# KONGU ARTS AND SCIENCE COLLEGE (AUTONOMOUS)

Nanjanapuram, Erode – 638 107.

# PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES & COURSE OUTCOMES FOR 2021- 2022 BATCH AND ONWARDS

**Programme Outcomes (POs):** Programme outcomes are the knowledge, skills and ethical values that the students would possess at the end of course completion of their respective Programmes.

**Programme Specific Outcomes (PSOs):** Programme specific outcomes refer to the students' realization of the fact that the knowledge and techniques learnt through various courses have direct effect on their lives and the implementation of the acquired knowledge as an impact on the society.

**Course Outcomes (COs):** Course outcomes vary according to the courses which encompass variegated benefits like knowledge and language enrichment, skill enhancement, and acquisition of moral and ethical values.

Programme Outcomes (PO), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) for all Programmes and Courses offered by the Institution are stated and displayed in website of the Institution (weblink:https://www.kasc.ac.in). Our college teachers and students are clearly instructed that a copy of the outcomes is available in the college website and department records. Outcomes of the Programmes and Courses are highlighted and made aware to the students during Induction Programmes. The importance of the learning outcomes has been discussed and communicated to the teachers in the staff meeting.

# **Programme Title: B.A Tamil Literature**

Programme Outcomes: (பாடத்திட்ட விளைவுகள்)

Towards the end of the programme, the students will be able to: (பாடத்திட்டத்தின் முடிவில் மாணவர்கள் பெறுவது)

PO Number	PO Statement
PO1	<b>நுட்பமான சிந்தனை:</b> நமது சிந்தனையையும், செயல்களையும் வடிவமைக்கும் கருத்தாக்கங்களை அடையாளம் கண்டபின் அதற்கான நடவடிக்கைகளை மேற்கொள்ளுதல். இக்கருத்தாக்கங்கள் எந்த அளவிற்குத் துல்லியமானவை என்பதைச் சரிபார்த்து, தங்களது யோசனைகளையும் முடிவுகளையும் (அறிவுசார், நிறுவன மற்றும் தனிப்பட்ட) வெவ்வேறு கோணங்களிலிருந்து பார்த்து அறிவர்.
PO2	<b>பயனள்ள தகவல் தொடர்பு:</b> தனி நபராக தெளிவாகப் பேசவும் படிக்கவும் எழுதவும் மற்றும் கேட்கவும் அறிந்துகொள்வர். மின்னனு ஊடகங்கள் வாயிலாக ஆங்கிலம் மற்றும் இதர இந்திய மொழியை அறிவதால் பல நூல்கள், கருத்துகள், ஊடகம் மற்றும் தொழில்நுட்பத்தைப் புரிந்துகொள்வதோடு உலகியலைத் தொடர்புகொள்ளவும் அறிவர்.
PO3	<b>சமூகத்தொடர்பு:</b> பிறருடைய கருத்துகளையும் எண்ணங்களையும் வெளிக்கொண்டு வருவதோடு கருத்து வேறுபாடுகளை பொது முடிவுக்குக் கொண்டு வருதல் மற்றம் குழு அமைப்புகள் மூலம் கருத்துகளை முடிவுக்குக் கொண்டு வருதல்.
PO4	<b>பயனள்ள குடியுரிமை:</b> சமூக நலத்தில் அக்கறை கொண்டு பரவலான சமத்துவ தேசிய வளர்ச்சி மற்றும் தேசியப் பிரச்சினைகளில் பங்கு பெறும் திறனைப்பெறுதல். பொதுத்தொண்டு நிறுவனங்களுடன் இணைந்து நாட்டு நலனுக்காக செயல்படுதல்.
PO5	<b>நெறிமுறைகள்:</b> பல்வேறு சமூக நெறிமுறைகளை உணர்ந்து அவற்றின் வழி நடப்பதற்கும் பொறுப்புகளை ஏற்றுக்கொள்வதற்குமான திறன் பெறுவர்.
PO6	<b>சுற்றுச்சூழல் மற்றும் நிலைத்தன்மை:</b> சுற்றுச்சூழல் மற்றும் அதன் நிலையான வளர்ச்சியின் சிக்கல்களைப் புரிதல்.
<b>PO7</b>	<b>சுயமாக வாழ்நாள் முழுவதும் கற்றல்:</b> பரந்த சூழலில் ஏற்றபட்டுள்ள சமூக தொழில் நுட்ப மாற்றங்களை சுதந்திரமாக வாழ்நாள் முழுவதும் கற்கும் திறன் பெறுதல்.

# Programme Specific Outcomes: At the end of the Programme, Students will be able to (குறிப்பிடத்தக்க பாடத்திட்டத்தின் முடிவில் மாணவர்கள் பெறுவது)

PSO Number	PSO Statement
PSO1	இலக்கியம், இலக்கணங்களின் பாடுபொருளை அறிதல்
PSO2	மரபு மற்றும் பண்பாட்டு நெறிகளை உணர்தல்
PSO3	மொழியியல் திறன் பெறுதல்
PSO4	சமயம், வாழ்வியல் விழுமியங்களை அறிதல்
PSO5	படைப்பாக்கத்திறனைப் பெறுதல்

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UAACT101 Course Outcomes (CO): On completion of the course, students should be able to

CO1	Identify the correct usage of vocabulary and grammar in Speaking and Writing
CO2	Demonstrate the language skills through academic Writing
CO3	Apply the Communicative Skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

#### Course Name : CORE - II இக்கால இலக்கியம் Course Code : 21UAUCT102

CO1	இலக்கியத்தின் வகைப்பாட்டை அறிதல்.
CO2	பொதுவுடைமைச் சிந்தனையைப் புரிந்து கொள்ளல்.
CO3	தமிழ்ச் சிறுகதைகளின் பொருண்மைகளைக் கொண்டு சிறுகதைகளைப் பகுத்தாய்தல்.
CO4	படைப்பிலக்கியங்கள் வழி சமூகச்சிந்தனையைப் பெறுதல்.
CO5	பெண்ணியச் சிந்தனையாக இலக்கியங்கள் கூறும் கருத்தாக்கங்களை அறிதல்.

#### Course Name : Allied - I உரைநடை இலக்கியம் Course Code : 21UAUCT103

CO1	பெண் முன்னேற்றம் குறித்த கருத்துகளை அறிதல்
CO2	அறிவியல் அணுகுமுறையைப் புரிந்துகொள்ளுதல்
CO3	சுற்றுச்சூழல் பாதுகாப்பு குறித்த சிந்தனைகளைப் பகுத்தறிதல்
CO4	வாழ்வியல் நிகழ்வுகளை படைப்பிலக்கியத்தின் வழி அறிதல்
CO5	வரலாற்றுச் செய்திகளை அறிதல்

#### **SEMESTER: II**

#### Course Name: Core 4: Professional English- II Course Code: 21UAACT201

CO1	Identify the importance of language competence in workplace situations
CO2	Formulate the Listening, Speaking, Reading and Writing skills for academic and career purposes
CO3	Apply the employability skills through various speaking and writing tasks
CO4	Design the communication suitable for workplace
CO5	Communicate the digital competence with innovation and imagination

#### Course Name : CORE - IV நன்னூல் - எழுத்ததிகாரம் Course Code : 21UAUCT202

CO 1	பாயிரத்தின் இன்றியமையாமை அறிதல்
CO 2	எழுத்துக்களையும் அதன் வகைகளையும் புரிந்துகொள்ளுதல்
CO 3	புணர்ச்சி விதிகளைப் பயன்படுத்தி சொற்கட்டமைப்பைத் தெரிந்து கொள்ளுதல்
CO 4	பிழையின்றி எழுதுவதற்கான இலக்கண விதிகளை அறிதல்
CO 5	பகுபதம் பகாபதம் போன்ற சொற்களின் தன்மைகளை அறிந்து கொள்ளுதல்

### Course Name : ALLIED - II தமிழ் இலக்கிய வரலாறு Course Code : 21UAUAT203

CO1	தமிழ்மொழியின் பழமையை அறிதல்
CO2	நீதி நூல்கள் மற்றும் காப்பியங்கள் கூறும் வாழ்வியல் கூறுகளை பகுத்தாராய்தல்
CO3	சமய இலக்கியம் உணர்த்தும் நெறியினைப் புரிந்துகொள்ளுதல்
CO4	செம்மொழியின் பயன்பாட்டினை உணர்தல்
CO5	இக்கால இலக்கியம் உணர்த்தும் சமூகச் சூழலை அறிதல்

#### Course Name : Part I: Tamil I Course Code : 21T01

CO1	இலக்கியங்கள் காட்டும் வாழ்வியல் விழுமியங்களை அறிந்து கொள்ளல்.
CO2	புதுக்கவிதைகள் வழி பல்வேறு வகைப்பட்ட கருத்தாக்கங்களைப் புரிதல்.
CO3	வாழ்வியல் நிகழ்வுகளைப் படைப்பிலக்கியங்கள் வழி அறிதல்.
CO4	நாட்டுப்பற்று மற்றும் பொதுவுடைமைச் சிந்தனைகளைப் பகுத்தறிதல்.
CO5	தன்னம்பிக்கைத் திறனை வளர்க்கும் ஆற்றலைப் பெறுதல்.

#### Course Name : Part I: Tamil II

#### **Course Code : 21T02**

CO1	அற இலக்கியங்கள் வாயிலாக வாழ்வியல் விழுமியங்களை அறிதல்.
CO2	சமயப்பாடல்கள் வழி பல்சமயக் கோட்பாடுகளைப் பகுத்தறிதல்.
CO3	படைப்பிலக்கியங்கள் கொண்டு பழந்தமிழர் வரலாற்றை உணர்தல்.
CO4	மத நல்லிணக்கத்தைப் புரிந்து கொள்ளல்.
CO5	படைப்பாற்றல் திறனை வளர்த்துக்கொள்ளுதல்.

# **Department of Hindi and Other Languages**

#### **SEMESTER I**

#### **Course Name: Hindi, Paper I**

#### Course Code: 21H01

CO1	Acquire knowledge and understand about various aspects of Hindi Literature
CO2	Analyze the characteristic features of people and evaluate their circumstances
CO3	Write letters for various occasions
CO4	Apply the appropriate grammar forms in communication
CO5	Write expository essays in Hindi on various topics

#### Course Name: Sanskrit, Paper I Course Code: 21S01

CO1	Gain introductory knowledge about the Sanskrit Language
CO2	Apply the knowledge gained through our rich cultural heritage
CO3	Acquire various information about Epic Literature
CO4	Develop a better understanding of Sanskrit grammar
CO5	Cultivate the good values among oneself

#### Course Name: French, Paper I Course Code: 21F01

CO1	Possess a basic knowledge of Self-introduction
CO2	Learn to interrogate
CO3	Acquire some basic knowledge of Adjectives
CO4	Express how to go and return
CO5	Enquire about few things

#### Course Name: French(CSHM), Paper I Course Code: 21CSF01

CO1	Possess knowledge to enquire about hotel stay
CO2	Express about dissatisfaction and excuses
CO3	Ask about Reservation, Suggestions and Payment
CO4	Demonstrate a clear understanding to ask about registration and willingness
CO5	Deal with money and appreciate the service

#### Course Name: Malayalam, Paper I Course Code: 21M01

CO1	Acquire basic knowledge about Khandakavyas
CO2	Possess sound knowledge about the Modern poets of Malayalam Language
CO3	Impart human values
CO4	Gain knowledge about Romanticism
CO5	Know the feministic aspect of Malayalam Poetry Literature

#### **SEMESTER II**

#### **Course Name: Hindi, Paper II**

# Course Code: 21H02

C01	Acquire knowledge about great Indian personalities
CO2	Inculcate the cultural values in life
CO3	Assess the Teacher-Student relationship and education
CO4	Apply grammatical knowledge in Advanced Level
CO5	Develop and write short stories in Hindi

### Course Name : Sanskrit, Paper II

# Course Code: 21S02

CO1	Gain knowledge about Kavyas
CO2	Gain knowledge about the main concepts of Sanskrit Literature
CO3	Acquire wisdom through Niti kavya
CO4	Apply the Sabdharupa
CO5	Develop the knowledge im Sanskrit grammar

# Course Name: French, Paper II

### Course Code: 21F02

CO1	Possess a sound knowledge of some of the Itinerary
CO2	Ask about way
CO3	Request about anything and its price in the market/restaurant
CO4	Ask about anything and give information
CO5	Invite guest and visit an apartment

#### Course Name: French(CSHM), Paper II Course Code: 21CSF02

CO1	Use the knowledge gained to deal with travel agency
CO2	Express their satisfaction and assess tourism in Madurai
CO3	Admire and analyze tourism in Mahabalipuram
CO4	Say about Agra
CO5	Discuss about Varanasi

#### Name: Malayalam, Paper II Course Code: 21M02

CO1	Acquire knowledge on new aspects of Novel Literature
CO2	Gain knowledge about Basheer Sahityam
CO3	Acquire sound knowledge of short stories
CO4	Gain knowledge about short stories of Medieval Period
CO5	Gain knowledge about short stories of Modern Period

#### **SEMESTER : III**

#### Course Name : Hindi, Paper III Course Code : 21H03

CO1	Acquire knowledge about main streams of Modern Hindi Literature
CO2	Learn about the Pillars of Modern Hindi Litearture
CO3	Understand Mass media and its needs
CO4	Acquire communication skills needed for media
CO5	Acquire Basic knowledge in linguistic Hindi

#### Course Name : Sanskrit, Paper III Course Code : 21803

CO1	Gain introductory knowledge about the Prose Literature
CO2	Acquire knowledge about Popular tales and Fables
CO3	Apply the five techniques in day to day life
CO4	Acquire knowledge about Alankara
CO5	Gain a better understanding of Sanskrit grammar in Future tense

#### Course Name : French(General), Paper III Course Code : 21F03

CO1	Possess a sound knowledge on pronoun, adjective and Civilization (Holidays and Sales)
CO2	Understand the Pronominal verbs needed for Itinerary
CO3	Gain knowledge about civilization through French Television Channels
CO4	Describe about the Climate of France
CO5	Express their point of view about the daily routine of French People

#### Course Name : Malayalam, Paper III Course Code : 21M03

CO1	Gain knowledge and difference between Biography and Autobiography
CO2	Face challenges in their life
CO3	Acquire Basic knowledge of Travelogue and Cultural aspect of other countries
CO4	Develop the habit of general writing
CO5	Develop the skill of translation

#### **SEMESTER : IV**

# Course Name : Hindi, Paper IV

# Course Code : 21H04

CO1	Gain Awareness about Social problems and Emotional Intelligence
CO2	Learn about the Important writers of Modern Hindi Literature
CO3	Acquire the knowledge to enrich their communication skills in the language
CO4	Acquire the knowledge needed to meet the requirements in media
CO5	Acquire Basic knowledge about languages and script

#### Course Name : Sanskrit, Paper IV Course Code : 21S04

CO1	Gain introductory knowledge about Drama Literature
CO2	Understand about Dramaturgy
CO3	Acquire knowledge about the important Sanskrit Play writers and their works
CO4	Learn about the attitude of people described in Mythology
CO5	Gain a better understanding of Sanskrit Literature

#### **Course Name : French(General), Paper IV Course Code : 21F04**

CO1	Gain knowledge of negation and Civilization of Paris
CO2	Compare and express learners view on Cultural Aspects of Francophone Civilization
CO3	Know to prepare CV
CO4	Understand the cultural aspects of island
CO5	Acquire knowledge on French Press Media

# **Course Name : Malayalam, Paper IV**

# **Course Code : 21M04**

CO1	Acquire knowledge about Drama Literature and its new trends
CO2	Know the revolution in the renaissance period and women empowerment through Drama
CO3	Acquire sound knowledge of screenplay
CO4	Impart human values through Film
CO5	Write a Screenplay

# **SEMESTER: I**

# Course Name: Part II: English I Course Code: 21E01

CO1	Improve their comprehension of grammar
CO2	Cultivate their expressive ability in writing
CO3	Enhance their Speaking and Reading Skills
CO4	Effectively develop situational competence
CO5	Empower the communicative skills in formal situations

#### **SEMESTER: II**

#### **Course Name: Part II: English II Course Code: 21E02**

CO1	Utilize better mercantile language skills
CO2	Expand Grammatical knowledge
CO3	Develop their language fluency and gain professional writing skills
CO4	Plan and select the interview skills
CO5	Empower the business acquainted language skills

# Programme Title: B.A. English Literature

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame thinking and actions, checking out the degree to which these assumptions are accurate and valid and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit view of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimension of your decisions and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
<b>PO7</b>	<b>Self-directed and Life-long Learning:</b> Acquire the ability to strengthen independent and life-long learning in the broadest context socio-technological changes.

Programme	utcomes: At the end of the programme the students will be able to
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**Programme Specific Outcomes:** After the successful completion of the B.A. English Literature programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	Enhance the acquired LSRW skills and keep pace with the global educational scenario.
PSO2	Build self-confidence by developing linguistic competence.
PSO3	Inculcate within themselves the ethical and moral values in life through the literary aesthetic sense and therapeutic value.
PSO4	Facilitate to get a reputable job to fulfil their career objectives.
PSO5	Acquire literary perceptions for life-long learning.

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UAACT101

CO1	Identify the correct usage of vocabulary and grammar in Speaking and Writing	
CO2	Demonstrate the language skills through academic Writing	
CO3	Apply the Communicative Skills by responding to given situations	
CO4	Communicate leadership quality and team building	
CO5	Analyze the information in various circumstances	

# **Course Name: Core 2 – Poetry**

#### Course Code: 21UAACT102

C01	Identify and understand the philosophies of the poets of various centuries and countries
CO2	Interpret the different perceptions of different poets which resemble the reality of life
CO3	Solve the problems of life and multiple modules of life by traversing through different steps of poetic reflections
CO4	Ascertain the solitude nature with reverence and individual identity through spiritualism.
CO5	Analyze the sharp realities of life and make use of their literary knowledge to revive their lives

# **Course Name: Core 3 – Prose**

#### **Course Code: 21UAACT103**

CO1	Define the values in the words of great spiritual leaders and philosophers
CO2	Interpret the art of being empathetic towards sufferers and understand the value of character building
CO3	Prepare propagation towards achieving their goals through the works of great leaders
CO4	Assess their role in the society as intellectual citizens
CO5	Analyze within themselves and rejuvenate their spirits to emerge as good human beings

#### **Course Name: Allied I – Social History of England Course Code: 21UAAAT104**

CO1	Assess the history of Britain as a coherent, chronological narrative, from the earliest times to the present day.
CO2	Get exposure to the chronicles of England and to be cognizant with their evolution.
CO3	Identify the critical ideas, values and themes that appear in literary and cultural texts of various genres.
CO4	Analyze the impact of socio-political history representing literary and cultural texts within a significant span of time in the past.
CO5	Perceive how British literature reflects or/and refracts the Britain's history.

#### Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

#### Course Name: Core 4: Professional English- II Course Code: 21UAACT201

CO1	Identify the importance of language competence in workplace situations
CO2	Formulate the Listening, Speaking, Reading and Writing skills for academic and career purposes
CO3	Apply the employability skills through various speaking and writing tasks
CO4	Design the communication suitable for workplace
CO5	Communicate the digital competence with innovation and imagination

#### Course Name: Core 5 – Drama Course Code: 21UAACT202

CO1	Define the most important elements of drama.
CO2	Explain the themes and motives of Shakespearean tragedy.
CO3	Predict the plays by discovering the specific features of plot and characters.
CO4	Examine the themes and motives of Girish Karnad plays.
CO5	Critique the psychological problems in human lives.

# **Course Name: Allied II -History of English Literature and Language Course Code: 21UAAAT203**

CO1	Compile knowledge about the status of literary proceedings during the period of
	pioneers among English writers
CO2	Analyze the happenings in the society through great writers
CO3	Critique an idea about the various genres in English literature which explicate the genius of
	different writers
CO4	Comprehend which genre prevailed at the top as per the skill of the writers and according to
	the taste of the people
CO5	Evaluate an idea about the changes that occurred in English writings during modern era

#### **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their Personal, Professional and Social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### Course Name: Core 6 :Fiction Course Code: 21UAACT301

CO1	Recognize the aesthetic sense value and sense that is present in Literature
CO2	Compare the culture presented in the novel with the culture of thelearners.
CO3	Examine the cultural aspects of the society that is reflected in the novel.
CO4	Build a Postmodern thought with the development of narration.
CO5	Decide social values and cultural background of the Nigerian folks.

# Course Name: Core 7: Shakespeare Course Code: 21UAACT302

CO1	Identify the role of English writers during Elizabethan era
CO2	Analyze the significance of Shakespearean Sonnets.
CO3	Relate the social, historical and political backgrounds of the plays with the themes.
CO4	Infer the structure of a play and dramatic devices in writing a play.
CO5	Assess the rhetorical aspects of Drama, historical contexts and psycho-social aspects.

#### Course Name: Allied 3 : Literary Forms Course Code: 21UAAAT303

CO1	Understand different literary forms and their characteristics
CO2	Identify literary devices in a work, compare the genres and their features
CO3	Apply any of the literary forms in creative writing.
CO4	Distinguish Literary devices Employed by the Writers.
CO5	Assess the literary texts and apply technical skills to review the works.

#### Course Name: Skill Based Course – I Writing For Media Course Code:21UAAST304

CO1	Understand the basic concepts of Mass Communication and its functions
CO2	Distinguish the Language forms used in print and electronic media.
CO3	Use the various online platforms available to exhibit writing skills.
CO4	Analyze various forms of writing and its impact.
CO5	Create and publish an advertising content.

#### Course Name: Non - Major Elective – I Soft Skills - I Course Code: 21UAANT305

CO1	Understand the purpose and significance of Good Communication
CO2	Associate language with etiquettes for successful interpersonal relationship
CO3	Apply the right techniques to succeed in interviews
CO4	Analyze the effective methodologies for successful presentation.
CO5	Evaluate the proper Curriculum vitae for suitable jobs

# **Course Name: Self Study - Gender Studies**

# Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

#### Course Name: Core Paper – 8 - Indian Writing in English Course Code: 21UAACT401

CO1	Gain Knowledge about the aesthetic qualities of the poets
CO2	Understand the strength of philosophical life through Indian writings
CO3	Relate the plot of the Indian Short Stories with real life situation.
CO4	Analyze the style of the Novelists and their ethical teachings.
CO5	Compare the writer's expression of thoughts with the contemporary thoughts of the learners.

#### Course Name: Core 9 - British Literature Course Code: 21UAACT402

CO1	Identify the nuances of the poetic language, devices and techniques of poetry
CO2	Understand the tinge of the prose style and moral values of life
CO3	Access the variety of thematic variations in the story underlining the human values, to understand an outline of dramatic style and to use their reasoning skills.
CO4	Comprehend the imaginative, creative, artistic style of the novelists.
CO5	Appraise the critical methods and examine the techniques employed by the critics.

# **Course Name: Allied – IV Literary Criticism**

#### Course Code: 21UAAAT403

CO1	Gain Knowledge about leading Critics and their methods of criticism
CO2	Examine the postulations of the various critical concepts in literature
CO3	Associate social and cultural contexts with the literary text.
CO4	Analyse the argument underlying the critical concepts.
CO5	Evaluate a literary piece of art by applying the ideas of the critics.

## Course Name: Skill Based Course II –Visual Narratives

#### Course Code: 21UAAST404

CO1	Gain knowledge about the link between literature and media.
CO2	Understand the didactical purpose behind the literary works in films.
CO3	Distinguish between the language style in fiction and film.
CO4	Analyse the universal theme present in films irrespective of language.
CO5	Assess the difference between action literature and fantasy literature series.

#### Course Name: Non - Major Elective – II - Soft Skills - II Course Code: 21UAANT405

CO1	Gain knowledge about the significance of Communication in various
	contexts
CO2	Understand the importance of digital literacy
001	
CO3	Apply inventive thinking for sustaining success at work place
003	II , , , , , , , , , , , , , , , , , ,
004	Analyze suitable etiquettes for successful telephonic conversation
CO4	i maryze suituble enquettes for successful telephonic conversation
0.05	Evaluate the effective meeting strategies
CO5	Evaluate the effective meeting strategies

# Course Name: Self Study - Fundamentals of Yoga Course Code: 21SS02

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know the about benefits of Asanas

# Programme Title: MA English Literature

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
<b>PO1</b>	Critical Thinking: Apply the strategies and techniques in order to solve real world problems.
PO2	Effective Communication: Communicate the concepts in oral and written form.
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society-oriented problems using the Domain knowledge.
PO4	<b>Effective Citizenship</b> : Attain the ability to identify, formulate and solve challenging problems of the society and nation.
PO5	<b>Knowledge Formulation:</b> Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.
PO6	<b>Environment and Sustainability:</b> Instill a sense of attitude in tackling social and environmental issues.
<b>PO7</b>	<b>Self-directed and Life-long Learning:</b> Identify their own educational and career needs from the global challenges.

**Programme Specific Outcomes:** After the successful completion of MA English Literatureprogramme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	Critically interpret and analyze the nuances of life at every stage through the acquired knowledge of literature.
PSO2	Identify and evaluate appropriate methods and formulations for a productive research.
PSO3	Acquire linguistic and literary competence to pursue a respectable career.
PSO4	Equip themselves as responsible citizens catering to the societal needs.
PSO5	Develop a thirst for life-long learning encompassing ethical and moral values.

#### **SEMESTER: I**

#### Course Name: Core 1: British Literature – I (Age of Chaucer to Age of Pope) Course Code: 21PBACT101

CO1	Identify the nuances of the poetic language and poetic devices.
CO2	Access the rhythms, metrics and other musical aspects of poetry and appreciate the sublimity of Poets' style.
CO3	Compute the importance of style of brevity and acknowledge the stylistic aspect in Literature.
CO4	Infer the rhetoric aspect of historical drama and learn moral values.
CO5	Appraise various critical theories and examine the techniques of literary criticism.

# Course Name: Core 2 : Indian Writing in English Course Code: 21PBACT102

CO1	Outline knowledge about Indian Society
CO2	comprehend the importance of Indian History, Culture, Religion and Aesthetics
CO3	Compare knowledge about the Political milieu in Indian History
CO4	Analyze the importance of human identity in the society
CO5	Discuss knowledge about other Indian Writers in English, their Literary style and their interpretation about the happenings in the society

#### Course Name: Core 3: Afro American Literature Course Code: 21PBACT103

CO1	Understand the Afro-American writings at different periods
CO2	Identify the themes like slavery, racism and domination of Afro-American people in the society
CO3	Formulate the importance of equality, freedom and rights for everyone in society
CO4	Analyze the Afro-American people's thoughts and ideas through the works of writers
CO5	Critique the culture of Afro-American people

#### **Course Name: Core 4: The Study of English Language Course Code: 21PBACT104**

CO1	Conceive the historical background of the origin of speech and English language
CO2	Classify the ideas about the English language used during different periods in history
CO3	Compute the great changes that caused a great impact on the English language and its
CO4	Analyze why the changes occurred and the need for change to gain a standard
CO5	Relate the causes for the evolution of lingua franca

#### Course Name: Core 5: Critical Theories - I Course Code: 21PBACT105

CO1	State the traditional theories and the pioneers who formed them.
CO2	Comprehend how psychology plays a greater part in creation and imagination.
CO3	Compare the other theories which flourished in the course of time.
CO4	Analyze the combination of Criticism and English Language in Literature.
CO5	Critique the significance of archetypes to strengthen the search of criticism in life and literature.

#### Course Name: Elective I -A -Retold Classics Course Code: 21PBAET106

CO1	Define key concepts in mythical stories which evolved into philosophies.
CO2	Explain myriad things about life through Indian Myths.
CO3	Relate the plight of women in epics.
CO4	Determine the ethnocentric judgments made in cross-cultures.
CO5	Critique the prudence of greatest strategist in the Indian History

# **Course Name: Elective I -B - Literature and Psychology**

#### **Course Code: 21PBAET106**

CO1	Formulate a comprehensible outlook of the power of mind and thoughts in the growth of personality	
CO2	Compute the sensitization about the wisdom of getting satisfied in little things for everlasting happiness	
CO3	Analyze the realities of life and get an awareness about the real values of life	
CO4	Evaluate the causes for mental anguish and moral dilemmas of the people	
CO5	Critique the link between literature and psychology which guides human beings to attain tranquility.	

#### **Course Name: Elective I -C - South-Asian Literature Course Code: 21PBAET108**

CO1	Identify distinctive literary strategies and devices deployed in South Asian writing
CO2	Analyze pre-eminent literary texts or artistic artifacts of South-Asian culture.
CO3	Discuss South Asian literary texts in their appropriate historical and cultural contexts.
CO4	Assess the themes represented in South-Asian literature.
CO5	Critique on postcolonial and theoretical approaches applied to these writings.

#### **SEMESTER II**

Course Name: Core 6: British Literature – II (Age of Dr. Johnson to Modern Age) Course Code: 21PBACT201

CO1	Relate the prolific writing style and versatility of British Writers.
CO2	Interpret the social, cultural and historical features of drama and its role in literature.
CO3	Explain the philosophy, creativity and artistic style in the writings of the novelists.
CO4	Analyze the various forms of poetry such as diction, tone, form, imagery and figures of
CO5	Critique the methods and techniques of Criticism.

# **Course Name: Core 7 : Gender and Literature**

#### **Course Code: 21PBACT202**

CO1	Identify various genders as central concepts to the reading of English Literature
CO2	Grasp the Multifarious gender notions and its variations through experience
CO3	Apply the gender theorizing methods to associate the gender text with literature
CO4	Describe the complex concepts that are emotionally influenced in gender writing
CO5	Synthesize the actions of Masculine and Feminine that are not fixed but fluid

#### Course Name: Core 8: English Literature For Competitive Exams – I Course Code: 21PBACT203

CO1	Understand the rich legacy of English Literature and the contribution of legendary writers to the development of English Literature
CO2	Develop problem-solving, critical and original thinking.
CO3	Build the thinking level to make use of the acquired knowledge.
CO4	Inculcate critical reasoning and analytical skills
CO5	Analyze the key literary figures of all time and their contribution to their respective literary scene

#### Course Name: Core 9: Research Methodology Course Code: 21PBACT204

CO1	State the importance of research writing
CO2	Utilize the techniques of compiling the documents
CO3	Compile their research work in a stipulated format to make it understandable for other researchers
CO4	Assess the significance of original research work and the technique of compiling the work
CO5	Evaluate the compilation of works cited in a standard format to match their research documents to the works of other researchers across the world

#### Course Name: Core 10: Critical Theories - II Course Code: 21PBACT205

CO1	Identify the study as a critic analyzing a piece of work of art.
CO2	Discuss the categories of analyzing a text.
CO3	Use knowledge of the current status of the critical field.
CO4	Analyze the specific importance given to women in life through literature.
CO5	Utilize the multiple roles of literature and criticism.

#### **Course Name: Elective II A – Shakespeare Across Cultures Course Code: 21PBAET206**

CO1	Outline the position of the Postcolonial, Feminist, Postmodern and Queer perspectives of Shakespearean drama.
CO2	Identify and explain the transfigurations of Shakespearean plays in diverse cultures
CO3	Analyze the Shakespearean plays from discourses of race, gender, nation and geopolitics.
CO4	Creatively interrogate the conspicuous absences, racial prejudices and ethnic intolerances in Shakespearean drama.
CO5	Predict the power structures and imperial overtones in Shakespearean drama.

#### **Course Name: Elective II B - Caribbean Literature**

#### **Course Code: 21PBAET207**

CO1	Identify the key issues in Caribbean Literature and appraise its historical
	background and significant themes.
CO2	Assess the fascinating and diverse literary traditions of the Caribbean Islands,
	from European colonization to the modern day.
CO3	Analyse the key factors shaping debates about the Caribbean Nation and Identity.
CO4	Evaluate the Literary and Aesthetic merits of Caribbean Writings.
CO5	Critique on Caribbean Identity, Culture and Society.

#### **Course Name: Elective II C - Educational Psychology Course Code: 21PBAET208**

CO1	Apply the techniques for social interaction
CO2	Alter their personality traits
CO3	Plan the techniques of self-directedness and life long learning
CO4	Modify their critical thinking
CO5	Develop confidence to become effective citizens through the knowledge gained

#### **SEMESTER: III**

#### **Course Name: Core 11 - Post – Colonial Literature Course Code: 21PBACT301**

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CO1	Acquire knowledge about the basic concepts in Post-Colonial Literature.
CO2	Understand the relationship between the colonized nations.
CO3	Distinguish between political and cultural resistance on social contexts.
CO4	Analyse the psychological impact of the process of colonization.
CO5	Evaluate the problems in various contexts through the reflection of the writings.

#### Course Name: Core 12 – Green Literature Course Code: 21PBACT302

CO1	Identify the link between Man and Nature.
CO2	Understand that Nature interacts with Man
CO3	Use their skills in the interpretation of Literary texts in tune with the significance of Nature.
CO4	Infer the impact of Human behavior on Nature.
CO5	Reframe their responsibility in creating Eco Friendly ambiance.

#### Course Name: Core :Core 13 – English Literature For Competitive Examinations - II Course Code: 21PBACT303

CO1	To know the writers from ancient period to contemporary period.
CO2	To understand various theories and their concepts that were introduced in literature.
CO3	To identify the literary devices and their features.
CO4	To distinguish different ages in literary study.
CO5	To be able to estimate the analytical and critical thinking skills of the literary writers of various centuries.

#### Course Name: Core 14- Linguistics Course Code:21PBACT304

CO1	Gain knowledge about the significance of Linguistics in literary field.
CO2	Understand the pivotal role of pronunciation in communication skills.
CO3	Apply the proper components to enhance writing skills.
CO4	Analyze the correct structural units for good communication.
CO5	Select the appropriate grammatical units to get proper semantics in communication.

υu	Juise Coue, 211 DAE 1500		
	CO1	Plan relevant educational media based on the emerging trends for the given Teaching learning situation.	
	CO2	Develop relevant media (resources) using design principles, hardware, and software.	
	CO3	Use media peripherals by properly connecting them with computers and other systems.	
	CO4	Use relevant media efficiently and effectively to procure expected learning outcomes.	
	CO5	Assess the media resource centre and media resources.	

#### **Course Name: Elective III (A) – Designing Multimedia Aids for Teaching Course Code: 21PBAET306**

# Course Name: Elective III( B) World Drama

#### **Course Code: 21PBAET307**

CO1	Gain an insight of Human Values
CO2	Acquire the knowledge of Social Ethics to become an effective citizen
CO3	Understand the Values of Ethics
CO4	Recognize the Values for Lifelong Learning
CO5	Think Critically

# Course Name: Elective III (C) – Contemporary Literature

#### **Course Code: 21PBAET308**

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CO1	Identify Contemporary literary works in Historical, Social, Political, Cultural and Aesthetic contexts.	
CO2	Compare the influence of literary works on Society Historically, Culturally, Ethically and Politically	
CO3	Examine the varieties of literary themes.	
CO4	Apply key concepts, terminology and methodologies in the analysis of	
CO5	Analyze the complex transnational characters in Contemporary Literature.	

#### Course Name: Part II: English III Course Code: 21E03

CO1	Evaluate the behavioral aspects of persons
CO2	Analyze and assess individual traits
CO3	Predict, plan and prepare things promptly
CO4	Communicate with empathy
CO5	Identify the skills need for impersonal communication

#### **SEMESTER: IV**

#### **Course Name: Core – 15 - Mythological Literature Course Code: 21PBACT401**

CO1	Observe the significance of mythology and folklore.
CO2	Recognize recurring mythological themes and motifs in the subsequent generations.
CO3	Acquire the knowledge about Greek mythical tales and the characters
CO4	Analyse how a diverse range of specific myths function within the cultures that produce them.
CO5	Explore different functions of the myth in the past and present.

#### **Course Name:Core 16 Introduction to Prosody Course Code: 21PBACT402**

CO1	Identify the purpose of the figures of speech in language usage.
CO2	Classify the diction for various writing purpose.
CO3	Interpret the need for different types of paragraph and composition.
CO4	Analyze the different components to be used for poem composing.
CO5	Evaluate the poetic composition.

#### Course Name: Core-17 -World Literature in Translation Course Code: 21PBACT403

CO1	Recognize the value of original version of the translated texts.
CO2	Interpret the qualities of the original text in translation.
CO3	Modify the key points of the stories and summarize them in a concise style.
CO4	Distinguish the cultural, political conditions of other countries through the dramatic scripts in translation.
CO5	Evaluate the conditions of the society through the representation by the authors.

#### Course Name:Elective IV–A English Language and Literature Teaching Course Code:21PBAET404

CO1	Gain knowledge about the link between Language and Literature
CO2	Understand the significance of Literature to acquire Language Skills
CO3	Apply the acquired Language Skills in understanding Fiction
CO4	Distinguish between Poetical and Fictional Language
CO5	Select the appropriate Language Style for Effective Communication

### Course Name: Core: Elective IV – B Diasporic Literature **Course Code: 21PBAET405**

CO1	Gain knowledge about Diasporic emotions through Literature
CO2	Understand the sources of Literature on Indian Diaspora
CO3	Evaluate the issues of identity in life of the learners which is reflected in diasporic writings
CO4	Analyze the ethical values present in Diasporic Literature
CO5	Relate the empathetic feeling of the writers through the characters

# **Course Name: Core: Elective IV – C – Stylistics Course Code: 21PBAET406**

CO1	Acquire the fundamental knowledge about stylistic aspects
CO2	Understand the rules and codes of the resources present in a language
CO3	Associate linguistic structures through social interaction
CO4	Comprehend the treatment of human communication during specific conditions
CO5	Critically analyse the technical aspects of the language

# **Course Name: Part II: English IV**

# **Course Code: 21E04**

CO1	Utilize interview strategies learnt through mock drills
CO2	Communicate effectively with excellent interpersonal skills
CO3	Utilize the presentation skills
CO4	Analyse and use the effective tips for successful communication
CO5	Evaluate the do and don'ts for effective execution of the work at workplace

## **Programme Title: B.Sc. Mathematics**

**Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
	<b>Effective Communication:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
	Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
	<b>Self - directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.Sc Mathematicsprogramme, students will be equipped with the knowledge in

PSO Number	PSO Statement
	Developing analytical skills, attitude, critical thinking and searching for conclusions to the problems arising from complicated structures.
PSO2	Attaining a rigorous and intellectual pursuit which helps to find patterns and structures.
PSO3	Strengthening the high level of employability and higher education.
PSO4	Improving their performance to appear for Competitive examinations.
PSO5	Investigate real life problems and learn to solve them through formulating Mathematical models.

#### **SEMESTER: I**

#### Course Name: Core 1:Professional English-I Course Code: 21UANCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing.
CO2	Apply the language for speaking efficiently and confidently.
CO3	Build the reading skill by using unfamiliar texts with comprehension.
CO4	Demonstrate the language skills through academic writing.
CO5	Develop the leadership quality and team building through linguistic competence.

#### Course Name: Core 2:Classical Algebra Course Code: 21UANCT102

CO1	Solve infinite series using Binomial Theorem.
CO2	Understand and apply Exponential and Logarithmic Theorems.
CO3	Know about the concepts of Convergency and Divergency and apply different tests for Convergency and Divergency.
CO4	Understand the concept of roots of an algebraic equation.
CO5	Investigate and solve algebraic equations.

#### Course Name: Core 3:MATH SOFTWARE:Geogebra Course Code: 21UANCP103

CO1	Use different operations on numbers and matrices.
CO2	Calculate measures of central tendency and Centroids.
CO3	Calculate area under curves and figures .
CO4	Construct curves and lines.
CO5	Draw 2D and 3D figures.

#### **Course Name: Foundation Course- I:Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

## **SEMESTER: II**

#### Course Name: Core 1: Professional English-II Course Code: 21UANCT201

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CO1	Identify the importance of linguistic competence in workplace situations
CO2	Develop LSRW skills for academic and career purposes
CO3	Build the employability skills through various speaking and writing tasks
CO4	Relate the communication skills suitable for employability
CO5	Illustrate the digital competence with innovation and imagination

# Course Name: Core 2:Calculus

**Course Code: 21UANCT202** 

CO1	Understand the concepts of Evolutes and Envelopes, methods to find curvature and evolutes.
CO2	Develop different types of integration.
CO3	Evaluate double and triple integrals.
CO4	Apply the concept of change of variables.
CO5	Apply Beta and gamma function to solve improper integrals.

