONICS
CO1	Understand the Gauss law and its application to obtain electric field in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant.
CO2	Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
CO3	Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
CO4	Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
CO5	Phenomenon of resonance in LCR AC-circuits, sharpness of resonance Q-factor, Power factor and the comparative study of series and parallel resonant circuits.
CO6	Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors
CO7	Understand the operation of basic logic gates and universal gates and their truth tables.

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SEM-IV: MODERN PHYSICS	
CO1	Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics.
CO2	Develop critical understanding of concept of Matter waves and Uncertainty principle.
CO3	Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications
CO4	Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors.
CO5	Classify Elementary particles based on their mass, charge, spin, half life and interaction.
CO6	Get familiarized with the nano materials, their unique properties and applications.
CO7	Increase the awareness and appreciation of superconductors and their practical applications.
SEM-V: LOW TEMPERATURE PHYSICS & REFRIGERATION	
CO1	Identify various methods and techniques used to produce low temperatures in the Laboratory.
CO2	Acquire a critical knowledge on refrigeration and air conditioning.
CO3	Demonstrate skills of Refrigerators through hands on experience and learns about refrigeration components and their accessories.
CO4	Understand the classification, properties of refrigerants and their effects on environment.
CO5	Comprehend the applications of Low Temperature Physics and refrigeration.
SEM-V: SOLAR ENERGY & ITS APPLICATIONS	
CO1	Understand Sun structure, forms of energy coming from the Sun and its measurement.
CO2	Acquire a critical knowledge on the working of thermal and photovoltaic collectors.
CO3	Demonstrate skills related to callus culture through hands on experience
CO4	Understand testing procedures and fault analysis of thermal collectors and PV modules.
CO5	Comprehend applications of thermal collectors and PV modules.

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Department of Mathematics

Program Outcome forB.Sc. (Mathematics)

The Bachelor's Degree in B.Sc. (Mathematics) is awarded to the students on the basis of knowledge, understanding, skills, attitudes, values and academic achievements sought to be acquired by learners at the end of this program. Hence, the learning outcomes of mathematics for this course are aimed atfacilitating the learners to acquire these attributes, keeping in view of their preferences and aspirations for knowledge of mathematics. Mathematics is the study of quantity, structure, space and change. It has very broad scope inscience, engineering and social sciences. The key areas of study in mathematics are Differential Equations, Three dimensional Geometry, Algebra, Real Analysis, Multiple integrals and Vector Calculus and Laplace and Fourier Transforms. Programme Specific Outcome of B.Sc. (Mathematics)

- Think in a critical manner.
- Familiarize the students with suitable tools of mathematical analysis to handle issues and problems in mathematics and related sciences.
- Acquire good knowledge and understanding to solve specific theoretical and applied problems in advanced areas of mathematics and statistics.
- Provide students/learners sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas on multiple disciplines concerned with mathematics.
- Encourage the students to develop a range of generic skills helpful in employment, internships and social activities.

Bachelor's degree in mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science, Financial Mathematics, statistics and many more. Thus, this programme helps learners in building a solid foundation for higher studies in mathematics. The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilised in modelling and solving real life problems. Students undergoing this programme learn to logically question assertions, to recognise patterns and to distinguish between essential and irrelevant aspects of problems. They also share ideas and insights while seeking and benefitting from knowledge and insight of others. This helps them to learn behave responsibly in a rapidly changing interdependent society. Students completing this programme will be able to present mathematics clearly and precisely, make vague ideas precise by formulating them in the language of mathematics, describe mathematical ideas from multiple perspectives and explain fundamental concepts of mathematics to non-mathematicians. Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, dataanalyst jobs and jobs in various other public and private enterprises.

HOD
Dept. of Mathematics.

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Programme Specific Outcome of B.Sc., Mathematics

- Understand, formulate and use quantitative models arising in social science, business and other contexts.
- A student should get adequate exposure to global and local concerns that explore themmany aspects of mathematical sciences.
- Student is equipped with mathematical modeling ability, problem solving skills, creativetalent and power of communication necessary for various kinds of employment.
- Student should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae ortechniques in order to process the information and draw the relevant conclusion.
- Think in a critical manner.
- Know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.
- Formulate and develop mathematical arguments in a logical manner.
- Acquire good knowledge and understanding in advanced areas of mathematicschosen by the student from the given courses.
- Enabling students to develop a positive attitude towards mathematics as an interesting andvaluable subject of study.

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CBCS B.Sc Mathematics Course Outcomes
w.e.f. 2015-16 (Revised in April, 2016)

First Year –Semester-I

Course Code: S1-271

Course Name: Differential Equations

After completion of this course students will be able:

1. After successful completion of this course, the student will be able to Solve linear differential equations
2. Convert non-exact homogeneous equations to exact differential equations by using integrating factors.
3. Know the methods of finding solutions of differential equations of the first order but not of the first degree.
4. Solve higher-order linear differential equations, both homogeneous and non-homogeneous, with constant coefficients.
5. Understand the concept and apply appropriate methods for solving differential equations.

First Year –Semester-II

Course Code: S2-271

Course Name: Three Dimensional Analytical Solid Geometry

After completion of this course students will be able:

1. Get the knowledge of planes.
2. Basic idea of lines, sphere and cones.
3. Understand the properties of planes, lines, spheres and cones.
4. Express the problems geometrically and then to get the solution.

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Second Year –Semester-I

Course Code: S3-271

Course Name: Abstract Algebra

After completion of this course students will be able:

1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.
2. Get the significance of the notation of a normal subgroups.
3. Get the behavior of permutations and operations on them.
4. Study the homomorphism and isomorphism with applications.

Second Year –Semester-II

Course Code: S4-271

Course Name: Real Analysis

After completion of this course students will be able:

1. Get clear idea about the real numbers and real valued functions.
2. Obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/ series.
3. Test the continuity and differentiability and Riemann integration of a function.
4. Know the geometrical interpretation of mean value theorems.

Third Year –Semester-I

Course Code: S5-271

Course Name: Ring Theory and Vector Calculus

After completion of this course students will be able:

1. To impart knowledge on Ring Theory and its applications.
2. Describe the fundamental concepts in ring theory, such as of the ideals, quotient rings, integral domains and fields.
3. To introduce the concept of the geometrical meaning of Gradient, Divergence and Curl.
4. To make awareness of the concepts of transformation between the curl integration, surface integration and volume integration.
5. Understand relation between surface and volume integrals (Gauss divergence theorem), relation between line integral and volume integral (Green's theorem), relation between line and surface integral (Stokes theorem) Deduce the vector equations subject to different conditions.

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Course Code: S5 - 272

Course Name: Linear Algebra

After completion of this course students will be able:

1. Understand the concepts of vector spaces, subspaces, basis, dimension and their properties
2. Understand the concepts of linear transformations and their properties.
3. Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods
4. Learn the properties of inner product spaces and determine orthogonality in inner product spaces.

Third Year –Semester-II

Course Code: S6 - 271

Course Name: Laplace Transforms

After completion of this course students will be able:

1. Find the Laplace transform of a function and Inverse Laplace transform of a function using definition.
2. Find the Laplace transform of derivatives, integrals and periodic functions.
3. Use the Method of Laplace transforms to solve initial-value problems for linear differential equations with constant coefficients.
4. Solve inverse laplace transforms of a function and learn convolution theorem and Heaviside expansion theorem

Course Code: S6 – 272

Course Name: Integral Transforms

After completion of this course students will be able:

1. Learn application of MATLAB programming.
2. Solve differential & integral equations with initial conditions using Laplace transform.
3. Evaluate the Fourier transform of a continuous function and be familiar with its basic properties.
4. Solution of integral equation and their application.
5. To use Fourier series for solving boundary value problems appearing in scientific & engineering problems.

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Course Code: S6 – 273

Course Name: Advanced Numerical Analysis

After completion of this course students will be able:

1. Develop skills in analyzing the methods of interpolating a given data, properties of interpolation with unequal intervals and derive conclusions, approximate function using an appropriate numerical method.
2. Implement numerical methods for a variety of multidisciplinary applications and a variety of numerical algorithms using appropriate technology.
3. Use relevant numerical techniques for interpolation with equal and unequal intervals by using various central difference formulae and code a numerical method in a modern computer language.
4. Apply appropriate numerical methods to solve the problem with most accuracy.
5. Be able to derive Least – Squares curve fitting procedures, fitting a straight line, fitting a parabola, nonlinear curve fitting, Curve fitting by a sum of exponentials.
6. Be able to find the derivatives using Newton's forward difference formula, Newton's backward difference formula, Derivatives using central difference formulae, Stirling's interpolation formula, Newton's divided difference formula, Maximum and minimum values of a tabulated function.
7. Be able to derive Trapezoidal rule, Simpson's 1/3 – rule, Simpson's 3/8 – rule, and Weddle's rules from General Quadrature formula and find the Euler – McLaren Formula of summation and The Euler transformation.
8. Be able to find the solution of linear systems by using Direct methods, Matrix inversion method, Gaussian elimination methods, Gauss-Jordan Method, Method of factorization, Solution of Tri-diagonal Systems.
9. Be able to find the find the solution of ordinary differential equation of first order by Euler, Taylor and Runge-Kutta methods
10. Compare different methods in numerical analysis with accuracy and efficiency of solution

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Email : info@svdegreecollege.ac.in Web : www.svdegreecollege.ac.in

CBCS B.Sc Mathematics Course Outcomes
2020 Regulations

First Year –Semester-I

Course Code: NS1-271

Course Name: Differential Equations

After completion of this course students will be able:

1. After successful completion of this course, the student will be able to Solve linear differential equations
2. Convert non-exact homogeneous equations to exact differential equations by using integrating factors.
3. Know the methods of finding solutions of differential equations of the first order but not of the first degree.
4. Solve higher-order linear differential equations, both homogeneous and non-homogeneous, with constant coefficients.
5. Understand the concept and apply appropriate methods for solving differential equations.

First Year –Semester-II

Course Code: NS2-271

Course Name: Three Dimensional Analytical Solid Geometry

After completion of this course students will be able:

1. Get the knowledge of planes.
2. Basic idea of lines, sphere and cones.
3. Understand the properties of planes, lines, spheres and cones.
4. Express the problems geometrically and then to get the solution.

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Second Year –Semester-I

Course Code: NS3-271

Course Name: Abstract Algebra

After completion of this course students will be able:

1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.
2. Get the significance of the notation of a normal subgroups.
3. Get the behavior of permutations and operations on them.
4. Study the homomorphism and isomorphism with applications.
5. To impart knowledge on Ring Theory and its applications.
6. Describe the fundamental concepts in ring theory, such as of the ideals, quotient rings, integral domains and fields.

Second Year –Semester-II

Course Code: NS4-271

Course Name: Real Analysis

After completion of this course students will be able:

1. Get clear idea about the real numbers and real valued functions.
2. Obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/ series.
3. Test the continuity and differentiability and Riemann integration of a function.
4. Know the geometrical interpretation of mean value theorems.