#### Course Name: Core 5: Analytical Geometry Course Code: 21UANCT203

CO1	Solve problems relating to plane.
CO2	Solve problems relating to straight lines.
CO3	Find the equation of the sphere with related concepts.
CO4	Discuss problems relating to cone.
CO5	Gain knowledge in problems relating to cylinder and study about

#### **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO1	Understand the concepts of Yoga and its types.
CO2	Know the impact of yoga on human body.
CO3	Learn about the breathing techniques.
CO4	Gain awareness on Surya Namaskar.
CO5	Know the about benefits of Asanas.

#### **SEMESTER: III**

#### **Course Name: Core VI:Differential Equations And Laplace Transforms Course Code: 21UANCT301**

CO 1	Solve the first and higher order differential equation and clairaut's equation.
CO 2	Distinguish between homogenous and non-homogenous differential equations.
CO 3	Find the complete solution of a partial differential equation with constant coefficients.
CO 4	Understand the concepts of Laplace transform and its properties.
CO 5	Solve differential equations using inverse Laplace transform.

#### Course Name: Core VII: Trigonometry, Vector Calculus And Fourier Series Course Code: 21UANCT302

CO 1	Know the expansion of trigonometric functions.
CO 2	Acquire the basic knowledge of Logarithm of complex quantities.
CO 3	Determine and apply the important quantities associated with vector fields such as the divergence, curl and scalar potential.
CO 4	Examine line integral, surface integral, volume integral and inter-relations among them.
CO 5	Understand and find Fourier series of a given periodic function.

# Course Name: Allied Paper – III:Statistics for Mathematics-I

#### **Course Code: 21UANAT303**

CO 1	Understand the basic concepts of probability and its axioms.
CO 2	Distinguish the various distribution functions.
CO 3	Calculate expectation and variance.
<b>CO 4</b>	Understand the concept of Binomial and Poisson Distributions.
CO 5	Understand the concept of Normal Distributions.

#### Course Name: Skill Based Practical– I:Statistical Programming Language R Course Code: 21UANSP304

CO 1	Calculate measures of central tendency and measures of dispersion.
CO 2	Determine the various parameters of theoretical distributions.
CO 3	Solve the statistic 't' by constructing hypothesis.
CO 4	Determine the Correlation and Regression Coefficients.
CO 5	Solve the statistical hypothesis by Chi - Square Test.

#### **Course Name: Gender Studies Course Code: 21SS01**

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	CO1	Understand individual experiences as well as social structure and institutions.
	CO2	Learn about diversities and disparities in education.
	CO3	Acquire knowledge in gender equity and employment.
	CO4	Promote social justice and women's rights in media.
	CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

# **Course Name: Core VIII:Mechanics**

### **Course Code: 21UANCT401**

CO 1	Tell the basic principles of forces acting at a point.
CO 2	Outline parallel forces, Moments and Friction.
CO 3	Discuss about projectiles.
CO 4	Analyze the collision of elastic bodies.
CO 5	Discuss Simple Harmonic Motion.

# **Course Name: Core IX:Discrete Mathematics**

#### **Course Code: 21UANCT402**

CO 1	Learn the concepts of Mathematical logic and implications formulae.
CO 2	Understand the normal forms and the theory of inference.
CO 3	Learn the predicate calculus and Inference Theory of the Predicate Calculus.
<b>CO 4</b>	Know the Relations and ordering.
CO 5	Identify lattices and Boolean functions.

# Course Name: Allied Paper – III:Statistics for Mathematics-II

#### **Course Code: 21UANAT403**

CO 1	Explain the concept of Correlation.
CO 2	Solve the Regression lines and know about curve fitting.
CO 3	Understand the uses of Large Samples.
CO 4	Know about Small Sample Tests.
CO 5	Understand the concept of ANOVA table.

Course Name: Skill Based Practical – II: Statistical Analysis Using SPSS	5
Course Code: 21UANSP404	

CO 1	Represent the data through charts and diagrams.
CO 2	Fit a straight line for the given data using regression and Plot exponential curve fit.
CO 3	Calculate measures of central tendency and dispersion and also to find geometric and harmonic mean.
<b>CO 4</b>	Solve probability problems using theoretical distributions.
CO 5	Find the regression and correlation coefficient of numerical data.

#### Course Name: Advance Learner Course – I(A)Vedic Mathematics Course Code: 21UANAL406

CO 1	Solve the basic multiplication and squaring of numbers.
CO 2	Compute perfect cubes and squares.
CO 3	Perform multiplication and squaring.
CO 4	Find out answer using digit sum magic square.
CO 5	Solve problems related to dates and calendar.

#### Course Name: Advance Learner Course – I(B)Financial Mathematics Course Code: 21UANAL407

U.	ourse Coue: 210ANAL407	
	CO 1	Solve the basic multiplication and squaring of numbers.
	CO 2	Compute perfect cubes and squares.
	CO 3	Perform multiplication and squaring.
	<b>CO 4</b>	Find out answer using digit sum magic square.
	CO 5	Solve problems related to dates and calendar.

#### **Programme Title: M.Sc Mathematics**

РО	PO Statement
Number	
PO1	<b>Critical Thinking:</b> Apply Mathematical and computational strategies in order to solve real world problems.
PO2	<b>Effective Communication:</b> Communicate Mathematical concepts in oral and written form.
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society oriented problems via various Mathematical models and projects.
PO4	<b>Effective Citizenship:</b> Attain the ability to identify, formulate and solve challenging problems of the society and nation through Mathematics.
PO5	Ethics: Inculcate the ethical responsibilities via Mathematical concepts.
PO6	<b>Environment and Sustainability:</b> Instill a sense of attitude in tackling social and environmental issues
<b>PO7</b>	Self-directed and Life-long Learning: Identify their own educational and career needs from the global challenges.

**Programme Outcomes:** At the end of the programme, the students will be able to

**Programme Specific Outcomes:** At the end of theM.Sc Mathematicsprogramme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	Develop the Mathematical skills and knowledge from abstract and applied Mathematical concepts.
PSO2	Acquire analytical and logical thinking through various Mathematical tools and techniques
PSO3	Attain in-depth knowledge to pursue higher studies, work as a professional and ability to conduct research.
PSO4	Develop a deep knowledge in Mathematics appreciating the connections between theory and its applications.
PSO5	Identify the applications of Mathematics in other disciplines and society.

#### **SEMESTER: I**

# **Course Name: Core1:Algebra**

# **Course Code: 21PBECT101**

CO1	Learn the concepts and develop the working knowledge on Groups, Normal Subgroups, Quotient groups and Sylow's theorems.
CO2	Understand the concepts of Ideals, Quotient Rings and field of quotients of an integral domain and Euclidean Rings.
CO3	Understand Ring of polynomials.
CO4	Acquire knowledge on extension fields and roots of polynomials.
CO5	Analyze the elements of Galois theory and Finite Fields.

#### **Course Name: Core 2:Real Analysis Course Code: 21PBECT102**

0		
	CO1	Outline the concepts of the Riemann-Stieltjes Integral.
	CO2	Analyse Uniform Convergence and Continuity.
Ī	CO3	Discuss about Linear transformations, Contraction mapping principle, Inverse function and Implicit function theorems.
Ī	CO4	Analyse Lebesque measure.
	CO5	Discuss aboutLebesque integral.

# **Course Name: Core 3:Ordinary Differential Equations Course Code: 21PBECT103**

CO1	Determine the Picard's method of successive approximation and Problems of existence and	
	uniqueness.	
CO2	Solve the Simultaneous differential equations.	
CO3	Find the solution of Legendre equation, Legendre polynomials and Bessel functions.	
CO4	Solve the Existence and uniqueness theorem and Fundamental matrix.	
CO5	Determine the general solution of linear systems.	

#### **Course Name: Core 4:Numerical Analysis Course Code: 21PBECT104**

CO1	Find the solution of algebraic and transcendental equations.
CO2	Solve Interpolation problems.
CO3	Find the Numerical solution of Differentiation and Integration problems.
CO4	Compute Numerical Solution of Ordinary Differential Equations.
CO5	Classify and find the Numerical Solution of Partial Differential Equations.

#### Course Name: Elective I:LaTeX Course Code: 21PBEET105

CO1	Know about Text formatting and Basics of a LaTeX file.
CO2	Know about commands and environments.
CO3	Do document Layout and Organization.
CO4	Draw pictures in LaTeX.
CO5	Create tables and type mathematical formulas, environments and symbols in LaTeX.

#### Course Name: Elective I:Object Oriented Programming in C++ Course Code: 21PBEET106

Jurse Code: 21PBEE1100	
CO1	Know about basic concepts of Object Oriented Programming.
CO2	Understand Tokens, Expressions and Control structure.
CO3	Know about functions Manage in C++ and Console I/O operations.
CO4	Understand classes, objects, constructors and destructors.
CO5	Utilize Operators overloading and Inheritence.

#### **SEMESTER: II**

#### Course Name: Core 5:Complex Analysis Course Code: 21PBECT201

CO1	Outline the concepts of analytic function, conformality and linear transformations.
CO2	Perform complex integration from theoretical concepts.
CO3	Analyse local properties of analytic functions and use the calculus of residues.
CO4	Analyse harmonic functions and power series expansion.
CO5	Discuss about Riemann mapping theorem and conformal mapping of polygons.

# **Course Name: Core 6:Partial Differential Equations**

#### **Course Code: 21PBECT202**

Juise Coue		
CO1	Outline the concepts of mathematical models and its canonical form of partial	
	derivatives.	
CO2	Attain knowledge about the solution of IVP of finite and infinite string with	
	homogeneous, non homogeneous wave equations.	
CO3	Analyze the concepts of solving of Linear and Non Linear Hyperbolic Equation.	
CO4	Analyze theoccurrence and elementary solution of Laplace's Equation and Boundary value problem.	
CO5	Evaluate the occurrence and elementary solution of wave and diffusion Equation.	

#### **Course Name: Core 7: Classical Mechanics Course Code: 21PBECT203**

CO1	Analyze mechanical behavior of particle.
CO2	Study Lagrange's equations for various systems.
CO3	Solve the Hamilton Equations of Motion.
CO4	Understand the concepts of Canonical transformation and Poisson brackets.
CO5	Solve Hamilton – Jacobi theory and the Harmonic Oscillator problem.

#### **Course Name: Core 8:Operations Research Course Code: 21PBECT204**

CO1	Learn the concepts of Linear Programming problems and find its solution.
CO2	Gain knowledge about duality and post-Optimal Analysis Transportation Model.
CO3	Learn Network Models.
CO4	Gain knowledge in Queueing systems.
CO5	Gain knowledge of Poisson Queues and Queueing models.

# **Course Name: Elective II:LaTeX Practical**

#### **Course Code: 21PBEEP205**

CO1	Fix foot note, margin note, end note and to prepare bio-data using LaTeX.	
CO2	Draw tables and graphs using LaTeX.	
CO3	Write mathematical expressions using LaTeX.	
CO4	Write mathematical equations using LaTeX.	
CO5	Prepare model question paper, conference invitation and power point presentation using	
	LaTeX.	

# **Course Name: Elective II: Object Oriented Programming in C++ Practical**

#### **Course Code: 21PBEEP206**

CO1	Create a class FLOAT.
CO2	Represent points in the polar and rectangle systems.
CO3	Create a class MAT of size M*N.
CO4	Find Area Computation using Derived Class.
CO5	Apply overloading concepts for vector addition, Multiplication of a vector by a scalar quantity

#### **SEMESTER: III**

#### Course Name: Core 9:Topology Course Code: 21PBECT301

ourse coue, 211 DEC 1501	
CO1	Define the concept of topological spaces and continuous functions.
CO2	Analyze Product and Metric Topologies, Connected Spaces and their properties.
CO3	Attain knowledge in Compact Spaces and its properties.
CO4	Distinguish Countability and Separation Axioms and discuss UrysohnMetrization Theorem .
CO5	Discuss Tychonoff Theorem, Completeness and Compactness in Metric Spaces.

# **Course Name: Core 10:Modern Fluid Dynamics**

# **Course Code: 21PBECT302**

CO1	State the basic principles of fluid mechanics.
CO2	Analyse fluid flow problems with the application of the momentum and energy equations.
CO3	Outline the concepts of source, sink, doublet and vortex.
CO4	Examine steady flow problems using Navier-Stokes equations.
CO5	Discuss different boundary layer and momentum integral problems.

#### Course Name: Core 11:Mathematical Statistics Course Code: 21PBECT303

CO1	Define and design the research problem.
CO2	Discuss the concepts of probability and distribution functions.
CO3	Analyse the parameters and characteristic functions of random variables.
CO4	Categorize types of probability distribution functions and limit theorems.
CO5	Classify types of parametric tests for small and large samples.

#### Course Name: Core 12:Graph Theory Course Code: 21PBECT304

CO1	Explain the fundamental concepts of graphs and trees.
CO2	Illustrate connectivity and Tours through Euler graphs and Hamiltonian cycles.
CO3	Discuss edge colourings, independent sets and cliques.
CO4	Distinguish girth and chromatic number.
CO5	Use standard graphs to model different Networks.

# **Course Name: Elective - III : Fuzzy Mathematics Course Code: 21PBEET305**

CO1	Differentiate the concepts of Crisp and Fuzzy sets.
CO2	Analyze fuzzy relations.
CO3	Solve fuzzy relation equations.
CO4	Interpret various measures of Fuzziness.
CO5	Apply fuzzy logic concepts to real time situations.

#### **Course Name: Elective - III :Mathematical Modelling Course Code: 21PBEET306**

dise Code. 211 DEE 1500	
CO1	Find the solution of differential equations using mathematical models.
CO2	Understand the occurrence, classification and characteristics of Mathematical Models.
CO3	Apply problem solving techniques in Mathematical Modeling to bring solutions to various real life situations.
CO4	Examine the principles governing the motion of satellites through notions of Mathematical. Modeling and interpret the techniques in Mathematical Models to analyse the motion of fluids.
CO5	Construct suitable models for population dynamics, medicine and reducing various forms of Pollution.

# **Course Name: Elective - III :Differential Geometry Course Code: 21PBEET307**

CO1	Explain the concepts of Curves	
CO2	Understand the general solutions of Natural equations.	
CO3	Discuss Evolutes and Involutes.	
CO4	Distinguish Normal and Tangent plane.	
CO5	Use Euler's Theorem.	

#### **Course Name: Advance Learner Course – 1:Difference Equations Course Code: 21PBEAL308**

anse Coue. 211 DEAL500	
CO1	Understand the basic concepts behind the theory of difference operators
CO2	Interpret the notion of solving linear difference equations of first order
CO3	Perceive the idea of converting nonlinear equations into linear and their applications on z- transform
CO4	Resolve various initial value problems for linear systems
CO5	Appraise the methods of asymptotic analysis

# Course Name: Advance Learner Course –2 :Cryptography Course Code: 21PBEAL309

CO1	Evoke the concept of integer and modular arithmetic.
CO2	Construct matrices and understand linear congruences.
CO3	Explain traditional symmetric - key ciphers.
CO4	Analyse algebraic structures and $gf(2^n)$ fields.
CO5	Discuss modern block ciphers and stream ciphers.

# **SEMESTER: IV**

# **Course Name: Core 13 : Functional Analysis**

# **Course Code: 21PBECT401**

C01	Learn and analyse the central concepts of banach space, continuous linear transformation, Hahn-banach theorem and its applications
CO2	Know about natural imbedding, open mapping theorem and analyse its properties
CO3	Analyse axiomatic knowledge of the properties of a Hilbert space, including orthogonal complements, orthonormal sets, complete orthonormal sets together with related identities and inequalities and relate
CO4	Understand the relevance of operator theory.
CO5	Discuss analyse about preliminaries on banach algebras and spectrum of an operator

#### **Course Name: Core 14 :Mathematical Methods Course Code: 21PBECT402**

CO1	Discuss about Fourier transforms, their properties and applications.
CO2	State and use Hankeltransform to solve partial differential equations.
CO3	Analyse, identify and apply the methods of Integral equations.
CO4	Reduce ordinary differential equations to integral equations and solve singular integral equations.
CO5	Classify the problems in calculus of variations and hence solve some physical problems.

# Course Name: Core 15 :Python Programming with Math (Theory) Course Code: 21PBECT403

CO1	Labelling Names to Numbers.
CO2	Visualizing data with graphs .
CO3	Calculte Correlation between two Data sets.
CO4	Define Algebra and symbolic math with SYMPY.
CO5	Deriving results from sets and probability.

Course Name: Core Practical I : Python Programming with Math	L
Course Code: 21PBECP404	

CO1	Write programs to distinguish the kinds of numbers.
CO2	Visualizing Statistical with Graphs.
CO3	List the first N Fibonacci numbers.
CO4	Find correlation coefficient.
CO5	Show the pictorial results from Sets and Probability.

# Course Name: Core 16 :Number Theory Course Code: 21PBECT405

CO1	Write programs to distinguish the kinds of numbers.
CO2	Visualizing Statistical with Graphs.
CO3	List the first N Fibonacci numbers.
CO4	Find correlation coefficient.
CO5	Show the pictorial results from Sets and Probability.

# Course Name: Elective - IV:Neural Networks

# **Course Code: 21PBEET406**

CO1	Understand and analyze different neutron network models.
CO2	Attain knowledge about most common learning algorithms for multilayer perceptions, radial-basis function networks.
CO3	Describe theHebb rule and analyze back propagation algorithm with examples.
CO4	Study convergence and generalization and implement common learning algorithm.
CO5	Evaluate directional derivatives and necessary conditions for optimality and to evaluate quadratic functions.

#### **Course Name: Elective - IV:Control Theory Course Code: 21PBEET407**

CO1	Explain the concepts of observability of linear and nonlinear systems.
CO2	Describe the controllability of linear and nonlinear systems.
CO3	Investigate stability of linear and nonlinear systems.
CO4	Verify stabilizability with restricted feedback.
CO5	Discuss the optimal control of linear and nonlinear systems.

# **Course Name: Elective - IV:Stochastic Differential Equations Course Code: 21PBEET408**

CO1	Understand and analyze Filtering Problems and Boundary Value Problems.
CO2	Attain knowledge about construction and properties of the to Integral.
CO3	Describe the 1-dimentional to Formula, the Multi dimensional to Formula.
CO4	Study the Existence and Uniqueness Result and Weak and Strong Solutions.
CO5	Evaluate Filtering problem with one and multi dimension.

# Programme Title: B.Com

Programme Outcomes: At the end of the programme, the students will be able to

PO Number	PO Statement
<b>PO1</b>	Critical Thinking: Take informed actions after identifying the assumptions that frame our
	thinking and actions, checking out the degree to which these assumptions are accurate and valid,
	and looking at our ideas and decisions (intellectual, organizational and personal) from different
	perspectives.
PO2	Effective Communication: Speak, read, write and listen clearly in person and through electronic
	media in English and in one Indian language, and make meaning of the world by connecting
	people, ideas, books, media and technology.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in
	group
	Settings.
PO4	Effective Citizenship: Demonstrate empathetic social concern and equity centered national
	development, and the ability to act with an informed awareness of issue and participate in civic life
	through volunteering.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions
	of your decisions, and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and
	sustainable development.
<b>PO7</b>	Self-directed and Life-long Learning:
	Acquire the ability to engage in independent and life-long learning in the broadest context socio-
	technological changes.

**Programme Specific Outcomes:** After the successful completion of B.Com programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	To Provide strong base on the course relevant to the area of commerce this helps to choose their
1001	career.
PSO2	To enhance knowledge and skills among students which build confident to identify their career
PS02	opportunities in multiple dimensions.
PSO3	Nurture the students in intellectual, personal; inter personal and social skills with a focus on
PS05	relevant professional career particularly to maximize professional growth.
DCO4	Empower the students with necessary competencies and decision making skills to foster the
PSO4	innovative thinking to become an entrepreneur.
PSO5	Strengthen the students to become expert in field of communication with ethical consciousness

# **SEMESTER: I**

# Course Name: Core I – Professional English - I Course Code: 21UADCT101

CO1	Recognize their own ability to improve their own competence and skills in using the
	language
CO2	Develop their competence in the use of English with particular reference to workplace
	situation with confidence and acceptable manner
CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills
CO4	Create and develop their skills in interpreting visuals and presentations
CO5	Sharpen their critical thinking related to life and professional ethics .

# **Course Name: Core 2 – Financial Accounting I Course Code: 21UADCT102**

CO1	Plan the accounting concepts and procedures and significance of double entry system.
CO2	Apply the concept of book keeping and rectification of errors.
CO3	Assess the Bank reconciliation statement and apply how to resolve difference between cash book and pass book in a systematic manner
CO4	Analyze the technique of accounting relating to accommodation bills and its special treatment.
CO5	Evaluate the calculation procedure involved in the preparation of financial statements

#### Course Name: Business environment Course Code: 21UADAT103

CO1	Identify the scope and characteristics of modern business.
CO2	Interpret the monetary and fiscal policy
CO3	Apply the promotional role and planning role of SEBI in business.
CO4	Analyze the business ethics and social responsibility of business.
CO5	Evaluate the elements of technological environment and its effects

# Course Name: Allied I: Micro Economics Course Code: 21UADAT104

CO1	Predict the basic theories of Micro economics and Choice of Economic problems
CO2	Compare the Demand and Supply function related with Price and Quantity
CO3	Compute the concept of Production function with the time periods
CO4	Plan the different Cost and Revenue conditions under various periods of time situation
CO5	Evaluate the Market structure and Price Discrimination under various Markets

# **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation
CO4	Create awareness on disaster management and measures to prevent pollution
CO5	Outline the environmental policies and its practices

#### **SEMESTER: II**

# Course Name: Core I – Professional English - II Course Code: 21UADCT201

CO1	Identify the importance of linguistic competence in workplace environment
CO2	Develop LSRW skills for academic and career purposes
CO3	Illustration of digital competence for Vlogs and Webpage designing
CO4	Application of digital competence for innovation and imagination in recent business scenario.
CO5	Applying the effective business correspondence with brevity and clarity at workplace

# **Course Name: Core 3 – Financial Accounting II Course Code: 21UAICT202**

CO1	Prepare the accounting statements of consignment
CO2	Identify the methods and applications of Depreciation
CO3	Apply the system of accounting followed in Hire Purchase system
CO4	Analyze accounting treatment required for admission and retirement in partnership firms
CO5	Evaluate the accounting procedures involved in dissolution of partnership

# Course Name: Core 4 – Marketing Course Code: 21UADCT203

CO1	Define the fundamental concepts of Marketing and Marketing Mix
CO2	Demonstrate the product life cycle and new product development
CO3	Apply and Develop knowledge about different pricing strategies a firm can utilize
CO4	Analyze the various channels of distribution and sales promotion techniques
CO5	Evaluate the process of modern marketing techniques

# Course Name: Allied II- Macro Economics Course Code: 21UADAT204

C01	Assess the basic theories of Macro economics definition and Economic systems
CO2	Compute the determination of the National income and Social Accounting
CO3	Evaluate the functions of Money and Monetary policy making
CO4	Rate the different types of Inflation and Deflation
CO5	Revise the current event changes in Economic development in present scenario

# **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life
CO2	Develop personality and social cohesion through various skills inculcated
CO3	Construct co-ordinal relationship with the family members
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure
CO5	Buildup social sense and commitment and to discriminate social evils from virtues

# **SEMESTER: III**

# Course Name: Core VII :Corporate Accounting I

# Course Code:I21UADCT301

CO1	Account for the various adjustments related to Share capital.
CO2	Apply the concept of issue and redemption of preference shares.
CO3	Assess the application of marked and unmarked applications in underwriting
CO4	Prepare the final accounts of the Joint stock company
CO5	Evaluate the valuation of goodwill and valuation of shares of a company

#### Course Name: CORE - VIII : Principles of Management Course Code:21UADCT302

CO1	Remember the functions and strategy of managing business.
CO2	Know the nature and importance of planning and decision making.
CO3	Apply the skills necessary for carrying out the sound organisational structure
CO4	Analyze the techniques adopted to improve the organizational ability
CO5	Evaluate the importance of effective teamwork and techniques of controlling.

# **Course Name: CORE IX: Banking Theory and Practice Course Code:21UADCT303**

CO1	Comprehend the various features in general and special relationship between banker and	
	customer.	
CO2	Summarize the various types of deposit facilities and procedure to open an account.	
CO3	Learn to handle negotiable instrument and their legal implications.	
CO4	Contrast the various types of loans and advances.	
CO5	Assess the role of bankers in recent development.	

#### Course Name: CORE X: Business Law Course Code:21UADCT304

-		
CO1	Remember important laws that have a bearing on the conduct of business in India.	
CO2	Comprehend the various legal contracts that a business entity can take and their relative	
	advantages and disadvantages	
~ ~ ~	Apply the legal aspects relating to performance and discharge of contract.	
CO3	Apply the legal aspects relating to performance and discharge of contract.	
004	Analyze the suitable strategies relating to contract of indemnity and guarantee.	
CO4	Analyze the suitable strategies relating to contract of indefinity and guarantee.	
	Evaluate the essentials of sale of goods and its implications to develop a suitable operational	
CO5		
000	framework.	

#### Course Name: Non Major Elective I: E-Banking Course Code:21UADNT306

CO1	Identify the introduction of electronic banking.	
CO2	Grasp the opportunities in E-banking.	
CO3	Apply the services of internet banking.	
CO4	Analyze the mobile banking.	
CO5	Evaluate the various services offered by the bank.	

#### Course Name: Non Major Elective I: Business Organisation Offered to BCA Course Code:21UADNT307

CO1	Provide basic understanding concepts of Business and Trade.
CO2	Demonstrate the various channels in starting a New Business.
CO3	Extend knowledge on various forms of business organization.
CO4	Apply and Develop knowledge about Social Responsibility of Business.
CO5	Evaluate the size of firms and reason for survival of small scale undertakings

# Course Name: SKILL BASED I :Computer Applications in Business – I Course Code:21UADST308

CO1	Remember the characteristics & generation of computer and basics of windows.
CO2	Comprehend the document formatting and mail merging mechanism in MS-Word.
CO3	Assess the mechanisms of MS Excel and performing simple calculations.
CO4	Analyze the functions of MS-PowerPoint and able to inbuilt appropriate function suitable for evaluating the data.
CO5	Evaluate the data sharing between applications and create complex Reports and Forms.

# **Course Name: Gender Studies**

# Course Code:21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

# **SEMESTER: IV**

# Course Name: CORE IX: Corporate Accounting – II Course Code:21UADCT401

CO1	Calculate purchase consideration under both the methods of amalgamation as per AS 14.
CO2	Apply the concept of Capital reduction account and rules regarding the presentation of accounts post reconstruction in accordance with the provisions of the Companies Act 2013
CO3	Learn how to prepare profit and loss account and balance sheet of a bank.
CO4	Comprehend the regulations governing IRDA of India
CO5	Draw Deficiency account and will be able to point out the reasons for deficiency

# Course Name: CORE XII: Company Law Course Code:21UADCT402

CO1	Assess the nature and scope of various companies
CO2	Able to prepare MOA and AOA of a company.
CO3	Elucidate the legal position of audit.
CO4	Prepare the minutes of a meeting,
CO5	Evaluate the Corporate Governance and Social Responsibilities.

#### Course Name: CORE XIII: Financial Management Course Code:21UADCT403

disc Code.210ADC1405	
CO1	Understand the concept and methods of Financial Management
CO2	Develop Knowledge into financial decision about Cost of Capital
CO3	Analyze the Capital Structure and Leverage of the firm
CO4	Evaluate the Techniques of Appraisal of investment proposal
CO5	Analyze the Dividend Policy and Working Capital Management

### Course Name: Allied II: Business Statistics Course Code:21UADAT404

CO1	Understand and interpret different types of data.
CO2	Know about the measures of central tendency and dispersion.
CO3	Gain knowledge in correlation and regression analysis.
CO4	Apply the test of index numbers.
CO5	Understand and apply the different methods in time series.

# **Course Name: Non Major Elective II: Insurance – Principles And Practice Course Code:21UADNT405**

CO1	Identify the introduction of insurance.
CO2	Grasp the life insurance policies.
CO3	Apply the policies of fire insurance and marine insurance.
CO4	Analyze the motor vehicle insurance and health insurance.
CO5	Evaluate the miscellaneous insurance.

#### Course Name: Non Major Elective II :Service Marketing Offered to BCA Course Code:21UADNT406

CO1	Remember the growth and key services business in India.
CO2	Understand the consumer behavior considerations and its guidelines for developing service sectors.
CO3	Apply service quality measurement in service sectors. hospitality and tourism service mechanism and develop the sectors accordingly.
CO4	Analyze Banking and Insurance services and their growth opportunities in Indian economy.
CO5	Evaluate the Recent Trends in Marketing services.

# Course Name: Skill Based Practical II: Computer Applications In Business – II Course Code:21UADSP407

CO 1	Remember the basics of MS- Word terminology and concepts.	
CO 2	Identify the calculation methodology in MS - Excel.	
CO 3	Enhance the mechanism of formatting and alignments in MS- PowerPoint	
CO 4	Analyze the animation and transition effects in MS-PowerPoint.	
CO 5	Evaluate the several functions of MS-Access and able to inbuilt appropriate function suitable for the data.	

# **Course Name: Fundamentals of Yoga**

# Course Code:21SS02

CO 1	Understand the concepts of Yoga and its types
CO 2	Know the impact of yoga on human body
CO 3	Learn about the breathing techniques
CO 4	Gain awareness on Surya Namaskar
CO 5	Know the about benefits of Asanas

#### **Course Name: Advanced Learners Course: Business Finance Course Code:21UADAL408**

CO 1	Identify the introduction of business finance.
CO 2	Grasp the sources of finance.
CO 3	Apply the ideas of financial plan.
<b>CO 4</b>	Analyze the capitalization theories.
CO 5	Evaluate the principles of capital structure.

# **Programme Title: B.COM (Banking and Insurance)**

## **Programme Outcomes:** At the end of the programme, the students will be able to

Ì	PO	PO Statement
	Number	
	PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
	PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
	PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
	PO4	Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
	PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
	PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
		<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.COM(Banking and Insurance) programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	To take up a higher level job in banking and insurance sector
PSO2	Get thorough knowledge in the services offered by Banks and Insurance sector
PSUS	Practical exposure in the banking and insurance field helps them to take up a challenging jobs
PSO4	Able to act as a consultant in the areas of banking and insurance
PSO5	Pursue higher education with either Banking or Insurance as specialization

# **SEMESTER: I**

# Course Name: Core I – Professional Accounting - I Course Code: 21UAICT101

CO1	Recognize their own ability to improve their own competence and skills in using the language
CO2	Develop their competence in the use of English with particular reference to work place situation with confidence and acceptable manner
CO3	Enhance the importance of negotiation strategies and there by improve their LSRW skills
CO4	Create and develop their skills in interpreting visuals and presentations
CO5	Sharpen their critical thinking related to life and professional ethics

# **Course Name: Core II - Financial Accounting - I Course Code: 21UAICT102**

CO1	Plan the accounting concepts and procedures and significance of double entry system.
CO2	Apply the concept of book keeping and rectification of errors.
CO3	Assess the Bank reconciliation statement and apply how to resolve difference between cash book and pass book in a systematic manner
CO4	Analyze the technique of accounting relating to accommodation bills and its special treatment.
CO5	Evaluate the calculation procedure involved in the preparation of financial statements.

# Course Name: Core III- INDIAN BANKING SYSTEM Course Code: 21UAICT103

CO1	Compile the Evolution of banking.
CO2	Outline the role of central banks and its policy framework.
CO3	Apply the methods of charging secure and unsecured advances.
CO4	Analyze the features of Indian Financial Network and its factors.
CO5	Evaluate the recent trends in Indian Banking.

# Course Name: Allied I: Business Mathematics Course Code: 21UAIAT104

CO1	Recall the set theory concepts and understand the concepts of Arithmetic and geometric series.
CO2	Know the basic concepts of financial mathematics.
CO3	Understand and apply the matrix concepts and operations.
CO4	To gain knowledge on differential and integral calculus.
CO5	Analyze the LPP using graphical and simplex methods.

# **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

# **SEMESTER: II**

# Course Name: Core V – Professional Accounting II Course Code: 21UAICT201

CO1	Identify the importance of linguistic competence in workplace environment.
CO2	Develop LSRW skills for academic and career purposes.
CO3	Illustration of digital competence for Vlogs and Webpage designing.
CO4	Application of digital competence for innovation and imagination in recent business scenario.
CO5	Applying the effective business correspondence with brevity and clarity at workplace.

# **Course Name: Core VI – Financial Accounting II Course Code: 21UAICT202**

CO1	Prepare the accounting statements of consignment.
CO2	Identify the methods and applications of Depreciation.
CO3	Apply the system of accounting followed in Hire Purchase system.
CO4	Analyze accounting treatment required for admission and retirement in partnership firms.
CO5	Evaluate the accounting procedures involved in dissolution of partnership.

# **Course Name: Core VII – Fundamentals of Insurance Course Code: 21UAICT203**

CO1	Outline the nature and principles of insurance.
CO2	Paraphrase the insurance laws and regulations and contract act.
CO3	Apply the procedures, code of conduct and unfair practices.
CO4	Analyze the fundamental principles of insurance.
CO5	Evaluate the applications of life insurance products.

# Course Name: Allied II- Business Statistics Course Code: 21UAIAT204

CO1	Understand and interpret different types of data.
CO2	Know about the measures of central tendency and dispersion.
CO3	Gain the knowledge on correlation and regression analysis.
CO4	Analyze the test of index numbers.
CO5	Understand and apply the different methods in time series.

# **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life
CO2	Develop personality and social cohesion through various skills inculcated
CO3	Construct co-ordinal relationship with the family members
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure
CO5	Buildup social sense and commitment and to discriminate social evils from virtues

# **SEMESTER: III**

# Course Name: Core 5: Corporate Accounting – I Course Code: 17UAICT301

CO1	Remember the accounting procedures for Issue of shares.
CO2	Understand the application of redemption of Preference Shares and Debentures.
CO3	Apply the underwriting procedures for Shares and Debentures.
CO4	Analyze the financial statements of the corporate as per accounting standards.
CO5	Evaluate the value of goodwill and shares of company.

# Course Name: Core 6 –Banking Law and Practice Course Code: 17UAICT302

CO1	Remember the regulations and importance of banking regulation Act.
CO2	Understand the general and special bank and customer relationship service.
CO3	Apply the regulations relating to negotiable instruments and truncated instrument.
CO4	Analyze the duties and privileges of paying and collecting banker.
CO5	Evaluate the principles of advances and non performing assets.

# Course Name: Core 7 –Merchant Banking Course Code: 17UAICT303

CO1	Remember the concepts and functions of Merchant Banking.
CO2	Understand the application of merchant banking services as per SEBI Guidelines.
CO3	Apply the concept and functions of capital market and money market instruments.
CO4	Analyze the capital structure procedures and its pattern applicable for decision making
CO5	Evaluate the working mechanism of GDR, ADR and IDR

# Course Name: Core 8 – Business Law Course Code: 17UAICT304

CO1	Remember the laws relating to contract
CO2	Understand the various legal contracts that a business entity can take and their relative advantages and disadvantages.
CO3	Apply the legal aspects relating to performance and discharge of contract.
CO4	Analyse the suitable strategies relating to contract of indemnity and guarantee
CO5	Evaluate the essentials of hire purchase agreement and its implications to develop a suitable operational framework

# **Course Name: Office Management and Business Communication Course Code: 17UAIAT305**

CO1	Remember the principles and functions of office management.
CO2	Understand the mechanism of filling and indexing of office documents.
CO3	Apply the modern communication methods in drafting business letters
CO4	Analyze the mechanism of business correspondence and its implications.
CO5	Create Agenda and minutes of the company meetings.

# Course Name: E-commerce Course Code: 17UAINT306

CO1	Remember the Concepts of E-Commerce Technology and its Perspectives.
CO2	Understand the Growth and Evolution of E-Commerce Adoption in India.
CO3	Apply the E-Commerce Framework In Business
CO4	Analyze the Applications Of E Business And E Learning.
CO5	Evaluate the usage of E Payment and E Money System.

#### Course Name: Skill Based – I Business Application Software I Course Code: 17UAIST307

CO1	Remember the word processing terminology and concepts
CO2	Understand the document formatting and alignments in Ms Word
CO3	Apply the mechanism of mail merge by creating a suitable data
CO4	Analyze the several functions of MS –Excel and able to inbuilt appropriate function suitable for evaluating the data.
CO5	Evaluate the sharing data between applications and create complex worksheets and templates.

# **SEMESTER: IV**

#### **Course Name: Core 9 – Corporate Accounting - II Course Code: 17UAICT401**

CO1	Remember the accounting procedures for amalgamation and absorption methods
CO2	Understand the external and internal reconstruction framework of companies
CO3	Apply the norms and regulations of banking companies as per Banking Regulation Act
CO4	Analyze the financial statements of Insurance companies as per IRDA regulations
CO5	Evaluate the legal requirements and preparation of consolidated balance sheet of holding Company

# Course Name: Core 10 – Financial Services Course Code: 17UAICT402

CO1	Remember the Functions of Financial Service Market in India.
CO2	Understand the Contemporary Financial Measures of Performance And Risk.
CO3	Apply the Various Financial Products, Services, and Strategies Offered by the Variety of Financial Services Institutions.
CO4	Analyze the Credit Rating Mechanism and Factors Influencing Rating Profile of Corporate.
CO5	Evaluate the Venture Capital Methods as Per SEBI Regulations.

# **Course Name: Core 11 – Principles and Practice of E-Banking and Insurance Course Code: 17UAICT403**

CO1	Remember the electronic banking procedures and implications
CO2	Understand the online banking technology and its updating procedures.
CO3	Apply the concepts of Insurance and Re- insurance policies and procedures as per IRDA Guidelines
CO4	Analyze the macro and micro insurance policies with IRDA Guidelines.
CO5	Evaluate the concept of privatization, self regulation and installation of Corporate

#### **Course Name: Core 12 – Entrepreneurial Development Course Code: 17UAICT404**

CO1	Remember the concepts of entrepreneurship and role of entrepreneur for economic development.
CO2	Understand the features of project formation and assessment of project feasibility.
CO3	Apply the phases of entrepreneurial development programme and its problems.
CO4	Analyse the idea for financial assistance from various financial institutions.
CO5	Evaluate the government schemes with regard to incentives and subsidies

# Course Name: Allied II – Business Economics Course Code: 17UAIAT405

CO1	Remember the basic theories of business economic definition and economic system
CO2	Understand the determination of the demand and supply for a good in a competitive market and explain how that demand and supply together determine equilibrium price
CO3	Apply the different market structures and the implications of the degrees of competition in a market on firms pricing and output decision.
CO4	Analyse the different costs in the production and study the long run and short run relationship of costs as well as of wages, interest and profit in day to day running of business.
CO5	Evaluate the managerial productivity theory of distribution and its profitability.

# Course Name: Non Major Elective II – Business Communication Course Code: 17UAINT406

CO1	Remember basic communication skills to enhance business
CO2	Understand the drafting of various business letters.
CO3	Apply of mechanism of preparing quotations for supply orders.
CO4	Analyze collection letters and circulars to enhance business models.
CO5	Evaluate the credit sources and inform the customers about their status of credit

# Course Name: Skill Based – II Business Application Software I Course Code: 17UAISP407

CO1	Remember the mechanism of editing multiple documents
CO2	Understand the bulletin work and replacing the misspelled word easily
CO3	Apply the mechanism of mail merge easily to creating a letter document format and merging to multiple people
CO4	Analyze the appropriate design of cheque book and resume wizard
CO5	Evaluate the multiple data by using Excel formulas.

# **Programme Title: B.Com(CA)**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
	Critical Thinking: Take informed actions after identifying the assumptions that frame our
PO1	thinking and actions, checking out the degree to which these assumptions are accurate and
POI	valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from
	different perspectives
	Effective Communication: Speak, read, write and listen clearly in person and through
PO2	electronic media in English and in one Indian language, and make meaning of the world by
	connecting people, ideas, books, media and technology.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions
ros	in group settings.
	Effective Citizenship: Demonstrate empathetic social concern and equity centered national
PO4	development, and the ability to act with an informed awareness of issues and participate in
	civic life through volunteering.
PO5	Ethics: Recognize different value systems including your own, understand the moral
PUS	dimensions of your decisions, and accept responsibility for them.
DOC	Environment and Sustainability: Understand the issues of environmental contexts and
PO6	sustainable development.
<b>D</b> 07	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-
<b>PO7</b>	long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.Com (CA) programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	Gain knowledge in the field of Commerce and Computer Applications.
PSO2	Use mathematical, analytical and statistical tools for financial and accounting analysis.
PSO3	Apply current techniques, skills and tools necessary for computing practices.
PSO4	Effectively communicate, make decisions and solve problems in day to day business affairs.
DCO	Meet the industrial expectations in the changing global competitive business environment by
PSO5	continuously providing domain knowledge.

# **SEMESTER : I**

#### Course Name: Core Paper I: Professional English - I Course Code: 21UAECT101

CO1	Recognize their own ability to improve their own competence and skills in using the
CO2	Develop their competence in the use of English with particular reference to workplace
	situation with confidence and acceptable manner.
CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills.
CO4	Create and develop their skills in interpreting visuals and presentations.
CO5	Sharpen their critical thinking related to life and professional ethics.

# **Course Name: Core II: Financial Accounting I**

# Course Code: 21UAECT102

CO1	Plan the accounting concepts and procedures and significance of double entry system.	
CO2	apply the concept of book keeping and rectification of errors.	
CO3	Assess the Bank reconciliation statement and apply how to resolve difference between cash book and pass book in a systematic manner	
CO4	Analyze the technique of accounting relating to accommodation bills and its special treatment.	
CO5	Evaluate the calculation procedure involved in the preparation of financial statements.	

#### **Course Name: Allied I: Business Mathematics Course Code: 21UAEAT103**

CO1	Recall the set theory concepts and understand the concepts of arithmetic and geometric series.
CO2	Know the basic concepts of financial mathematics.
CO3	Understand and apply the matrix concepts and operations.
CO4	To gain knowledge on differential calculus.
CO5	Analyze the LPP using graphical and simplex methods.

#### **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

C01	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources.
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

# **SEMESTER: II**

# Course Name: Core Paper III: Professional English - II Course Code: 21UAECT201

CO1	Identify the importance of linguistic competence in workplace environment.	
CO2	Develop LSRW skills for academic and career purposes.	
CO3	llustration of digital competence for Vlogs and Webpage designing.	
CO4	Application of digital competence for innovation and imagination in recent business	
CO5	Applying the effective business correspondence with brevity and clarity at workplace.	

#### Course Name: Core IV: Financial Accounting - II Course Code: 21UAECT202

CO1	Prepare the accounting statements of consignment.	
CO2	dentify the methods and applications of Depreciation.	
CO3	Apply the system of accounting followed in Hire Purchase system.	
CO4	Analyze accounting treatment required for admission and retirement in partnership firms.	
CO5	Evaluate the accounting procedures involved in dissolution of partnership	

# Course Name: Core V: Computer Applications in Business: Practical - I

(Office & Accounting Packages)

# Course Code: 21UAECP203

CO1	Understand the basic techniques of working MS Word.	
CO2	pply various formulas and features in MS Excel.	
CO3	reate presentations for seminars and lectures using MS Power Point.	
CO4	Analyze the working of a database using MS Access.	
CO5	Understand the usage of computerized packages for business transactions using Tally.	

#### Course Name: Allied II: Business Statistics Course Code: 21UAEAT204

CO1	Inderstand and interpret different types of data.	
CO2	Know about the measures of central tendency and dispersion.	
CO3	Gain the knowledge on correlation and regression analysis.	
CO4	Analyze the test of index numbers.	
CO5	Understand and apply the different methods in time series.	

#### **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life.	
CO2	Develop personality and social cohesion through various skills inculcated.	
CO3	Construct co-ordinal relationship with the family members.	
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.	
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.	

# **SEMESTER: III**

# **Course Name: Core Paper VI: Introduction To Information Technology Course Code: 21UAECT301**

CO1	Remember the computer basics and peripheral devices.	
CO2	Understand the data processing concepts.	
CO3	Understand about the software and programming languages.	
CO4	Apply the Operating System applications.	
CO5	Evaluate the various networks.	

#### **Course Name: Core Paper VII: Database Applications Course Code: 21UAECT302**

Course Code: 21UAEC1302			
	CO1		

CO1	Remember the concepts of databases.	
CO2	Understand the fundamentals of database models.	
CO3	Apply the various operations in SQL.	
CO4	Analyze various commands in QBE to develop a database.	
CO5	Evaluate the file techniques and clustering.	

# Course Name: Core Paper VIII: Cost Accounting Course Code: 21UAECT303

CO1	Remember the basics of cost accounting.	
CO2	Understand the techniques of inventory control.	
CO3	Apply the various methods in calculation of labour cost.	
CO4	Analyze the various distribution of overheads.	
CO5	Evaluate the principles used in process, contract and operating costing.	

#### **Course Name: Core Paper IX: Indian Financial System Course Code: 21UAECT304**

CO1	Recall the structure and functions of the Indian financial system.
CO2	To Gain knowledge on functioning of different financial institutions.
CO3	Understand the various Money market instruments and Capital Market Instruments.
CO4	Analyze the various financial services under IFS.
CO5	Evaluate the framework of Regulatory Institutions in the Indian financial system.

# **Course Name: Allied Paper III: Managerial Economics Course Code: 21UAEAT305**

CO1	Remember the economic principles for management decisions.
CO2	Understand the elasticity of demand and demand forecasting.
CO3	Apply the concepts of production function and cost analysis.
CO4	Analyze the competition strategies and pricing methods in market.
CO5	Evaluate the concept of national income and implications of the business cycle.

#### Course Name: Skill Based Subject - I :Business Law Course Code: 21UAEST306

CO1	Remember the fundamentals of Contract Act.
CO2	Understand the performance of contract.
CO3	Apply the various provisions of sale of goods act.
CO4	Analyze the rules relating to carriage of goods.
CO5	Evaluate the nature of LLP.

#### Course Name: Non-Major Elective I :General Commercial Knowledge Course Code: 21UAENT307

CO1	Remember the basics of commerce.
CO2	Understand the forms of organization.
CO3	Apply the concept of Joint Stock Company in forms of organization.
CO4	Analyze the functions of an office in an organization.
CO5	Evaluate the techniques of effective e-mail.

#### Course Name: Gender Studies Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

# **SEMESTER: IV**

### **Course Name: Core Paper X: Managementaccounting Course Code: 21UAECT401**

CO1	Keep in mind the difference in financial, cost and management accounting.
CO2	Get an idea about the analysis of various ratios.
CO3	Apply the working capital concepts in real business.
CO4	Analyze the applications of marginal costing.
CO5	Figure out the various types of budgets and variance analysis in planning and decision making.

# **Course Name: Core Paper XI: Principles of Marketing**

# **Course Code: 21UAECT402**

CO1	Remember the basic principles of marketing.
CO2	Understanding the modern marketing ethics.
CO3	Apply the product policies for product planning and development.
CO4	Analyze the concepts of sales promotion, personal selling and advertising.
CO5	Evaluate the role of Government in consumer protection.

# Course Name: Core Paper XII: Programming with C++ and Python

**Course Code: 21UAECT403** 

CO1	Remember the object-oriented programming approach in connection with C++
CO2	Understand the concepts of Classes and Objects.
CO3	Apply the inheritance and polymorphism concepts.
CO4	Remember Python programming basics and paradigm.
CO5	Understand python looping, control statements.

Course Name: Core Paper XIII: Computer Applications In Business: Practical-Ii (Oracle, C++ & Python) Course Code: 21UAECP404

CO1	Remember the various SQL commands in table creation.
CO2	Understand the use of different data constraints.
CO3	Apply the aggregate functions in SQL.
CO4	Analyze the SQL clauses using commands.
CO5	Evaluate the various queries using SQL commands.

# **Course Name: Allied Paper IV: Principles of Management Course Code: 21UAEAT405**

CO1	Recollect the general framework and understand the key functions of management as applied in practice.
CO2	Understand the importance of planning and decision making.
CO3	Apply the principles of sound organization.
CO4	Execute the theories in management.
CO5	Evaluate the techniques of co-ordination and control.

#### Course Name: Skill Based Subject - II :Company Law Course Code: 21UAEST406

CO1	Remember the concept about company and its promoters under Companies Act 2013.
CO2	Understand the various documents maintained under Companies Act 2013.
CO3	Apply the procedures relating to company securities.
CO4	Analyze the duties and powers of directors.
CO5	Evaluate the various types of company meetings.

# Course Name: Non-Major Elective II: Consumerism

# **Course Code: 21UAENT407**

CO1	Remember the concept of consumer and buying process.
CO2	Understand the techniques of consumer behaviour.
CO3	Apply the utility of consumerism and consumer redressal mechanism.
CO4	Analyze the consumer protection education and rights.
CO5	Evaluate the consumer movement in India.

#### **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO1	Understand the concepts of Yoga and its types.
CO2	Know the impact of yoga on human body.
CO3	Learn about the breathing techniques.
CO4	Gain awareness on Surya Namaskar.
CO5	Know about the benefits of Asanas.

# Course Name: Advanced Learners Course I:Business Ethics And Corporate Social Responsibility Course Code: 21UAEAL408

CO1	Remember the basic knowledge on business ethics.
CO2	Understand the value systems and ethics in management.
CO3	Apply the various theories of ethics in the business.
CO4	Analyze the importance and justification of Corporate Social Responsibility.
CO5	Evaluate the expectations of the society from Corporate.

# Course Name: Advanced Learners Course Ii: Desktop Publishing Course Code: 21UAEAL409

CO1	Understand the basics of desktop publishing.
CO2	Use critical thinking skills to independently design and create publications.
CO3	Establish competence in the basic creative and technical aspects of image editing and manipulation.
CO4	Design a professional looking material using leading software tool.
CO5	Establish competence in creating artwork for digital mediums.

# **Programme Title: M.Com(CA)**

Programme Outcomes: At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Apply Mathematical and computational strategies in order to solve real world problems.
PO2	Effective Communication: Communicate Mathematical concepts in oral and written form.
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society oriented problems via various Mathematical models and projects.
PO4	<b>Effective Citizenship:</b> Attain the ability to identify, formulate and solve challenging problems of the society and nation through Mathematics.
PO5	Ethics: Inculcate the ethical responsibilities via Mathematical concepts.
PO6	Environment and Sustainability: Instill a sense of attitude in tackling social and environmental issues
<b>PO7</b>	Self-directed and Life-long Learning: Identify their own educational and career needs from the global challenges.

**Programme Specific Outcomes :** At the end of the M.Com(CA) programme, students will be equipped with

the Knowledge in

PSO Number	PSO Statement
PSO1	Financial markets and analysis techniques for making investment decisions.
PSO2	Database management, Software Development and web designing for effective computerization of business.
PSO3	Understand required accounting packages for Financial and Accounting analysis.
PSO4	Practices of cost and management accounting, economics, marketing and taxation.
PSO5	Preparation of various accounts and software applications in order to meet the changing business environment.

# **SEMESTER: I**

#### **Course Name: Core Paper I: Managerial Economics Course Code: 21PBBCT101**

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	CO1	Predict the basic and fundamental concepts of Managerial Economics.
	CO2	Compute the consumer behaviour and their utility measures.
	CO3	Identify the causes and effect of demand and supply.
	<b>CO4</b>	Compare the production cost and revenue conditions under time element.
	CO5	Design the market situation and planning the policy making.

# **Course Name: Core Paper II: Marketing Management**

# Course Code: 21PBBCT102

CO1	Understand the internal and external factors of marketing environment.
CO2	Identify and formulate marketing strategies for industrial, consumer and services marketing.
CO3	Evaluate the marketing mix components.
CO4	Identify and measure consumer behaviour and satisfaction.
CO5	Analyze the marketing research and recent trends in marketing.

#### Course Name: Core Paper III: Data Base Management System Course Code: 21PBBCT103

CO1	Recall the database system, architecture and relational model.
CO2	Understand the concepts of relational query languages.
CO3	Apply the different normalization techniques in database design.
CO4	Explain the transaction processing and concurrency control in database system.
CO5	Evaluate the parallel database system and distribution database system.

# Course Name: Core Paper IV: Computer Applications In Business Practical – I (Oracle) Course Code: 21PBBCP104

CO1	Understand the basic concepts of computer applications using oracle for maintaining the database.
CO2	Create different databases using SQL for developing the business transaction.
CO3	Gain the knowledge on creating database using oracle.
CO4	Apply the various queries to extract the particular database.
CO5	Relate the aggregate functions to extract the particular database.

# **Course Name: Elective Paper I: Services Marketing Course Code: 21PBBET105**

CO1	Understand the concepts of Services Sector.
CO2	Learn about customer's expectation in Services Marketing.
CO3	Know more about marketing mix for selected marketing services.
CO4	Develop the knowledge on key services marketing.
CO5	Get insight in service quality tools.

# **Course Name: Elective Paper I: Financial Markets And Institutions Course Code: 21PBBET106**

<b>CO1</b>	Understand the Indian Financial System and various money market instruments.
CO2	Recall the features if Indian Capital Market.
CO3	Analyse the credit rating services offered by CRISIL and ICRA regarding investor information.
<b>CO4</b>	Examine the importance of depository services.
CO5	Evaluate the working and functions of various financial institutions.

#### **Course Name: Elective Paper I: International Trade Course Code: 21PBBET107**

CO1	Remember the major models and importance of international trade.	
CO2	Applying the principle of competitive advantage and interpretation of theoretical models.	
CO3	Simplifying the theory of International trade and understanding the barriers.	
CO4	Discuss the various international investments and its impact in Indian Companies.	
CO5	Summarize the concepts of multinational corporation and globalization.	

# **Course Name: Elective Paper I: Designing Using Corel Draw**

# **Course Code: 21PBBET108**

CO1	Outline the basic elements and features of Corel Draw.
CO2	Explore the different drawing tools for creating lines, curves and irregular shapes.
CO3	Familiarize the steps in adding effects with text, images and objects.
CO4	Apply the techniques in colouring and filling the objects.
CO5	Clarify the steps for previewing, printing and saving the web designs.

# **SEMESTER: II**

# **Course Name: Core Paper V: Advanced Corporate Accounting Course Code: 21PBBCT201**

CO1	Develop the knowledge on accounting aspects pertaining to Insurance Companies.
CO2	Comprehend the accounting provisions relating to preparation of final accounts of banking companies.
CO3	Impart the knowledge relating to Holding and Subsidiary companies.
CO4	Understand the procedures involved in the amalgamation of companies.
CO5	Be familiar with the theoretical framework of Inflation accounting and Human Resources Accounting.

# Course Name: Core Paper VI: Human Resource Management

# Course Code: 21PBBCT202

<b>CO1</b>	Remember the concepts, functions, HR policy and understand the challenges of HRM.
CO2	Describe the meaning of terminology and tools used in managing the employees.
CO3	Prepare selection strategy and training plan for employees.
CO4	Compare and contrast different techniques involved in Performance appraisal process.
CO5	Gain knowledge in applying horizons of employer and employee relations.

# Course Name: Core Paper VII: Research Methodology

#### **Course Code: 21PBBCT203**

CO1	Get insight knowledge about the types of research and research process.
CO2	Develop an idea about various research designs and techniques.
CO3	Understand the sampling techniques of research and its applications.
CO4	Apply the relevant statistical tools in research.
CO5	Lay a foundation to become familiar in preparing research report.

#### **Course Name: Core Paper VIII: Computer Applications In Accounting Course Code: 21PBBCT204**

CO1	Remember the applications of information technology in accounting.
CO2	Understand the various features and benefits of Tally.
CO3	Examine the company creation process, cost centre preparation and budgetary control.
CO4	Analyze the various inventory systems and inventory reports.
CO5	Evaluate the VAT and GST configuration in Tally.

# Course Name: Core Paper IX: Computer Applications Practical-II (Tally) Course Code: 21PBBCP205

CO1	Recall the company creation and voucher entries using Tally.
CO2	Understand the financial statements preparation.
CO3	Analyze the performance of an organization by using ratio analysis and reconcile the bank statements.
CO4	Apply the cost centre operations using voucher entries.
CO5	Evaluate the inventory statements and budgetary control.

#### **Course Name: Elective Paper II: Financial Services Course Code: 21PBBET206**

CO1	Remember the classification of Financial Markets in India.
CO2	Understanding the features of leading Indian stock exchanges.
CO3	Evaluate the recent trends in card based services.
CO4	Examine the importance of various insurance services offered in India.
CO5	Analyse the benefits of real estate investments and its recent developments.

# Course Name: Elective Paper II: Indian Stock Exchanges

# **Course Code: 21PBBET207**

CO1	Understand the function and working of Indian Stock Exchanges.
CO2	Recall the profile of Indian Stock Exchanges.
CO3	Remember the characteristics and benefits of listing.
CO4	Analyse the objectives of SCRA, 1956 and SEBI.
CO5	Examine the features of Internet Stock trading.

## **Course Name: Elective Paper II: Export And Import Trade Procedures Course Code: 21PBBET208**

CO1	Understand the concept and recent measures of exporting.
CO2	Familiarize about different categories of exporters.
CO3	Get insight knowledge about excise procedure in preparing export document.
CO4	Apply knowledge on Import Trade Law in India.
CO5	Examine the relevant procedures for making payment for imported goods.

# **Course Name: Elective Paper II: Working With Photoshop Course Code: 21PBBET209**

CO1	Explore the Photoshop workspace, vector shapes and bitmaps.
CO2	Recognize the color corrections using adjustment layers and retouching and repairing techniques.
CO3	Perform painting and editing using pen tool techniques, layer masks and styles.
CO4	Design composite image and animated GIF with special effects.
CO5	Acquire knowledge in printing and saving images in various formats, Adobe Illustrator and Reader.

# **SEMESTER: III**

# Course: Core X: Financial Management Course Code: 21PBBCT301

CO1	Remember the concepts and tools of finance.
CO2	Understand the importance of cost of capital and capital budgeting techniques.
CO3	Apply the capital structure theories to determine capital structure.
CO4	Analyze the relationship between dividend theories and market price.
CO5	Evaluate the determinants of working capital.

#### Course: Core XI: Cost And Management Accounting Course Code: 21PBBCT302

CO1	Keep in mind the difference in financial, cost and management accounting.
CO2	Understand the various types of calculation of labour cost and overheads.
CO3	Get an idea about the analysis of various ratios and to understand the flow of fund and cash operations.
CO4	Apply the various budgeting techniques in real business.
CO5	Create optimum production plan of a business using marginal costing applications.

# Course Core XII: Visual Basic Course Code: 21PBBCT303

CO1	Remember the fundamental concepts of Visual Basic.
CO2	Understand the various objects in Integrated Development Environment.
CO3	Apply the procedures and functions for developing visual basic program.
CO4	Design program using grid controls and interfaces.
CO5	Choose appropriate database programming and data reports.

# Course: Core XIII: Computer ApplicationsIn Business:Practical-III(Visual Basic) Course Code:21PBBCP304

CO1	Recollect the fundamental concepts of Visual Basic programming.
CO2	Understand the significance of Visual Basic programming for software development.
CO3	Implement the integration of back end with front end tool using ADO control.
CO4	Analyze flex grid and common controls in database environment.
CO5	Execute the various control structures to create application software.

# **Course: Elective - Group A:Marketing of Health Services Course Code:21PBBET305**

CO1	Remember the marketing plans for service organization.
CO2	Understand the trends in Medicare marketing.
CO3	Apply the marketing mix in a service environment.
CO4	Explain the online health services.
CO5	Evaluate the legal system for marketing of health services.

# **Course: Elective - Group B:Futures and Options**

# Course Code:21PBBET306

CO1	Remember the fundamentals of derivatives market in India.
CO2	Understand the specialized terminology of financial markets.
CO3	Apply the rates and contract nature.
CO4	Analyze the pay off of futures and options.
CO5	Evaluate the trading system of various stock exchanges around the world.

# **Course: Elective - Group C:Institutions Facilitating International Trade Course Code: 21PBBET307**

CO1	Remember the basic functions and promotions of Export in India.
CO2	Understand the role of RBI and other commercial banks in export.
CO3	Identify the WTO agreements, objectives and procedures.
CO4	Analyze the IMF guidelines for the International trade.
CO5	Evaluate the procedures for availing membership and assistance from financial corporation.

# **Course: Elective - Group D: Java Programming Course Code: 21PBBET308**

CO1	Remember the design and concept of Java programming.
CO2	Understand the decision making in Java programs.
CO3	Apply the various dimensional arrays and interfaces in programming.
CO4	Analyze the use of threat concept and its methods.
CO5	Evaluate the applet programming and file handling.

# **Course: Advanced Learners Course I: Data Mining For Business Intelligence Course Code: 21PBBAL311**

CO1	Understand various data mining algorithms.
CO2	Compare and contrast different conceptions of data mining.
CO3	Examine the association rules.
CO4	Discover and measure interesting patterns from different kinds of databases.
CO5	Apply the techniques of clustering, classification, association finding, feature selection and visualization to real world data.

# **Course: Advanced Learners Course II: Labour Legislations**

# **Course Code: 21PBBAL312**

CO1	Remember the labour laws under various acts.
CO2	Understand the nature and scope of labour laws.
CO3	Develop decision making skills in handling legal issues in Industrial Relations and other Labour matters.
CO4	Identify the role played by the Government in employer-employee relationship.
CO5	Manage employee relationship at work.

# **SEMESTER: IV**

# Course: Core XIV: Investment Management Course Code: 21PBBCT401

CO1	Keep in mind the basics of investment.
CO2	Understand the alternative forms of investment.
CO3	Implement the SEBI guidelines in primary and secondary market.
CO4	Analyze the sources of information and economic indicators.
CO5	Review the investor education and protection fund.

# Course: Core XV: Direct Taxes Course Code: 21PBBCT402

CO1	Reminisce the basic terms and concepts used in direct tax.
CO2	Understand the elements relating to income from salary and house property.
CO3	Deploy skills in computation of income from business or profession, capital gains and other sources.
CO4	Figure out expertise knowledge in assessment of income and deductions out of gross total income.
CO5	Selection of ITR forms and filing of returns.

# Course: Core XVI: Web Designing Course Code: 21PBBCT403

CO1	Remember the elements, tags and basic structure of HTML document.
CO2	Understand the concept of advanced layouts and embedding multimedia.
CO3	Apply styles in HTML document using CSS properties.
CO4	Analyze the features of JavaScript and control structures.
CO5	Evaluate the functions and objects using JavaScript.

# Course: Core XVII: Computer Applications In Business: Practical-Iv (Web Designing) Course Code: 21PBBCP404

CO1	Understand the HTML basic tags.
CO2	Create frames in web pages using HTML tags.
CO3	Apply the knowledge on CSS in HTML.
CO4	Analyze JavaScript code in HTML document.
CO5	Develop a web page using JavaScript.

# **Course: Elective IV - Group A: Travel and Hospitality Services Course Code: 21PBBET405**

CO1	Remember the concept of tourism and its nature.
CO2	Understand the concept of tourism in marketing segments.
CO3	Apply the marketing mix in tourism service.
CO4	Analyze the various hospitality services.
CO5	Figure out the marketing information system for product planning and development in services industry.

#### **Elective IV - Group B:Fundamental and Technical Analysis Course Code: 21PBBET406**

CO1	Recollect the nature of risk and return.
CO2	Understand the factors of various analyses.
CO3	Apply analysis methods for industry and company.
CO4	Analyze various theories of technical analysis.
CO5	Evaluate technical tools for analysis.

#### **Course: Elective IV - Group C: International Trade Course Code: 21PBBET407**

CO1	Remember the salient features of foreign trade policy.
CO2	Understand the implications of foreign trade policy.
CO3	Apply the various export services and promotion measures.
CO4	Analyze the Law of protection of Intellectual Property Rights, Patents and Trademarks.
CO5	Evaluate the trade performances and determinants of Export and Import.

### **Course: Elective IV - Group D: Cyber Security**

### **Course Code: 21PBBET408**

CO1	Remember the concepts of cyber crime and IT act 2000.
CO2	Understand the Laws related to Cyber Society.
CO3	Analyze and assess the impact of cybercrime on government, businesses, individuals and society.
CO4	Evaluate the effectiveness of cyber-security and cyber-laws.
CO5	Investigate assumptions about the behaviour and role of offenders and victims in cyberspace, and use basic web-tools to explore behaviour online.

#### Course: Core XVIII:Project Work Course Code: 21PBBCV409

CO1	Formulate the Research Project with aims and goals.
CO2	Interpret the major problems and obstacles to overcome in completing project.
CO3	Identify project methodology and project milestones.
CO4	Conduct a thorough literary survey for research project and write a report and presentation.
CO5	Construct the project by implementing the methodology.

### Course: Self Study Course: Retail Management Course Code: 21PADT411

CO1	Recall the concepts of Retailing and discuss the various formats of Retail.
CO2	Acquire knowledge on the different functions and characteristics of Retailing.
CO3	Apply the branding in Retailing.
CO4	Outline the usage of Information Technology in Retailing and the working of Retail Management Information System.
CO5	Identify the principles of Visual Merchandise Management and E-tailing in respectto Indian context.

#### **Programme Title: B.Com (Corporate Secretaryship with CA)**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions(intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context sociotechnological changes.

**Programme Specific Outcomes:** After the successful completion of B.Com (CS CA) program, students will be able to

PSO Number	PSO Statement
PSO1	The area of corporate governance.
PSO2	The field of various Laws and use of digital technology.
PSO3	Identifying and adopting the legal compliance in Corporate Sector.
PSO4	Accounting system and its applications by use of IT tools.
PSO5	Understanding, analyzing and solving problems in Corporate Sector for better Corporate Management.

#### **SEMESTER: I**

#### Course Name: Core I: Professional English –I Course Code: 21UAFCT101

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	CO1	Recognise their own ability to improve their own competence and skills in using the language.
	CO2	Develop their competence in the use of English with particular reference to workplace situation with confidence and acceptable manner.
	CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills.
	CO4	Create and develop their skills in interpreting visuals and presentations.
	CO5	Sharpen their critical thinking related to life and professional ethics.

#### **Course Name:Core II – Financial Accounting - I Course Code: 21UAFCT102**

CO1	Plan the accounting concepts & procedures and significance of double entry system.
CO2	Apply the concept of book keeping and rectification of errors.
CO3	Assess the Bank reconciliation statement and apply how to resolve difference between cash book and pass book in a systematic manner.
CO4	Analyze the technique of accounting relating to accommodation bills and its special treatment.
CO5	Evaluate the calculation procedure involved in the preparation of financial statements.

#### **Course Name: Core III: Introduction to Computer Application Course Code: 21UAFCT103**

CO1	Demonstrate about the basic concepts of Computer.
CO2	Assess about MS word.
CO3	Apply the formula for entering in worksheet.
CO4	Utilize the knowledge about creation of Power point.
CO5	Analyse about MS Access.

#### **Course Name: Allied Course I:Business Economics Course Code: 21UAFAT104**

CO1	Outline the basic concept of Business Economics and Economic Theories.
CO2	Identify the determinants of the utility and demand analysis
CO3	Demonstrate the production analysis and cost decisions making.
CO4	Assess the market structures and Price discrimination.
CO5	Explain Macro Economics and National Income.

#### **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources.
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices

#### **SEMESTER: II**

## Course Name: Core IV : Professional English – II

Course Code: 21UAFCT201

CO1	Identify the importance of linguistic competence in workplace environment.
CO2	Develop LSRW skills for academic and career purposes.
CO3	Illustration of digital competence for Vlogs and Webpage designing.
CO4	Application of digital competence for innovation and imagination in recent business scenario.
CO5	Applying the effective business correspondence with brevity and clarity at workplace

### Course Name: Core V - FINANCIAL ACCOUNTING - II Course Code: 21UAFCT202

CO1	Prepare the accounting statements of consignment.
CO2	Identify the methods and applications of Depreciation.
CO3	Apply the system of accounting followed in Hire Purchase system.
CO4	Analyze accounting treatment required for admission and retirement in partnership firms.
CO5	Evaluate the accounting procedures involved in dissolution of partnership.

#### Course Name: Core VI - COMPUTER PRACTICAL – I (Office Package) Course Code: 21UAFCP203

CO1	Acquire Knowledge on text, features, templates and wizard.
CO2	Demonstrate the Preparation of Financial Statement and Charts by using Ms-Excel.
CO3	Gain exposure on Presentation of Slides.
CO4	Understand the Preparation of Employee Data Base and Student Data Base.
CO5	Know about the various Designing Techniques.

#### Course Name: Allied Paper II: BUSINESS LAW Course Code: 21UAFAT204

CO1	Familiar with General Principles of Law of Contract.
CO2	Learn the basic principles in Discharge and Remedies of Contract.
CO3	Procure familiarity in Agency and Principal relationship.
CO4	Gain exposure on Common Carrier and Sale of Goods Act.
CO5	Acquire knowledge on Negotiable Instrument Act.

#### **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

	CO1	Identify the values to be adopted in their personal, Professional and social life.	
	CO2	Develop personality and social cohesion through various skills inculcated.	
Ī	CO3	Construct co-ordinal relationship with the family members.	
	<b>CO4</b>	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.	
	CO5	Buildup social sense and commitment and to discriminate social evils from virtues.	

#### **SEMESTER: III**

#### Course Name: Core 7:Corporate Accounting - I Course Code: 21UAFCT301

CO1	Understand the accounting procedure for issue of shares.
CO2	Apply the concept of issue and redemption of preference shares.
CO3	Assess the application of marked and unmarked applications in underwriting
CO4	Prepare the final accounts of the Joint stock company
CO5	Evaluate the valuation of goodwill and valuation of shares of a company

#### Course Name: Core 8:Company Law and Secretarial Practice-I Course Code: 21UAFCT302

	CO1	Identify the characteristics and Classification of Companies.
	<b>CO2</b>	Understand the procedures regarding Alteration of Memorandum of Association and Articles of Association.
	CO3	Analyze the Secretarial duties in issue of Prospectus.
	CO4	Gain knowledge on the concept of share capital.
	CO5	Acquire knowledge about the role of Company Secretary.

#### Course Name: Core 9:Database Management System Course Code: 21UAFCT303

CO1	Outline the basic concept and Functions of DBMS
CO2	Identify the Components of ER Model
CO3	Demonstrate the normal forms
CO4	Assess the Data base design
CO5	Evaluate the role of management systems

#### **Course Name: Skill Based Course 1: Human Resource Management Course Code: 21UAFST305**

	CO1	Understand the functions of Human Resource Management.
	CO2	Familiar with the importance of Human Resource Planning and Techniques.
ſ	CO3	Acquire knowledge on Recruitment and Selection process.
	CO4	Expose on placement and Induction Programme.
ſ	CO5	Acquire knowledge about the incentive plan and welfare of Employees.

### Course Name: Non Major Elective -1:Company Law

### Course Code:21UAFNT306

CO1	Identify the characteristics of Company and Functions of Secretary.	
CO2	Acquire knowledge on Formation of a Company.	
CO3	Analyze the contents of Memorandum of Association and Articles of Association.	
CO4	Analyze the Role of Secretary relating to issue of Shares.	
CO5	Gain knowledge on provisions relating to Company Meetings.	

### **Course Name: Gender Studies**

#### Course Code:21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

#### Course Name: Core 10: Corporate Accounting -II Course Code:21UAFCT401

CO1	Calculate purchase consideration under both the methods of amalgamation as per AS 14.	
CO2	Apply the concept of Capital reduction account and rules regarding the presentation of accounts post reconstruction in accordance with the provisions of the Companies Act 2013	
CO3	Learn how to prepare profit and loss account and balance sheet of a bank.	
CO4	Comprehend the regulations governing IRDA of India	
CO5	Draw Deficiency account and will be able to point out the reasons for deficiency	

#### Course Name: Core 11: Company Law & Secretarial Practice-II Course Code: 21UAFCT402

υu	Jurse Code: 21UAFC1402	
	CO1	Familiar with the provisions relating to Company Management.
	CO2	Acquire knowledge on borrowing powers of board of directors.
	CO3	Know the provisions relating to meeting.
	<b>CO4</b>	Understand the provisions relating to dividend
	CO5	Identify the provisions relating to winding up.

#### **Course Name: Core 12: Programming in C**

#### **Course Code: 21UAFCT403**

CO1	Understand the basic structure of C programming.
CO2	Gain knowledge on the concept of various decision making statements.
CO3	Acquire knowledge about the types of arrays
CO4	Analyse the rules regarding structures and pointers
CO5	Gain Exposure to write programs and perform the file management.

#### Course Name: Core-13 Computer Practical II (Accounting Packages and C Programmig) Course Code: 21UAFCP404

CO1	Prepare books of accounts and balance sheet.
CO2	Acquire skills in computerized accounting packages.
CO3	Cognizant with the ability to use a Accounting system, to create the data needed to solve the various business problems.
CO4	Possess knowledge in C Programming.
CO5	Gain knowledge in designing, developing, and maintaining C Programming.

#### **Course Name: Skill Based Course -2: Trade Mark And Copyright Practice Course Code: 21UAFST406**

CO1	Remember about trademarks and its kinds.	
CO2	Understand the procedure for registration of trademarks.	
CO3	Be acquainted withinfringement and passing off.	
CO4	Familiar with copyright and its nature.	
CO5	Analyze ownership rights and about assignment.	

#### Course Name: Non-Major Elective-II: Principles Of Auditing Course Code: 21UAFNT407

CO1	Understand the knowledge of fundamental audit concepts.
CO2	Analyze the concept of Audit Planning and Programme.
CO3	Comprehend the concept of Internal Control and Vouching.
CO4	Understand the concepts of Verification and Valuation of Assets and Liabilities.
CO5	Outline the qualification and disqualification of Auditor.

#### **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know the about benefits of Asanas

#### Course Name: Advanced Learner Course- 1:Performance Management Course Code: 21UAFAL408

CO1	Remember the principles of performance management.
CO2	Understand the theory of performance management.
CO3	Know about the mechanics of performance management planning and documentation.
CO4	Evaluate the dimension of performance Frame work
CO5	Acquire the knowledge about performance Management Employee Development

#### **Course Name:Advanced Learners Course I:Financial Market Operations Course Code:21UAFAL409**

CO1	Understand the concept of Financial Markets.
CO2	Acquire knowledge in Money Market Instruments.
CO3	Know the functions of Capital Market and Role of SEBI
CO4	Identify the New Issue Market and Debt Market
CO5	Outline the dimensions of Derivates Market.

#### **Programme Title: B.Com (Professional Accounting)**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions(intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context sociotechnological changes.

**Programme Specific Outcomes:** After the successful completion of B.Com (PA) programme, students will be able to

PSO Number	PSO Statement
PSO1	Accounting skills with emphasis on application of both quantitative and qualitative aspects.
PSO2	The auditing and reporting.
PSO3	Professional ethics and legal compliance.
PSO4	Applying appropriate digital technologies.
PSO5	Critical thinking and problem solving in various real life time problems in the field of Commerce

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I **Course Code: 21UACCT101**

	CO1	Recognise their own ability to improve their own competence and skills in using the language.
	CO2	Develop their competence in the use of English with particular reference to workplace situation with confidence and acceptable manner.
	CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills.
Ī	<b>CO4</b>	Create and develop their skills in interpreting visuals and presentations.
	CO5	Sharpen their critical thinking related to life and professional ethics.

#### Course Name: CORE: II - FINANCIAL ACCOUNTING - I

#### **Course Code: 21UAGCT102**

CO1	Plan the accounting concepts & procedures and significance of double entry system.
CO2	Apply the concept of book keeping and rectification of errors.
CO3	Assess the Bank reconciliation statement and apply how to resolve difference between cash book and pass book in a systematic manner
CO4	Analyze the technique of accounting relating to accommodation bills and its special treatment
CO5	Evaluate the calculation procedure involved in the preparation of financial statements.

#### **Course Name: CORE : III-OFFICE AUTOMATION** Course Code: 21UAGCT103

CO1	Outline the basic concepts of Computer and working Methodology of MS word.
CO2	Apply the formula for entering in worksheet.
CO3	Demonstrate the Power point Presentation
CO4	Prepare about MS Access
CO5	Outline the basic concepts of ERP.

#### **Course Name: Foundation Course I:** Environmental Studies **Course Code: 21ES01**

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	CO1	Compile different types of ecosystem and its energy flow.
	CO2	Analyze the impacts of natural resources
	CO3	Apply the concepts of biodiversity and its conservation.
Ī	CO4	Create awareness on disaster management and measures to prevent pollution.
	CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

#### Course Name: Core 3 : Professional English – II Course Code: 21UACCT201

ou			
	CO1	Identify the importance of linguistic competence in workplace environment.	
	CO2	Develop LSRW skills for academic and career purposes.	
	CO3	Illustration of digital competence for vlogs and webpage designing.	
	CO4	Application of digital competence for innovation and imagination in recent business scenario.	
	CO5	Applying the effective business correspondence with brevity and clarity at workplace.	

#### Course Name: CORE : V-FINANCIAL ACCOUNTING - II Course Code: 21UAGCT202

CO1	Prepare the accounting statements of consignment.
CO2	Identify the methods and applications of Depreciation.
CO3	Apply the system of accounting followed in Hire Purchase system
CO4	Analyze accounting treatment required for admission and retirement in partnership firms.
CO5	Evaluate the accounting procedures involved in dissolution of partnership.

#### Course Name: CORE VI: COMPUTER PRACTICAL-I (OFFICE PACKAGE) Course Code: 21UAGCP203

CO1	Apply knowledge on text alignment and preparation of bio-data.
CO2	Assess with the preparation of Financial Statement and charts by using Ms-Excel.
CO3	Demonstrate about the presentation of slides.
CO4	Identify the preparation of employee data base and student data base.
CO5	Design Business card and Broucher using Ms-Publisher.

#### **Course Name: Foundation Course II: Value Education**

**Course Code: 21VE01** 

CO1	Identify the values to be adopted in their personal, professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### **Course Name: Core 7: CORPORATE ACCOUNTING - I Course Code: 21UAFCT301**

	CO1	Understand the accounting procedure for issue of shares.
ſ	CO2	Apply the concept of issue and redemption of preference shares.
ſ	CO3	Assess the application of marked and unmarked applications in underwriting
ſ	CO4	Prepare the final accounts of the Joint stock company
Ī	CO5	Evaluate the valuation of goodwill and valuation of shares of a company

#### Course Name: Core 8: COMPANY LAW AND SECRETARIAL PRACTICE-I Course Code: 21UAFCT302

CO1	Identify the characteristics and Classification of Companies.
CO2	Understand the procedures regarding Alteration of Memorandum of Association and Articles of Association.
CO3	Analyze the Secretarial duties in issue of Prospectus.
CO4	Gain knowledge on the concept of share capital.
CO5	Acquire knowledge about the role of Company Secretary.

# Course Name: Core 9: DATABASE MANAGEMENT SYSTEM

#### **Course Code: 21UAFCT303**

CO1	Outline the basic concept and Functions of DBMS
CO2	Identify the Components of ER Model
CO3	Demonstrate the normal forms
CO4	Assess the Data base design
CO5	Evaluate the role of management systems

#### Course Name: SKILL BASED COURSE 1: HUMAN RESOURCE MANAGEMENT Course Code: 21UAFST305

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CO1	Understand the functions of Human Resource Management.	
CO2	Familiar with the importance of Human Resource Planning and Techniques.	
CO3	Acquire knowledge on Recruitment and Selection process.	
CO4	Expose on placement and Induction Programme.	
CO5	Acquire knowledge about the incentive plan and welfare of Employees.	

#### Course Name: NON MAJOR ELECTIVE -1: COMPANY LAW Course Code: 21UAFNT306

CO1	Identify the characteristics of Company and Functions of Secretary.	
CO2	Acquire knowledge on Formation of a Company.	
CO3	Analyze the contents of Memorandum of Association and Articles of Association.	
CO4	Analyze the Role of Secretary relating to issue of Shares.	
CO5	Gain knowledge on provisions relating to Company Meetings.	