Course Code: NS4 - 272

Course Name: Linear Algebra

After completion of this course students will be able:

1. Understand the concepts of vector spaces, subspaces, basis, dimension and their properties
2. Understand the concepts of linear transformations and their properties.
3. Apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods
4. Learn the properties of inner product spaces and determine orthogonality in inner product spaces.

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Third Year –Semester-I

Course Code:

Course Name: Multiple Integrals and applications of Vector Calculus

After completion of this course students will be able:

1. Learn multiple integrals as a natural extension of definite integral to a function of two variables in the case of double integral / three variables in the case of triple integral.
2. Learn applications in terms of finding surface area by double integral and volume by triple integral.
3. Determine the gradient, divergence and curl of a vector and vector identities.
4. To make awareness of the concepts of transformation between the curl integration, surface integration and volume integration.
5. Understand relation between surface and volume integrals (Gauss divergence theorem), relation between line integral and volume integral (Green's theorem), relation between line and surface integral (Stokes theorem)
6. To introduce the concept of the geometrical meaning of Gradient, Divergence and Curl.
7. Deduce the vector equations subject to different conditions.

Course Code:

Course Name: Integral Transforms with applications

After completion of this course students will be able:

1. Evaluate Laplace transforms of certain functions, find Laplace transforms of derivatives and of integrals.
2. Determine properties of Laplace transform which may be solved by application of special functions namely Dirac delta function, error function, Bessel function and periodic function.
3. Understand properties of inverse Laplace transforms, find inverse Laplace transforms of derivatives and of integrals.
4. Solve ordinary differential equations with constant/ variable coefficients by using Laplace transform method.
5. Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.

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B.Sc., Mathematics, Statistics, Computer Science (M.S. Cs)	
Program outcomes	
PO1	Understand the concepts of vector spaces, group theory, probability, distributions, sampling techniques, algorithm design, data base design and web design.
PO2	Analyze the concepts of mathematics, statistics and computers science able to use them in algorithm design and data science.
PO3	Acquire the skills to use various sampling techniques, statistical inference, and data analysis in MS-Excel, implementation of numerical algorithms by using various programming languages.
PO4	Ability to interlink the skills developed and develops an aptitude to address the problems in DBMS, web and mobile app development.

Programme Specific outcomes

OBJECTIVE OF THE COURSE

Statistics is a key to success in the field of science and technology. Today, the students need a thorough knowledge of fundamental basic principles, methods, results and a clear perception of the power of statistical ideas and tools to use them effectively in modeling, interpreting and solving the real life problems. Statistics plays an important role in the context of globalization of Indian economy, modern technology, computer science and information technology.

The main objectives of the course are

- To build the basis for promoting theoretical and application aspects of statistics.
- To underline the statistics as a science of decision making in the real life problems with the description of uncertainty.
- To emphasize the relevance of statistical tools and techniques of analysis in the study of inter-disciplinary sciences.
- To acquaint students with various statistical methods and their applications in different fields.
- To cultivate statistical thinking among students.
- To develop skills in handling complex problems in data analysis and research design
- To prepare students for future courses having quantitative components.

This course is aimed at preparing the students to hope with the latest developments and compete with students from other universities and put them on the right track.

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Course Outcomes:

SEM-1: Descriptive Statistics	
CO1	The objective of this paper is to throw light on the role of statistics in different fields with special reference to business and economics.
CO2	It gives the students to review good practice in presentation and the format most applicable to their own data.
CO3	The measures of central tendency or averages reduce the data to a single value which is highly useful for making comparative studies.
CO4	The measures of dispersion throw light on reliability of average and control of variability
CO5	The concept of Correlation and Linear Regression deals with studying the linear relationship between two or more variables, which is needed to analyze the real life problems
CO6	The attributes gives an idea that how to deal with qualitative data.
SEM-II: Probability Theory and Distributions	
CO1	This paper deals with the situation where there is uncertainty and how to measure that uncertainty by defining the probability, random variable and mathematical expectation which are essential in all research areas. .
CO2	This paper gives an idea of using various standard theoretical distributions, their chief characteristics and applications in analyzing any data
SEM-III: Statistical Inference	
CO1	This paper deals with standard sampling distributions like Chi Square, t and F and their characteristics and applications.
CO2	This paper deals with the different techniques of point estimation for estimating the parameter values of population and interval estimation for population parameters.
CO3	In this paper, various topics of Inferential Statistics such as interval estimation,Testing of Hypothesis, large sample tests (Z-test), small sample tests (t-test, F-test, chi-square test) and non-parametric tests are dealt with. These techniques play an important role in many fields like pharmaceutical, agricultural, medical etc.
SEM-IV: Sampling Techniques and Design of Experiments	
CO1	The sampling techniques deals with the ways and methods that should be used to draw samples to obtain the optimum results, i.e., the maximum information about the characteristics of the population with the available sources at our disposal in terms of time, money and manpower to obtain the best possible estimates of the population parameters

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CO2	This paper throw light on understanding the variability between group and within group through Analysis of Variance
CO3	This gives an idea of logical construction of Experimental Design and applications of these designs now days in various research areas.
CO4	Factorial designs allow researchers to look at how multiple factors affect a dependent variable, both independently and together.
SEM-IV: Applied Statistics	
CO1	This paper deals the time series on simple description methods of data, explains the variation, forecasting the future values, control procedures.
CO2	It gives an idea of using index numbers in a range of practical situations, limitations and uses
CO3	The vital statistics enlighten the students in obtaining different mortality, fertility rates thus obtaining the population growth rates and construction and use of life tables in actuarial science.
SEM-V: Operations Research - I	
CO1	To know the scope of Operations Research
CO2	To link the OR techniques with business environment and life sciences
CO3	To convert real life problems into mathematical models
CO4	To find a solution to the problem in different cases
CO5	To inculcate logical thinking to find a solution to the problem
SEM-V: Operations Research -II	
CO1	To solve the problems in logistics
CO2	To find a solution for the problems having space constraints
CO3	To minimize the total elapsed time in an industry by efficient allocation of jobs to the suitable persons.
CO4	To find a solution for an adequate usage of human resources
CO5	To find the most plausible solutions in industries and agriculture when a random environment exists

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PROGRAMME CODE 36 – Biotechnology (BMC)

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Title of paper	Course outcomes
BT-101	Bio-molecules & Analytical Techniques	To ensure students gain knowledge about the structure, properties and functions of biomolecules and characterization of biomolecules using analytical techniques.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Title of paper	Course outcomes
BT-201	Microbiology, Cell and Molecular Biology	To acquaint students with concepts of microbiology, cell and molecular biology. This course is aimed to give an understanding of the basics of microbiology, dealing types of microbes, classification and their characterization, structure and function of prokaryotic and eukaryotic cell organelles, cell division and basics of molecular biology including DNA replication, transcription, translation and regulation of gene expression.

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Title of paper	Course outcomes
BT- 301	Immunology and r-DNA technology	To acquaint students with concepts of immunology and recombinant DNA technology. This course is aimed to give an understanding of the basics of immunology dealing cells and organs of the immune system, types of immune responses, antigen-antibody interactions, vaccines and tools, techniques and strategies and applications of genetic engineering.

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SECOND YEAR - IV SEMESTER

Course No. & Q.P Code	Title of paper	Course outcomes
BT-401 (i)	Plant and Animal Biotechnology	The objectives of this course are to introduce students to the principles, practices and application of animal biotechnology, plant tissue culture, plant and animal genomics, genetic transformation
BT-401 (ii)	Environmental & Industrial Biotechnology	This course aims to introduce fundamentals of Environmental Biotechnology. The course will also give an insight in introducing major groups of microorganisms and their industrial applications

THIRD YEAR - V SEMESTER

Course No. & Q.P Code	Title of paper	Course outcomes
BT-6B	Organic Farming	Students after successful completion of the course will be able to 1. Understand the soil profile and nutrients in soil 2. Appreciate the importance of organic manure and biofertilizers 3. Produce vermi compost, farmyard manure from biowaste 4. Acquire skill on isolation and maintenance of biofertilizers
BT- 7B	Bio fertilizers and Bio pesticides production	On successful completion of the practical course, student shall be able to l. Understand the importance of bio fertilizers for sustainable agriculture 2. Appreciate the role of VAM in P solubilisation 3. Define bio pesticide and its nature 4. Produce bio fertilizers and bio pesticides on large scale 5. Able to prepare inoculums for field application

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Biotechnology Programme Outcome

PO1: Students develop global competencies in the area of basic and applied biological sciences.

PO2: Enhancing the subject knowledge of students by using traditional and modern ICT based teaching methods and learning by doing.

PO3: To enrich students' knowledge and train them in various branches of Biotechnology such as genetics, molecular biology, biochemistry, immunology, fermentation technology, environmental biotechnology and tissue culture techniques.

PO4: To groom the students to meet futuristic challenges and national interests.

PO5: Grasp of basic and advanced knowledge on various domains of biotechnology

PO6: Ability to integrate technologies through an inter-disciplinary learning habit

PO7: Possess technical knowledge and hands-on skills necessary for biotechnology research activity

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Biotechnology Program Specific objective - B.Sc. (BMC)
PSO-1: The chemistry graduates are expected to gain knowledge of the fundamental concepts of chemistry and applied chemistry through theory and practical. These fundamental concepts would be reflected in the latest understanding of the field to keep continues its progression.
PSO-2: Critical thinking: Chemistry graduates are expected to achieve critical thinking ability to design, carry out, record and analyze the results of chemical reactions. They can have that much potential and confidence that they can overcome many difficulties with the help of their sharp scientific knowledge and logical approaches.
PSO-3: Psychological skills: Chemistry graduates are expected to possess basic psychological skills so that they can deal with individuals and students of various socio-cultural, economic and educational levels. Psychological skills are very important for proper mind setting during performing, observing and giving conclusion of a particular reaction. It is also important for selfcompassion, self-reflection, interpersonal relationships, and emotional management.
PSO-4: Analytical skill development and job opportunity: Chemistry graduates are expected to possess sufficient knowledge how to synthesize a chemical compound and perform necessary characterization and analysis in support of the formation of the product by using modern analytical tools and advanced technologies. Because of this course curriculum chemistry graduates have lot of opportunity to get job not only in academic and administrative field but also in industry.
PSO-5: Research motivation: Chemistry graduates are expected to be technically well trained with modern devices and Chemistry based software and has powerful knowledge in different disciplines of Chemistry so they can easily involve themselves in theory and laboratory-based research activities.