#### Course Name: GENDER STUDIES Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions	
CO2	Learn about diversities and disparities in education	
CO3	Acquire knowledge in gender equity and employment	
CO4	Promote social justice and women's rights in media.	
CO5	Aware of laws for crime against women and child.	

#### **SEMESTER: IV**

## Course Name: Core 10: CORPORATE ACCOUNTING -II

**Course Code: 21UAFCT401** 

CO2	Calculate purchase consideration under both the methods of amalgamation as per AS 14.
CO2	Apply the concept of Capital reduction account and rules regarding the presentation of accounts post reconstruction in accordance with the provisions of the Companies Act 2013
CO3	Learn how to prepare profit and loss account and balance sheet of a bank.
CO4	Comprehend the regulations governing IRDA of India
CO5	Draw Deficiency account and will be able to point out the reasons for deficiency

## Course Name: Core 11: COMPANY LAW & SECRETARIAL PRACTICE-II

Course Code: 21UAFCT402

CO1	Familiar with the provisions relating to Company Management.
CO2	Acquire knowledge on borrowing powers of board of directors.
CO3	Know the provisions relating to meeting.
CO4	Understand the provisions relating to dividend
CO5	Identify the provisions relating to winding up.

CO1	Understand the basic structure of C programming.
CO2	Gain knowledge on the concept of various decision making statements.
CO3	Acquire knowledge about the types of arrays
CO4	Analyse the rules regarding structures and pointers
CO5	Gain Exposure to write programs and perform the file management.

#### Course Name: Core 12: PROGRAMMING IN C Course Code: 21UAFCT403

#### Course Name: Core-13 COMPUTER PRACTICAL II (ACCOUNTING PACKAGES AND C PROGRAMMIG) Course Code: 21UAFCP404

CO1	Prepare books of accounts and balance sheet.
CO2	Acquire skills in computerized accounting packages.
CO3	Cognizant with the ability to use an Accounting system, to create the data needed to solve the various business problems.
CO4	Possess knowledge in C Programming.
CO5	Gain knowledge in designing, developing, and maintaining C Programming.

#### Course Name: SKILL BASED COURSE -2: TRADE MARK AND COPYRIGHT PRACTICE Course Code: 21UAFST406

CO1	Remember about trademarks and its kinds.
CO2	Understand the procedure for registration of trademarks.
CO3	Be acquainted with infringement and passing off.
CO4	Familiar with copyright and its nature.
CO5	Analyze ownership rights and about assignment.

### Course Name: NON-MAJOR ELECTIVE-II: PRINCIPLES OF AUDITING

Course	Code:	<b>21UA</b>	<b>FNT407</b>	
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CO1	Understand the knowledge of fundamental audit concepts.
CO2	Analyze the concept of Audit Planning and Programme.
CO3	Comprehend the concept of Internal Control and Vouching.
CO4	Understand the concepts of Verification and Valuation of Assets and Liabilities.
CO5	Outline the qualification and disqualification of Auditor.

#### Course Name: FUNDAMENTALS OF YOGA Course Code: 21SS02

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know the about benefits of Asanas

#### Course Name: ADVANCED LEARNER COURSE- 1: PERFORMANCE MANAGEMENT Course Code: 21UAFAL408

CO1	Remember the principles of performance management.
CO2	Understand the theory of performance management.
CO3	Know about the mechanics of performance management planning and documentation.
CO4	Evaluate the dimension of performance Frame work
CO5	Acquire the knowledge about performance Management Employee Development

#### **Course Name: ADVANCED LEARNERS COURSE I: FINANCIAL MARKET OPERATIONS Course Code: 21UAFAL409**

CO1	Understand the concept of Financial Markets.
CO2	Acquire knowledge in Money Market Instruments.
CO3	Know the functions of Capital Market and Role of SEBI
CO4	Identify the New Issue Market and Debt Market
CO5	Outline the dimensions of Derivates Market.

### Programme Title:M.B.A

**Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement	
PO1	Critical Thinking: Apply the strategies and techniques in order to solve real world problems.	
PO2	Effective Communication: Communicate the concepts in oral and written form.	
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society oriented problems using the Domain knowledge.	
PO4	<b>Effective Citizenship:</b> Attain the ability to identify, formulate and solve challenging problems of the society and nation	
PO5	<b>Knowledge Formulation:</b> Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.	
PO6	Environment and Sustainability: Instill a sense of attitude in tackling social and environmental issues.	
P07	<b>Self-directed and Life-long Learning:</b> Identify their own educational and career needs from the global challenges.	

## **Programme Specific Outcomes:**

At the end of the programme, students will be equipped with the Knowledge in:

PSO Number	PSO Statement
PSO1	Acquire knowledge and skill in key functional areas of Management.
PSO2	Develop Competencies required for successful practice of management and leadership.
PSO3	Evolve with a Holistic Personality to lead personal and professional lives.
PSO4	Ability to analyze and evaluate the ethical problems of business decision making.
PSO5	Gain knowledge of current business models and trends in domestic and global environment.

#### **SEMESTER: I**

#### Course Name: Core - MANAGEMENT CONCEPTS AND ORGANISATIONAL BEHAVIOUR Course Code: 21PBDCT101

CO1	Acquire Fundamental concepts of Management.
CO2	Outline the Organization structure and apply delegation process.
CO3	Identify the human resource and apply the various training and development techniques to enhance the human resource
CO4	Ability to inspire and motivate team members and also apply their own leadership styles
CO5	Asses and evaluate the performance through Control techniques

#### **Course Name: Core - BUSINESS ENVIRONMENT Course Code: 21PBDCT102**

CO1	Acquire the basis on various business environment
CO2	Outline the awareness about economic environment and pollution.
CO3	Evaluate the various stakeholder responsibilities towards business
CO4	Analyze the agreements and functions of world trade organisation
CO5	Identify and utilize the modes of entry in global business

#### **Course Name: Core - MANAGERIAL ECONOMICS**

#### **Course Code: 21PBDCT103**

CO1	Outline the basic concepts of economics and its role in business decision making
CO2	Explain the demand determinants on managerial decisions
CO3	Identify the relationship between Supply and cost concept.
CO4	Formulate competitive pricing strategies according to the nature of market.
CO5	Analyze the macroeconomic concepts & their relation to micro economic concept & how they affect the business & economy

#### Course Name: Core - ACCOUNTING FOR MANAGERS Course Code: 21PBDCT104

CO1	Acquire the fundamental principles of accounting.
CO2	Prepare, analysis and interpret various financial statement
CO3	Evaluate cost effectiveness by using the tools of cost accounting
CO4	Formulate and Assess various budgets
CO5	Critique marginal cost techniques in decision making

#### Course Name: Core - QUANTITATIVE METHODS Course Code: 21PBDCT105

CO1	Understand the basic concepts of statistics and data display.
CO2	Calculate measures of central tendency.
CO3	Know about the basic concepts of measures of dispersion.
CO4	Determine and apply the Correlation and Regression Coefficients
CO5	Gain knowledge in the concepts of Index numbers and time series analysis

### Course Name: Core - CORPORATE COMMUNICATION Course Code: 21PBDCT106

CO1	Identify the basic principles of communication in business environment.
CO2	Communicate with modern business and employment correspondence.
CO3	Prepare the business reports in appropriate organizational formats
CO4	Prepare and design presentations, participate effectively in public speaking with interpersonal skills.
CO5	Acquire knowledge and understanding of diversity and inclusion in the workplace.

#### Course Name: Core - MANAGEMENT PRACTICES Course Code: 21PBDCV107

CO1	Identify the basic principles of communication in business environment.
CO2	Communicate with modern business and employment correspondence.
CO3	Prepare the business reports in appropriate organizational formats.
CO4	Prepare and design presentations, participate effectively in public speaking with interpersonal skills
CO5	Acquire knowledge and understanding of diversity and inclusion in the workplace.

#### **SEMESTER: II**

#### **Course Name: Core - PRODUCTION AND MATERIALS MANAGEMENT Course Code: 21PBDCT201**

CO1	Acquire the basis on production management.
CO2	Outline the awareness about product design, location and layout.
CO3	Design and apply the production planning and control.
CO4	Analyze on material management and inventory control
CO5	Asses the modern production management tools and quality certifications.

#### Course Name: Core - MARKETING MANAGEMENT Course Code: 21PBDCT202

CO1	Outline the key marketing concepts and techniques to analyze a variety of marketing Situations.
CO2	Assess market segmentation and targeting to build knowledge on consumer behaviour.
CO3	Identify the marketing strategies based on product, price, place and promotional objectives.
CO4	Articulate the knowledge on various Promotional tools.
CO5	Gain knowledge about emerging trends in marketing in a global perspective.

## **Course Name: Core - FINANCIAL MANAGEMENT**

#### Course Code: 21PBDCT203

CO1	Outline various functions of financial management.
CO2	Apply and analysis the techniques of investment decision.
CO3	Compute and evaluate various cost of capital.
CO4	Formulate the capital structure and dividend policy of the firm.
CO5	Evaluate and compute working capital requirements.

#### Course Name: Core - HUMAN RESOURCE MANAGEMENT Course Code: 21PBDCT204

CO1	Acquire fundamental concepts of human resource management.
CO2	Identify and select appropriate recruitment and selection process
CO3	Apply various training and development techniques to enhance the skills of human resources.
CO4	Analyze the performance appraisal techniques and job evaluation methods
CO5	Acquire knowledge about social security measures and industrial relations.

## Course Name: Core – OPTIMIZATION TECHNIQUES

Course Code: 21PBDCT205

CO1	Understand the basic concepts of Operations Research.
CO2	To comprehended the concept of a Transportation Problem and Minimum Transportation Cost.
CO3	Understand the basic concepts of Queueing Theory and Network scheduling.
CO4	Understand and evaluate the decision to be made and the potential outcomes.
CO5	Understand and evaluate the Simulation models.

#### Course Name: Core – RESEARCHMETHODOLOGY Course Code: 21PBDCT206

CO1	Acquire basis on research problem.
CO2	Outline the awareness on research and sampling design.
CO3	Identify the measurement and scaling in research.
CO4	Analyze on data processing and analysis.
CO5	Prepare the interpretation and report writing

# Course Name: Core - DATA ANALYSIS USING SPREAD SHEET AND SPSS – PRACTICAL Course Code: 21PBDCP207

CO1	Acquire the fundamentals of working in Spread sheet and SPSS.
CO2	Prepare the application oriented worksheet.
CO3	Compute the mathematical functions in Spread sheet.
CO4	Create the data file in SPSS and prepare for data analysis in SPSS.
CO5	Demonstrate the data analysis in SPSS.

#### **SEMESTER: III**

#### **Course Name: Core: Information System for Managers**

#### **Course Code: 21PBDCT301**

C01	Describe the basic concepts related to Management Information System.
CO2	Explain in detail the various functional information systems.
CO3	Use of DSS models, AI, Expert Systems in decision making Process.
CO4	Analyzing the various information resources and technologies for developing an efficient information system.
CO5	Evaluating the various security challenges for a secured information system.

#### Course Name: Core: Entrepreneurship Development Course Code:21PBDCT302

CO1	Understand the ability to discern distinct entrepreneurial traits.
CO2	Discuss the entrepreneurial promotion and motivating factors.
CO3	Analyze the internal/external factors affecting a business/organization to evaluate business portunities.
CO4	Demonstrate the issues and decisions involved in location of enterprise.
CO5	Examine the role of MSME and various institutions supporting entrepreneurs.

#### Course Name: Consumer Behaviour Course Code: 21PBDET303

CO1	Understand the Importance of consumer behaviour in marketing prospective.
CO2	Enumerate psychological influence on the behavior pattern of the consumer.
CO3	Analysis the dynamics of human behavior and the basic factors that influence the consumer's decision process.
CO4	Explain the sociocultural impact on consumers and in framing the marketing strategy.
CO5	Evaluate the role of Opinion leadership and Innovation adoption process towards consumer behaviour.

#### **Course Name: Integrated Marketing Communication Course Code : 21PBDET304**

CO1	Explain the various promotional mixes and their role in IMC Program.	
CO2	Examine various models of communication and the nature of consumer's cognitive processing	
02	of marketing communication.	
CO3	Relate how IMC fits into the marketing mix.	
CO4	Develop an awareness about marketing communications tools, and how each can be used	
04	effectively- individually or in an integrated mix	
CO5	Examine the process by which integrated marketing communications programs are planned,	
	developed, executed and measured.	

#### **Course Name: Retail Management**

#### **Course Code : 21PBDET305**

<b>CO1</b>	Understand the basic concepts of retailing.
CO2	Analyze the marketing tools and techniques to interact with their customers.
CO3	Identify the Scope of Location and Promotion of Retail Outlets.
CO4	Evaluate the issues related to modern retailing
CO5	Create and Implement the use of technology, in the gathering and presentation of information.

### **Course Name: Staffing in Organisation**

#### **Course Code : 21PBDET306**

CO1	Acquire the basis on staffing planning, model and strategy.
CO2	Outline on recruitment strategy and planning.
CO3	Identify the awareness on selection and staffing activities.
CO4	Ability to gain knowledge on employment contracts, job offers and legal issues.
CO5	Assess the staffing system and application-oriented case studies on staffing.

#### **Course Name: Compensation Management Course Code : 21PBDET307**

CO1	Acquires knowledge and comprehension about the compensation function.
CO2	To recognize the pay decisions help the organization to achieve a competitive advantage.
CO3	Ability to measure and pay for their performance.
CO4	Analyze, integrate, and apply the knowledge to solve compensation related problems in organizations.
CO5	Asses and evaluate the performance through globally.

#### **Course Name: Management of Industrial Relations Course Code :21PBDET308**

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	CO1	Acquire the basis on industrial relations.
	CO2	Outline the awareness about industrial conflict and disputes.
	CO3	Evaluate the trade union functions and responsibilities.
	<b>CO4</b>	Analyze the process of collective bargaining.
	CO5	Identify the grievances and levels of workers participation in management.

#### **Course Name: Financial Services Course Code : 21PBDET309**

CO1	Help the students appreciate and understand how merchant banking and NBFC operate.
CO2	Understand the concepts of hire purchase and leasing.
CO3	Learn the basic functions and performance of mutual funds.
CO4	Gain knowledge about the various financial services.
CO5	Gain practical knowledge on merger and acquisitions.

#### **Course Name: Security Analysis and Portfolio Management Course Code : 21PBDET310**

CO1	Outline the basic concepts of various investment alternatives and its sources.
CO2	Exhibit awareness on securities market.
CO3	Identify the stock market quotation and SEBI.
CO4	Formulate the understanding of various analysis and describe how to analyze the various Securities.
CO5	Analyze the portfolio construction and to prepare the suitable portfolio for investment.

#### **Course Name : Financial Derivatives Course Code : 21PBDET311**

CO1	Understand the application of Derivatives.
CO2	Evaluate about the instruments in derivative market.
CO3	Use of techniques and strategies in options contract.
CO4	Know about Warrants and Swaps in Financial Market.
CO5	Analysis the Derivative Trading Mechanism.

#### **Course Name : Electronic Commerce Course Code : 21PBDET312**

CO1	Understand the business models and technology of e-business.
CO2	Analyse the technological platforms, social media, m-commerce and social media networks based business models in the context of e-business.
CO3	Apply e-business models in supply chain, retailing, and service sectors.
CO4	Evaluate the ethical dimensions of e-business.
CO5	Develop managerial and technological skills to manage electronic media, social network and e- business.

# **Course Name :Enterprise Resource Planning Course Code : 21PBDET313**

CO1	Discuss the risk and benefits associated with Enterprise Resource Planning.
CO2	Execute ERP solutions and functional modules.
CO3	Relate the exposure to the implementation environment
CO4	Understand post implementation impact and maintenance of ERP
CO5	Demonstrate emerging trends in ERP

### **Course Name : Business Analytics**

### **Course Code : 21PBDET314**

CO1	Explain the importance of IT in business application.	
CO2	Apply various data to learn the underlying model and pattern.	
CO3	Examine the basic concept of data mining.	
CO4	Interpret the reports and translate results of business analytic projects into effective courses of action	
	Execute Optimization methods to solve decision problems under uncertainty in business	
CO5	applications	

#### **Course Name : Advanced Production Management Course Code : 21PBDET315**

CO1	Acquire the various advanced production system.
CO2	Exhibit awareness on designing facilities and will able to design the production layout.
CO3	Gain exposure to design of various production systems.
CO4	Formulate and assess productivity techniques and modern quality management effectively.
CO5	Analyze the application-oriented case studies on modern production management.

#### **Course Name: Integrated Material Management Course Code :21PBDET316**

CO1	Understand the concepts and functional areas of material management.
CO2	Planning (MRP), and various inventory control techniques.
CO3	Determine the techniques available for purchasing of materials.
CO4	Ability to gain basic knowledge about the methods involved in material handling and storage.
CO5	Evaluate the safety measures involved in handling the materials in production process.

### **Course Name: Product Design**

#### **Course Code:21PBDET317**

CO1	Understand the basics of product development and development process.
CO2	Relate exposure on product planning and product life cycle.
CO3	Explain the knowledge on product concept.
CO4	Acquire exposure on Industrial design and design tools.
CO5	Examine the intellectual property rights and patents.

#### **Course Name: Project Management**

### Course Code : 21PBDET318

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	CO1	Execute the different role and importance of projects in society	
	CO2	Examine and understand project selection process for implementation in real time	
	CO3	Formulate project activity plan and identify the tools useful in organizing and staffing the various project tasks	
	CO4	Appraise the common scheduling models such as the PERT, CPM, and precedence diagramming	
	CO5	Select the appropriate action to monitor, evaluate, control and execute the project	

# **Course Name :Management of Small Enterprises Course Code :21PBDET319**

CO1	Understand the basic concept of small scale industrial units.
CO2	Analyze the knowledge on starting small industry and legal formalities.
CO3	Explain the awareness on incentives and subsidies.
CO4	Relate the exposure on financial requirements for small business.
CO5	Select the appropriate action to MSE project

# **Course Name :Women Entrepreneurship and Ethics Course Code : 21PBDET320**

ou	Jurse Code : 21FBDE1520		
	CO1	Awareness of existing new business opportunities for women.	
	CO2	Understand the role of women entrepreneurship in different facets of society.	
	CO3	Know the various livelihood supports for women Employment opportunities.	
	CO4	Elucidate the role of various developmental schemes supporting women entrepreneurship.	
	CO5	The student will be aware of meaning and value of women entrepreneurs.	

# Course Name : Intellectual Property Rights Course Code : 21PBDAL321

CO1	Acquire fundamental concepts of intellectual property rights.	
CO2	Outline the trademarks rights and registration process.	
CO3	Identify the copy rights and patent application process.	
<b>CO4</b>	Formulate the understanding of trade secrets.	
CO5	Analyze the new developments of intellectual property.	

# Course Name: New Enterprise Management Course Code :21PBDAL322

CO1	Evaluate and apply concepts of new enterprise management.
CO2	Research, develop and present, as a member of a team, a new enterprise project.
CO3	Develop and demonstrate interpersonal skills to achieve desired outcomes.
CO4	Derives project reports and new business innovation plans.
CO5	Identifying the problem and resolving the small entrepreneurs.

#### **SEMESTER: IV**

#### Course Name :Strategic Management Course Code :21PBDCT401

CO 1	Identify elements of strategic planning.
CO 2	Understand the tools of strategic environment.
CO 3	Learn the application of strategic formulation.
CO 4	Recognize strategic decisions and tools.
CO 5	Apply appropriate tools, theories and concepts to analyse strategic issues in organizations and to develop strategies for implementation.

# Course Name: International Business

Course Code :21PBDCT402

CO1	To understand and gain knowledge on the International business and trade environment.
CO2	To analysis the Implications and impact and also the code of conduct of IB.
CO3	To Formulate the International entry strategies beyond the country boundries.
CO4	To Evaluate investment avenues and plan the financial strategies in the international trade.
CO5	To compare and contrast international trade policies and social issues.

### **Course Name: Services Marketing**

#### **Course Code: 21PBDET403**

CO1	Understand the concept of service marketing and the customer in service industry.
CO2	Analysis the customer expectation and perception for building customer relationship.
CO3	Designing the service to meet the customer defined standards.
CO4	Evaluate the service delivery quality.
CO5	Explore to Industry 4.0 concepts in service industry.

#### **Course Name :Sales And Distribution Management Course Code: 21PBDET404**

CO1	Explain the basics of sales management, theories and strategies.
CO2	Interpret the process of personal and relationship selling.
CO3	Recognise how to manage the sales force.
CO4	Select the suitable distribution channel.
CO5	Relate Logistics and SCM.

# Course Name :Digital Marketing Course Code :21PBDET405

C01	Identify elements of digital environment.
CO2	Understand the tools of digital marketing research.
CO3	Learn the fundamentals of search engine marketing.
CO4	Recognize online reputation Management and strategies.
CO5	Apply the recent trends in digital marketing.

# **Course Name: Training and Development Course Code :21PBDET406**

CO1	Understand and gain exposure on qualities and skills required for trainer.
CO2	Analyse the training need assessment to provide suitable training.
CO3	Design the training and development programme based on the nature of job.
CO4	Demonstrate the understanding of various training and development methods and how to provide suitable techniques of training to employee in organization.
CO5	Appraise the training implementation to develop suitable training and development strategy.

# Course Name: Performance Management System Course Code :21PBDET407

CO1	Understand the Different Dimensions of Performance Management.
CO2	Identify a role description.
CO3	Describe monitoring purpose and mentoring process.
CO4	Relate the need for manages development.
CO5	Examine the Organisation and Self Performance Appraisal.

# Course Name :Labour Legislation Course Code :21PBDET408

CO1	Outline the basic concepts of labour legislations.
CO2	Exhibit an awareness on Laws on working conditions.
CO3	Identify the Laws on Industrial relations.
CO4	Formulate the understanding of Laws on wages.
CO5	Analyze the Laws on social security.

#### **Course Name: International Financial Management Course Code :21PBDET409**

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	<b>CO1</b>	Understanding the financial management and changes in global market.
	CO2	Evaluate the foreign exchange market and determine the exchange rates.
	CO3	Recognise the various instruments used for hedging foreign exchange risk.
	CO4	Measure and manage the risk associated with exchange rate.
	CO5	Analysis the international financing avenues.

#### Course Name: Digital Finance Course Code :21PBDET410

CO1	To understand the concept of digital technology in Financial services.
CO2	To gain knowledge about various digital transactions.
CO3	To know the role of FinTech in digital finance innovation.
CO4	To Explain the regulations relating to digital finance.
CO5	To apply the industry 4.0 techniques in the Financial data analysis.

#### **Course Name: Strategic Financial Management Course Code :21PBDET411**

CO1	To understand insight aspects of investment.
CO2	To analysis the value levers and financial drivers of creating value.
CO3	To know the strategic issues relating to liability management.
<b>CO4</b>	To analysis and manage the complex cost management system.
CO5	To use the ethical, social and governance dimensions in the domain.

#### **Course Name: Software Project Management Course Code: 21PBDET412**

CO1	Learn the basic functions, techniques and methods of software project management.
CO2	Apply the various software of system to resolve business problems.
CO3	Analyze the various issues of software projects.
CO4	Create interest to do research in the field of software project Management.
CO5	Learn the software maintenance and configuration management.

#### **Course Name: Decision Support System and Intelligent Systems Course Code :21PBDET413**

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CO1	To gain knowledge about the basics of decision support system.
CO2	To know concept of data is warehousing and data mining.
CO3	To Select appropriate group support system.
CO4	To gain knowledge about artificial intelligence system.
CO5	To identify and select appropriate decision support systems for neural computing.

#### **Course Name: Cyber Security Course Code :21PBDET414**

CO1	Outline the Cyber security policies and operations.
CO2	Guidance for decision maker.
CO3	Apply the values in making safe online shopping.
CO4	Analyse the various laws in cybercrime.
CO5	Evaluate the methods involved in investigation in E-Mail and mobile hacking.

# **Course Name :Total Quality Management Course Code : 21PBDET415**

CO1	Understand the concepts in TQM and familiarize with current practices in the field of QMS.
CO2	Communicate with modern business and employment correspondence.
CO3	Prepare the business reports in appropriate organizational formats.
CO4	Prepare and design presentations, participate effectively in public speaking with erpersonal skills.
CO5	Acquire knowledge and understanding of diversity and inclusion in the workplace.

# **Course Name : Logistics and Supply Chain Management Course Code: 21PBDET416**

CO1	Understand the fundamental supply chain management concepts and apply knowledge evaluate and manage customer relationship.
CO2	Apply the frame work of supply chain and evaluate the risk in making decisions.
CO3	Analyze and forecast the demand and its impacts on supply chain.
CO4	Evaluate the roles of supply chain in effective distribution channel for a business.
CO5	Create and Implement the Information Technology in supply chain business.

### **Course Name: Services and Operations Management**

#### **Course Code :21PBDET417**

CO1	Acquire knowledge about the service sectors and its environment.
CO2	Ability to design the services by providing value for the customers.
CO3	Acquire the knowledge about service quality and its measures.
CO4	Understand the framework of service facilities location and its dimensions.
CO5	Illustrate the capacity and demand management of services.

#### Course Name: Business Plan CourseCode:21PBDET418

CO1	Develop the ability to discern distinct entrepreneurial traits.
CO2	Know the parameters to assess opportunities and constraints of new business ideas.
CO3	Understand the systematic process to select and screen business ideas.
CO4	Design strategies for successful implementation of ideas.
CO5	Write a business plan.

#### **Course Name : Entrepreneurial Marketing Course Code : 21PBDET419**

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CO1	Relate the importance of marketing for an entrepreneur.
CO2	Identify the risks in business.
CO3	Formulate the business strategies for the business ventures.
CO4	Enumerate the ways to promote the entrepreneurial ventures.
CO5	Explain the emerging trends in marketing and logistics.

#### **Course Name: Social Entrepreneurship Course Code :21PBDET420**

CO1	Discuss what social entrepreneurship is and how it differs from business entrepreneurship.
CO2	Identify areas of our economy/society where social entrepreneurs work through pricing.
CO3	Identify methods you can use to identify what you want to do.
CO4	Identify characteristics of successful social entrepreneurs.
CO5	Discuss how social entrepreneurship can contribute to whole systems healing.

# Course Name :Legal Aspects of Business

Course Code :21PADT423

CO1	Understand the law of contract.
CO2	Know the rights of buyer and seller.
CO3	Describe the securities market and regulations.
CO4	Evaluation of GST, consumer rights and protection.
CO5	Understand companies protection act and use it against cyber crimes.

#### **Programme Title : B.B.A (Business Administration)**

**Programme Outcomes:** At the end of the Programme, the students will be able to

PO	PO Statement
Number	
PO 1	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	Effective Communication: Speak, read, write and listen clearly in person and through lectronic media in English and in one Indian language, and make meaning of the world by onnecting people, ideas, books, media and technology.
<b>PO 3</b>	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO 4	Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
<b>PO 5</b>	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
<b>PO 7</b>	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life- long learning in the broadest context socio technological changes.

**Programme Specific Outcome :** After the successful completion of BBAprogramme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO 1	Develop entrepreneurial skill to motivate towards start-ups.
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	Process information for the efficient performance in management functions.
PSO 5	To facilitate the development of students to take up growing challenges and implement viable, ethically correct and socially acceptable solutions.

#### **SEMESTER: I**

# Course Name: Core 1:Professional English - I Course Code: 21UABCT101

CO1	Recognise their own ability to improve their own competence and skills in using the language.
CO2	Develop their competence in the use of English with particular reference to workplace situation with confidence and acceptable manner.
CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills.
CO4	Create and develop their skills in interpreting visuals and presentations.
CO5	Sharpen their critical thinking related to life and professional ethics.

# **Course Name: Core 2 :Principles of Management Course Code: 21UABCT102**

CO1	Understand the concepts related to management principles, functions, roles and recent developments in management.
CO2	Develop business plans and decision - making skill that support an organization's strategic objectives.
CO3	Know the various organization structures, authority, responsibility, accountability and delegation with respect to management.
CO4	Acquire knowledge in human resource planning and directing and learn the techniques of co- ordination and controlling process.
CO5	Able to apply principles of management tools and techniques in an enterprise.

#### **Course Name: Allied I: Business Mathematics and Statistics Course Code: 21UABAT103**

С	201	Calculate simple and compound interest and understand the concepts of sets and its operations.
C	202	Find the solutions of simultaneous linear equations using matrix method.
C	:03	Understand and apply classification and tabulation of data.
C	204	Acquire knowledge about the measures of central tendency and dispersion.
C	205	Examine the concepts of Correlation, Regression and index number.

#### **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

#### Course Name: Core 3 :Professional English - II Course Code:21UABCT201

CO1	Identify the importance of linguistic competence in workplace environment.
CO2	Develop LSRW skills for academic and career purposes.
CO3	Illustration of digital competence for vlogs and webpage designing.
CO4	Application of digital competence for innovation and imagination in recent business scenario.
CO5	Applying the effective business correspondence with brevity and clarity at workplace.

#### Course Name: Core 4 :OrganisationalBehaviour Course Code: 21UABCT202

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CO1	Analyse the behaviour of individuals in organizations in terms of the key factors that influence organizational behaviour.
CO2	Gain knowledge on perception, attitude and emotional intelligence.
CO3	Equip with the required skills of motivation and morale.
CO4	Acquire knowledge on group behaviour and conflict and evaluate the organizational culture and the implementation of change and development
CO5	The students should possess the skills to design an efficient management system in an organization by understanding the individual and group behavior in the work place thereby enhancing the organizational change and development for better employee work life.

#### **Course Name: Allied Paper II:Optimization Techniques**

#### **Course Code: 21UABAT203**

CO1	Understand the concepts of Linear Programming Problems and its Solution by Graphical Method.
CO2	Find the Solutions for Transportation and Assignment Problems.
CO3	Solve Games by using Pure and Mixed Strategies and also find Graphical Solutions of Game theory.
CO4	Acquire knowledge in the concepts of Critical Path Method (CPM).
CO5	Examine the factors in Project Evaluation and Review Techniques (PERT).

## Course Name: Foundation Course II: Value Education

CO1	Identify the values to be adopted in their personal, professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### Course Name: Core Paper-VOperations Management Course Code: 21UABCT301

CO1	Enumerate the production processes and production planning and control
CO2	Identify the importance of materials management function at an organization in integrating various plans to reduce the material related costs.
CO3	Describe the material management, domestic and import purchase procedures, vendor rating and development.
CO4	Outline management issues in receiving, stores, traffic and transportation, warehousing and physical distribution
CO5	Assess quality control, Total Quality Management, Benchmarking and ISO

#### Course Name: Core Paper-VI Marketing Management Course Code: 21UABCT302

CO1	Identify the marketing functions, environment for effective positioning of the products.
CO2	Assess the consumer buying behaviour and segmentation strategies applied with marketing mix.
CO3	Develop new products and services that are consistent with evolving marketing needs.
CO4	Formulate effective pricing policy prevailing in the business.
CO5	Evaluate an appropriate channel of distribution and promotional tools for success of the enterprise.

#### Course Name: Core Paper-VII Human Resource Management Course Code: 21UABCT303

CO1	Analyze the conceptual foundations of human resource management.
CO2	Assess the process and practices in human resource planning.
CO3	Apply the recruitment and selection procedures in relation to the organisation objectives.
CO4	Evaluate the performance of human resource and develop suitable training, development and career planning programs.
CO5	Develop effective promotion policy and reduce absenteeism and labour turnover.

#### Course Name: Core Paper-VIII Financial Accounting Course Code: 21UABCT304

CO1	Compute Double entry system and prepare journal, ledger and subsidiary books.
CO2	Create trail balance and bank reconciliation statement and can evaluate the valuation of assets.
CO3	Design the manufacturing, trading, profit & loss account and balance sheet with the support of financial and accounting transactions.
CO4	Ascertain the financial position of organizations' branches and departments.
CO5	Identify the procedures in hire purchase and partnership accounting.

#### Course Name: Allied Paper – III PC Software (Ms-Office) -Practical Course Code: 21UABAP305

CO1	Prepare and edit documents in Ms-Word.
CO2	Gain knowledge in creating tables and using tools in Ms-Word
CO3	Build spreadsheets to perform calculations, display data, conduct analysis, and explore.
CO4	Utilize the Microsoft access to create table, forms, queries and reports from databases.
CO5	Create presentations and animations settings.

#### Course Name: Skill Based Subject I: Soft Skill for Business – Viva- Voce Course Code: 21UABSV306

CO1	Identify various organizational entry level skill requirements.
CO2	Analyze the interpersonal skill requirement at different occasions.
CO3	Able to understand the time management skill and emotional intelligence in work environment.
CO4	Demonstrate a good problem solving and decision making skills.
CO5	Attain the team work and work ethics in organisations.

#### Course Name: Non-Major Elective –I: Fundamentals of Management Course Code: 21UABNT307

CO1	Examine the concepts of management, principles, functions, roles of managers and from of business.
CO2	Develop business plans and decision - making skill that support a company's strategic
02	objectives.
CO3	Know the various organisation structures of management, authority, delegation and
	departmentation.
CO4	Able to direct and adopt leadership style as suitable to the organisation.
CO5	Learn the techniques of control process and co-ordination and follow the work place ethics.

#### **Course Name: Gender Studies**

#### Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### Course Name: Core Paper –IX: Financial Management Course Code: 21UABCT401

CO1	Demonstrate the applicability of the concept of Financial Management to understand the managerial Decisions and Corporate Capital Structure.
CO2	Analyze the concept of cost of various sources of capital and leverage
CO3	Recognize capital structure and dividend policy
CO4	Identify the working capital requirements and strategies of receivables and cash management.
CO5	Demonstrate the capital Budgeting methods to evaluate the project.

#### **SEMESTER: IV**

#### Course Name: Core Paper- X Consumer Behaviour Course Code: 21UABCT402

CO1	Apply the concept of consumer behaviour and the emerging trends.
CO2	Analyze factors affecting the behaviour and perception of the consumers.
CO3	Apply the consumer learning theories and strategies for attitude change.
CO4	Predict and compute the impact of social and cultural setting on consumer behavior.
CO5	Evaluate the process of consumer decision making.

### Course Name: Core Paper- XI Banking Law and Practice

#### Course Code: 21UABCT403

CO1	Analyze the relationship between Banker and customer and different types of functions of banker.
CO2	Assess the role, functions and duties of paying and collecting banker.
CO3	Utilize procedures involved in opening and operating different accounts.
CO4	Examine the different types of negotiable instrument and their relevance in the present context.
CO5	Estimate recent development and possible developments in the banking sector in the upcoming days

#### Course Name: Core Paper- XII Data Analytics for Business Course Code: 21UABCT404

-uu	disc Code, 210ADC1404	
	CO1	Plan to meet the need for effective business analytics within an organization.
	CO2	Analyze complex problems using advanced analytical tools.
	CO3	Ascertain various data analytical process.
	CO4	Rate descriptive, predictive and prescriptive business analytics.
	CO5	Evaluate the appropriateness of applications of Business Analytics in various domains

#### Course Name: Core Paper- XIII Retail Management Course Code: 21UABCT405

C01	Analyze the Organised retail sector and its operations
CO2	Assess strategic planning of retailing
CO3	Evaluate how retailing location fits within the broader disciplines of business and marketing
CO4	Critique the various strategies involved with the retail sector
CO5	Identify the scope of ICT in retail management

#### **Course Name: Allied Paper – IV: Tally and E-Business Course Code: 21UABAP406**

Co	ourse Code: 21UABAP406	
	CO1	Able to prepare a Journal, Ledger and Trial Balance, Voucher and Final accounts in Tally.
	CO2	Prepare Day book and calculate the inventory details and foreign currency in tally.
	CO3	Create different stock categories, stock item and stock group.
	CO4	Integrate the payroll.
	CO5	Create web pages for business organisations.

#### Course Name: Skill Based Subject II: Interview Skills Course Code: 21UABSV407

CO1	Identify the importance of career planning and different sources of information.
CO2	Prepare curriculum vitae and participate in an interview.
CO3	Communicate through verbal/oral communication and improve the team building skills
CO4	Develop thinking ability and polish expression in group discussions.
CO5	Enhance dress code and stress management.

#### Course Name: Non Major Elective –II : Marketing Management Course Code: 21UABNT408

CO1	Utilize the basic concepts of marketing and asses the marketing environment.
CO2	Design the new product and identify the factors affecting the price of a product in the present context.
CO3	Evaluate the impact of promotional techniques on the customers.
CO4	Compare different channels of distribution
CO5	Analyze the consumer behaviour in the present scenario and marketing segmentation.

#### **Course Name: Advanced Learners Course : Investment Management Course Code: 21UABAL409**

CO1	Identify the fundamental concepts of investment
CO2	Design an investment model in order to analyze its sustainability.
CO3	Utilize the management tools and techniques to take appropriate investment decisions
CO4	Develop skills in trading.
CO5	Evaluate investment theories.

#### Course Name: Advanced Learners Course : Investment Management Course Code: 21UABAL410

CO 1	Understand the merchandising plan and category management.
CO 2	Know the merchandising buying and handling techniques.
CO 3	Analyze the merchandise management planning in various retail segments
<b>CO 4</b>	Evaluate the apparel merchandising adopting in retail practices.
CO 5	Assess the retail and visual merchandising.

#### Course Name: Fundamentals of Yoga Course Code: 21SS02

CO 1	Understand the concepts of Yoga and its types.
CO 2	Know the impact of yoga on human body.
CO 3	Learn about the breathing techniques.
<b>CO 4</b>	Gain awareness on Surya Namaskar.
CO 5	Know the about benefits of Asanas.

#### **Programme Title : BBA(CA)**

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at ourideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help to reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Programme	Outcomes: At the end of the	e programme the students	will be able to
1 rogramme	outcomes. At the chu of th	programme the students	will be able to

**Programme Specific Outcomes:** After the successful completion of BBA (CA) programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	The field of business and administration.
PSO2	Communicate effectively on business management activities with the business community.
	Managing employees, organizational information and administration systems through the effective use of information technology.
PSO4	The field of current information technology to support business decision-making.
PSO5	Design and develop business based computer applications.

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UABCT101

CO1	Recognise their own ability to improve their own competence and skills in using the language.
CO2	Develop their competence in the use of English with particular reference to workplace situation with confidence and acceptable manner.
CO3	Enhance the importance of negotiation strategies and thereby improve their LSRW skills.
CO4	Create and develop their skills in interpreting visuals and presentations.
CO5	Sharpen their critical thinking related to life and professional ethics.

#### **Course Name: Core 2 : Principles of Management Course Code: 21UABCT102**

CO1	Understand the concepts related to management principles, functions, roles and recent developments in management.
CO2	Develop business plans and decision - making skill that support an organization's strategic objectives.
CO3	Know the various organization structures, authority, responsibility, accountability and delegation with respect to management
CO4	Acquire knowledge in human resource planning and directing and learn the techniques of co- ordination and controlling process.
CO5	Able to apply principles of management tools and techniques in an enterprise

#### **Course Name: Allied I: Business Mathematics and Statistics**

Course Code: 21UABAT103

CO1	Calculate simple and compound interest and understand the concepts of sets and its operations.
CO2	Find the solutions of simultaneous linear equations using matrix method.
CO3	Understand and apply classification and tabulation of data.
CO4	Acquire knowledge about the measures of central tendency and dispersion.
CO5	Examine the concepts of Correlation, Regression and index number.

### **Course Name: Foundation Course I: Environmental Studies**

Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

#### Course Name: Core 3 : Professional English – II Course Code: 21UABCT201

CO1	Identify the importance of linguistic competence in workplace environment.
CO2	Develop LSRW skills for academic and career purposes.
CO3	Illustration of digital competence for vlogs and webpage designing.
CO4	Application of digital competence for innovation and imagination in recent business scenario.
CO5	Applying the effective business correspondence with brevity and clarity at workplace.