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Chemistry Program Specific objective - B.Sc. (BMC)
PSO-1: The chemistry graduates are expected to gain knowledge of the fundamental concepts of chemistry and applied chemistry through theory and practical. These fundamental concepts would be reflected in the latest understanding of the field to keep continues its progression.
PSO-2: Chemistry graduates are expected to achieve critical thinking ability to design, carry out, record and analyze the results of chemical reactions. They can have that much potential and confidence that they can overcome many difficulties with the help of their sharp scientific knowledge and logical approaches.
PSO-3: Chemistry graduates are expected to possess basic psychological skills so that they can deal with individuals and students of various socio-cultural, economic and educational levels. Psychological skills are very important for proper mind setting during performing, observing and giving conclusion of a particular reaction. It is also important for selfcompassion, self-reflection, interpersonal relationships, and emotional management.
PSO-4: Analytical skill development and job opportunity: Chemistry graduates are expected to possess sufficient knowledge how to synthesize a chemical compound and perform necessary characterization and analysis in support of the formation of the product by using modern analytical tools and advanced technologies. Because of this course curriculum chemistry graduates have lot of opportunity to get job not only in academic and administrative field but also in industry.
PSO-5: Chemistry graduates are expected to be technically well trained with modern devices and Chemistry based software and has powerful knowledge in different disciplines of Chemistry so they can easily involve themselves in theory and laboratory-based research activities.

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Chemistry Programme Outcome

PO1: A graduate student is expected to be capable of demonstrating comprehensive knowledge and understanding both theoretical and practical knowledge in all disciplines of Chemistry. Students can solve their subjective problems very methodically, independently and finally draw a logical conclusion. Further, the student will be capable of applying modern technologies, handling advanced instruments and Chemistry related soft-wares for chemical analysis, characterization of materials and in separation technology.

PO2: The course curriculum also includes components that can be helpful to graduate students to develop critical thinking and to design, carry out, record and analyze the results of chemical reactions. Students will be able to think and apply evidence based comparative chemistry approach to explain chemical synthesis and analysis.

PO3: The course curriculum has been designed in such a manner as to enabling a graduate student to become a skilled project manager by acquiring knowledge about chemistry project management, writing, planning, study of ethical standards and rules and regulations pertaining to scientific project operation.

PO4: As an inhabitant of this green planet a Chemistry graduate student should have many social responsibilities. The course curriculum is designed to teach a Chemistry graduate student to follow the green routes for the synthesis of chemical compounds and also find out new greener routes for sustainable development. The course also helps them to understand the causes of environmental pollution and thereby applying environmental friendly policies instead of environmentally hazard ones in every aspect.

PO5: The course curriculum is designed to inculcate a habit of learning continuously through use of advanced ICT technique and other available e-techniques, e-books and e-journals for personal academic growth.

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PROGRAMME CODE – **BMC**

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-1 (S1-331)	INORGANIC & PHYSICAL CHEMISTRY	1.Understand the basic concepts of p-block elements 2. Explain the difference between solid, liquid and gases interms of inter molecular interactions. 3.Apply the concepts of gas equations, pH and electrolytes while studying other chemistry courses.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-2 (S2-331)	ORGANIC & GENERAL CHEMISTRY	1.Formulatethemechanismoforganicreactionsby recalling and correlating the fundamental properties of the reactants involved. 2. Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution. 3.Correlate and describe the stereochemical properties of organic compounds and reactions.

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-3 (S3-331)	ORGANIC CHEMISTRY & SPECTROSCOPY	1.Underst and preparation, properties and reactions of haloalkanes, haloarenesand oxygen containing functional groups. 2.Use the synthetic chemistry learnt in this course to do functional group transformations. 3.To propose plausible mechanisms for any relevant reaction

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SECOND YEAR - IV SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-4 (S4-331 - I)	INORGANIC, ORGANIC AND PHYSICAL CHEMISTRY	1.To learn about the laws of absorption of light energy by molecules and the subsequent photo chemical reactions. 2.To understand the concept of quantum efficiency and mechanisms of photo chemical reactions.
CO-5 (S4-331 - II)	INORGANIC &PHYSICAL CHEMISTRY	1.Understand concepts ofboundaryconditionsandquantization,probabilitydistribution,mostprobablevalues, uncertainty andexpectationvalues 2. Applicationofquantizationtospectroscopy. 3.Varioustypesofspectraandtheiruseinstructuredetermination.

THIRD YEAR - V SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-6 (S5-331- 6D)	ENVIRONMENTAL CHEMISTRY	I.Understand the environment functions and how it is affected by human activities. 2.Acquire chemical knowledge to ensure sustainable use ofthe world's resources and ecosystems services 3. Analyze key ethical challenges concerning biodiversity and understand the moral principles, goals and virtues important for guiding decisions that affect Earth's plant and animal life.
CO-7 (S5-331- 7D)	GREEN CHEMISTY AND NANOTECHNOLOGY	I.Understand the importance of Green chemistry and Green synthesis. 2. Engage in Microwave assisted organic synthesis. 3. Demonstrate skills using the altemative green solvents in synthesis. 4. Demonstrate and explain enzymatic catalysis.