# Course Name: Core 4 : Organisational Behaviour

#### Course Code: 21UABCT202

CO1	Analyse the behaviour of individuals in organizations in terms of the key factors that influence organizational behaviour.
CO2	Gain knowledge on perception, attitude and emotional intelligence.
CO3	Equip with the required skills of motivation and morale.
CO4	Acquire knowledge on group behaviour and conflict and evaluate the organizational culture and the implementation of change and development
CO5	The students should possess the skills to design an efficient management system in an organization by understanding the individual and group behavior in the work place thereby enhancing the organizational change and development for better employee work life.

#### **Course Name: Allied Paper II: Optimization Techniques Course Code: 21UABAT203**

CO	Understand the concepts of Linear Programming Problems and its Solution by Graphical Method.	
CO	Find the Solutions for Transportation and Assignment Problems.	
CO.	Solve Games by using Pure and Mixed Strategies and also find Graphical Solutions of Game theory.	
CO	Acquire knowledge in the concepts of Critical Path Method (CPM).	
CO	Examine the factors in Project Evaluation and Review Techniques (PERT).	

# **Course Name: Foundation Course II: Value Education**

#### Course Code: 21VE01

CO1	Identify the values to be adopted in their personal, professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### Course Name: Core VI:Introduction To Information Technology Course Code:21UACCT301

CO1	Recall the basic concepts of information technology.
CO2	Contrast the information systems and database management systems.
CO3	Integrate the banking technology applications and management.
CO4	Appraise the payment techniques of e-commerce.
CO5	Analyze the information system security controls.

#### Course Name: Core VII:Marketing Management Course Code:21UACCT302

CO1	Equip the learners with required skills to be a good marketing manager and to know about the bases of market segmentation.
CO2	Help the students to understand the product mix.
CO3	Identify the required skills to develop a new product.
CO4	Make the students to analyze the kinds of pricing decisions.
CO5	Develop their knowledge in distribution channels.

#### Course Name: Core VIII: Financial Accounting Course Code:21UACCT303

CO1	Recognize and understand the basic concept of accounting.
CO2	Able to prepare the subsidiary books.
CO3	Enable to prepare the final accounts.
CO4	Identify the value of depreciation in various assets and accounts of non-profit organization.
CO5	Understand the methods of single entry system.

#### Course Name: ALLIED III: Tally– Practical Course Code:21UACAP304

CO1	Understood the basic principles to create company accounts.
CO2	Gained knowledge to trial balance, trading and profit/loss account, balance sheet, day book, cash book and bank book of the company.
CO3	Enable the students to explore to and acquire skills in respect of most sophisticated computerized accounting procedures and practices so as to help them serve better the vast accounting needs of every commercial organization.
CO4	Gained knowledge todifferent types of financial statement.
CO5	Equip the learners with required skills relatedstock register and outstanding books to be an excellent accounts manager.

# Course Name : Skill Based Subject - I: Soft Skills For Business – Viva Voce Course Code:21UACSV305

CO1	Remember the various organizational entry level skill requirements.
CO2	Understand the need for different skill requirement at different occasions.
CO3	Able to appropriately respond to the situation during recruitment and selection.
CO4	Demonstrate a good command in work environment.
CO5	Achieve the desired result of a good employability.

#### Course Name: Course Name: Non Major Elective I: Digital Marketing Course Code: 21UACNT306

CO1	Understand the basic concepts of digital marketing, principles, process and search behavior.
CO2	Analyze the various process of pay per click.
CO3	Acquire knowledge in digital display advertising.
CO4	Learn the concept of e-mail marketing and mobile marketing.
CO5	Gain the knowledge on social media marketing, strategy and planning.

#### Course Name: Gender Studies Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

#### Course Name: Core IX: Production And Material Management Course Code: 21UACCT401

CO1	Understand the functions and types of production management.
CO2	Identify the choices of plant location and types of plant layout.
CO3	Understand and plan the production schedules and plan resources required for production.
CO4	Apply the concepts of purchase, stores and inventory management and analyze and evaluate material requirement decisions.
CO5	Gain knowledge about ISO and TQM.

#### Course Name: Core X: Financial Management Course Code:21UACCT402

C01	Enable the students to understand the basic concepts of financial decisions, Investment liquidity and dividend decisions.
CO2	Appraise the risk profile of firms and estimate the costs of capital, includingdebt and equity capital, using financial data.
CO3	Critically evaluate the theories of capital structure adopted in the companyform of organization and understand the concepts of dividend policies expected by the shareholders and the theories of dividend policy.
CO4	Gain practical knowledge on working capital management, venture capital and lease financing.
CO5	Gain practical knowledge on capital budgeting and project appraisal.

#### Course Name : Core XI:Business Data Analytics Using Excel – Theory Course Code: 21UACCT403

CO1	Format and structure the MS Excel workbook.
CO2	Associate formula based techniques.
CO3	Prepare flexible data aggregations using pivot tables.
CO4	Interpret data visually using pivot charts.
CO5	Appraise the data analysis tools, techniques and macros.

# Course Name: Allied Paper - IV: Promotion Management

#### **Course Code:21UACAT404**

CO1	Able to understand the promotion mix and personal selling.
CO2	Acquire knowledge about advertisement.
CO3	Know the media planning in advertisement.
CO4	Learn the creativity in advertising.
CO5	Develop their knowledge about sales promotion.

# Course Name:Core XII: Business Data Analytics Using Excel-Practical Course Name:21UACCP405

CO1	Apply formatting techniques.
CO2	Apply advanced formulas to lay data in readiness for analysis.
CO3	Apply advanced techniques for report visualizations.
CO4	Apply various methodologies of summarizing data.
CO5	Apply basic principles of laying out Excel models for decision making.

# Course Name:Skill Based Subject -II: Interview Skills – Viva Voce Course Code:21UACSV406

CO1	Enable the students for career planning and different sources of information.	
CO2	Organize and write an effective application letter and resume.	
CO3	Develop the non-verbal communication skills.	
CO4	Able to develop the skills of managing group discussion.	
CO5	Learn to behave and dress appropriately during interviews.	

#### Course Name:Non Major Elective II: Rural Marketing Course Code:21UACNT407

CO1	Develop an in-depth knowledge in rural marketing.
CO2	Understand the structure and evolution of rural marketing environment.
CO3	Acquire knowledge in rural marketing research.
CO4	Gain the knowledge on product strategies.
CO5	Emphasize the developing effective rural communication.

#### **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO1	Inderstand the concepts of yoga and its types.	
CO2	Know the impact of yoga on human body.	
CO3	Learn about the breathing techniques.	
CO4	Gain awareness on suryanamaskar.	
CO5	Know the about benefits of asanas.	

#### Course Name: Advanced Learners Course II: Technology Management CourseCode:21UACAL409

CO1	inderstanding and relate the concept and importance of technology to business.	
CO2	entify the methods of forecasting technology.	
CO3	apply the inventions and innovations in technology generation.	
CO4	Analyse the channels of technology diffusion.	
CO5	Gain the importance of SWOT and IPR as business and technological strategy.	

#### **Programme Title: B.C.A.**

#### **Programme Outcomes:** Towards the end of the Programme, the students will be able to

PO Number	PO Statement	
PO1	<b>ritical Thinking:</b> Take informed actions after identifying the assumptions that frame our inking and actions, checking out the degree to which these assumptions are accurate and alid, and looking at our ideas and decisions (intellectual, organizational and personal) from fferent perspectives.	
PO2	ective Communication: Speak, read, write and listen clearly in person and through tronic media in English and in one Indian language, and making meaning of the world connecting people, ideas, books, media and technology.	
PO3	ocial Interaction: Elicit views of others, mediate disagreements and help reach onclusions in group settings.	
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.	
PO5	Ethics: Recognize different value systems including your own, understand the moral limensions of your decisions, and accept responsibility for them.	
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.	
<b>PO7</b>	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.	

Programme Specific Outcomes: At the end of the Programme, the students will be able to

PSO Number	PSO Statement	
PSO1	Apply mathematical, computing and domain knowledge for the conceptualization of computing models to provide solutions.	
PSO2	praise, analyze and develop software products of varying complexity in diverse domains of nputer applications.	
PSO3	Apply the acquired knowledge to thrive for a better career or higher studies.	
PSO4	Experiment with the challenges of changing trends and opportunities emerging in local and global industries.	
PSO5	Apply and entrust ethics and cyber regulations in their career and professional practice.	

#### **SEMESTER: I**

#### Course Name: Core I: Professional English -I Course Code: 21UAJCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing	
CO2	Apply the language for speaking efficiently and confidently	
CO3	Build the reading skill by using unfamiliar texts with comprehension	
CO4	Demonstrate the language skills through academic writing	
CO5	Develop the leadership quality and team building through linguistic competence	

### Course Name: Core II: Programming in C

### Course Code: 21UAJCT102

CO1	Define data types and use them in simple data processing applications	
CO2	Build simple C Programs using Looping and Control Structures	
CO3	Apply the right data representation formats based on the requirements of the problem	
CO4	Demonstrate the concept of User defined functions, Recursions, Scope and Lifetime of	
CO5	Develop C programs using pointers and files	

#### Course Code: Core Practical I: C Programming Course Name: 21114 ICP103

C0	Course Name: 210AJCP103			
	CO1	Develop the program, write it on a computer, edit, compile, debug, correct, recompile and run it.		
<b>CO2</b> Identify tasks in which the techniques learned are applicable and apply them to write provide and hence use computers effectively to solve the task.				
	CO3	Choose the right data representation formats based on the requirements of the problem; defi and manage them based on problem domain.		
<b>CO4</b> Compare the various control and looping structures and other programming con choose, the right one for the task in hand.		Compare the various control and looping structures and other programming constructs and choose, the right one for the task in hand.		
	CO5	Implement the pointer and file handling Operations.		

# Course Name: Foundation Course – I: Environmental Studies

### Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.	
CO2	Analyze the impacts of Natural resources	
CO3	Apply the concepts of biodiversity and its conservation.	
CO4	Create awareness on disaster management and measures to prevent pollution.	
CO5	Outline the environmental policies and its practices.	

#### Semester: II

#### Course Name: Core III: Professional English –II Course Code: 21UAJCT201

CO1	lentify the importance of linguistic competence in workplace situations	
CO2	evelop LSRW skills for academic and career purposes	
CO3	uild the employability skills through various speaking and writing tasks	
CO4	Relate the communication skills suitable for employability	
CO5	lustrate the digital competence with innovation and imagination	

#### Course Name: Core IV: Programming in JAVA Course Code: 21UAJCT202

CO1	Build the java applications using OOP Concepts for stand-alone applications.	
CO2	Develop the packages as reusable components.	
CO3	Apply the concept of multi threading and Synchronization in java programs.	
CO4	Detect the possible errors by applying the concepts of Exception Handling.	
CO5	Design Applets and Graphical Programming.	

#### **Course Name: Core Practical II: JAVA Programming**

#### **Course Code: 21UAJCP203**

CO1	Build the java applications using OOP Concepts for stand-alone applications.	
CO2	Develop the packages as reusable components.	
CO3	Apply the concept of multi threading to synchronize multiple processes.	
CO4	Detect the possible errors by applying the concepts of Exception Handling.	
CO5	Design Applets for creating Graphical User Interface.	

#### **Course Name: Foundation Course – II: Value Education Course Code: 21VE01**

Course Code: 21 v E01		5 <b>21 V EU1</b>
	CO1	Identify the values to

CO1	Identify the values to be adopted in their personal, Professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### Course Name: Core V: Digital Fundamentals and Architecture Course Code: 21UAJCT301

CO1	Identify, understand and apply different number systems and codes.
CO2	Experiment with various types of gates and solve boolean algebraic expression.
CO3	Apply and design different arithmetic circuits.
CO4	Compare and analyze the working of I/O devices.
CO5	Inspect various memory organizations.

#### Course Name: Core VI: Programming in Python Course Code: 21UAJCT302

CO1	Develop a simple python program with various operators.
CO2	Build the Applications using various Branching and Looping statements in python.
CO3	Apply the Functions, Strings and File concepts in Python.
CO4	Demonstrate the concept of programming objects, Forms, TextArea, Check Box, Radio Button
CO5	Define the concept of interface, Buttons and MessageBox and use them in simple applications.

#### **Course Name: Core Practical III: Python Programming Course Code: 21UAJCP303**

CO1	Build the program using operators and create simple user interface applications in python.
CO2	Develop a python program using looping and functions.
CO3	Apply the concept of modules and string manipulations in python
CO4	Implement the programming objects inheritance and polymorphism features.
CO5	Develop an application to build the interfaces in python.

#### Course Name: Allied – III : Computer Based Optimization Techniques Course Code: 21UAJAT304

CO1	Solve the Linear Programming Problem by graphical method
CO2	Formulate the Transportation Problems
CO3	Optimize the Assignment Problems and Replacement Problems
CO4	Discuss the types of Queueing Models and various strategies of Game Theory Discuss the types of Queueing Models and various strategies of Game Theory
CO5	Construct a Network Diagram and find the Critical Path and PERT

#### Course Name: Skill Based Practical I: Animation lab Course Code: 21UAJSP305

CO1	Develop a C program for animation.
CO2	Develop a C program to make an object and applying animation.
CO3	Create frame and timeline animation in Photoshop.
CO4	Create an animation in flash.
CO5	Create a text and object animation in flash.

#### Course Name: Non-Major Elective - I: Web Development Lab Course Code: 21UAJNP306

CO1	Create a HTML document with basic tags.
CO2	Develop a HTML document to change color and text and add list.
CO3	Develop a HTML document with table tag, anchor tag and image tag.
CO4	Create a frame and design a simple form in HTML.
CO5	Design a HTML document with CSS.

#### Course Name: Gender Studies Course Code: 21SS01

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	CO1	Understand individual experiences as well as social structure and institutions
	CO2	Learn about diversities and disparities in education
ſ	CO3	Acquire knowledge in gender equity and employment
	CO4	Promote social justice and women's rights in media.
ſ	CO5	Aware of laws for crime against women and child.

#### Semester: IV

#### Course Name: Core VII: Operating Systems Course Code: 21UAJCT401

CO1	Remember the basic concepts of operating system
CO2	Know the Concept of Process handling and multiprogramming.
CO3	Apply the concepts like interrupts and deadlock.
CO4	Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in operating system.
CO5	Demonstrate the Virtual Memory Management Techniques.

#### Course Name: Core VIII: Web Programming Course Code: 21UAJCT402

CO1	Build a webpage using basic html tags and elements.	
CO2	Develop a user registration page with forms and tables.	
CO3	Implement a client side validation using JavaScript.	
CO4	Design an attractive webpage with CSS.	
CO5	Apply the concept of AJAX in dynamic web pages.	

#### Course Name: Core IX : Data Structures Course Code: 21UAJCT403

CO1	Identify the needs of the data structure, Problem solving strategies and Algorithms.
CO2	Recognize problem properties where stacks, queues, and deques are appropriate data structures.
CO3	Categorize the types of linked list and its representations.
CO4	Implement the tree and graph representations for non-linear data structures.
CO5	Rate various searching and sorting methods.

#### Course Name: Core Practical IV: Web Programming Lab Course Code: 21UAJCP404

CO1	Create a static webpage using basic html tags and elements.
CO2	Design a webpage with various form controls and tables.
CO3	Implement a client side validation using JavaScript.
CO4	Design a colorful and attractive webpage with CSS.
CO5	Demonstrate the applications of XML and AJAX in dynamic web pages.

## Course Name: Allied – IV : Business Accounting

### Course Code: 21UAJAT405

CO1	Remember in mind the accounting principles in preparing accounting.
CO2	Understand the preparation of final accounts and its procedures.
CO3	Apply the elements of cost and prepare cost sheet.
CO4	Analyse the various methods of stores ledger.
CO5	Evaluate the various techniques in budgetary control.

#### Course Name: Skill Based Practical II : Mobile Application Development Lab Course Code: 21UAJSP406

CO1	Develop a basic android application and display the toast message.
CO2	Develop an android application using intent and spinner.
CO3	Develop an android application using modern UI/UX and action bar.
CO4	Develop a login app and alert dialog box.
CO5	Create form with database connection and recycler views.

#### Course Name: Non-Major Elective - II: Desktop Publishing Lab Course Code: 21UAJNP407

CO1	Design multifaceted drawings with several layers.
CO2	Apply design process for a Product.
CO3	Create a Multipage Layout Design using graphics and various tools.
CO4	Design Posters, Invitation cards, Greeting cards and Banners.
CO5	Create Documents and Templates, add text into documents using various methods, and apply different formatting styles to characters and paragraphs.

#### **Course Name: Fundamentals of YOGA**

#### Course Code: 21SS02

CO1	Understand the concepts of Yoga and its types	
CO2	Know the impact of yoga on human body	
CO3	Learn about the breathing techniques	
CO4	Gain awareness on Surya Namaskar	
CO5	Know the about benefits of Asanas	

#### **Course Name: Advanced Learners Course I: Android and its Applications Course Code: 21UAJAL408**

CO1	Understand the basic concepts of Android and its architecture.
CO2	Understand the flow work of UI notification.
CO3	To know about data persistence.
CO4	Know the Network and JSON Services.
CO5	Understand the basics of Intents.

### Course Name: Advanced Learners Course I: Introduction to Bootstrap Course Code: 21UAJAL409

CO1	Know the basic concepts of bootstrap.
CO2	Design responsive layouts.
CO3	Create a navigation bars and paginations.
CO4	Develop a simple registration page.
CO5	Design and demonstrate the different themes using Bootswatch.

#### **Programme Title: MCA**

PO Number	PO Statement
PO1	Critical Thinking: Apply the strategies and techniques in order to solve real world problems.
PO2	Effective Communication: Communicate the concepts in oral and written form.
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society-oriented problems using the Domain Knowledge.
PO4	<b>Effective Citizenship</b> : Attain the ability to identify, formulate and solve challenging problems of the society and nation.
PO5	<b>Knowledge Formulation</b> :Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.
PO6	<b>Environment and Sustainability</b> :Instill a sense of attitude in tackling social and environmental issues.
<b>PO7</b>	Self-directed and Life-long Learning: Identify theirown educational and career needs from the global challenges.

**Programme Outcomes:** At the end of the programme the students will be able to

#### **Programme Specific Outcomes:**

At the end of the MCA programme, students will be equipped with the Knowledge in

PSO Number	PSO Statement
PSO1	The ability to understand, analyze and develop computer language programs in the areas related to system software, simulation, software design, web development, data analytics, networking, machine language and artificial intelligence
PSO2	The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver quality applications for industry.
PSO3	The ability to employ modern computer languages, technologies, environments and platforms in creating innovative career paths to be a teacher, software engineer, an entrepreneur and a zest for research in Computer Science field.
PSO4	Develop ability to work with team, to work as lead with analytical reasoning for solving time critical problems.
PSO5	Develop ability to applycritical thinking in research, experiments, content writing, and to solve modern issues to accomplish education, societal and industrial tasks.

#### **SEMESTER: I**

#### Course Name: Core - I: COMPUTER ARCHITECTURE Course Code: 21PBKCT101

CO1	Draw combinatorial circuits using various basic gates	
CO2	Simplify the Boolean expressions using Karnaugh Map	
CO3	Write micro operations and instructions for ALU	
CO4	Categorize and apply different addressing modes and instruction formats	
CO5	Explore the hardware and software structure of different types of memories	

#### **Course Name: Core - II: DATA STRUCTURES**

#### Course Code: 21PBKCT102

CO1	Choose an appropriate data structure for an application
CO2	Utilize linked list concepts in various applications
CO3	Explain the representation of Stacks, Queues and Graphs
CO4	Discuss the operations on Trees and Graphs
CO5	Apply the concept of searching and sorting in the real world problems

#### Course Name: Core - III: RELATIONAL DATABASE MANAGEMENT SYSTEMS Course Code: 21PBKCT103

CO1	Explain the features of database management systems
CO2	Design relational models for real life applications and also construct queries with constraints and keys using SQL
CO3	Apply the concept of transaction, concurrency control and recovery mechanism in database.
CO4	Identify the use of normalization and functional dependency in database design
CO5	Discuss the architecture for Parallel, Distributed and Object Database Systems

#### Course Name: Core - IV: JAVA PROGRAMMING Course Code: 21PBKCT104

C01	Define the program structure
CO2	Represent programming logics using operators, controls, loops and arrays
CO3	Utilize the concepts of inheritance and exceptions in the programs and handle files.
CO4	Explain the String functions and to handle files
CO5	Define how image and regular expression are implemented in GUI

#### Course Name: Core Practical - I: DATA STRUCTURES LAB USING JAVA Course Code: 21PBKCP109

CO1	Implement Hash table and Array structure to produce List, Stack and Queue structures
CO2	Use recursive and non-recursive functions to implement tree traversals
CO3	Apply appropriate Searching and Sorting Methods for a given list of items
CO4	Invoke the remote methods in an application using Remote Method Invocation
CO5	Create an applet application to demonstrate an Image and Pattern Matching

#### Course Name: Core Practical - II: RELATIONAL DATABASE MANAGEMENT SYSTEMS LAB Course Code: 21PBKCP110

CO1	Draw Entity-Relationship Diagram for the database systems
CO2	Evaluate the mapping between entities and relationship using Schema
CO3	Implement the DML, DCL and TCL Commands
CO4	Build a database system using Views and SET Operators
CO 5	Implement PL/SQL Controls, Triggers, Procedures and Packages

#### Course Name: Core Practical - II: DATA VISUALIZATION LAB Course Code: 21PBKCP111

CO1	Compute Mathematical functions in Excel
CO2	Formulate Statistical functions in Excel
CO3	Create dashboard to visualize data in real life applications
CO4	Analyze data through pivot table
CO5	Convert unstructured file to structured file

#### **SEMESTER: II**

#### Course Name: Core - V: OPERATING SYSTEMS Course Code: 21PBKCT201

CO1	Define the basic features of operating system
CO2	Explore process scheduling algorithms.
CO3	Handle the deadlock conditions during Multi process scheduling
<b>CO4</b>	Apply the memory management allocation strategies
CO5	Describe the architecture of LINUX and internal representation of files.

#### Course Name: Core - VI: .NET PROGRAMMING Course Code: 21PBKCT202

CO1	Explain the architecture of .NET framework and object oriented programming concepts
CO2	Understood the basic programming concepts of C#
CO3	Know the data accessing with database
CO4	Develop the web applications using ASP.NET through C#
CO5	Create ASP.NET applications using standard .NET controls

#### Course Name: Core - VII: COMPUTER NETWORKS Course Code: 21PBKCT203

CO1	Outline the fundamental components of computer networking.
CO2	Explain the functions of physical layer
CO3	Apply different techniques in error detection and correction during data transmission.
CO4	Discuss how routing protocols works in network and transport layer
CO5	Describe the Design issues in session, presentation and application layer

### Course Name: Core - VIII: SOFTWARE ENGINEERING

#### **Course Code: 21PBKCT204**

CO1	Compare and apply the suitable software design model for the particular task
CO2	Gather the requirements for the software project and do validation
CO3	Design architectural and UML model for the projects
CO4	Apply suitable testing methods to proof the software free of error
CO5	Work with team and be able to manage teams

### Course Name: Core Practical - IV: LINUX LAB

#### **Course Code: 21PBKCP209**

CO1	Demonstrate the Linux commands and file handling utilities by using Linux shell environment.
CO2	Evaluate the concept of shell scripting programs by using an AWK commands.
CO3	Create, change and remove the directory
CO4	Illustrate the concept of client-server communication
CO5	Implement CPU Scheduling

#### Course Name: Core Practical - V: .NET PROGRAMMING LAB Course Code: 21PBKCP210

CO1	Design, document, code and test small C# console and GUI Applications
CO2	Create simple application using standard web controls
CO3	Implement various ASP.NET controls for different applications
CO4	Design and debug web applications using ASP.NET
CO5	Create database driven ASP.NET web applications

#### Course Name: Core Practical - VI: GOOGLE WEB DESIGNER LAB Course Code: 21PBKCP211

CO1	Design online real time web advertisement
CO2	Incorporate animation in web advertisements
CO3	Create websites with images and Videos
CO4	Insert customized maps in the web pages
CO5	Draw workflow design for the ads and WebPages of a website

# Course Name: Elective - I: CLOUD COMPUTING

#### **Course Code: 21PBKET105**

CO1	Explain the concepts of Cloud Computing, Architecture and deployment models
CO2	Utilize the Cloud Service models in application development
CO3	Describe Virtualization and cloud-aware SaaS applications / PaaS technology
CO4	Handle the services offered by Cloud service providers
CO5	Discuss the security issues in cloud

# Course Name: Elective - I: OPERATIONS RESEARCH

#### Course Code: 21PBKET106

CO1	Formulate and obtain an optimal solution to Linear Programming Problems
CO2	Determine optimal solution to Transportation and Assignment problems
CO3	Utilize Inventory models to find the EOQ, safety stocks and reorder levels
CO4	Decide optimal replacement period for a Machine/Equipment and apply CPM and PERT techniques to plan, schedule and control project activities
CO5	Apply appropriate queuing models to analyze real world systems

#### Course Name: Elective - I: COMPILER DESIGN Course Code: 21PBKET107

CO1	Explain the phases of a compiler	
CO2	Describe the context free grammar and various parsing techniques.	
CO3	Design a code generator and experiments the Intermediate Code Generation	
<b>CO4</b>	Implement code optimization techniques	
CO5	Implement the storage organization and allocation strategies	

#### **SEMESTER: III**

#### Course Name: Core Paper – IX-DATA MINING

### Course Code:21PBKCT301

CO1	Define the steps in KDD process
CO2	Design the schema for Multidimensional Data Model
CO3	Discover interesting patterns from large amounts of dataset
CO4	Describe the classification methods
CO5	Apply data mining techniques in real time applications

#### Course Name: Core Paper – X-INTERNET OF THINGS Course Code: 21PBKCT302

CO1	Define IoT deployment levels
CO2	Analyze IoT enabled technologies
CO3	Analyze IoT applications in different domain
CO4	Build IoT systems using Python packages
CO5	Explore IoT system management and design methodology

#### Course Name: Core Paper – XI-Core Paper – XI-PYTHON PROGRAMMING Course Code: 21PBKCT303

Course Code, 211 Dice 1505		
CO1	Analyze features in Python	
CO2	Apply built-in data structures in Python	
CO3	Design modular Python programs using functions	
CO4	Implement OOPs concept using Python	
CO5	Develop web-based applications using Python	

#### Course Name:Core Paper – X11-Robotic Process Automation Course Code:21PBKCT304

<b>CO1</b>	Define the concept of RPA	
CO2	Explain the process methodologies of RPA	
CO3	Apply knowledge BOT development for intelligent automation	
CO4	Explore various RPA tools specifications along with its ecosystem and security	
CO5	Specify the future of RPA tools along with AI	

#### Course Name:Core Practical– VII-MINI PROJECT LAB Course Code: 21PBKCP309

Course Coue. 211 DKC1 309		
	CO1	Acquire practical knowledge within area of technology
	CO2	Identify, analyze, formulate projects with a comprehensive and systematic approach
	CO3	Compare and contrast the several existing solutions
	CO4	Contribute as an individual or in a team in development of technical projects
	CO5	Develop effective communication skills for presentation of project related Activities

# Course Name:Core Practical – VIII-RPA LAB USING PYTHON

#### Course Code:21PBKCP310

CO1	Record the screens automatically
CO2	Automate excel file operations
CO3	Create bots for IT applications
CO4	Design the automated workflow for any process
CO5	Extract data from PDF automatically

#### Course Name: Core Practical – IX-R PROGRAMMING LAB Course Code:21PBKCP311

CO1	Implement data frames in R
CO2	Implement different String Manipulation functions in R
CO3	Make use of different R Data Structures
CO4	Analyze data set and generate charts
CO5	Apply statistical concepts in R

#### Course Name: Elective– III-DATA SCIENCE Course Code:21PBKET305

	CO1	Describe the fundamentals concepts and process of data science
	CO2	Apply suitable machine learning techniques for handling large volume of data
	CO3	Understood about Distributing data storage and NoSQL concepts
	CO4	Apply text mining techniques in the real world applications
	CO5	Create an interactive dashboard

#### Course Name: Elective – III-DEEP LEARNING Course Code:21PBKET306

Course Coue.211 DKE 1500		
	CO1	Learn about soft computing techniques and their applications
	CO2	Analyze various neural network architectures
	CO3	Define the fuzzy systems
	<b>CO4</b>	Apply genetic algorithm concepts in real time applications
	CO5	Identify a suitable Soft Computing technology to solve the problem

#### Course Name: Elective– III-GIS APPLICATIONS Course Code: 21PBKET307

CO1	Review the fundamental concepts of GIS
CO2	Illustrate various data models and understand the common file formats used in GIS
CO3	Create maps, images and apps to communicate spatial data in a meaningful way to develop and manage geodatabases.
CO4	Facilitate the discovery of trends and relationships based on geospatial information
CO5	Apply the recent trends in GIS

# Course Name: Elective- III-DIGITAL IMAGE PROCESSING

#### Course Code: 21PBKET308

CO1	Review the fundamental concepts of Digital Image Processing
CO2	Differentiate and interpret the various image enhancement techniques and understand the mathematical foundations for digital image representation, image acquisition, image transformation, and image enhancement
CO3	Evaluate the techniques for image restoration and spatial enhancement methods
CO4	Categorize various compression techniques and Interpret Image compression standards
CO5	Explore the concepts of Image segmentation and able to implement basic image processing algorithms in MATLAB

#### **SEMESTER: IV**

#### Course Name: PROJECT WORK AND VIVA-VOCE Course Code:21PBKCV401

CO1	Acquire practical knowledge within a area of technology
CO2	Identify, analyze, formulate projects with a comprehensive and systematic approach
CO3	Compare and contrast the several existing solutions
CO4	Contribute as an individual or in a team in development of technical projects
CO5	Develop effective communication skills for presentation of project related activities

# Course Name: SELF STUDY COURSE-CYBER SECURITY

#### Course Code:21PSWT402/ 21PADT402

CO1	Define Malware and its types
CO2	Describe the cyber security initiatives in India
CO3	Enable the concept of two-step verification
CO4	Clear cache for browsers
CO5	Apply smart phone security guidelines

#### **Programme Title: B.Sc. Computer Technology**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions abacking out the degree to which these assumptions are assumption and valid
	thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives
	Effective Communication: Speak, read, write and listen clearly in person and through
PO2	electronic media in English and in one Indian language, and make meaning of the world by
	connecting people, ideas, books, media and technology.
<b>DO</b>	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in
PO3	group settings.
	Effective Citizenship: Demonstrate empathetic social concern and equity centred national
PO4	development, and the ability to act with an informed awareness of issues and participate in civic
	life through volunteering.
DO5	Ethics: Recognize different value systems including your own, understand the moral
PO5	dimensions of your decisions, and accept responsibility for them.
DOC	Environment and Sustainability: Understand the issues of environmental contexts and
PO6	sustainable development.
PO7	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-
	long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.Sc. Computer Technology program, students will be able to

PSO Number	PSO Statement
PSO1	Apply the core area of knowledge in hardware, software and network aspects of computer systems.
PSO2	Analyse the IT infrastructures, manage and monitor resources and safeguard data.
PSO3	Exhibit impressive individual and team leadership qualities in the field of Computer Technology.
PSO4	Realize the technological advancements and the social and ethical norms of Computer Technology and their practice.
PSO5	Design and develop effective and efficient real time solutions by integrating diverse technologies.

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UALCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing.
CO2	Apply the language for speaking efficiently and confidently.
CO3	Build the reading skill by using unfamiliar texts with comprehension.
CO4	Demonstrate the language skills through academic writing.
CO5	Develop the leadership quality and team building through linguistic competence.

#### Course Name: Core 2: Programming with C and C++ Course Code: 21UALCT102

CO1	Demonstrate simple applications in C using basic constructs.	
CO2	Illustrate the concepts of arrays, string, functions, recursions, structures and unions.	
CO3	Develop C program using pointers and file management.	
CO4	Summarize the concept of classes, objects, constructors and destructors in C++.	
CO5	Apply the operator overloading, inheritance and exception handling concepts to solve the real- world problems.	

#### Course Name: Core Practical 1: C and C++ Programming Lab Course Code: 21UALCP103

CO1	Apply the concepts of operators and expressions.
CO2	Implement the branching and looping statements, arrays, strings and structures.
CO3	Demonstrate the concepts of pointers and file management.
CO4	Develop programs with class and objects, constructors and destructors.
CO5	Apply the process of inheritance and exception handling mechanism.

#### Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources.
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

# Course Name: Core 3 : Professional English - II Course Code: 21UALCT201

CO1	Identify the importance of linguistic competence in workplace situations	
CO2	Develop LSRW skills for academic and career purposes	
CO3	Build the employability skills through various speaking and writing tasks	
CO4	Relate the communication skills suitable for employability	
CO5	Illustrate the digital competence with innovation and imagination	

# Course Name: Core 4: Database Management Systems Course Code: 21UALCT202

CO1	Demonstrate the understanding of database systems and their architectures.
CO2	Illustrate the concept of relational algebra, calculus and relational query language.
CO3	Summarize the concepts of Entity Relationship Model and Enhanced Entity Relationship Model.
CO4	Apply the Functional Dependency, Decomposition and Normalization.
CO5	Illustrate the Database Recovery and Database Security.

# Course Name: Core Practical 2: Database Management Systems Lab Course Code: 21UALCP203

CO1	Construct a table and apply common SQL statement using DML to perform different operations.
CO2	Apply common SQL statements including DDL and aggregate functions to perform different operations.
CO3	Implement the concept of String functions, Date functions and Cursors.
CO4	Demonstrate the knowledge of Triggers and DCL statements.
CO5	Develop the concept of PL/SQL Procedure, Functions and Exception.

#### **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### **Course Name: Core 5: Data Structures Course Code: 21UALCT301**

II S	ISC COUC: 210ALC1301	
	CO1	Demonstrate the algorithm specification, arrays and structures.
	CO2	Illustrate the concept of basic data structures like stacks and queues.
	CO3	Describe the various types of linked lists and their applications.
	<b>CO4</b>	Illustrate the binary search trees and different hashing functions.
	CO5	Apply appropriate sorting and searching techniques for given problem.

# Course Name: Core 6: Operating Systems Course Code: 21UALCT302

CO1	Demonstrate the understanding of the basic functionality of operating systems.	
CO2	Illustrate the concepts of processes and threads.	
CO3	Categorize the different process scheduling algorithm and synchronization techniques to avoid deadlock.	
CO4	Describe the memory management and virtual memory.	
CO5	Illustrate the concepts of I/O and File management.	

# Course Name: Core 7: Java Programming Course Code: 21UALCT303

CO1	Illustrate the basic concepts of java including class and flow control statements.	
CO2	Apply the principles of inheritance, interface, polymorphism, exception handling and threads.	
CO3	Demonstrate the concepts of packages and I/O operations.	
CO4	Describe the concepts of applets and exception handling mechanisms.	
CO5	Develop an application using AWT and JDBC.	

### Course Name: Core Practical 3: Java Programming Lab

#### **Course Code: 21UALCP304**

CO1	Apply java concepts including class, method and constructor to perform different operations.
CO2	Design the concept of inheritance and exception handling.
CO3	Implement the usage of package and file handling operations.
CO4	Implement the methods of creating applets and mouse events.
CO5	Develop an application using swing and JDBC.

#### **Course Name: Allied 3: Digital Electronics Course Code: 21UALAT305**

Juise Coue: 210ALA 1505		
	CO1	Illustrate the concept of number systems and binary codes.
	CO2	Analyse the boolean algebra, logic gates and karnaugh map simplification.
	CO3	Construct the arithmetic and logic circuit for binary numbers.
	CO4	Analyse and design the circuits using various types of flip-flops.
	CO5	Summarize the concept of registers, counters and semiconductor memories.

#### **Course Name: Skill Based Practical 1: Linux Programming Lab Course Code: 21UALSP306**

ourse coue, 210ALSI 500		
ſ	CO1	Apply the knowledge of basic linux commands.
ſ	CO2	Construct linux commands to create and manage simple file processing operations.
	CO3	Design the shell scripts to monitor system performance and network activities.
ſ	CO4	Make use of the linux directory commands.
	CO5	Implement the shell scripts for various operations.

## Course Name: Non Major Elective - I: Data Analysis using Spreadsheet

#### Course Code: 21UALNT307

CO1	Demonstrate the understanding the structure and use of worksheet functions.
CO2	Describe the ways to analyzing and present data in spreadsheet.
CO3	Summarize and visualize result of data analysis in spreadsheets.
CO4	Apply business intelligence tools to transform data into useful information.
CO5	Create and edit macros by writing VBA code in the VBE.

#### **Course Name: Gender Studies**

#### Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

#### Course Name: Core 8: Web Technology Course Code:21UALCT401

CO1	Design web pages with XHTML and CSS.
CO2	Build interactive web pages using JavaScript and jQuery.
CO3	Implement the concepts of Servlets and JSP in server-side programming.
CO4	Illustrate XML documents, schemas and build web applications.
CO5	Apply PHP Scripts in creating adaptive web pages.

#### **Course Name: Core 9: .NET Programming**

#### Course Code: 21UALCT402

CO1	Demonstrate the understanding of the .NET environment.
CO2	Develop the program using mathematical and string operations.
CO3	Design the forms by using the control features, functions and procedure.
CO4	Construct the programs using ADO .NET.
CO5	Illustrate the Microsoft Azure Technology and Git Source Control Repository.

#### Course Name: Core Practical 4: .NET Programming Lab

#### **Course Code: 21UALCP403**

CO1	Design windows form applications through Visual Basic 2019
CO2	Apply the array concepts in programming.
CO3	Develop the forms using procedures and error handling features.
CO4	Design the database connectivity.
CO5	Create Microsoft Azure and Git Hub Accounts.

#### Course Name: Allied 4: Microprocessor and ALP Course Code: 21UALAT404

CO1	Demonstrate the understanding of microcomputer systems.
CO2	Describe the 8085 microprocessor architecture and memory interfacing.
CO3	Make use of the instruction set of 8085 microprocessor and develop assembly codes to solve problems.
CO4	Illustrate the use of Counters and Time Delays and Stack and Subroutine.
CO5	Implement the 8085 interrupts and interface the microprocessors with 8259A and DMA.

#### Course Name: Skill Based Practical 2: Web Technology Lab Course Code: 21UALSP405

CO1	Design a web page with various HTML tags and CSS styles.
CO2	Implement the JavaScript and jQuery to generate dynamic web portals.
CO3	Demonstrate Server-side programming using Servlet and JSP.
CO4	Apply the XSL stylesheet to display XML in a web page.
CO5	Develop an application using PHP.

#### **Course Name: Non Major Elective - II - Web Graphics Course Code: 21UALNT406**

CO1	Outline the HTML coding and basic web graphics.
CO2	Demonstrate the components of Photoshop, image basics and file formats.
CO3	Apply the concepts of layers and color palette for animation.
CO4	Illustrate the usage of image editing techniques.
CO5	Apply the multimedia concepts of creating clippings and animations with sound effects.

# Course Name: Fundamentals of Yoga

Course Code: 21SS02

CO1	Understand the concepts of Yoga and its types.
CO2	Know the impact of yoga on human body.
CO3	Learn about the breathing techniques.
CO4	Gain awareness on Surya Namaskar.
CO5	Know about the benefits of Asanas.

# Course Name: Advanced Learners Course 1 - A : Programming in C#

#### Course Code: 21UALAL407

CO1	Develop simple applications in C# using basic constructs.
CO2	Outline the importance of classes, objects and interfaces.
CO3	Illustrate the concept of value types and exception handling mechanism.
CO4	Apply the concept of generics, events and delegates in C# programming.
CO5	Summarize the fundamentals of multithreading and synchronization.

# Course Name: Advanced Learners Course 1 - B : Computer Installation and Servicing Course Code: 21UALAL408

CO1	Demonstrate the understanding of PC system and memory organization.
CO2	Illustrate the concept of Magnetic storage.
CO3	Analyze the input devices, monitors and display adapters.
CO4	Identify the connectors and cables.
CO5	Apply the troubleshooting and servicing.