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PROGRAMME CODE 101 – B.Sc. (BMC)

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-1 **(S1-411)**	Introduction to Microbiology & Microbial Diversity	➢ Learning about various scientists and their contributions to the microbiology. ➢ Learning about structure of bacteria and viruses and their characteristics ➢ Learning about Fungi, algae and protozoa and their structure and habitats. ➢ To know about different types of microscopes used in microbiology. ➢ To know about different types of sterilization techniques as well as isolation of different types of microorganisms by using various techniques and their preservation.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-2 **(S2-411)**	Microbial Physiology & Biochemistry	➢ To know the structure, classification and functions of different types of biomolecules. ➢ Learn about classification of enzymes and their mechanism; inhibition of enzyme activity. ➢ Learn about different types of analytical techniques used in microbiology and their uses. ➢ To know about different modes of nutritional requirements and their uptake by microorganisms and their growth kinetics. ➢ To learn different types of metabolic activities which are occurred in bacterial cells and their uses for human welfare

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-3 **(S3-411)**	Molecular Biology & Microbial Genetics	➢ To learn about structure and functions of Nucleic acids. ➢ To know the experiments to prove Genetic

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		material and extra chromosomal genetic elements. ➢ To learn, how the gene that is regulated and expressed for metabolic activities. ➢ To learn about different types of damages, repair mechanisms and mutations occurred in DNA. ➢ To learn about basic principles which are used in genetic engineering, methods of genetic engineering and their applications.

SECOND YEAR - IV SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-4 **(S4-411)**	Medical Microbiology & Immunology	➢ To learn about immune system, types of immunities, types of organs and types of cells play a key role in immunity. ➢ To learn about different types of antibodies and their functions and different types of antigen-antibody reactions this eliminates antigens. ➢ To learn about different types of diseases caused by different types of bacteria, fungi, parasites and viruses & their Pathogenecity, treatment. ➢ To know about different types of diagnostic tests and molecular tests which help to detect the diseases. ➢ To learn about different types of vaccines and drugs used for treatment of different diseases and
CO-5 **(S4-412)**	Microbial Ecology & Industrial Microbiology	➢ To learn about different types of biogeochemical cycles; different types of microbial interactions which are beneficial and harmful to the microorgnaicms. ➢ To learn about plant growth promoting microorganisms which help to improve soil health and microorganisms this can cause diseases to the plants. ➢ To learn about different types of microorganisms present in solid and liquid waste which can cause pollution and cause diseases and their detection methods ➢ Microorganisms used in industries and their products which are beneficial to humans. ➢ To know different types of fermentations, fermentation media used for production of different types of products.

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		➢ To know about production of different types of industrial products and their uses.

THIRD YEAR - V SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-6 **(S5-411)**	Microbial Quality Control in Food & Pharmaceutical Industries	➢ To know good practices in microbiology lab, working with biosafety cabinets and discarding of bio hazardous waste. ➢ To check the quality control in pharmaceutical products. ➢ To check the quality control by using molecular methods ➢ Learn to prepare different types of culture media used for isolation of different types of microorganisms and to detect quality control of milk by using different techniques. ➢ To know about different types of food preservations methods, BIS for foods and drinking water.
CO-7 **(S5-412)**	Microbial Biotechnology	➢ To learn about scope and applications of microbial biotechnology in various fields. ➢ To learn about production of different types of products using microbial biotechnology. ➢ To learn about different biocatalytic processes for the production of different products and immobilization methods and their uses. ➢ To learn about production of different types of bio fuels using microorganisms and reduce the environment pollution. ➢ To know IPR and how to apply for a patent, copyrights and trade marks.
CO-15 **(S5-553)**	Commercial Geography	Basic knowledge of Geography helps to take Commercial decisions in the fields of Agriculture minerals & mining by protecting water resources & with a social responsibility of protecting mother earth from various pollutions and understanding the importance of forestry in reducing global warming.
CO-16 **(S5-751)**	Programming in C	Learning Basics of Programming Languages that helps to develop the logic in developing an application which helps to learn advanced programming concepts.
CO-17 **(S5-752)**	Database Management System(DBMS)	Understanding database concepts and database management system software, its components and their functions.

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THIRD YEAR - VI SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-18 **(S6-551)**	Marketing	Enabling the students to understand various concepts of Marketing by adopting various techniques to win the competition with different strategies . (with different Digital Marketing methods)
CO-19 **(S6-552)**	Auditing	Understanding various ways of auditing different type of firms help the students to do their jobs relating to accountancy
CO-20 **(S6-553)**	Management Accounting	Enabling the student to understand the ways of applying management techniques in analyzing & increasing the operating efficiency
CO-21 **(S6-751)**	Web Technologies	Design and implement dynamic websites with good designing skills using HTML, CSS, JavaScript
CO-22 **(S6-752)**	E-Commerce	Getting awareness of different business models using Internet, Launching & Implementation of EC Sites and their Maintenance.

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Microbiology Programme Outcome

PO1: Students of the B.Sc. Microbiology programme will learn to use scientific logic as they explore a wide range of contemporary subjects spanning various aspects of basic microbiology such as Bacteriology, Virology, Biochemistry, Microbial Physiology, Immunology, Cell Biology, Molecular Biology, Genetics, Systems Biology, Immunology and Molecular biology, in addition to becoming aware of the applied aspects of microbiology such as Industrial Microbiology, Food and Dairy Microbiology, Environmental Microbiology and Medical Microbiology.

PO2: Students will appreciate the biological diversity of microbial forms and be able to describe/explain the processes used by microorganisms for their replication, survival, and interaction with their environment, hosts, and host populations.

PO3: They will become aware of the important role microorganisms play in maintenance of a clean and healthy environment. They will learn of the role of microorganisms in plant, animal and human health and disease.

PO4: Students will gain knowledge of various biotechnological applications of microorganisms and will learn of industrially important substances produced by microorganisms. They will gain familiarity with the unique role of microbes in genetic modification technologies.

PO5: Students will become familiar with scientific methodology, hypothesis generation and testing, design and execution of experiments. Students will develop the ability to think critically and to read and analyze scientific literature.