#### **Programme Title: B.Sc. Information Technology**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help to reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.Sc. Information Technology program, students are expected to

PSO Number	PSO Statement
PSO1	Apply the core area of knowledge in computing and communication systems.
PSO2	Analyze the computer applications by applying suitable algorithms and techniques.
PSUS	Apply the contextual knowledge of Information Technology to act effectively as an individual and a leader.
	Apply the cyber laws and committed to professional ethics and responsibilities of the Information Technology and their practices.
PSO5	Design and develop effective, secure and reliable IT solutions for meeting the global needs.

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UAMCT101

**Course Outcomes (CO): On completion of the course, students should be able to** 

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing.
CO2	Apply the language for speaking efficiently and confidently.
CO3	Build the reading skill by using unfamiliar texts with comprehension.
CO4	Demonstrate the language skills through academic writing.
CO5	Develop the leadership quality and team building through linguistic competence.

#### Course Name: Core 2 : Programming with C and C++ Course Code: 21UAMCT102

CO1	Demonstrate simple applications in C using basic constructs.
CO2	Illustrate the concepts of arrays, string, functions, recursions, structures and unions.
CO3	Develop C program using pointers and file management.
CO4	Summarize the concept of classes, objects, constructors and destructors in C++.
CO5	Apply the operator overloading, inheritance and exception handling concepts to solve the real- world problems.

### Course Name: Core Practical 1 : C and C++ Programming Lab

#### **Course Code: 21UAMCP103**

CO1	Apply the concepts of operators and expressions.
CO2	Implement the branching and looping statements, arrays, strings and structures.
CO3	Demonstrate the concepts of pointers and file management.
CO4	Develop programs with class and objects, constructors and destructors.
CO5	Apply the process of inheritance and exception handling mechanism.

#### Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

### **SEMESTER: II**

#### Course Name: Core 3 : Professional English - II Course Code: 21UAMCT201

CO1	Identify the importance of linguistic competence in workplace situations	
CO2	Develop LSRW skills for academic and career purposes	
CO3	Build the employability skills through various speaking and writing tasks	
<b>CO4</b>	Relate the communication skills suitable for employability	
CO5	Illustrate the digital competence with innovation and imagination	

#### Course Name: Core 4 : Database Management Systems Course Code: 21UAMCT202

CO1	Demonstrate the understanding of database systems and their architectures.
CO2	Illustrate the concept of relational algebra, calculus and relational query language.
CO3	Summarize the concepts of Entity Relationship Model and Enhanced Entity Relationship Model.
CO4	Apply the Functional Dependency, Decomposition and Normalization.
CO5	Illustrate the Database Recovery and Database Security.

#### **Course Name: Core Practical 2 : Database Management Systems Lab Course Code: 21UAMCP203**

u	buist cout: 210Amici 205		
	CO1	Construct a table and apply common SQL statement using DML to perform different operations.	
	<b>CO2</b>	Apply common SQL statements including DDL and aggregate functions to perform different operations.	
	CO3	Implement the concept of String functions, Date functions and Cursors.	
ſ	CO4	Demonstrate the knowledge of Triggers and DCL statements.	
ſ	CO5	Develop the concept of PL/SQL Procedure, Functions and Exception.	

## Course Name: Foundation Course II: Value Education

### Course Code: 21VE01

CO1	Identify the values to be adopted in their personal, professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

#### Course Name: Core 5: Data Structures Course Code: 21UAMCT301

CO1	Demonstrate the algorithm specification, arrays and structures.	
CO2	Illustrate the concept of basic data structures like stacks and queues.	
CO3	Describe the various types of linked lists and their applications.	
CO4	Illustrate the binary search trees and different hashing functions.	
CO5	Apply appropriate sorting and searching techniques for given problem.	

#### Course Name: Core 6: Operating Systems Course Code: 21UAMCT302

CO1	Demonstrate the understanding of the basic functionality of operating systems.
CO2	Illustrate the concepts of processes and threads.
CO3	Categorize the different process scheduling algorithm and synchronization techniques to avoid deadlock.
CO4	Describe the memory management and virtual memory.
CO5	Illustrate the concepts of I/O and File management.

### **Course Name: Core 7: Java Programming**

### Course Code: 21UAMCT303

C01	Illustrate the basic concepts of java including class and flow control statements.
CO2	Apply the principles of inheritance, interface, polymorphism, exception handling and threads.
CO3	Demonstrate the concepts of packages and I/O operations.
CO4	Describe the concepts of applets and exception handling mechanisms.
CO5	Develop an application using AWT and JDBC.

#### **Course Name: Core Practical 3: Java Programming Lab**

### **Course Code: 21UAMCP304**

CO1	Apply java concepts including class, method and constructor to perform different operations.
CO2	Design the concept of inheritance and exception handling.
CO3	Implement the usage of package and file handling operations.
CO4	Implement the methods of creating applets and mouse events.
CO5	Develop an application using swing and JDBC.

#### **Course Name: Allied 3: Digital Electronics Course Code: 21UAMAT305**

C01	Illustrate the concept of number systems and binary codes.	
CO2	Analyse the Boolean algebra, logic gates and Karnaugh map simplification.	
CO3	Construct the arithmetic and logic circuit for binary numbers.	
CO4	Analyse and design the circuits using various types of flip-flops.	
CO5	Summarize the concept of registers, counters and semiconductor memories.	

#### Course Name: Skill Based Practical 1: Linux Programming Lab Course Code: 21UAMSP306

Co	Course Code: 21UAMSP306		
	CO1	Apply the knowledge of basic linux commands.	
	CO2	Construct linux commands to create and manage simple file processing operations.	
	CO3	Design the shell scripts to monitor system performance and network activities.	
	CO4	Make use of the linux directory commands.	
	CO5	Implement the shell scripts for various operations.	

#### **Course Name:** Non Major Elective - I -Introduction to Web Design Course Code: 21UAMNT307

u	buise code. 210Ami(1507		
ſ	CO1	Demonstrate the working of internet and internet service provider.	
ſ	CO2	Illustrate the world wide web and various protocols.	
	CO3	Demonstrate the methods and techniques of web designing.	
ſ	CO4	Describe the historical context and justification for JavaScript language.	
	CO5	Describe the JavaScript Document Object Model.	

### **Course Name: Gender Studies**

#### Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

### Course Name: Core 8: Web Technology Course Code:21UAMCT401

CO1	Design web pages with XHTML and CSS.
CO2	Build interactive web pages using JavaScript and jQuery.
CO3	Implement the concepts of Servlets and JSP in server-side programming.
CO4	Illustrate XML documents, schemas and build web applications.
CO5	Apply PHP Scripts in creating adaptive web pages.

#### Course Name: Core 9: .NET Programming Course Code: 21UAMCT402

CO1	Demonstrate the understanding of the .NET environment.
CO2	Develop the program using mathematical and string operations.
CO3	Design the forms by using the control features, functions and procedure.
CO4	Construct the programs using ADO .NET.
CO5	Illustrate the Microsoft Azure Technology and Git Source Control Repository.

### Course Name: Core Practical 4: .NET Programming Lab

### **Course Code: 21UAMCP403**

CO1	Design windows form applications through Visual Basic 2019
CO2	Apply the array concepts in programming.
CO3	Develop the forms using procedures and error handling features.
CO4	Design the database connectivity.
CO5	Create Microsoft Azure and Git Hub Accounts.

## Course Name: Allied 4: Microprocessor and ALP

## Course Code: 21UAMAT404

CO1	Demonstrate the understanding of microcomputer systems.
CO2	Describe the 8085 microprocessor architecture and memory interfacing.
CO3	Make use of the instruction set of 8085 microprocessor and develop assembly codes to solve problems.
CO4	Illustrate the use of Counters and Time Delays and Stack and Subroutine.
CO5	Implement the 8085 interrupts and interface the microprocessors with 8259A and DMA.

#### Course Name: Skill Based Practical 2: Web Technology Lab Course Code: 21UAMSP405

1	
CO1	Design a web page with various HTML tags and CSS styles.
CO2	Implement the JavaScript and jQuery to generate dynamic web portals.
CO3	Demonstrate Server-side programming using Servlet and JSP.
CO4	Apply the XSL stylesheet to display XML in a web page.
CO5	Develop an application using PHP.

### **Course Name: Non Major Elective II - Graphic Design with Photoshop Course Code: 21UAMNT406**

CO1	Describe the basic functions of the Photoshop.
CO2	Demonstrate the image manipulation.
CO3	Describe the usage of basic selection tools.
CO4	Illustrate the use of layering technique.
CO5	Apply various drawing and painting tools.

### Course Name: Fundamentals of Yoga Course Code: 21SS02

CO1	Understand the concepts of Yoga and its types.
CO2	Know the impact of yoga on human body.
CO3	Learn about the breathing techniques.
CO4	Gain awareness on Surya Namaskar.
CO5	Know about the benefits of Asanas.

#### Course Name: Advanced Learners Course 1 - A : Programming in C# Course Code: 21UAMAL407

CO1	Develop simple applications in C# using basic constructs.
CO2	Outline the importance of classes, objects and interfaces.
CO3	Illustrate the concept of value types and exception handling mechanism.
CO4	Apply the concept of generics, events and delegates in C# programming.
CO5	Summarize the fundamentals of multithreading and synchronization.

#### Course Name: Advanced Learners Course 1 - B : Computer Installation and Servicing Course Code: 21UAMAL408

CO1	Demonstrate the understanding of PC system and memory organization.
CO2	Illustrate the concept of Magnetic storage.
CO3	Analyze the input devices, monitors and display adapters.
CO4	Identify the connectors and cables.
CO5	Apply the troubleshooting and servicing.

#### **Programme Title: B.Sc Computer Science**

**Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronicmedia in English and in one Indian language, and making meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
<b>PO7</b>	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** At the end of the B.Sc Computer Science programme, students will be equipped with the Knowledge in

PSO	PSO Statement
Number	
PSO1	Apply the fundamental principles and methods of Mathematics and Computer Science to a wide range of applications.
PSO2	Design, implement, and evaluate a computational system to meet desired needs in various domains.
PSO3	Use current computing technologies and methods for the design and implementation of solutions in industry.
PSO4	Practice continuous learning to maintain and achieve professional and personal excellence.
PSO5	Apply the contextual knowledge of Information Technology to function efficiently as an individual or a leader in multi disciplinary environments.

#### **SEMESTER: I**

#### Course Name: Core I: Professional English - I Course Code: 21UAKCT101

C01	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Apply the language for speaking efficiently and confidently
CO3	Build the reading skill by using unfamiliar texts with comprehension
CO4	Demonstrate the language skills through academic writing
CO5	Develop the leadership quality and team building through linguistic competence

#### **Course Name: Core II: Programming in C with Data Structures Course Code: 21UAKCT102**

CO1	Acquire the knowledge on the fundamental programming components of C	
CO2	Design programs involving decision making and looping constructs in C	
CO3	Implement the algorithms for solving Mathematical and computational problems	
CO4	Understand the implementation of the basic linear data structures	
CO5	Demonstrate various searching and sorting techniques	

#### Course Name: Core Practical I: Programming Lab –C with Data Structures Course Code: 21UAKCP103

CO1	Apply the C programming concept to solve the given problem	
CO2	Write C programs using decision making, branching and looping constructs	
CO3	Build C programs to implement arrays	
CO4	Design programs using functions	
CO5	Write programs that perform operations using derived data types	

## **Course Name: Foundation Course – I: Environmental Studies**

Course Code: 21ES01

C01	Compile different types of ecosystem and its energy flow
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation
CO4	Create awareness on disaster management and measures to prevent pollution
CO5	Outline the environmental policies and its practices

#### **SEMESTER: II**

#### Course Name: Core III: Professional English – II Course Code: 21UAKCT201

CO1	Identify the importance of language competence in workplace situations
CO2	Develop LSRW skills for academic and career purposes
CO3	Build the employability skills through various speaking and writing tasks
CO4	Relate the communication skills suitable for employability
CO5	Illustrate the digital competence with innovation and imagination

### **Course Name: Core IV: Python Programming**

### Course Code: 21UAKCT202

CO1	Acquire the knowledge on OOPs and python programming
CO2	Define and demonstrate the use of built-in data structures lists and dictionary
CO3	Read and write data from and to files in Python
CO4	Apply the concepts of python in developing various applications
CO5	Design and implement a program to solve real world problems

### Course Name: Core Practical II: Programming Lab - Python Course Code: 21UAKCP203

CO1	Use syntax and semantics to create Functions in Python	
CO2	Utilize the core data structures like Lists, Dictionaries and Sets in Python to manipulate data	
CO3	Develop strings manipulation programs in Python	
CO4	Create simple file related Python programs	
CO5	Build Python applications using pygame	

#### **Course Name: Foundation Course – II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life
CO2	Develop personality and social cohesion through various skills inculcated
CO3	Construct co-ordinal relationship with the family members
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure
CO5	Buildup social sense and commitment and to discriminate social evils from virtues

#### **SEMESTER: III**

#### Course Name: Core V: Operating Systems Course Code: 21UAKCT301

	CO1	Understand the basic concepts of Process and its Transitions.
	CO2	Identify and recover Deadlock in Multiprogramming Systems.
	CO3	Analyze the Virtual Storage Organization and Management Strategies.
	CO4	Classify the types of Process Scheduling.
	CO5	Examine the role of Disk Performance Optimization and File Systems.

#### Course Name: Core VI:Java Programming Course Code: 21UAKCT302

<b>_</b> 0u	Course Code: 210AKC1502		
	CO1	Recognize the basics of Java Environment, Java Statements and Operators and	
		Expressions.	
	CO2	Demonstrate the concepts of Branching Statements, Looping Statements and Method Overloading	
	CO3	Examine the concepts of Arrays, Interfaces and Packages.	
	CO4	Analyze the functions of Multithreading, Exceptions, Applets, Graphics Programming and Managing Files.	
	CO5	Interpret on Swing, Event Handling and Java Beans.	

# Course Name: Core VII:Digital Fundamentalsand ComputerArchitecture Course Code:21UAKCT303

CO1	Identify and apply different number systems and codes
CO2	Understand the design of sequential circuits such as flip-flops using logical gates.
CO3	Acquire knowledge in data transfer and DMA controller.
CO4	Analyze the digital representation of data in a computer system.
CO5	Demonstrate the ideas by comparing Memory organization.

## Course Name: Core Practical III:Programming Lab-Java

### **Course Code: 21UAKCP304**

CO1	Describe the concepts of Method Overloading, Multiple Inheritance and write the algorithm in well-written modular code.
CO2	Demonstrate the use of object oriented concepts like Package and Multithreading.
CO3	Develop the Exception Handling and Applet Programs.
CO4	Analyze the concepts of Files and Swing.
CO5	Describe the idea of Swing and NetBeans.

#### Course Name: Allied Paper III: Computer Based OptimizationTechniques Course Code: 21UAKAT305

	CO1	Solve the Linear Programming Problem by graphical method
	CO2	Formulate the Transportation Problems
	CO3	Optimize the Assignment Problems and Replacement Problems
	<b>CO4</b>	Discuss the types of Queueing Models and various strategies of Game Theory
	CO5	Construct a Network Diagram and find the Critical Path and PERT

#### Course Name:Skill Based Practical I:Multimedia Lab Course Code: 21UAKSP306

CO1	Classify the controls of Multimedia software	
CO2	Apply the designing skills upon Multimedia	
CO3	Demonstrate various effects of Multimedia	
CO4	Animate the figures using Multimedia tools	
CO5	Model the experiments with a Movie making tool	

## Course Name: Non-Major Elective - I:Internet Principles

### Course Code: 21UAKNT307

CO1	Understand the basics of Internet
CO2	Creating, sending and Receiving mails
CO3	Acquire knowledge in designing a Web Page
CO4	Recognize the IP address and Domain name
CO5	Compare the different types of Protocols

#### Course Name:Programming Lab -Office Automation and Applications Course Code:21UAKNP308

CO1	Identify the real time usage of Office Automation Tools
CO2	Characterize the designing and aligning options of a Text Editor
CO3	Acquire the practical knowledge on Office Automation Tools
CO4	Correlate the office applications to the Tamil related themes
CO5	Assemble the appropriate office automation options to the real time scenarios

### **Course Name: Gender Studies**

#### Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

#### **Course Name: Core VIII: Software Engineering Course Code: 21UAKCT401**

CO1	Understand the various software process models.	
CO2	Demonstrate the elements of analysis model, data model and functional model.	
CO3	Analyze the software projects and Estimation models.	
CO4	Apply the Design Concepts on modular and interface design.	
CO5	Test the created software using different testing strategies.	

#### **Course Name: Core IX:Web Programming Course Code: 21UAKCT402**

CO1	Classify the various HTML tags.
CO2	Apply the various cascading style sheets for designing the web pages.
CO3	Demonstrate the actions of Java script coding.
CO4	Categorize the role of open sources languages.
CO5	Examine the functions of Packages and Modules in PERL.

# Course Name: Core Practical IV:Web Programming Lab Course Code:21UAKCP403

CO1	Acquire the knowledge of tools used in industry for web application development
CO2	Design web pages using HTML and style sheets
CO3	Validate the forms
CO4	Create dynamic web pages using server side scripting
CO5	Develop web based applications with Perl

#### Course Name:Skill Based Practical II:Software Development -CASE Tools Lab **Course Code:21UAKSP405**

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	CO1	Identify various objects and the relationship between them in the given projects	
	CO2	Recognize the actors and use cases in the projects	
	CO3	Design projects using Object Oriented concepts	
	<b>CO4</b>	Use the UML analysis and design diagrams	
	CO5	Blueprint appropriate design patterns	

#### Course Name:Non-Major Elective II:Information Securityand Cyber Laws Course Code: 21UAKNT406

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ſ	CO1	Understand the basics of Information Technology	
	CO2	Classify all types of crimes related to electronic records	
ſ	CO3	Use authentication technology in case of digital signatures	
	CO4	Recognize Cyber laws and Security Policies and Cryptography	
	CO5	Identify the different sections in Information Technology Act, 2000	

### Course Name:Programming Lab -Web Development Course Code: 21UAKNP407

C	C <b>O</b> 1	Enumerate the real time usage of Hyper Text Markup Language - HTML	
0	C <b>O2</b>	Differentiate the various components of a web page	
C	C <b>O3</b>	Attain the practical knowledge on web page development tools	
C	C <b>O</b> 4	Correlate the web applications to the Tamil related themes	
C	C <b>O</b> 5	Develop the linked web pages with relevant options to the real time scenarios	

### **Course Name: Fundamentals of Yoga**

### **Course Code:21SS2**

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know the about benefits of Asanas

## Course Name:Advanced LearnersCourse 1 (A):Software Testing

### Course Code:21UAKAL408

CO1	Understand the basics of Software Testing
CO2	Discuss Challenges in Testing
CO3	Acquire knowledge in the Functional and Non Functional Testing
CO4	Apply different types of Testing
CO5	Study the concepts of Testing Object Oriented Systems, Test Planning, Test Metrics and Measurements

## Course Name:AdvancedLearners Course 1 (B):UNIX Programming Course Code:21UAKAL409

CO1	Understand the basic set of commands and utilities in UNIX systems.	
CO2	Understand the mechanisms of UNIX Operating System to handle processes and threads and their communication.	
CO3	Use the system calls provided in the UNIX environment	
CO4	Recognize CPU Scheduling, Synchronization, and Inter process Communication	
CO5	Identify the UNIX utilities to create and manage simple file processing operations, organize directory structures with appropriate security	

### **Programme Title: M.Sc Computer Science Programme Outcome: At the end of the programme, the students will be able to**

PO Number	PO Statement
PO1	<b>Critical Thinking</b> : Apply the strategies and techniques in order to solve real world problems.
PO2	Effective Communication: Communicate the concepts in oral and written form.
PO3	<b>Social Interaction:</b> Identify the accurate solutions for the society oriented problems using the Domain Knowledge.
PO4	<b>Effective Citizenship</b> : Attain the ability to identify, formulate and solve challenging problems of the society and nation.
PO5	<b>Knowledge Formulation</b> : Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.
PO6	<b>Environment and Sustainability</b> : Instill a sense of attitude in tackling social and environmental issues.
PO7	<b>Self-directed and Life-long Learning</b> : Identify their own educational and career needs from the global challenges.

# **PROGRAMME SPECIFIC OUTCOMES:** At the end of the programme, students will be equipped with the Knowledge in

PSO Number	PSO Statement
PSO1	The ability to understand, analyze and develop computer language programs in the areas related to system software, simulation, software design, web development, data analytics, networking, machine language and artificial intelligence
PSO2	The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver quality applications for industry.
PSO3	The ability to employ modern computer languages, technologies, environments and platforms in creating innovative career paths to be a teacher, software engineer, an entrepreneur and a zest for research in Computer Science field.
PSO4	Develop ability to work with team, to work as lead with analytical reasoning for solving time critical problems.
PSO5	Develop ability to apply critical thinking in research, experiments, content writing, and to solve modern issues to accomplish education, societal and industrial tasks.

#### **SEMESTER: I**

#### Course Name:Core – I ANALYSIS & DESIGN OF ALGORITHMS Course Code: 21PBICT101

CO1	Analyze the time complexity and space complexity of an algorithm
CO2	Implement searching and sorting algorithms in real world problems
CO3	Apply the concept of Greedy method
CO4	Distinguish between greedy method and dynamic programming
CO5	Predict an appropriate algorithm for applications.

#### Course Name:Core – II ADVANCED JAVA PROGRAMMING Course Code: 21PBICT102

CO1	Create Applications using Swing Components.
CO2	Write distributed applications using RMI
CO3	Establishing Database Connectivity using JAVA
CO4	Implement application using Applets and Servlet
CO5	Apply XML Schemas in web

#### Course Name: Core – III ADVANCED DATABASE MANAGEMENT SYSTEMS Course Code: 21PBICT103

CO1	Improve the database design by normalization.
CO2	Analyze the concepts of transaction management, concurrency control, and reliability in Distributed and object oriented Databases
CO3	Apply recursive query processing techniques
CO4	Illustrate experiments using XML databases
CO5	Enforce Integrity constraints in Temporal databases

#### Course Name: Core – IV SOFTWARE PROJECT MANAGEMENT & SOFTWARE ENGINEERING Course Code: 21PBICT104

CO1	Identify the challenges in Software Development process.
CO2	Explain about the Software Requirement Analysis and Specification
CO3	Do the Project planning, tracking, Risk analysis, Quality management and Project Cost estimation using different techniques.
CO4	Solve the issues and challenges faced in Software Design Process
CO5	Predict the possible causes of Software failure and knowledge of how to prevent them

#### Course Name: Core Practical - I ADVANCED JAVA PROGRAMMING LAB Course Code: 21PBICP105

CO1	Handle HTML form data with Java Servlet
CO2	Invoke the remote methods in an application using Remote Method Invocation
CO3	Access database using Java Data Base Connectivity in web applications
CO4	Create dynamic web pages, using Servlets and JSP
CO5	Create an applet application

#### Course Name: Core Practical - II ADVANCED DATABASE MANAGEMENT SYSTEMS LAB Course Code: 21PBICP106

CO1	Design the database schema with the use of appropriate data types for storage of data in database
CO2	Application of SQL commands
CO3	Implementation of PL/SQL Concepts
CO4	Application of Concurrency mechanism in Databases
CO5	Create XML databases

#### **SEMESTER: II**

#### Course Name:Core – V CRYPTOGRAPHY & NETWORK SECURITY Course Code: 21PBICT201

CO1	Outline the fundamentals of networks security, security architecture, threats and vulnerabilities	
CO2	Apply the different cryptographic operations of symmetric cryptographic algorithms	
CO3	Apply the different cryptographic operations of public key cryptography	
<b>CO4</b>	Apply the various Authentication schemes to simulate different applications.	
CO5	Understand various Security practices and System security standards	

## Course Name:Core – VI ADVANCED OPERATING SYSTEMS

#### **Course Code: 21PBICT202**

CO1	Explain the features of Operating System
CO2	Apply the concept of deadlock.
CO3	Implement the concept of real time operating systems
CO4	Explore the Operating Systems for Handheld Systems
CO5	Analyze the architecture of LINUX and internal representation of files

#### Course Name:Core – VII ARTIFICIAL INTELLIGENCE & MACHINE LEARNING Course Code: 21PBICT203

CO1	Explore various heuristics techniques
CO2	Analyze the issues in Knowledge representation
CO3	Apply different types of reasoning
CO4	Apply various algorithms for Learning
CO5	Understand the working pattern of ANN

#### Course Name:Core – VIII PYTHON PROGRAMMING Course Code: 21PBICT204

CO1	Define the structure and components of a Python program
CO2	Use lists, tuples, and dictionaries in Python programs
CO3	Write loops and decision statements in Python
CO4	Design object-oriented programs with Python classes.
CO5	Build and package Python modules for reusability

#### Course Name:Elective – I MOBILE COMPUTING Course Code: 21PBIET205

CO1	Explain the features of mobile system
CO2	Develop mobile application
CO3	Discuss the Mobile Ad hoc networks and its routing
CO4	Apply the different types of security features
CO5	Describe High Definition Television and Desktop Computing

### Course Name:Elective –I E-CONTENT WRITING Course Code: 21PBIET206

CO1	Differentiate traditional and e-content writing
CO2	Design the e-content for various media
CO3	Capture the type of audience who are using the particular e-media
CO4	Frame technical architecture in the content
CO5	Write tutorials for different applications

#### Course Name:Elective –I DATA MINING Course Code: 21PBIET207

CO1	Preprocess the data for mining applications
CO2	Create the architecture of Data warehouse
CO3	Characterize the kinds of patterns that can be discovered by different Classification methods
CO4	Build model based clustering methods
CO5	Identify applications in data mining

#### Course Name:Elective –I COMPILER DESIGN Course Code: 21PBIET208

CO1	Explain the phases of a compiler
CO2	Describe the context free grammar and various parsing techniques.
CO3	Design a code generator and experiments the Intermediate Code Generation
CO4	Implement code optimization techniques
CO5	Implement the storage organization and allocation strategies

#### Course Name:Core Practical –III LINUX LAB Course Code: 21PBICP209

CO1	Implement the basic set of commands and utilities in Linux/UNIX systems
CO2	Handle signals using the signal library functions
CO3	Implement full duplex communication between two independent processes using FIFO
CO4	Use thread synchronization and counting semaphore in Linux
CO5	Implement CPU Scheduling in Linux

#### Course Name:Core Practical –IV PYTHON PROGRAMMING LAB Course Code: 21PBICP210

CO1	Solve mathematical expression using python operators
CO2	Use lists, tuples, and dictionaries in Python programs
CO3	Operate files for storing, manipulating and retrieving purpose
CO4	Identify Python object types
CO5	Create user defined module as per requirement

#### Course Name:Core Practical –V WEB DEVELOPMENT USING ASP.NET Course Code: 21PBICP211

CO1	Create simple application using standard web controls
CO2	Implement various ASP.NET controls for different applications
CO3	Design and debug web applications using ASP.NET
<b>CO4</b>	Create database driven ASP.NET web applications
CO5	Validate the inputs using ASP.NET controls

#### **SEMESTER: III**

#### Course Name: CORE PAPER - IX -DIGITAL IMAGEPROCESSING **Course Code: 21PBICT301**

CO1	Review the fundamental concepts of Digital Image Processing
CO2	Differentiate and interpret the various image enhancement techniques and understand the mathematical foundations for digital image representation, image acquisition, image transformation, and image enhancement
CO3	Evaluate the techniques for image restoration and spatial enhancement methods
CO4	Categorize various compression techniques and Interpret Image compression standards
CO5	Explore the concepts of Image segmentation and able to implement basic image processing algorithms in MATLAB

## **Course Name: Core Paper – X-INTERNET OF THINGS**

#### **Course Code:21PBICT302**

CO1	Define IoT deployment levels
CO2	Analyze IoT applications in different domain
CO3	Understand IoT system management and design methodology
CO4	Build IoT systems using Python packages
CO5	Explore and learn about Internet of Things with the help of Raspberry Pi

## **Course Name: Core Paper – XI-DATA SCIENCE & BDA**

## Course Code: 21PBICT303

CO1	Acquire knowledge about the flow of a data science process and R Programming
CO2	Describe the phases of data analytics lifecycle and various algorithms
CO3	Analyze an Advanced Analytical Theory and Methods used in Big Data
CO4	Apply an Text analysis in Real Time Applications
CO5	Compare and contrast Hadoop, Pig, Hive and HBase tool sets

#### **Course Name: Core Paper – X11-DATA VIRTUALIZATION Course Code: 21PBICT304**

CO1	Explain the concepts of Data virtualization, BI and Data Warehousing
CO2	Describe about the Data Virtualization Server
CO3	Acquire knowledge about the security and query optimization techniques
CO4	Deploy Data Virtualization in Business Intelligence Systems
CO5	Apply the Data Virtualization guidelines and Data governence

#### **Course Name: Elective – II-THEORY OF COMPUTATIONS Course Code: 21PBIET305**

CO1	Use basic concepts of formal languages and grammar	
CO2	Design Finite Automata's for different Regular Expressions and Languages	
CO3	Construct DFA and NDFA	
CO4	Design and Techniques for constructing Turing Machines	
CO5	Build the design and application of the case studies using DFA- NFA-RE and TM	

#### Course Name: Elective – II-AUGMENTED REALITY & VIRTUAL REALITY Course Code: 21PBIET306

CO1	Explore the fundamental concepts, Input and Output Devices related to VR		
CO2	Acquire knowledge about the Computing Architecture and geometric modeling in Virtual Reality		
CO3	Perform VR programming to create Virtual Reality applications		
CO4	Describe the working of AR systems and its applications		
CO5	Analyse the technology issues in AR		

### **Course Name: Elective – II-WEB SERVICES**

#### **Course Code: 21PBIET307**

CO1	Explore the basic fundamentals concepts of Web Services
CO2	Analyze the Distributed Computing Infrastructures
CO3	Efficiently use XML language and gain knowledge about SOAP
CO4	Examine the WSDL service desciption
CO5	Apply security mechanisms in Web Services

## Course Name: Elective – II-STATISTICAL COMPUTING

### Course Code:21PBIET308

CO1	Summarize data using statistical concepts
CO2	Present the data using exploratory data analysis
CO3	Demonstrate the distribution functions of data and important characteristics
CO4	Infer the sampling distributions and their applications in hypothesis testing
CO5	Identify the relationship between the variables

#### Course Name: Skill Core Practical – VI- DIGITAL IMAGE PROCESSING LAB Course Code:21PBICP309

CO1	Implement the concept of Relationship between Pixels, Image Transformations and Histogram
CO2	Apply image enhancement technique, Image filtering and restoration techniques
CO3	Deploy Image Compression techniques and Edge Detection
CO4	Extract the image using morphology.
CO5	Apply image segmentation techniques

#### Course Name: Core Practical – VII-DATA SCIENCE LAB Course Code:21PBICP310

CO1	Use summary statistics
CO2	Load and Visualize data using plotting framework
CO3	Perform data analysis with K-means Clustering and Apriori algorithm
CO4	Build and apply supervised learning algorithms
CO5	Apply Text Analysis techniques

#### Course Name: Core Practical – VIII-DATA VIRTUALIZATION LAB Course Code: 21PBICP311

CO1	Configure various virtualization tools such as Virtual Box, VMware workstation
CO2	Design and deploy a web application in a PaaS environment
CO3	Learn how to simulate a cloud environment to implement web development applications in cloud
CO4	Install and use storage as a service
CO5	Establish Windows Azure application

### **SEMESTER: IV**

#### Course Name: PROJECT WORK AND VIVA-VOCE Course Code:21PBICV401

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	CO1	Acquire practical knowledge within a area of technology	
	CO2	Identify, analyze, formulate projects with a comprehensive and systematic approach	
	CO3	Compare and contrast the several existing solutions	
	CO4	Contribute as an individual or in a team in development of technical projects	
	CO5	Develop effective communication skills for presentation of project related activities	

### **Programme Title: B.Sc. Biochemistry**

PO Number	PO Statement
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language and make meaning of the world by connecting people, ideas, books, media and technology.
<b>PO 3</b>	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO 4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
<b>PO 5</b>	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
<b>PO 7</b>	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

### **Programme Outcomes:** At the end of the programme, students will be able to

**Programme Specific Outcomes :**At the end of the programme, students will be equipped with the

Knowledge in

PSO Number	PSO Statement
PSO 1	Comprehend the fundamental Biochemical principles and multiple important technical areas of Biochemistry.
PSO 2	To apply contextual knowledge and modern tools of Biochemical research for solving problems
PSO 3	Understanding the impact of Biochemistry on Environment, Society and other cultures outside the Scientific community
PSO 4	Writing and speaking about Biochemistry topics in a clear and concise manner according to professional standards
PSO 5	To demonstrate Professional and ethical attitude with enormous responsibility to serve the society.

#### **SEMESTER : I**

#### Course Name: Core I: Professional English I Course Code: 21UAPCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

#### **Course Name: Core II: Chemistry of Biomolecules Course Code:21UAPCT102**

	<b>CO1</b>	Relate the classifications of various Biomolecules
	CO2	Illustrate the structure of carbohydrates, lipids, amino acids and nucleic acids
ſ	CO3	Compare and Contrast the features of various Biological molecules
	<b>CO4</b>	Interpret the biological importance of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals
	CO5	Analyze the properties and applications of complex Biomolecules

### **Course Name: Core Biochemistry Practicals - I**

### Course Code: 21UAPCT203

CO1	Exhibit Knowledge on Biochemical calculations
CO2	Develop laboratory skills required for qualitative analysis of Carbohydrates
CO3	Get practical exposure with identification of Amino acids
CO4	Acquire practical knowledge on qualitative analysis of Lipids
CO5	Learn the techniques of pH measurement and chromatography for buffer preparation and separation of samples respectively

#### Course Name: Allied I: Chemistry - I Course Code:21UAPAT103

CO1	Illustrate the structural elucidation of organic compounds.
CO2	Summarize the fundamentals of physical chemistry
CO3	Recall the bonding mechanisms and theories of inorganic compounds
CO4	Establish the knowledge in polymer chemistry
CO5	Classify the different laws of physical chemistry

#### **Course Name: Allied Practicals I: Chemistry Course Code:21UAPAP205**

CO1	Practice the preparation procedure of normal and molar solutions.
CO2	Develop the experience in handling of glass wares and accurate chemical laboratory skill.
CO3	Estimate the acid and base solutions by volumetric analysis
CO4	Examine the methods of organic analysis
CO5	Distinguish the various organic compounds.

## Course Name: Foundation Course I: Environmental Studies

### Course Code: 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER : II**

## Course Name: Core III - Professional English - II

### Course Code: 21UAPCT201

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

#### **Course Name: Core IV - Tools and Techniques in Biochemistry Course Code:21UAPCT202**

CO1	Discuss the features of various biochemical tools
CO2	Distinguish the principles of different biochemical techniques
CO3	Determine the protocols involved in the techniques of chromatography, electrophoresis and centrifugation.
CO4	Focus the applications of analytical techniques and biomedical equipments
CO5	Memorize the working procedure of instruments used in biochemistry laboratory

#### Course Name: Allied II: Chemistry - II Course Code:21UAPAT204

CO1	Identify the basic concepts of organic and inorganic chemistry.
CO2	Summarize the fundamentals of physical chemistry
CO3	Describe the theories of coordination compounds and laws of thermodynamics.
CO4	Develop basic knowledge with the synthesis of organic compounds
CO5	Recall the properties of organic compounds and extraction method of different metals

#### **Course Name: Foundation Course II: Value Education Course Code:21VE01**

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CO1	Identify the values to be adopted in their personal, Professional and social life.	
CO2	Develop personality and social cohesion through various skills inculcated.	
CO3	Construct co-ordinal relationship with the family members.	
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.	
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.	

#### **SEMESTER: III**

### Course Name: Core V - Enzyme and Enzyme Technology Course Code:21UAPCT301

CO1	Describe structure, characteristics and functions of enzymes
CO2	Learn kinetics of enzyme catalyzed reactions and enzyme inhibitory and regulatory process
CO3	Acquire knowledge on mechanism of action of enzymes
CO4	Understand design of bioreactors and apply principles of bioprocess to the industrial production of enzymes
CO5	Gain exposure to wide applications of enzymes that can benefit human life and their future potential

### Course Name: Core VI - Cell Biology and Genetics Course Code:21UAPCT302

CO1	Describe the membrane structure and its role in various organelles
CO2	Explain the structure and functions of Nuclear materials
CO3	Emphasize the structure and functions of Cell organelles
CO4	Differentiate the relationship between cellular and genetic organization
CO5	Understand the concepts of Genetics

### Course Name: Core Biochemistry Practicals II Course Code:21UAPCP402

CO1	Handle and operate the microbiological instruments and apparatus
CO2	Know the techniques of media preparation
CO3	Isolate the microorganisms by various culture techniques
CO4	Differentiate the microorganisms using staining techniques
CO5	Familiarized with the assay of enzyme kinetics

#### Course Name: Allied III: Biomathematics Course Code:21UAPAT303

CO1	Find the solutions using the method of theory of equations
CO2	Describe rank, characteristic roots and vectors of matrices
CO3	Describe the concept and calculation of probability.
CO4	Solve the problem using Binomial distribution
CO5	Solve the problem using Poisson distribution

#### Course Name: Skill Based I - Fundamentals of Microbiology Course Code:21UAPST304

CO1	Recall and Describe the science of microbiology and some of the general methods used in the study of microorganisms
CO2	Describe the basic principles of bacteriology, virology, mycology and parasitology including the nature of pathogenic microorganisms
CO3	Explain the transmission modes of infectious diseases
CO4	Acquire requisite skill in the use and care of basic microbiological equipments
CO5	Explain principles and concepts of Prokaryotic and Eukaryotic morphology

#### Course Name: NME 1: Public Health and Hygiene Course Code:21UAPNT305

CO1	Develop basic knowledge on health and personal hygiene
CO2	Understand the role of nutrients for good health
CO3	Explain the mode of transmission and dietary planning for communicable diseases.
CO4	Understand the food behavioral changes due to modernization and areas of fitness.
CO5	Exhibit knowledge on circadian rhythm and occupational stress

#### Course Name: Gender Studies Course Code:21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media
CO5	Aware of laws for crime against women and child

#### **SEMESTER: IV**

### Course Name: Core VII - Intermediary Metabolism Course Code:21UAPCT401

CO1	Understand the fundamental Energetics of biochemical processes
CO2	Integrate knowledge on how the bodymetabolizes glucose and advanced understanding of how the body produces and stores energy
CO3	Understand lipid metabolism and the role of lipids in the formation of metabolites.
CO4	Learn the different process of anabolism and catabolism of Proteins
CO5	Comprehend the role of purine and pyrimidine in nucleic acid metabolism

#### Course Name: Allied IV: Python Programming Course Code:21UAPAT403

CO1	Aware about the knowledge in Basics of Python Programming
CO2	Explore the various Operators and Expressions
CO3	Use Loop Control Statements and Functions
CO4	Utilize String Operations and List methods
CO5	Implement Tuple and Dictionaries, Exception Handling & Modules in python

#### **Course Name: Allied Practicals II: Python Programming Lab Course Code:21UAPAP404**

CO1	Illustrate the use of conditional and looping statements
CO2	Explore the various String and List operations
CO3	Use Tuples and Dictionary operations
CO4	Create user defined functions & can perform the various operations in files
CO5	Implement exception handling & Modules in python

#### Course Name: Skill Based II: Nanotechnology and Clinical trials Course Code:21UAPST405

CO1	Familiarize with the new concepts of Nano science and Technology
CO2	Manipulate matter at molecular scale and attain the principal classes of biomaterials and their functionalities in modern medical science
CO3	Impart basic knowledge on various synthesis and characterization techniques involved in Nanotechnology
CO4	Acquire the outline interest of research about health care and study population
CO5	Attain general basics related to document development used in clinical trials

#### Course Name: Nutritional Diet Therapy Course Code:21UAPNT406

CO1	Acquire the basic concepts to Diet therapy
CO2	Develop basic idea of nutritional requirement during infections
CO3	Gain knowledge about dietary requirements during liver and abdominal diseases
CO4	Explain the dietary habits for renal and heart patients
CO5	Understand the impact of diet on pregnancy and geriatric nutrition

## **Course Name: Fundamentals of Yoga**

### Course Code:21SS02

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know the about benefits of Asanas

#### Course Name: ALC 1: Biophysics Course Code:21UAPAL407

CO1	Analyze and explain key concepts in biophysics.
CO2	Prepare them to be competitive in pursing advanced studies or employment in medical, biotechnical & pharmaceutical fields.
CO3	Provide broad foundation about various sensing and measurement machines in biomedical sciences.
CO4	Learn methods of experimental physics.
CO5	Acquire an idea about artificial organs and its function mimicking natural ones.

## Course Name: ALC 2: Phytochemistry and Phytochemical Techniques Course Code:21UAPAL408

CO1	e to identify plant primary and secondary metabolites
CO2	n methods of experimental techniques of phytochemicals.
CO3	elop skill to qualitative analysis of plant constituents.
CO4	uire knowledge on the skills of methods of separation of natural plant constituents.
CO5	uire good knowledge about the uses of different active constituents of medicinal plants

### Programme Title: M.Sc. Biochemistry

**Programme Outcomes:** At the end of the programme, students will be able to

PO Number	PO Statement
PO 1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO 2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language and make meaning of the world by connecting people, ideas, books, media and technology.
PO 3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO 4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO 5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO 6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
PO 7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes :**At the end of the programme, students will be equipped with the

knowledge in

PSO Number	PSO Statement
PSO 1	Representing the key principles of Biochemistry at an advanced level.
PSO 2	Identifying local and global issue that need intervention by a Biochemist and develop Biochemical approaches accordingly to solve the problems.
PSO 3	Demonstrating critical thinking skills/ laboratory techniques and be capable of designing, carrying out and interpreting Scientific experiments
PSO 4	Applying and effectively communicate Scientific reasoning and data analysis in both Written and Oral forums.
PSO 5	Exhibiting the principles of Scientific and Professional ethics and apply the knowledge gained in Biochemistry for lifelong learning

#### **SEMESTER: I**

#### Course Name: Core I: Biopolymers Course Code: 21PBFCT101

CO1	Recognize the Biomolecules at structural level
CO2	Classify the Biopolymers present in nature.
CO3	Distinguish the properties and importance of various Biopolymers.
CO4	Compare and contrast the structure and function of Biopolymers and where they are found
CO5	Discuss current environmental issues with a focus on the material's impact in relation to the sustainable development objectives set by the community.

#### **Course Name: Core II - Advanced Bioanalytical Techniques and Bioinformatics Course Code: 21PBFCT102**

CO1	Compile the basic principles and applications of analytical techniques
CO2	Discuss the different methodologies of biochemical techniques
CO3	Illustrate the instrumental set up of various Bioanalytical techniques
CO4	Practice the biological databases and Operate various tools in Sequence alignment methods.
CO5	Illustrate the methods of Protein prediction and Drug designing.

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### Course Name: Core III: Advanced Enzymology Course Code: 21PBFCT103

CO1	Recall the fundamentals of concepts of enzymes	
CO2	Identify the active site of enzyme, catalytic reactions	
CO3	Evaluate the enzyme kinetic mechanisms. Compare the enzyme inhibitors	
CO4	Describe the methods for production, purification, characterization and immobilization of enzymes.	
CO5	Illustrate the industrial applications of enzymes	

#### Course Name: Core IV: Cellular Biochemistry Course Code: 21PBFCT104

CO1	Recall the cell types and their organelles
CO2	Express the physiological role of cellular components in living system
CO3	Illustrate the structure and importance of membrane in a cellular function
CO4	Evaluate the various process related to cell cell interaction
CO5	Summarize the events of a cell and cell abnormalities.

#### **Course Name: Core V: Plant Biochemistry and Biotechnology Course Code: 21PBFCT105**

CO1	Correlate the different types of Carbon reactions in plants
CO2	Describe the importance of Biogeo chemical cycles in plants
CO3	Evaluate the metabolic architecture of plants
CO4	Analyze the advances in plant biotechnology
CO5	Plan the applications of plant tissue culture

#### **Course Name: Core Biochemistry Practicals - I Course Code: 21PBFCP106**

CO1	Acquire practical training to handle the instruments like colorimeter, spectrophotometer and to use them for biochemical determinations.
CO2	Obtain hands-on training in basic separation techniques in biochemistry
CO3	Develop competence in handing various chromatographic techniques and apply them in separation of different biological molecules.
CO4	Gain expertise to determine the bioactive contents from various sources
CO5	Learn basic bioinformatics tools such as retrieving structures, sequences, aligning the sequences, structure prediction etc.,

#### **Course Name: Elective IA: Animal Biotechnology and Nanotechnology Course Code: 21PBFET107**

CO1	Outline the basic principles of Animal cell culture.
CO2	Discuss the properties of various types of animal cell cultures
CO3	Investigate the concepts of transgenic animals production
CO4	Discriminate the properties and synthesis of Nanomaterials.
CO5	Investigate the characterization and applications of Nanomaterials.

#### **Course Name: Elective IB: Genomics and Proteomics**

#### Course Code: 21PBFET108

CO1	Memorize the structure and functions of Genomes
CO2	Outline the concepts of Genome sequencing and mapping
CO3	Identify the importance of Genome and Proteome data bases
CO4	Compute the techniques of protein-protein interaction
CO5	Explain the characteristics of genome annotations

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## Course Name: Elective IC: Stem Cell Technology

## Course Code: 21PBFET109

CO1	Correlate the different types of Stem cells
CO2	Assess the invitro culturing methods of Embryonic stem cells.
CO3	Summarize the protocols in Adult stem cell culture.
CO4	Sketch out the concepts of Stem cells in Drug discovery and Tissue engineering
CO5	Indicate the therapeutic applications of Stem cells.

#### **SEMESTER: II**

# Course Name: Core VI - Endocrinology Course Code: 21PBFCT201

CO1	Enumerate the classification of hormones, understand the mechanism of action
CO2	Explain how the secretion of hormones are regulated, including the principles of negative and positive feedback mechanisms
CO3	Categorize the physiological role of hormones such as Pituitary, Thyroid, Pancreas, Adrenal hormones.
CO4	Illustrate the structure and chemical nature of hormones
CO5	Assess the consequences of under and over production of hormones.

# **Course Name: Core VII - Immunology and Immunotechniques Course Code: 21PBFCT202**

CO1	Locate the components of the immune system and how cells and organs play an important role in the immune responses.
CO2	Illustrate the structure and mechanism of action of different immune components and their resultant reaction responses.
CO3	Compare the principle and applications of various immuno techniques ranging from precipitation and agglutination reactions to ELISA, Radio immunoassay and flow cytometry.
CO4	Complete knowledge of the molecular mechanisms and kinetics of the immune responses, both humoral and cell mediated immunity.
CO5	The course will aid in understanding abnormal manifestations of the immune response in the form of Hypersensitive reactions, the mechanisms of transplantation of the various organs the principles of Graft rejection, Autoimmunity, Knowledge of pathogenesis of diseases and designing of immunology based interventions for effective treatment like Antibody based therapy.

### **Course Name: Core VIII - Molecular Biology and Molecular Genetics** Course Code: 21PBFCT203

	Analyze the molecular organization of genes
CO2 Ev	Evaluate the mechanism of DNA repair and DNA replication.
CO3 Di	Distinguish the importance of enzymes in transcription process.
CO4 Co	Compute the strategies of synthesis and translocation of proteins.
CO5 Ex	Explain the basic principles of transmission genetics.

# Course Name: Core IX - Bioethics, Biosafety, TQM & IPR Course Code: 21PBFCT204

CO1	Describe the concepts of Biodiversity in India and global level
CO2	Describe the Biosafety levels of microbes, plants and animals
CO3	Demonstrate Ethics and Ethical issues in GMO's
CO4	Understand the Trade Quality Management
CO5	Illustrate the concepts of IPR

### Course Name: Core Biochemistry Practicals - II Course Code: 21PBFCP205

CO1	Perform different laboratory procedures in the analysis of active constituents of natural sources
CO2	Acquire expertise in phytochemical screening of plant extract
CO3	Learn the to isolate biomolecules from various sources
CO4	Gain hand on experience in qualitative and quantitative analysis of different biomolecules
CO5	Develop skills to perform various immunoassays such as Ouchterlony double immuno diffusion (DID), RIA

#### **Course Name: Elective IIA: Biochemical and Environmental Toxicology Course Code: 21PBFST206**

CO1	Design strategies for study the of dose-response relations.
CO2	Critically evaluate different advanced exposure assessment methods.
CO3	Analyze the effects of different types of Hazardous pollutants.
CO4	Clearly understand the mechanisms and mode of action of different toxic agents.
CO5	Gain knowledge about utilizing microbes and natural agents for Bioremediation and Detoxification purposes.

# **Course Name: Elective IIB: Hospital Management and Health Care Course Code: 21PBFST207**

CO1	Discuss the concepts of modern hospital management system
CO2	Prepare the layout for Functioning of modern hospitals
CO3	Plan and implement new aspects of medical transcription
CO4	Examine the impacts of medical transcription
CO5	Focus on web friendly operating system for hospital management

### **Course Name: Elective IIC: Concepts of Drug Delivery and Clinical Research Course Code: 21PBFST208**

CO1	Understand the mechanism of drug designing
CO2	Analyze the toxic level of drug
CO3	Understand the different methods of clinical trials
CO4	Outline the clinical research organizations in India
CO5	Describe the ethical guidelines for biomedical research

#### **SEMESTER: III**

### Course Name: Core X- Advanced Clinical Biochemistry Course Code:21PBFCT301

C01	Understand the methods of collection of Sample in basic analysis of clinical Biochemistry
CO2	Assess the abnormal conditions of the Blood disorders
CO3	Understand the Enzymes role in Diagnostic disorders of Organs
CO4	Analyse the Clinical conditions of the diseases
CO5	Assess the significance of free radicals and cancer markers

### Course Name: Core XI - Metabolism and Metabolic Regulation Course Code:21PBFCT302

CO1	Understand how carbohydrate metabolism normally responds in the fed state, the fasting state and during exercise
CO2	Recognize and understand the regulatory mechanisms of lipid metabolism
CO3	Understand the metabolic consequences and significance of Protein metabolism
CO4	Analyse the core metabolic pathways of Porphyrins and Nucleic acids
CO5	Learn the role of plant hormones &biosynthesis of secondary metabolites and acquire knowledge on stress adaptations in biological systems

### Course Name: Core XII - Genetic Engineering Course Code:21PBFCT303

CO1	Understand the capacity of different cloning vectors and its role in gene cloning
CO2	Differentiate the recombinant cells from the non-recombinant cells
CO3	Know the techniques of hybridization
CO4	Get the sound knowledge about the expression of cloned genes in different host systems
CO5	Assess the protocols involved in the production of transgenic plants and animals

#### **Course Name: Core XIII - Pharmaceutical Biochemistry Course Code:21PBFCT304**

CO1	Express the Pharmacokinetic and Pharmacodynamicconcepts of chemotherapeutic agents
CO2	Discuss the of Adverse Drug Responses of chemotherapeutic agents
CO3	Evaluate the role of Drug - Receptor interactions and pharmacological responses
CO4	Understand the mechanism of Antimicrobial agents
CO5	Gain an idea of Drugs acting on Kidney and Central Nervous System

### Course Name: Core XIV - Research Methodology and Biostatistics Course Code:21PBFCT305

CO1	Propose and distinguish appropriate research designs and methodologies to apply to a specific research project.
CO2	Understand Data presentation techniques and research report writing.
CO3	Know about averages in detail and interpret Correlation and Regression
CO4	Understand the concept of large sample with applications.
CO5	Know and apply test for small samples.

#### **Course Name: Core Biochemistry Practicals III Course Code:21PBFCP306**

CO1	Estimate the Lipid components indifferent samples
CO2	Analyse the carbohydrate level in serum samples
CO3	Understand the clinical importance of Vitamins
CO4	Obtain the knowledge of activity of enzymes in the sample
CO5	Understand the abnormal range and diseases

#### Course Name: Elective III A: Microbial Biochemistry Course Code: 21PBFET307

CO1	Outline the concepts of Microbial metabolism
CO2	Express the industrial production techniques of microbial products
CO3	Construct the various types of Bioreactor
CO4	Evaluate the Upstream and Downstream process
CO5	Outline the applications of Microbial products and its role on environment

## Course Name: Elective III B: Nutritional Biochemistry Course Code: 21PBFET308

CO1	Know the significance of nutrition
CO2	Analyze the requirement of nutrients for daily basis
CO3	Plan balanced diet for individuals and groups
CO4	Plan menu efficiently
CO5	Apply the principles of food preparation in the practical field effectively

## Course Name: Elective III C: Molecular Basis of Infectious & Non-infectious Diseases Course Code: 21PBFET309

CO1	Classify the various infectious agents
CO2	Identify the different types of infections caused by harmful microbes
CO3	Understand the basis of lifestyle disorders
CO4	Assess the risk factors of tumour
CO5	Explain the molecular basis of hereditary infectious diseases

## Course Name: ALC 1: Industrial Biochemistry Course Code: 21PBFAL311

CO1	Understand the students in the basic principles of processing of bioreactor	
CO2	D2 Develop skills on recent Methodologies in Clinical Trials	
CO3	Gain the Knowledge in Food Processing	
CO4	4 LearntheapplicationsofEnzymesinFoodIndustryandRecombinantTechnology	
CO5	Expose students to relevant and recent advances in microbes, Environment, IPR, GATT	

## **Course Name: ALC 2: Fundamental Concepts of Pharmacovigilance Course Code:21PBFAL312**

CO1	Understand the Adverse Drug Reactions
CO2	Assess the Reporting Databases.
CO3	Analyze the Safety monitoring in Clinical Trials
CO4	Describe the Reporting Requirements in Pharmacovigilance.
CO5	Operate the PharmacovigilanceSoftwares

## **SEMESTER: IV**

## **Course Name: Elective IV A: Elective Practicals- Cell Culture and Molecular Techniques Course Code:21PBFEP402**

CO1	Know the sterilization techniques in plant and animal tissue culture
CO2	Prepare the plant tissue culture medium
CO3	Know the idea about the Plant Tissue culture techniques
CO4	Understand the method of production of artificial seeds
CO5	Develop an understanding of DNA isolation from the animal cell.

## Course Name: Elective IV B: Molecular Diagnostics Course Code:21PBFET403

CO1	Understand the concept of molecular diagnostics and compare it with traditional diagnostics
CO2	Recall the organization and structure of chromosomes, nucleic acid and the tools for disease diagnosis
CO3	Compare different electrophoretic and hybridization techniques used for disease diagnosis based on their principle and merits
CO4	Assess the effectiveness of nucleic acid based techniques in diagnostic field
CO5	Apply the molecular methods in the detection of genetic disorders, and microbial infection

## Course Name: SWAYAM Alternative Course: Methods in Molecular Biology Course Code:21PADT406

CO1	Know about the structural organization of eukaryotic chromosomes
CO2	Understand the nucleic acids with their properties
CO3	Know about the functions and techniques of chromosomes
CO4	Understand about phages and vectors
CO5	Practice the cloning strategies

## **Programme Title : Bio-Technology**

<b>Programme Outcomes:</b>	At the end of the programme,	the students will be able to
i rogramme Outcomest	The the one of the programme,	

PO Number	PO Statement
PO1	Critical Thinking: Take informed actions after identifying the assumptions that frame our
	thinking and actions, checking out the degree to which these assumptions are accurate and valid,
	and looking at our ideas and decisions (intellectual, organizational, and personal) from different
	perspectives.
PO2	Effective Communication: Speak, read, write and listen clearly in person and through electronic
	media in English and in one Indian language and make meaning of the world by connecting
	people, ideas, books, media and technology.
PO3	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in
	group settings.
PO4	Effective Citizenship: Demonstrate empathetic social concern and equity centered national
	development, and the ability to act with an informed awareness of issues and participate in civic
	life through volunteering.
PO5	Ethics: Recognize different value systems including your own, understand the moral dimensions
	of your decisions, and accept responsibility for them.
<b>PO6</b>	Environment and Sustainability: Understand the issues of environmental contexts and
	sustainable development.
<b>PO7</b>	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long
	learning in the broadest context socio-technological changes.

Programme Specific Outcomes: At the end of the programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	Understand the structure, function and applications of living organisms
PSO2	Enrich the knowledge level in Basic Sciences and Fundamental Biotechnological ideas.
PSO3	Acquire employability skills in technical concepts of varied thrust areas.
PSO4	Empower themselves in emerging and advanced concepts in Life Sciences
PSO5	Apply techniques for manipulation of organisms to produce commercial and Environmentally safe Biotechnological products.

## **SEMESTER: I**

## Course Name: Core Paper I - Professional English I Course Code: 21UAQCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

## Course Name: Core Paper II - Cell Biology and Genetics Course Code: 21UAQCT102

CO1	Recall the basic concepts about cell, its classification and the membrane architecture	
CO2	Precise the ideas regarding the function and cellular organization of intracellular organelles	
CO3	Understand cell cycle, cell division and various techniques used in Cell Biology	
CO4	Summarize the basic concepts of Genetics, Genetic interactions and Crossing over	
CO5	Have a deep insight on various chromosomal variations and approaching idea in population	
	genetics	

## Course Name: Allied I – Chemistry I Course Code: 21UAQAT103

CO1	Illustrate the structural elucidation of organic compounds.
CO2	Summarize the fundamentals of physical chemistry
CO3	Recall the bonding mechanisms and theories of inorganic compounds
CO4	Establish the knowledge in polymer chemistry
CO5	Classify the different laws of physical chemistry

### **Course Name: Foundation Course I - Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices

## **SEMESTER: II**

# Course Name: Core Paper III - Professional English I Course Code: 21UAQCT201

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

# Course Name: Core Paper IV - Biochemistry Course Code: 21UAQCT202

CO1	Acquire the basic knowledge in structure and classification of biomolecules
CO2	Conceptualize the properties of biomolecules
CO3	Strengthen their knowledge in biomolecular metabolism and significance
CO4	Relate their ideas with respect to enzyme classification, kinetics, regulation and inhibition of enzyme activity
CO5	Understand the utilities of macro and micro nutrients and their physiochemical properties

# Course Name: Core Practicals I - Lab in Cell Biology and Biochemistry Course Code: 21UAQCP203

	Jurse Code. 210AQCI 205	
	CO1	Explore the different morphological characteristics of cell types
ſ	CO2	Acquire the fundamental knowledge in smear preparation
ſ	CO3	Recognize the process of cell cycle
ſ	CO4	Analyze the biomolecules from unknown sources
ſ	CO5	Differentiate biomolecules based on their properties

# Course Name: Allied II - Chemistry II Course Code: 21UAQAT204

CO1	Identify the basic concepts of organic and inorganic chemistry.
CO2	Summarize the fundamentals of physical chemistry
CO3	Describe the theories of coordination compounds and laws of thermodynamics.
CO4	Develop basic knowledge with the synthesis of organic compounds
CO5	Recall the properties of organic compounds and extraction method of different metals

## **Course Name: Allied Practicals I – Chemistry Practicals Course Code: 21UAQAP205**

CO1	Practice the preparation procedure of normal and molar solutions.
CO2	Develop the experience in handling of glass wares and accurate chemical laboratory skill.
CO3	Estimate the acid and base solutions by volumetric analysis
CO4	Examine the methods of organic analysis
CO5	Distinguish the various organic compounds.

### **Course Name: Foundation Course II - Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life.	
CO2	Develop personality and social cohesion through various skills inculcated.	
CO3	Construct co-ordinal relationship with the family members.	
<b>CO4</b>	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.	
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.	

## **SEMESTER: III**

## **Course Name: Core V – Microbiology**

## Course Code: 21UAQCT301

CO1	Improve the basic knowledge of development of Microbiology and Microscopic techniques
CO2	Explaining the fundamental organization of an microbial development and characteristics
CO3	Develop their ideas related to microbial techniques
CO4	Experiment with the ideas of microbialrolein spoilage and pathogenic effects on living organisms
CO5	Examine the microbial ecologyandits application in various forms

## Course Name: Core VI – Bioanalytical Techniques Course Code: 21UAQCT302

CO1	List adequate knowledge in basic concepts of bufferingsystem
CO2	Get familiarized with working principles, tools and techniques of spectroscopic analysis
CO3	Strengthen their conceptual understanding in centrifugation and radioactivity
CO4	Have an common outline in chromatographic techniques
CO5	Examine and perform electrophoresis and electrophysiologicaltechniques

## Course Name: ALLIED – III - Basic Mathematics Course Code: 21UAQAT303

CO1	Find the solutions using the method of theory of equations.
CO2	Describe rank, characteristic roots and vectors of matrices.
CO3	Describe the concept and calculation of probability.
CO4	Solve the problem using Binomial distribution.
CO5	Solve the problem using Poisson distribution.

## Course Name:Skill Based Subject I: Lab in Quality Control Techniques Course Code: 21UAQSP304

CO1	Improve their knowledge in concepts of Hand microbiologica lmethods effectively
CO2	Illustrate the knowledge in the quantitative estimations
CO3	Develop the skill in qualitative analysis of soil
CO4	Inspect the quality of household products
CO5	Analyze their knowledge in adulteration

## **Course Name:Non Major Elective I: Basics of Human Health and Nutrition Course Code: 21UAQNT305**

CO1	Interpret ideas related to human health
CO2	Develop their knowledge in health education
CO3	Build the ideas with respect to essential nutrients and their metabolism
CO4	Distinguish the function of carbohydrates and proteins
CO5	Outline their knowledge about Vitamins

## **Course Name: Gender Studies**

Course Code: 21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media
CO5	Aware of laws for crime against women and child

## **SEMESTER: IV**

## Course Name: Core Paper VII: Molecular Biology Course Code: 21UAQCT401

CO1	Demonstrate on gene and its organization
CO2	Summarize the mechanism of transcription
CO3	Develop their knowledge in translation and its related process
CO4	Categorize the different modes of mutation
CO5	Distinguish about the DNA repair and Recombination process

## Course Name: Core Practicals II: Lab in Microbiology Course Code: 21UAQCP402

CO1	Will be able to understand the techniques of media preparation
CO2	Extend their skills oriented to enumeration techniques
CO3	Interpret the difference in staining techniques
CO4	Apply the biochemical characterization of microbes
CO5	Analyze the sensitive and resistant ability of microorganisms

## Course Name: Allied IV: Python Programming Course Code: 21UAQAT403

CO1	Aware about the knowledge in Basics of Python Programming
CO2	Explore the various Operators and Expressions
CO3	Use Loop Control Statements and Functions
CO4	Utilize String Operations and List methods
CO5	Implement Tuple and Dictionaries, Exception Handling & Modules in python

## Course Name: Allied Practical IV: Python Programming Lab Course Code: 21UAQAP404

CO1	Illustrate the use of conditional and looping statements
CO2	Explore the various String and List operations
CO3	Use Tuples and Dictionary operations
CO4	Create user defined functions & can perform the various operations in files
CO5	Implement exception handling & Modules in python

## Course Name: Skill Based Subject II: Physiopathology For Medical Transcription Course Code: 21UAQST405

CO1	Recall the adequate knowledge in fundamentals of medical transcription
CO2	Develop their knowledge in fundamentals and disorders of circulatory and cardiovascular system
CO3	Build their perception in respiratory and digestive system
CO4	Identify the functions of nervous and excretory system
CO5	Inspecttheirknowledgein muscular andendocrinesystem

## **Course Name: Non Major Elective II: Health Management and Fitness Course Code: 21UAQNT406**

CO1	Match their ideas related to meal planning
CO2	Extendtheirknowledgeinnutritionalneedsatdevelopmentalstage
CO3	Build ideas with respect to nutritional needs in varied age groups
CO4	Analyzethe importance of health and sports
CO5	Apply their knowledgeinethics ofhealth

## **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO 1	Understand the concepts of Yoga and its types
CO 2	Know the impact of yoga on human body
CO 3	Learn about the breathing techniques
CO 4	Gain awareness on Surya Namaskar
CO 5	Know about the benefits of Asanas

## **Programme Title: B.Sc. Physics**

PO Number	PO Statement
	Critical Thinking: Take informed actions after identifying the assumptions that frame our
	thinking and actions, checking out the degree to which these assumptions are accurate and
PO1	valid, and looking at our ideas and decisions (intellectual, organizational, and personal)
	from different perspectives.
	Effective Communication: Speak, read, write and listen clearly in person and through
PO2	electronic media in English and in one Indian language and make meaning of the world by
	connecting people, ideas, books, media and technology.
	Social Interaction: Elicit views of others, mediate disagreements and help reach
PO3	conclusions in group settings.
	Effective Citizenship: Demonstrate empathetic social concern and equity centered national
PO4	development, and the ability to act with an informed awareness of issues and participate in
	civic life through volunteering.
DOF	Ethics: Recognize different value systems including your own, understand the moral
PO5	dimensions of your decisions, and accept responsibility for them.
DOC	Environment and Sustainability: Understand the issues of environmental contexts and
PO6	sustainable development.
007	Self-directed and Life-long Learning: Acquire the ability to engage in independent and
<b>PO7</b>	life-long learning in the broadest context socio-technological changes.

## Programme Outcomes: At the end of the programme, the students will be able to

Programme Specific Outcomes: At the end of the programme, students will be equipped with the knowledge in

PSO	PSO Statement
Number	
PSO1	Acquire inquisitive skills to explore theoretical and experimental physics problems
PSO2	Expand fundamental knowledge over core areas of physics and triggers to pursue higher education
PSO3	Develop effective communication skill to express technical views in understandable manner
PSO4	Analyze the properties of different class of materials
PSO5	Understand the pertinence of physics to diverse area and tune indispensible professional skill sets

## **SEMESTER: I**

### Course Name: Professional English – I Course Code: 21UAOCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing.
CO2	Apply the language for speaking efficiently and confidently.
CO3	Build the reading skill by using unfamiliar texts with comprehension.
CO4	Demonstrate the language skills through academic writing.
CO5	Develop the leadership quality and team building through linguistic competence.

## **Course Name: Mechanics, Properties of Matter and Sound**

## **Course Code: 21UAOCT102**

CO1	Recollect and understand the concepts related to conservation laws, Elasticity, Gravitation,
	surface tension, viscosity and sound
~ ~ ~	
CO2	Acquire the knowledge of essential equations to solve problems in Mechanics
CO3	Apply the indispensable principles of mechanics and properties of matter to realize the related
05	applications
~ ~ .	
CO4	Learn and Investigate dynamical parameters related to daily life activities
CO5	Explore production methods and application of sound
000	Enplote production methods and approaction of bound

## Course Name: Allied I: Chemistry I Course Code: 21UAOAT103

CO1	Illustrate the structural elucidation of organic compounds.
CO2	Summarize the fundamentals of physical chemistry
CO3	Recall the bonding mechanisms and theories of inorganic compounds
CO4	Establish the knowledge in polymer chemistry
CO5	Classify the different laws of physical chemistry

## **Course Name: Foundation Course - I: Environmental Studies**

**Course Code: 21ES01** 

CO1	Compile different types of ecosystem and its energy flow
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation
CO4	Create awareness on disaster management and measures to prevent pollution
CO5	Outline the environmental policies and its practices.

## **SEMESTER: II**

# Course Name: Professional English - II Course Code: 21UAOCT201

CO1	Identify the importance of linguistic competence in workplace situations
CO2	Develop LSRW skills for academic and career purposes
CO3	Build the employability skills through various speaking and writing tasks
CO4	Relate the communication skills suitable for employability
CO5	Illustrate the digital competence with innovation and imagination

## **Course Name: Thermal and Statistical Physics Course Code: 21UAOCT202**

CO1	Remember the methods of heat transmission and understand the underlying principles of
	kinetic theory of gases
CO2	Attain theoretical knowledge to distinguish real and ideal gases to understand equations of
02	state
CO3	Apply thermodynamic principles to realize the working of various thermodynamical systems
CO4	Analyze various thermodynamic processes
CO5	Classify the systems based on distribution concepts of Statistical Physics

## **Course Name: Core Practical – I Course Code: 21UAOCP203**

[		
CO1	Recognize the relation between theory and experiment	
CO2	Acquire the fundamental knowledge on resonance	
CO3	Explore the phenomenon of diffraction to experimental situations	
CO4	Analyze Thermodynamic principles in practical aspects	
CO5	Evaluate the properties of viscosity and surface tension of various liquids	

# Course Name: Allied II: Chemistry II Course Code: 21UAOAT204

CO1	Identify the basic concepts of organic and inorganic chemistry.
CO2	Summarize the fundamentals of physical chemistry
CO3	Describe the theories of coordination compounds and laws of thermodynamics.
CO4	Develop basic knowledge with the synthesis of organic compounds
CO5	Recall the properties of organic compounds and extraction method of different metals

## Course Name: Allied Practical I – Chemistry Course Code: 21UAOAP205

CO1	Practice the preparation procedure of normal and molar solutions.
CO2	Develop the experience in handling of glass wares and accurate chemical laboratory skill.
CO3	Estimate the acid and base solutions by volumetric analysis
CO4	Examine the methods of organic analysis
CO5	Distinguish the various organic compounds

## **Course Name: Foundation Course – II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

## **SEMESTER: III**

## Course Name: Core V- Electricity and Magnetism

## Course Code: 21UAOCT301

CO 1	Understand the behavior of charges at rest and recognize the circuits based on steady currents
CO 2	Comprehend the magnetic analogue of electrostatics
CO 3	Correlate the principles of thermoelectricity in real time situations
CO 4	Analyze the field of current electricity and construct new circuits
CO 5	Infer ideas on motion of charges in various fields

## Course Name: Skill Based Course I – Introduction to Microprocessor 8085 Course Code: 21UAOST303

CO 1	Acquire the basic ideas of microcontroller and microprocessor
CO 2	Understand the concepts of Microprocessor architecture and its programming
CO 3	Exposed to 8085 microprocessor communication and bus timing
<b>CO 4</b>	Analyze the interfacing of microprocessor with I/O devices
CO 5	Develop basic programming skill of 8085 and examine simple programs

## **SEMESTER: IV**

## **Course Name: Core VI - Optics and Laser Physics Course Code: 21UAOCT401**

CO 1	Understand the concept of dispersive power and examine for various materials
CO 2	Analyze the interference behavior of light in everyday activities
CO 3	Compare the diffraction of light and sound
CO 4	Analyze the application aspect of polarizers in various domains
CO 5	Cognize the types of lasers and applications

## Course Name: Core Practical II Course Code: 21UAOCP402

CO 1	Explore the principle of electromagnetic induction
CO 2	Analyze the relation between experimental results and theoretical analysis
CO 3	Apply the knowledge of electricity in the calibration of meters
CO 4	Correlate the principles of interference to experimental situations
CO 5	Analyze diffraction principles by spectrometer

## Course Name: Skill Based Course II –Measurements and Instrumentation Course Code: 21UAOST404

CO 1	Identify the importance of measurements and their classification
CO 2	Understand the working mechanism of various meters
CO 3	Illustrate the magnetic recording process with good understanding
<b>CO 4</b>	Analyze various display devices and their measuring techniques
CO 5	Classify the types of transducers and understand their importance

## Course Name: Non-Major Elective II Course Code: 21UAONT405

CO 1	Understand the science principles involved in everyday appliances
CO 2	Apply physics knowledge to understand everyday phenomena
CO 3	Cognize the working principles of home appliances
<b>CO 4</b>	Illustrate the working principles of commercial gadgets
CO 5	Analyze the working principles of data transmitting devices

## Programme Title: B.Sc. Costume Design and Fashion (Regular)

**ProgrammeOutcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
	Critical Thinking: Take informed actions after identifying the assumptions that frame our
	thinking and actions, checking out the degree to which these assumptions are accurate and
PO1	valid, looking at our ideas and decisions (intellectual, organizational and personal) from
	different perspectives.
	Effective Communication:Speak, read, write and listen clearly in person and through
<b>PO2</b>	electronic media in English and in one Indian language and make meaning of the world by
	connecting people, ideas, books, media and technology.
	Social Interaction: Elicit views of others, mediate disagreements and help reach
PO3	conclusions in group settings.
	Effective Citizenship:Demonstrate empathetic social concern and equity centered
PO4	national development and the ability to act with an informed awareness of issues
r04	and participate in civic life through volunteering.
	Ethics:Recognize different value systems including your own, understand the moral
PO5	dimensions of your decisions and accept responsibility for them.
	Environment and Sustainability: Understand the issues of environmental contexts and
PO6	sustainable development.
DOF	Self-Directed and Life Long Learning: Acquire the ability to engage in independent and
<b>PO7</b>	life long learning in the broadest context socio-technological changes.

Programme Specific Outcomes: After the successful completion of B.Sc.CostumeDesign and Fashion programme,

the students are expected to

PSO Number	PSO Statement
PSO1	Outline the basic theories of fashion, pattern making and garment construction.
PSO2	Apply comprehensive abilities in creating innovative designs using manual and digital techniques to match with real world scenario.
PSO3	Gain insights on quality standards and marketing management systems.
PSO4	Acquire technical understanding of process flow of fibre, yarn and fabric manufacture and its processing methods.
PSO5	Create their own design portfolios that demonstrate their skills and match their creative style.

## **SEMESTER: I**

### Course Name: Core 1:Professional English - I Course Code: 21UARCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

### **Course Name: Core 2 :Principles of Pattern Making Course Code: 21UARCT102**

CO1	Identify the principles of body measurements
CO2	Outline the basic techniques of pattern making
CO3	Analyze the standards of good fit in garments
CO4	Apply the methods of pattern alteration and grading
CO5	Generalize the layout styles in pattern making

## **Course Name: Core Practical 1- Basics of Apparel Designing Course Code: 21UARCP103**

dist Cout. 210ARCI 105	
CO1	Demonstrate the working mechanism of various sewing machines
CO2	Construct samples for different types of fullness
CO3	Analyze the application methods of neckline finishes, plackets and fasteners
CO4	Develop sleeves and yokes with and without fullness
CO5	Identify and apply collars and pockets in different position of the garments

### Course Name: Allied I: Fashion Illustration Course Code: 21UARAP104

CO1	Sketch the fashion illustration techniques using different mediums
CO2	Illustrate various head theories to develop croquis
CO3	Illustrate the human anatomy
CO4	Outline the garment styles with the help of fabric rendering
CO5	Practice fashion illustrations for various garment styles

_ou	ourse Code: 21ES01	
	CO1	Compile different types of ecosystem and its energy flow.
	CO2	Analyze the impacts of natural resources
	CO3	Apply the concepts of biodiversity and its conservation.
	CO4	Create awareness on disaster management and measures to prevent pollution.
	CO5	Outline the environmental policies and its practices.

## **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

## **SEMESTER: II**

## Course Name: Core 3 :Professional English - II

## **Course Code:21UARCT201**

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

## **Course Name: Core 4 :Fibre to Fabric Course Code: 21UARCT202**

CO1	Identify the properties of fibres, yarns and fabrics
CO2	Classify the textile fibres, yarns and fabrics
CO3	Examine the yarn count
CO4	Outline the working principle involved in spinning
CO5	Explain the various methods of fabric formation

## **Course Name: Core Practical 2 :Fibre to Fabric Course Code: 21UARCP203**

CO1	Identify the textiles fibres using different techniques
CO2	Examine the yarn count
CO3	Analyze the level of twist imparted to yarn
CO4	Predict fabric count and weight
CO5	Analyze the fabric's dimensional parameters

## Course Name: Allied Paper II:Sewing Technology Course Code: 21UARAT204

CO1	Analyze the type of sewing machineries and its function
CO2	Describe the stitching mechanism
CO3	Outline on spreading methods
CO4	Report on various marking methods
CO5	Classify stitches and seams

## **Course Name: Foundation Course II: Value Education Course Code: 21VE01**

CO1	Identify the values to be adopted in their personal, Professional and social life
CO2	Develop personality and social cohesion through various skills inculcated
CO3	Construct co-ordinal relationship with the family members
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure
CO5	Buildup social sense and commitment and to discriminate social evils from virtues

## **SEMESTER: III**

## Course Name: Core V : Fashion Clothing Psychology

## Course Code: 21UARCT301

CO1	Identify the fashion terminologies and varied consumer needs	
CO2	Analyze the trends in clothing behavior and changes in fashion	
CO3	Summarize the activities involved in fashion and colour forecasting	
CO4	Outline the consumer characteristics and fashion implications	
CO5	Analyze the fashion centers of the world	

#### Course Name: CoreCoreVI :Historic Costumes and Textiles Course Code: 21UARCT302

Juise Code. 210ARC1302		
	CO1	Identify the costumes worn during various historical periods
	CO2	Discover the various periods of Indian Jewelry
	CO3	Compare the various traditional costumes of India
	CO4	Value the traditional textiles of India
	CO5	Analyze traditional embroideries of India

## **Course Name: Core Practical III : Children's Apparel Course Code: 21UARCP303**

CO1	Classify the children's garments.
CO2	Develop patterns for children's garment using drafting method
CO3	Construct garments by sewing.
CO4	Discover new techniques in pattern making and garment construction.
CO5	Select the necessary attachments needed for sewing.

## Course Name: Allied Practical III: Fashion Desighning Course Code: 21UARAP304

CO1	Develop various colour charts and designs
CO2	Illustrate various garment designs by using elements of design
CO3	Sketch different principles of design in the garments
CO4	Apply different colour harmonies in the garment
CO5	Analyze garment designs for various body shapes

## **Course Name: Skill Based Practical I: Draping Techniques**

## **Course Code: 21UARSP305**

Juise Coue. 210ARSI 505		
	CO1	Experiment the three dimensional designs on the dress form in basic style
	CO2	Modify the basic bodice pattern into stylized garments
	CO3	Demonstrate various kinds of fullness in draping
	CO4	Manipulate different types of skirts, yokes and collars
(	CO5	Stimulate new apparel designs on the dress form

## Course Name: Non Major Elective – I: Basics of Fashion Designing Course Code: 21UARNT306

CO1	Identify the terminologies of fashion designing
CO2	Examine the application of design and design elements
CO3	Apply the principles of designs to the garments
CO4	Categorize the basic color theories
CO5	Illustrate their own designs according to seasons

## **Course Name: Gender Studies**

## **Course Code:21SS01**

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

## **SEMESTER: IV**

## **Course Name: Core VII: Woven Fabric Structures** Course Code: 21UARCT401

CO1	Understand the elements of design
CO2	Identity the simple weaves and their derivatives
CO3	Analyze the figured fabrics and backed fabrics
CO4	Classify the pile structures
CO5	Identify the different varieties of double cloth designs

#### **Course Name: Core VIII: Technical Textiles** Course Code: 21UARCT402

-			
	<b>CO1</b>	Categorize the various segments of technical textiles	
ſ	CO2	Perceive knowledge on application of agrotech, clothtech and buildtech	
ſ	CO3	Analyze the functions of geotech, hometech and indutech	
	CO4	Summarize the application areas of meditech, mobiltech and oekotech	
	CO5	Identify the materials used in packtech, protech and sport tech	

## Course Name: Core IX: Textile Processing Course Code:21UARCT403

anse Couc.210ARC1403	
CO1	Understand the sequence of textile processing
CO2	Analyze various chemicals used in the preparatory and dyeing processes
CO3	Understand the working of dyeing machineries
CO4	Infer knowledge on various principles of printing process
CO5	Develop knowledge on printing and its types

## **Course Name: Core Practical IV: Textile Processing Course Code: 21UARCP404**

CO1	Understand the fabric preparation process
CO2	Demonstrate the process of dyeing
CO3	Build knowledge on natural dyeing process
CO4	Develop different design patterns using direct printing method
CO5	Develop new designs using resist style of printing

## **Course Name: Allied Practical IV: CAD in Fashion Design**

### Course Code: 21UARAP405

CO1	Describe the fundamentals of fashion designing using software
CO2	Develop their knowledge in designing software related to color harmony
CO3	Compile their own ideas into garment designs
CO4	Predict the designs related to trend forecast
CO5	Illustrate the men's and women's garments with various features

## Course Name: Skill Based Practical II: Fabric Ornamentation

## Course Code: 21UARSP406

CO1	Outline the basic embroidery stitches
CO2	Apply the techniques used in the Indian traditional embroideries
CO3	Apply smocking and applique work in garments
CO4	Analyze garment parts with bead / sequin work
CO5	Illustrate the appropriate surface embellishment techniques to enhance the value of home furnishing and apparel fabrics

### Course Name: Non Major Elective – II: Visual Merchandising Course Code: 21UARNT407

CO1	Identify the fundamentals of visual merchandising
CO2	Develop knowledge on store interior and exterior
CO3	Analyze the various store layout
CO4	Point out the features of effective window display settings
CO5	Apply the latest fashion retailing in visual merchandising

## **Course Name: Fundamentals of Yoga Course Code: 21SS02**

	CO1	Understand the concepts of Yoga and its types.
	CO2	Know the impact of yoga on human body.
	CO3	Learn about the breathing techniques.
	CO4	Gain awareness on Surya Namaskar.
	CO5	Know about the benefits of Asanas.