PO6: Students will acquire and demonstrate proficiency in good laboratory practices in a microbiological laboratory and be able to explain the theoretical basis and practical skills of the tools/technologies commonly used to study this field.

PO7: Students will develop strong oral and written communication skills through the effective 2 presentation of experimental results as well as through seminars

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Biotechnology Program Specific objective - B.Sc. (BMC)
PSO1: To bestow the students with all the research skills required to work independently.
PSO2: To develop scientific temperament and social responsibilities in the students.
PSO3: To inculcate nature care by imparting knowledge of advance modern techniques
PSO4: As Biotechnology is an interdisciplinary course, empower the students to acquire technological knowhow by connecting disciplinary and interdisciplinary aspects of biotechnology.
PSO5: Acquire knowledge in students of biotechnology enabling their applications in industry and research.

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PROGRAMME CODE 36 – B.Com (CA)

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-1 (S1-551)	Fundamentals of Accounting-I	Learning about Book Keeping & Accounting of business transactions and this basic knowledge helps them to acquire a job in Accounting
CO-2 (S1-554)	Business Organisation & Management	Having a basic idea about various types of organizations & Principles of Management
CO-3 (S1-751)	Office Automation Tools (OAT)	Learning different Office Automation Tools enabling the students to prepare Documents, Accounting Operations and Presentation Skills.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-4 (S2-551)	Fundamentals of Accounting-II	To acquaint the students with the preparation of books of accounts in various types of business firms
CO-5 (S2-751)	Enterprise Resource Planning(ERP)	Creating awareness of enterprise systems and their development and implementation in different enterprises.
CO-6 (S2-554)	Business Economics	Understanding the importance of Economic Concepts related to business activity and economy as a whole

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-7 (S3-551)	Corporate Accounting	To make the students familiarize with Corporate accounting procedure and to understand the accounting for Banking Companies as per the Accounting Standards
CO-8 (S3-552)	Business Statistics	Acquainting the students with basic knowledge of Statistical methods, & Graphical presentation of data analysed with the help of Tabulation
CO-9 (S3-751)	Computer Fundamentals & Photoshop	Providing basic knowledge on Computer Hard & Software Components and Photoshop's beauty with practical artistic skills in Future

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SECOND YEAR - IV SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-10 **(S4-751)**	Banking theory & Practice	Understanding various concepts relating to banking business by acquiring practical knowledge in real life
CO-11 **(S4-552)**	Business Laws	Understanding various aspects of Law to deal with real life business transactions as a consumer & seller too if need arises
CO-12 **(S4-752)**	Business Analytics	Understanding various concepts of Business Analytics and it's applicability in real life business transactions / analysis of the different business problems.

THIRD YEAR - V SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-13 **(S5-551)**	Cost Accounting	Basic knowledge of cost concepts and accounting procedure in manufacturing concerns
CO-14 **(S5-554)**	Taxation	Having an idea about Tax system in India, Central Sales Tax and VAT with their provisions and procedure of assessment
CO-15 **(S5-553)**	Commercial Geography	Basic knowledge of Geography helps to take Commercial decisions in the fields of Agriculture minerals & mining by protecting water resources & with a social responsibility of protecting mother earth from various pollutions and understanding the importance of forestry in reducing global warming.
CO-16 **(S5-751)**	Programming in C	Learning Basics of Programming Languages that helps to develop the logic in developing an application which helps to learn advanced programming concepts.
CO-17 **(S5-752)**	Database Management System(DBMS)	Understanding database concepts and database management system software, its components and their functions.

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THIRD YEAR - VI SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
CO-18 **(S6-551)**	Marketing	Enabling the students to understand various concepts of Marketing by adopting various techniques to win the competition with different strategies . (with different Digital Marketing methods)
CO-19 **(S6-552)**	Auditing	Understanding various ways of auditing different type of firms help the students to do their jobs relating to accountancy
CO-20 **(S6-553)**	Management Accounting	Enabling the student to understand the ways of applying management techniques in analyzing & increasing the operating efficiency
CO-21 **(S6-751)**	Web Technologies	Design and implement dynamic websites with good designing skills using HTML, CSS, JavaScript
CO-22 **(S6-752)**	E-Commerce	Getting awareness of different business models using Internet, Launching & Implementation of EC Sites and their Maintenance.

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Program Code 86 - B.Com (CA)
Having basic knowledge in Commerce course, application skills of Computer – enables the student to prove herself in any job she joins

Programme Outcome

1. The undergraduate students passing out from GTN Arts College Acquire proficiency in Language, Arts, and Management studies and shall be equipped with ICT competencies including digital literacy.

2.Gain dexterity in communication skills and to apply the concepts and skills in a focused thematic area through sustained critical inquiry.

3. Develop necessary skills for employability and get instilled with ambition, involvement and responsibility by exploring their role in creating this world and positioning themselves in the 21st century.

4.Get acquainted with lifelong learning process by exploring knowledge independently.

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Program Code 86 - B.Com (CA)
Clubbing Computer Literacy with basic knowledge of Commerce course, the application skills of ICT & Tally – enables the student to prove herself in any job she is assigned for, with assured financial independence.

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PROGRAMME CODE – BBA

FIRST YEAR - I SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1A	Principals of Management	On completion of the course the student will understand the basic principal of management will acquaint himself with management process, functions and principles. Student will also get the idea about new development in management.
2A	Managerial Economics	Describe the nature and scope of managerial economics, demand analysis and firm & its organization.Learn the techniques of production function, cost analysis and forms of market.

FIRST YEAR - II SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1B	Accounting for Managers	Identify transactions and events that need to be recorded in the books of accounts.Identify the Types of Subsidiary Books and prepare the cash book.Evaluate the Trial Balance and Rectification of Errors.
2B	Fundamentals Marketing	Develop an idea about marketing and marketing environment. Understand the consumer behavior and market segmentation process. Formulate new marketing strategies for a specific new product.

SECOND YEAR - III SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1C	Organization behavior	To equip the students with the basic idea and introduction on organizational behavior as a concept. To give a light on the concept and difference theories on Explain and helps the students to gain more knowledge on Group
2C	Human Resource Management	To understand the introduction of Human resource management To introduce the students about Human resources management in India and its impacts To

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		facilitate the knowledge about human resource planning
3C	Financial Management	To provide introduction to Financial Management To create an awareness about capital structure and theories of capital structure To make them understand the cost of capital in wide aspects

SECOND YEAR - IV SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1D	Financial Management	To provide introduction to Financial Management To create an awareness about capital structure and theories of capital structure To make them understand the cost of capital in wide aspects To provide knowledge about dividend policies and various dividend models. To enable them to understand working capital management
2D	Marketing Management	To develop an idea about marketing and its functions To enhance the students on consumer behavior To familiarize students about product and its classifications To make them understand pricing policies To introduce the concept of sales forecast management
3D	Business Ethics and Corporate Governance	Understand business ethics, ethical organization and corporate governance To know the meaning governance, corporate governance, corporate excellence To know the scams happened in corporate sectors Understand the SEBI Norms and clause 49 listing agreement, PSU Understand the meaning of CSR and CSR Models

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THIRD YEAR - V SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1E	Business Law	Understand the legal environment of business and laws of business. Familiarize with the legal formalities of contingent contract. Determine the rules regarding indemnity, bailment pledge etc. Understand the various provisions of The Sale of Goods Act 1930. Highlight the security aspects in the present cyber-crime scenario.
2E	Taxation	To understand the meaning and scope of tax policy and types of taxes. To analyse the significance and determinants of tax-GDP ratio and understand other concepts central totaxation policy such as tax effort, tax equity and tax incidence To appreciate the significance and application of buoyancy and elasticity of tax revenue To become aware of the dynamics of international taxation and methods adopted by countries to alleviateinternational double taxation. To examine the causes of tax evasion and tax avoidance along with methods adopted by countries to curbtax evasion and avoidance
3E	Talent Management	Know about the Talent management meaning, retaining talent, attracting talent and work life balanceinitiatives Understand about competence mapping, methods and models To evaluate the performance management using 360 degrees feedback as tool and rewards systems To know how to engage employees Understand the succession planning and identifying second line of leaders and developing their capabilities

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4E	Industrial Relations	Understand about Introduction to Industrial Relations and Scope, Function, Objective of IR. Acquire Knowledge about Industrial Disputes and Types of Disputes, Functions, objective etc. Apply the Trade Unions and scope of Trade union and Function, Features Weakness etc. Determine about Participative Management objectives Forms Levels etc. Understand about Collective Bargaining Features, process, Principles etc.

THIRD YEAR - VI SEMESTER

Course No. & Q.P Code	Name of the Subject	Course outcomes
1F	International Business	Understand the concept of Domestic and International/Foreign Trade. Develop an idea about Foreign market and Foreign Exchange Acquire Knowledge About Balance of Payment and Current account and Capital account convertibility Understand the concept of WTO and Trade blocks Acquire Knowledge About Export and Import Procedure and Documents
2F	Medium and Small Enterprises Management	Develop an idea about Medium and Small Enterprises. Understand the concept of project formulation. Comprehend the functions of small and medium enterprises. Familiarize with the role of Board for Industrial and Financial Reconstruction [BIFR]. Know the role of SIDCO, SSIDC, and SISI DIC etc.
3F	Project Evaluation and Management	Understand meaning of project, types of project and

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		problems of project management To analyze the project proposal To know Evaluation methods and selection techniques of project To understand the human aspects of project management Understand the types of termination and evaluation of termination of peoject
4F	Global HRM	Increase an understanding of (HRM), understanding traditional and modern perspective of HRM HRM issues in international contexts; issues related to host, home and third country nationals. Understand the selection process, expatriate management and repatriation. Understand the international training, compensation and appraisal
5F	Training and Development	Acquire knowledge About Introduction To Training and Development and scope, Understand the Knowledge about Training policy, courses Material Training period. Identify the Different types of Training Method. Gain knowledge about Training and Development, Management Development Purpose Stages, componentsof Development. Acquire Knowledge About Coaching and Counselling ,Management Syndication, Incident processes

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BBA Program Outcomes

PO–1	Providing Global Perspectives
PO–2	Developing Critical and Analytical Thinking Abilities
PO–3	Interpersonal Skill Development
PO–4	Creating Social Sensitivity and Understanding CSR, Ethical and Sustainable
PO–5	Business Practices Demonstrate sensitivity to social, ethical and sustainability issues DevelopingEntrepreneurship Acumen
PO–6	Program Specific Outcomes Acquiring Conceptual Clarity of Various Functional Areas

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PROGRAM SPECIFIC OUTCOMES PSO OF BBA

PSO–1	Analyze the theoretical knowledge with the practical aspects of Organizational setting and techniques or management
PSO–2	Determine conceptual and analytical abilities required for effective decision making
PSO–3	Understand the dynamic and complex working environment of Business
PSO–4	Understand the problems faced by the business sector in the Current scenario.
PSO–5	Understand the rapid changes of financial services include banking and insurance sectors

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