## Course Name: Advance Learners Course – I(A): History of Art and Craft Course Code: 21UARAL407

Suise Coue. 210ARAL407		
	CO1	Distinguish knowledge on Indian art
	CO2	Understand the Indian craft in several centuries
	CO3	Categorize the art in various timelines and places
	CO4	Understand various craft forms in Europe and Asia
	CO5	Identify the materials used for craft in Africa and Australia

## Course Name: Advance Learners Course – I(B): Apparel Costing Course Code: 21UARAL408

CO1	List and define the types of cost used in apparel industry
CO2	Describe the process involved in budgeting
CO3	Develop cost sheet for apparel industry
CO4	Calculate costing for woven and knitted products
CO5	Estimate the market forces that affects garment costing

## Programme Title: B.Sc. Costume Design and Fashion (Vocational)

## **Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
	Critical Thinking: Take informed actions after identifying the assumptions that frame our
PO1	thinking and actions, checking out the degree to which these assumptions are accurate and
	valid, looking at our ideas and decisions (intellectual, organizational and personal) from
	different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language and make meaning of the world by connecting people, ideas, books, media and technology.
	Social Interaction: Elicit views of others, mediate disagreements and help reach
PO3	conclusions in group settings.
	Effective Citizenship:Demonstrate empathetic social concern and equity centered
PO4	national development and the ability to act with an informed awareness of issues
	and participate in civic life through volunteering.
PO5	Ethics:Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
PO6	<b>Environment and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
<b>PO7</b>	Self-Directed and Life Long Learning: Acquire the ability to engage in independent and
	life long learning in the broadest context socio-technological changes.

Programme Specific Outcomes: After the successful completion of B.Sc. Costume Design and Fashion (Vocational) programme, the students are expected to

PSO Number	PSO Statement
PSO1	Apply the fundamentals of design, pattern making methods and illustration techniques in traditional and digital forms.
PSO2	Forecast fashion trends and develop expertise to set up their own business establishment.
PSO3	Analyze the sequential processes and technologies involved in manufacture of apparels.
PSO4	Gain insights on the technologies involved in manufacturing process of fibres, yarns, fabrics and finishes.
PSO5	Develop creative fashion portfolio for their design collections.

## **SEMESTER: I**

## Course Name: Core 1:Professional English - I

 Course Code: 21UASCT101

 CO1
 Identify the correct usage of vocabulary and grammar in speaking and writing

001	Rominy the contest usage of rocasting and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

## Course Name: Core 2 :Principles of Pattern Making Course Code: 21UASCT102

CO1	Identify the principles of body measurements
CO2	Outline the basic techniques of pattern making
CO3	Analyze the standards of good fit in garments
CO4	Apply the methods of pattern alteration and grading
CO5	Generalize the layout styles in pattern making

### **Course Name: Core Practical 1- Basics of Apparel Designing Course Code: 21UASCP103**

CO1	Demonstrate the working mechanism of various sewing machines
CO2	Construct samples for different types of fullness
CO3	Analyze the application methods of neckline finishes, plackets and fasteners
CO4	Develop sleeves and yokes with and without fullness
CO5	Identify and apply collars and pockets in different position of the garments

#### **Course Name: Allied I: Fashion Illustration Course Code: 21UASAP104**

CO1	Sketch the fashion illustration techniques using different mediums
CO2	Illustrate various head theories to develop croquis
CO3	Illustrate the human anatomy
CO4	Outline the garment styles with the help of fabric rendering
CO5	Practice fashion illustrations for various garment styles

## **Course Name: Foundation Course I: Environmental Studies Course Code:** 21ES01

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

## **SEMESTER: II**

## Course Name: Core 3:Professional English - II Course Code:21UASCT201

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing
CO2	Demonstrate the language skills through academic writing
CO3	Apply the communicative skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

## **Course Name: Core 4 :Fibre to Fabric Course Code: 21UASCT202**

CO1	Identify the properties of fibres, yarns and fabrics
CO2	Classify the textile fibres, yarns and fabrics
CO3	Examine the yarn count
CO4	Outline the working principle involved in spinning
CO5	Explain the various methods of fabric formation

## **Course Name: Core Practical 2 :Fibre to Fabric Course Code: 21UASCP203**

C01	Identify the textiles fibres using different techniques
CO2	Examine the yarn count
CO3	Analyze the level of twist imparted to yarn
CO4	Predict fabric count and weight
CO5	Analyze the fabric's dimensional parameters

## **Course Name: Allied Paper II: Apparel Production Techniques Course Code: 21UASAT204**

Varse Coue. 210AbA1204		
CO1	Analyze the infrastructure facilities needed for starting an industry	
<b>CO2</b>	Outline the pre-production processes of garment manufacturing	
CO3	Assess the concepts of marker making and spreading	
CO4	Develop knowledge on various production operations	
CO5	Evaluate knowledge on finishing processes and quality control measures	

## **Course Name: Foundation Course II: Value Education**

## Course Code: 21VE01

CO1	Identify the values to be adopted in their personal, Professional and social life
CO2	Develop personality and social cohesion through various skills inculcated
CO3	Construct co-ordinal relationship with the family members
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to
CO5	Buildup social sense and commitment and to discriminate social evils from virtues

### **SEMESTER: III**

### Course Name: Core V: Fashion Forecasting Course Code: 21UASCT301

CO1	Identify the right method of forecasting
CO2	Summarize the role of a fashion forecaster
CO3	Categories the service and resources related to fashion
CO4	Infer essential knowledge in qualitative and quantitative forecasting methods
CO5	Predict the techniques in color forecasting

### **Course Name: Core VI: Historic Costumes and Textiles Course Code: 21UASCT302**

CO1	Identify the costumes worn during various historical periods
CO2	Discover the various periods of Indian Jewellery
CO3	Compare the various traditional costumes of India
CO4	Value the traditional textiles of India
CO5	Analyze Traditional Embroideries of India

### **Course Name: Core Practical III: Children's Apparel Course Code: 21UASCP303**

CO1	Classify the children's garments.
CO2	Develop patterns for children's garment using drafting method
CO3	Construct garments by sewing.
CO4	Discover new techniques in pattern making and garment construction.
CO5	Select the necessary attachments needed for sewing.

## **Course Name: Allied Practical III : Fashion Designing**

## **Course Code: 21UASAP304**

C01	Develop various colour charts and designs
CO2	Illustrate various garment designs by using elements of design
CO3	Sketch different principles of design in the garments
CO4	Apply different colour harmonies in the garment
CO5	Analyze garment designs for various body shapes

## **Course Name: Skill Based Practical I: Draping Techniques Course Code: 21UASSP305**

CO1	Experiment the three dimensional designs on the dress form in basic style	
CO2	Modify the basic bodice pattern into stylized garments	
CO3	Demonstrate various kinds of fullness in draping	
CO4	Manipulate different types of skirts, yokes and collars	
CO5	Stimulate new apparel designs on the dress form	

#### **Course Name: Non Major Elective I :Basics of Fashion Designing Course Code: 21UASNT306**

CO1	Identify the terminologies of fashion designing	
CO2	Examine the application of design and design elements	
CO3	Apply the principles of design to the garments	
CO4	Categorize the basic color theories	
CO5	Illustrate their own designs according to seasons	

### Course Name: Gender Studies Course Code:21SS01

CO1	Understand individual experiences as well as social structure and institutions.
CO2	Learn about diversities and disparities in education.
CO3	Acquire knowledge in gender equity and employment.
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

## **SEMESTER: IV**

#### Course Name: Core VII : Woven Fabric Structures Course Code:21UASCT401

CO1	Understand the elements of design
CO2	Identity the simple weaves and their derivatives
CO3	Analyze the figured fabrics and backed fabrics
CO4	Classify the pile structures
CO5	Identify the different varieties of double cloth designs

## Course Name: Core VIII: Boutique Management Course Code: 21UASCT402

ise coue. 210ABC1402	
CO1	Define and classify the types of business
CO2	Analyze the right place and sources for investment
CO3	Understand the man power planning for the organization
CO4	Infer the use of marketing tools and techniques
CO5	Evaluate the pricing strategies to promote the product

## Course Name: Core IX : Textile Processing Course Code: 21UASCT403

CO1	Understand the sequence of textile processing
CO2	Analyze various chemicals used in the preparatory and dyeing processes
CO3	Understand the working of dyeing machineries
CO4	Infer knowledge on various principles of printing process
CO5	Develop knowledge on printing and its types

### **Course Name: Core Practical IV : Textile Processing Course Code: 21UASCP404**

CO1	Understand the fabric preparation process	
CO2	Demonstrate the process of dyeing	
CO3	Build knowledge on natural dyeing process	
CO4	Develop different design patterns using direct printing method	
CO5	Develop new designs using resist style of printing	

## **Course Name: Allied Practical IV : CAD in Fashion Design**

## **Course Code: 21UASAP405**

CO1	Describe the fundamentals of fashion designing using software
CO2	Develop their knowledge in designing software related to color harmony
CO3	Compile their own ideas into garment designs
CO4	Predict the designs related to trend forecast
CO5	Illustrate the men's and women's garments with various features

## **Course Name: Skill Based Practical II : Fabric Ornamentation**

### **Course Code: 21UASSP406**

CO1	Outline the basic embroidery stitches
CO2	Apply the techniques used in the Indian traditional embroideries
CO3	Apply smocking and applique work in garments
CO4	Analyze garment parts with bead / sequin work
CO5	Illustrate the appropriate surface embellishment techniques to enhance the value of home furnishing and apparel fabrics

## Course Name: Non Major Elective – II: Visual Merchandising Course Code: 21UASNT407

CO1	Identify the fundamentals of visual merchandising	
CO2	Develop knowledge on store interior and exterior	
CO3	Analyze the various store layout	
CO4	Point out the features of effective window display settings	
CO5	Apply the latest fashion retailing in visual merchandising	

## **Course Name: Fundamentals of Yoga Course Code: 21SS02**

CO1	Understand the concepts of Yoga and its types.	
CO2	Know the impact of yoga on human body.	
CO3	Learn about the breathing techniques.	
CO4	Gain awareness on Surya Namaskar.	
CO5	Know about the benefits of Asanas.	

## Course Name: Advance Learners Course – I(A): History of Art and Craft

## **Course Code: 21UASAL407**

CO1	Distinguish knowledge on Indian art
CO2	Understand the Indian craft in several centuries
CO3	Categorize the art in various timelines and place
CO4	Understand various craft forms in Europe and Asia
CO5	Identify the materials used for craft in Africa and Australia

## Course Name: Advance Learners Course – I(B) : Apparel Costing

## Course Code:21UASAL408

CO1	List and define the type of cost used in apparel industry
CO2	Describe the process involved in budgeting
CO3	Develop cost sheet for apparel industry
CO4	Calculate costing for woven and knitted products
CO5	Estimate the market forces that affects garment costing

## Programme Title: M.Sc. Costume Design and Fashion

## **Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Apply the strategies and techniques in order to solve real world problems.
PO2	Effective Communication: Communicate the concepts in oral and written form.
РОЗ	<b>Social Interaction:</b> Identify the accurate solutions for the society oriented problems using the domain knowledge.
PO4	<b>Effective Citizenship:</b> Attain the ability to identify, formulate and solve challenging problems of the society and nation.
PO5	<b>Knowledge Formulation:</b> Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.
PO6	<b>Environment and sustainability:</b> Instill a sense of attitude in tackling social and environmental issues.
<b>PO7</b>	<b>Self-directed and life long learning:</b> Identify their own educational and career needs from the global challenges.

**Programme Specific Outcomes:** After the successful completion of M.Sc. Costume Design and Fashion programme, the students are expected to

PSO Number	PSO Statement
PSO1	Critically analyse, synthesize and relate design concepts to emerging trends in global fashion.
PSO2	Articulate design ideas verbally, visually and digitally through different media of fashion communication.
PSO3	Assess the need for growing trend towards sustainable and ethically designed clothing.
PSO4	Research and develop concepts and products that cater to new age industry needs.
PSO5	Acquire professional knowledge and develop entrepreneurial skills in the field of fashion designing and cosmetology.

## **SEMESTER: I**

## Course Name: Core 1:Sustainable Fashion and Textiles

Course Code: 21PBGCT101

CO1	Identify the need for sustainable fashion and textiles
CO2	Develop knowledge on sustainable textiles
CO3	Analyze the environmental aspects in processing of textiles
CO4	Create sustainable fashion products
CO5	Interpret the tools in assessing sustainability

## **Course Name: Core 2 :Indian Textile and Apparel Industry Course Code: 21PBGCT102**

CO1	Understand the various categories of Indian Textile and Apparel Industry
CO2	Outline various schemes and organizations related to textile and clothing industry
CO3	Report on the technological developments in fibres, yarns and fabrics
CO4	Examine latest technological developments in garment industry
CO5	Explain novel techniques adopted in textile processing industry

#### **Course Name: Core Practical 1- Fashion Illustrations Course Code:21PBGCP103**

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	CO1	Design the various costumes of the world
	CO2	Sketch the regional costumes of India
	CO3	Illustrate the various professional costumes for men and women
	CO4	Develop fashion illustration for seasonal clothing
	CO5	Design fashion accessories

#### **Course Name: Core Practical 2- Advanced Draping Techniques Course Code:21PBGCP104**

CO1	Create different styles of children's garments on dress form
CO2	Develop various types of women's garments in draping technique
CO3	Illustrate and drape the various men's garments
CO4	Transform the basic garment styles to theme based garments
CO5	Apply draping styles in traditional Indian garments

## **Course Name: Core Practical 3- Cad in Textile and Fashion Design Course Code:21PBGCP105**

CO1	Identify the styles of sleeves, collars and pockets	
CO2	Analyze the tools used in grading and marker plan software	
CO3	Create their own weave designs with colour applications	
CO4	Evaluate the design and repeat setting in weaves	
CO5	Apply fabric simulation for woven fabric	

## Course Name: Elective - I: Fashion Event Management

## Course Code:21PBGET106

CO1	Develop knowledge on fashion event management and its types
CO2	Outline the steps in planning fashion show event
CO3	Decide stage designing, audio and visual effects for events
CO4	Relate the process of merchandise selection and model selection for fashion show
CO5	Develop knowledge on promotion and risk management

## **Course Name: Elective - I: Visual Merchandising**

## **Course Code:21PBGET107**

CO1	Outline the fundamentals of visual merchandising
CO2	Develop knowledge on merchandise Mix
CO3	Analyze the various store layout
CO4	Create effective store window displays
CO5	Plan store image and security in visual merchandising

## **Course Name: Elective - I: Textile Economics Course Code:21PBGET108**

CO1	Outline on apparel trade and textile policies
CO2	Identify the international rules for textile and apparel trade
CO3	Develop knowledge on agreement on textiles and clothing
CO4	Analyze the impact of liberalization and Indian firms
CO5	Summarize the role of foreign collaboration in the textile and clothing sector

## **SEMESTER: II**

## **Course Name: Core 3 :Research Methodology and Statistics Course Code: 21PBGCT201**

CO1	Report on the basics of research
CO2	Identify the appropriate research problem and prepare research design
CO3	Analyze the methods of data collection and data analysis
CO4	Apply statistics in research
CO5	Develop knowledge on statistical hypothesis and non-parametric tests

## **Course Name: Core 4 : Apparel Quality Standards and Implementation Course Code: 21PBGCT202**

CO1	Analyze the importance and benefits of quality standards
CO2	Identify various eco labels adopted in textiles
CO3	Explain the inspection procedures carried out in apparel industry
CO4	Examine the analytical tools in quality control
CO5	Develop knowledge on apparel labeling information

#### Course Name: Core 5 :World Costumes Course Code: 21PBGCT203

CO1	Recognize the costumes of America
CO2	Identify the different European costumes
CO3	Compare the regional variations in costumes of Far Eastern countries
CO4	Discuss about the African costumes
CO5	Explain the costumes of Middle East countries

### **Course Name: Core 6 :Fashion Communication and Styling Course Code: 21PBGCT204**

CO1	Identify various types of fashion communication medium	
CO2	Analyze the different types fashion promotion techniques	
CO3	Asses the importance of fashion journalism and fashion magazines	
CO4	Select the other forms of fashion communication	
CO5	Decide the suitable fashion styling for different categories	

## **Course Name: Core Practical 4- Advanced Apparel Construction Course Code:21PBGCP205**

CO1	Prepare patterns for children's garments
CO2	Apply ideas to develop women's garments based on a theme
CO3	Design and construct pattern making techniques for men's garment
CO4	Relate the costumes for various occasion
CO5	Create garments for fashion shows

## **Course Name: Elective - II: Beauty Care - I Practical Course Code:21PBGEP206**

CO1	Observe the practical nuances of threading and waxing
CO2	Demonstrate nail services including manicure and pedicure
CO3	Develop basic skin care services including skin analysis, bleaching and facial
CO4	Create basic hair styles
CO5	Analyze and perform hair care services

## Course Name: Core 5 :World Costumes Course Code: 21PBGCT203

CO1	Recognize the costumes of America
CO2	Identify the different European costumes
CO3	Compare the regional variations in costumes of Far Eastern countries
CO4	Discuss about the African costumes
CO5	Explain the costumes of Middle East countries

#### **Course Name: Core 6 :Fashion Communication and Styling Course Code: 21PBGCT204**

CO1	Identify various types of fashion communication medium	
CO2	Analyze the different types fashion promotion techniques	
CO3	Asses the importance of fashion journalism and fashion magazines	
CO4	Select the other forms of fashion communication	
CO5	Decide the suitable fashion styling for different categories	

#### **Course Name: Core Practical 4- Advanced Apparel Construction Course Code:21PBGCP205**

CO1	Prepare patterns for children's garments
CO2	Apply ideas to develop women's garments based on a theme
CO3	Design and construct pattern making techniques for men's garment
<b>CO4</b>	Relate the costumes for various occasion
CO5	Create garments for fashion shows

## **Course Name: Elective - II: Beauty Care - I Practical Course Code:21PBGEP206**

CO1	Observe the practical nuances of threading and waxing
CO2	Demonstrate nail services including manicure and pedicure
CO3	Develop basic skin care services including skin analysis, bleaching and facial
CO4	Create basic hair styles
CO5	Analyze and perform hair care services

### Course Name: Elective - II: Industrial Psychology Course Code:21PBGET207

CO1	Apply the concepts of industrial psychology
CO2	Analyze and compare the concept of time and motion study
CO3	Develop wide knowledge on stress management
CO4	Assess the qualities of leadership
CO5	Examine the various aspect of industrial work environment

## Course Name: Elective –II :Textile Chemistry

## Course Code:21PBGET208

	CO1	Describe the process sequence of wet processing operations	
	CO2	Classify the types of colourants and application techniques	
Ī	CO3	Identify the dyeing and printing defects in fabrics	
	CO4	Summarize the various finishes applied to the fabrics	
	CO5	Explain the types of pollution and effluent treatment methods	

## **SEMESTER: III**

## Course Name: Core VII : Advanced Technical Textiles

## Course Code: 21PBGCT301

CO1	Categorize the various segments of technical textiles and understand the applications of high performance fibers
CO2	Distinguish the importance of various finishes applied to technical textiles
CO3	Perceive knowledge on thermal behavior of fibers
CO4	Explain the applications of medical textiles
CO5	Analyze the commercial applications of smart and intelligent textiles

#### Course Name: Core VIII: Textile Testing Course Code: 21PBGCT302

CO1	Understand the importance of atmospheric conditions in textiles	
CO2	Analyze the results of fiber testing for specific end use or next process	
CO3	Assess the faulty material and take remedial measures to ensure the quality of yarns	
CO4	Intervene in product development and research	
CO5	Interpret colorfastness properties in textile products	

#### Course Name: Core Practical VI : Textile Testing Course Code: 21PBGCP303

CO1	Experiment with various type of textile fabrics using the relevant instruments
CO2	Compile the dimensional property of textile fabrics
CO3	Analyze the mechanical properties of the textile materials
CO4	Compare the aesthetic properties of the raw materials
CO5	Test the colour fastness properties of the dyed and printed materials

#### **Course Name: Core Practical VII : Digital Fashion Portfolios Course Code: 21PBGCP304**

CO	1 Understand the concepts of fashion portfolios	
CO	2 Develop skills in making mood boards using CAD software	
CO	3 Compile their own ideas into flat sketches	
CO	4 Critique new insights through coloring systems	
CO	5 Design fashion ensembles based on selected themes	

## **Course Name: Core Practical VIII : Home Furnishing**

### Course Code: 21PBGCP305

CO1	Create bed linens and table linen
CO2	Create kitchen linen and window dressings
CO3	Select suitable materials for hangings and mats
CO4	Develop home textile collection for different age groups
CO5	Modify the ambience of the room

#### **Course Name: ELECTIVE III(A) : Business Organization and Office Management Course Code:21PBGET306**

CO1	Illustrate the types of business
CO2	Explain various source of finance
CO3	Understand the modern office concept
CO4	Categorize the record management system
CO5	Choose the office machine and furniture

#### Course Name: ELECTIVE III(B) :Principles of Costing Course Code:21PBGET307

 inst Couc.211 DOE1507		
CO1	Interpret cost accounting statements	
CO2	Develop and evaluate information for cost stock control	
CO3	Calculate and account for various labour cost	
<b>CO4</b>	Prepare a budget of factory overheads cost	
CO5	Examine the basic concepts to determine product cost in different process	

#### Course Name: ELECTIVE III(C): Principles of Entrepreneurship Course Code:21PBGET308

CO1	Develop knowledge on various entrepreneurial traits	
CO2	Formulate the process to select a business idea	
CO3	Develop strategic plans for implementing their own business	
CO4	Analyze the various financial institutions for the best financial deals	
CO5	Identify new business proposals and opportunities within existing business	

#### **SEMESTER: IV**

#### **Course Name: Core IX : International Trade and Documentation Course Code: 21PBGCT401**

CO1	Evaluate and justify various documents for processing export and import transactions
CO2	Develop the ability to understand and analyze the EXIM policy framework
CO3	Identify major recent developments in the world trading system
CO4	Assess the various terms and conditions of export finance
CO5	Make use of export promotion measures

#### **Course Name: Core X : Textile and Apparel finishing Course Code: 21PBGCT402**

CO1	Identify the classification of finishing process.
CO2	Asses the working principles of chemical finishes.
CO3	Evaluate the application of Functional finishes.
CO4	Apply the specialized finishing treatments to the textile fabrics.
CO5	Measure the characteristics of textile Effluent Treatment

#### Course Name:Elective IV (A): Beauty Care – II Practical Course Code: 21PBGEP403

CO1	Apply advanced skin care services catering to the specific problems related to skin and hair	
CO2	Demonstrate advanced hair care services	
CO3	Develop and practice cosmetology skills in makeup applications	
CO4	Build a career in the beauty industry	
CO5	Demonstrate customer service skills, self-growth and personality development	

#### **Course Name: Elective IV (B): Computer Application in Business Course Code:21PBGET404**

	CO1	Identify the basic concepts in Computer
	CO2	Apply computer resources for use in business and academics
	CO3	Construct business and academic documents using Microsoft Word
	<b>CO4</b>	Analyze the application features of Management Information System
	CO5	Classify the networking types

#### **Course Name: Elective IV (C): Fashion Retailing Course Code: 21PBGET405**

C01	Identify the fashion buying terminologies
CO2	Understand the sales forecasting methods
CO3	Apply the pricing strategies in fashion retailing
CO4	Outline the fashion retail store planning
CO5	Identify the types of brands in fashion retailing

#### Course Name: ADVANCE LEARNERS COURSE (A): Brand Management Course Code: 21PBGAL310

CO1	Plan products with a brand identity
CO2	Understand the significance and role of brand identity
CO3	Develop knowledge on brand building concepts
CO4	Prepare effective brand strategies
CO5	Plan and create indirect selling of fashion brands

#### Course Name: ADVANCE LEARNERS COURSE (B): Footwear Design Course Code: 21PBGAL311

CO1	Understand the construction of a shoe and its components
CO2	Analyze the design and pattern development
CO3	Describe the knowledge on cutting, pre closing and closing
CO4	Categorize the prelasting and lasting process
CO5	Create Knowledge on various shoe construction

### Course Name: Self Study Course: Ayurvedic Beauty Care Course Code: 21PBGSST407

CO1	Identify the Basic concepts of Ayurveda	
CO2	Recognise the Basic concepts of Saundarya Ayurveda	
CO3	Develop knowledge on beauty and cosmetology	
CO4	Categorize the Skincare in Ayurveda	
CO5	Develop knowledge on Kesh Ayurveda	

#### Programme Title: B.Sc Psychology

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help to reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of B.ScPsychologyprogramme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	The field of Psychology.
PSO2	Practicing and spreading the awareness regarding mental health.
PSO3	Managing counselling sessions and therapies in clinical settings.
PSO4	The application of theories and concepts in psychology in general life for the wellbeing of society.
PSO5	Design and develop psychological concepts in industrial sector.

#### **SEMESTER: I**

#### Course Name: Core 1: Professional English - I Course Code: 21UAACT101

CO1	Identify the correct usage of vocabulary and grammar in Speaking and Writing
CO2	Demonstrate the language skills through academic Writing
CO3	Apply the Communicative Skills by responding to given situations
CO4	Communicate leadership quality and team building
CO5	Analyze the information in various circumstances

#### **Course Name: Foundation Course I: Environmental Studies Course Code: 21ES01**

CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

## Course Name: Core 3: Professional English - II

### Course Code: 21UAACT201

CO1	Identify the importance of language competence in workplace situations
CO2	Formulate the Listening, Speaking, Reading and Writing skills for academic and career purposes
CO3	Apply the employability skills through various speaking and writing tasks
CO4	Design the communication suitable for workplace
CO5	Communicate the digital competence with innovation and imagination

## **Course Name: Foundation Course II: Value Education**

#### Course Code: 21VE01

CO1	Identify the values to be adopted in their personal, professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

## Course Name: Core Course VII: Abnormal Psychology I Course Code :21UAVCT301

Analysis the interaction of biological, cognitive and socio cultural factors in abnormal behavior
Evaluate psychological research relevant to the study of abnormal behavior
Remember the cultural and ethical considerations in diagnosis the disorders
Design, conduct, or evaluate treatment process
Apply the contemporary theories and research related to causes and treatments of psychological disorders

## Course Name: Practical I :Experimental Psychology- I Course Code :21UAVCP302

CO1	To become proficient in measuring sensory dimensions of human behaviour
CO2	To become proficient in measuring personality tests
CO3	To become proficient in measuring sensory motor test in assessing human efficiency
CO4	To become proficient in measuring attention aspects of human behaviour
CO5	To become proficient in measuring tests to learning and association

## Course Name: Allied Paper III: Psychological Statistics Course Code :21UAVAT303

CO1	Evaluate the primary methods of inquiry and statistical analysis in psychology
CO2	Understand the advantages and limitations of different statistical methods used in psychological research
CO3	To apply an appropriate statistical analysis for the data
CO4	To analysis the role of different statistical techniques in psychological research
CO5	Remember the ethics in preparing the data for analysis

#### Course Name: Skill Based :Counselling Psychology **Course Code :21UAVST304**

CO1	To apply the counseling models across all stages of development
CO2	To evaluate about need of counseling in career and work, and dealing life transition
CO3	Understand the role of counseling in Crisis intervention, disaster and trauma.
CO4	Analysis the different models of counseling psychology
CO5	Apply in relationship difficulties-including marital and family difficulties

#### **Course Name: Non Major Elective I: Fundamentals of Learning and Memory Course Code :21UAVNT305**

CO1	Outline the characteristics of memory and forgetting.
CO2	Strengthen their knowledge about learning.
CO3	Better understanding of the characteristics of learning styles.
CO4	Gain knowledge about the strategies for improving academics.
CO5	Understand the techniques for improving study skills.

### Course Name: Self-Study Course I: Gender Studies Course Code :21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER: IV**

### Course Name: Core Course IX: Abnormal Psychology II Course Code :21UAVCT401

CO1	Define the experience of anxiety and related disorders in an individual
CO2	Outline the disorders of sexual variance and cognitive impairment
CO3	Identify the spectrum disorders of schizophrenia
CO4	Identify the bipolar tendencies experienced by an individual
CO5	Examine the various forms of therapies and their effectiveness

#### Course Name: Core X :Experimental Psychology- II Course Code :21UAVCP402

CO1	To asses and interpret the Perception of an individual.
CO2	To assess the various emotion pattern of an individual.
CO3	To analyze the need pattern of social motive
CO4	To evaluate the reaction time of an individual
CO5	To analyze the learning process of an individual

#### Course Name: Allied Paper IV: Research Methodology Course Code :21UAVAT403

CO1	Define the various types of research in psychology
CO2	Outline the formation of hypothesis
CO3	Identify the various methods of research design
CO4	Identify the various methods used for testing the hypothesis
CO5	Examine the statistical techniques and report writing

#### Course Name: Skill Based II: Testing and Assessment Course Code :21UAVST404

CO1	Define the fundamental concepts of testing and assessment
CO2	Classify the various scales of measurement and psychometric properties
CO3	Identify the various assessment tools available under intelligence
CO4	Identify the meaning and various assessment tools used for measuring personality
CO5	Examine various interest, ability and aptitude scales used for career-based assessments

#### Course Name: Non Major Elective II :Managing Emotions Course Code :21UAVNT405

CO1	Outline the characteristics of emotions.
CO2	Strengthen their knowledge about physiology of emotions.
CO2	Better understanding of the characteristics of emotional intelligence.
CO4	Gain knowledge about the skills of emotions.
CO5	Understand the causes and strategies of emotions.

#### Programme Title: B.Sc. Catering Science & Hotel Management

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and making meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO6	<b>Environmental and Sustainability:</b> Understand the issues of environmental contexts and sustainable development.
<b>PO7</b>	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Programme Outcomes: Students of all undergraduate general degree programs at the time of graduation will be able to

**Programme Specific Outcomes:** After the successful completion of B.ScCSHM programme, the students are expected to

PSO Number	PSO Statement
PSO1	To acquire knowledge and professional techniques in the core areas of the hotel and other hospitality sectors.
PSO2	To pertain the acquired knowledge to manage and evaluate functional systems in hospitality industry.
PSO3	To work in a sustainable manner as per trends and issues in the interdependent hospitality sectors.
PSO4	To understand the required demand for trained and professional people towards the country's economic and industrial politics.
PSO5	To produce quality graduates with balanced knowledge, skills and industry exposure in hotel management.

#### **SEMESTER: I**

#### COURSE NAME :PROFESSIONAL ENGLISH I COURSE CODE : 21UATCT101

CO1	Identify the correct usage of vocabulary and grammar in speaking and writing.
CO2	Apply the language for speaking efficiently and confidently.
CO3	Build the reading skill by using unfamiliar texts with comprehension.
CO4	Demonstrate the language skills through academic writing.
CO5	Develop the leadership quality and team building through linguistic competence.

#### COURSE NAME :FOOD PRODUCTION I COURSE CODE : 21UATCT102

CO1	Understand the concepts of basic kitchen knowledge.
CO2	Possess sound knowledge in kitchen organization and function.
CO3	Identify the various cooking materials and their roles in cooking.
CO4	Analyze the preparation of ingredients in cooking.
CO5	Critique the methods of cooking food.

#### COURSE NAME :FOOD & BEVERAGE SERVICE I COURSE CODE : 21UATCT103

CO1	Understand the sectors of Food and Beverage industry
CO2	Differentiate the types of Service outlets
CO3	Classify the operating equipment used in Service industry.
CO4	Analyze various ancillary sections of food service areas
CO5	Create, Plan and Lay covers for French Classical Menu

#### COURSE NAME :ENVIRONMENTAL STUDIES COURSE CODE : 21ES01

JUNE CODE : ALLON	
CO1	Compile different types of ecosystem and its energy flow.
CO2	Analyze the impacts of Natural resources
CO3	Apply the concepts of biodiversity and its conservation.
CO4	Create awareness on disaster management and measures to prevent pollution.
CO5	Outline the environmental policies and its practices.

#### **SEMESTER: II**

#### COURSE NAME :PROFESSIONAL ENGLISH II COURSE CODE : 21UATCT201

CO1	Identify the importance of linguistic competence in workplace situations
CO2	Develop LSRW skills for academic and career purposes
CO3	Build the employability skills through various speaking and writing tasks
CO4	Relate the communication skills suitable for employability
CO5	Illustrate the digital competence with innovation and imagination

#### **COURSE NAME :FOOD PRODUCTION II COURSE CODE : 21UATCT202**

CO1	Gain knowledge in stock, soups and sauces.
CO2	Identify the basic principles of cookery.
CO3	Critique their knowledge in dairy products.
CO4	Predict the food commodities in food production.
CO5	Analyze and apply the Indian masalas and gravies in food production

#### COURSE NAME :FOOD AND BEVERAGE SERVICE II COURSE CODE : 21UATCT203

CO1	Identify the different styles of service.
CO2	Classify the non alcoholic beverages
CO3	Summarize cheese, savouries, ice cream, sweets
CO4	Create, plan for Breakfast menu and its cover
CO5	Analyze the billing and payment method

#### COURSE NAME :CORE PRACTICAL-FOOD PRODUCTION I COURSE CODE : 21UATCP204

CO1	Utilize the safety practices in the kitchen.
CO2	Classify the cuts of vegetables.
CO3	Prepare various Indian masalas and Indian gravies
CO4	Demonstrate and classify the stocks and mother sauces.
CO5	Compile and prepare a five course Indian menu.

#### COURSE NAME :CORE PRACTICAL-FOOD & BEVERAGE SERVICE - I COURSE CODE : 21UATCP205

CO1	Understand the basics of service equipments and serviette folding
CO2	Apply knowledge in basic polishing of service equipments.
CO3	Utilize the manipulating and handling skills of service equipments
CO4	Plan and create knowledge in menu planning and its cover laying
CO5	Predict the service of various courses and billing

#### COURSE NAME :VALUE EDUCATION COURSE CODE : 21VE01

CO1	Identify the values to be adopted in their personal, Professional and social life.
CO2	Develop personality and social cohesion through various skills inculcated.
CO3	Construct co-ordinal relationship with the family members.
CO4	Identify the challenges and uncertainties of the dynamic environment and empowered to confront them with clarity, courage and composure.
CO5	Buildup social sense and commitment and to discriminate social evils from virtues.

#### **SEMESTER: III**

### COURSE NAME:(CORE PAPER-II )Food Production-III

#### **COURSE CODE: 21UATCT301**

CO1	Understand the Indian regional cooking
CO2	Acquire knowledge in regions of South Indian cuisine
CO3	Attain ideas on North Indian cuisine
CO4	Compare chats & snacks, festivals dishes in Indian cooking
CO5	Gain Knowledge about cookingtechniques of tandoor and Indian breads.

#### COURSE NAME:(CORE PAPER-III)FoodAnd Beverage Service-III COURSE CODE: 21UATCT302

CO1	Understand the meaning of alcoholic beverages and its list
CO2	Will attain knowledge in the manufacturing process of whisky, brandy and rum
CO3	Shall know the categories, types and brands of gin, vodka and tequila.
CO4	Identify different types of liqueurs and other spirits
CO5	Gain knowledge about the types of cigar and cigarettes

#### COURSE NAME: (ELECTIVE-I )Tourism and Travel Management COURSE CODE: 21UATET303

CO1	Understand the concepts of tourism and travel agencies.	
CO2	Gain knowledge in tourism product and its classification	
CO3	Acquire knowledge in tourism marketing	
CO4	Adhere to travel formalities & regulations	
CO5	Enrich their knowledge in tourism planning & development.	

#### COURSE NAME: (ELECTIVE-I )Hotel Sales and Marketing COURSE CODE: 21UATET304

CO1	Will understand devolution of sales.
CO2	Shall epitomize personal selling.
CO3	Will know the marketing process.
CO4	Can learning marketing mix.
CO5	Shall be knowing the marketing functions.

### **COURSE NAME: (ELECTIVE-I )Fast Food Operations**

#### COURSE CODE: 21UATET305

-	CRGE CODE. 2101111305	
	CO1	Have basic knowledge about fast food operations.
ſ	CO2	Have good knowledge in planning menus.
Ī	CO3	Enrich their skills in selling techniques of a fast food restaurant.
ſ	CO4	Possess idea about the social concern.
	CO5	Enrich their skills and knowledge in fast food outlets.

## COURSE NAME: (Allied : I ) Housekeeping Management COURSE CODE: 21UATET306

CO1	Acquire a basic knowledge housekeeping department and duties of housekeeping personnel.
CO2	Attain knowledge in functions of housekeeping department.
CO3	Acquire knowledge about various cleaning equipments used and contract services.
CO4	Enrich their knowledge in linen and stain removal.
CO5	Have basic knowledge in flower arrangement and pest control.

#### COURSE NAME: (Allied : II ) Front Office Operations **COURSE CODE: 21UATAT307**

CO1	Identify types of hotels, rooms, room rates and types of guests
CO2	Perform duties efficiently in coordination with other departments and gain knowledge in bell
CO3	Possess a thorough knowledge in reservation
CO4	Acquire knowledge about check-in & check out guests and handle overbooking
CO5	Enrich their knowledge in front office statistical information.

#### COURSE NAME: (Skill Based – I) Bakery & Confectionery COURSE CODE:21UATST308

CO1	Understand the raw materials used in bakery
CO2	Possess idea about the bread and yeast though production.
CO3	Gain knowledge about cookies and biscuits
CO4	Can enrich their skills in cake making methods and sugar confectionery
CO5	Analyze the different types of paste

## COURSE NAME: (Non Major Elective : I) Art Of Cooking COURSE CODE: 21UATNT309

CO1	Attain the basic attributes of cooking.
CO2	Gain knowledge about thepreparation and pre-preparation techniques.
CO3	Possess a good knowledge about foundation ingredients in cooking.
CO4	Acquire knowledge in milk and its by products
CO5	Enrich their knowledge about the flavorings and seasoning and its uses.

### **COURSE NAME: Gender Studies**

#### COURSE CODE: 21SS01

CO1	Understand individual experiences as well as social structure and institutions
CO2	Learn about diversities and disparities in education
CO3	Acquire knowledge in gender equity and employment
CO4	Promote social justice and women's rights in media.
CO5	Aware of laws for crime against women and child.

#### **SEMESTER:IV**

#### COURSE NAME: (Core Paper IX )Food Production – IV COURSE CODE: 21UATCT401

CO1	Remember the characteristics of popular recipes, ingredients used in Pan Asian cuisines
CO2	Understand the characteristics, ingredients, equipments used in Srilankan and Malaysian cuisine
CO3	Acquire knowledge about characteristics, ingredients used in Spanish and Italian cuisine
CO4	Analyze the regional varieties of dishes in Lebanese and Arabic cuisines
CO5	Understand the recipes and preparation methods in Fusion and Mexican cuisines

## COURSE NAME: (Core Paper X )Food& Beverage Service – IV COURSE CODE: 21UATCT402

CO1	Recognize various types of wines and their production
CO2	Understand about fortified & wines of France.
CO3	Acquire knowledge about Italy and German wines
CO4	Possess knowledge about wines of different countries
CO5	Suggest and pair various types of wines with food

## **COURSE NAME: (ELECTIVE II )Food Preservation**

#### **COURSE CODE: 21UATET407**

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	CO1	Acquire basic knowledge about concept of food preservations.
	CO2	Possess a good knowledge in preservation using freezing
ĺ	CO3	Attain knowledge in method of preservation using high temperature
	CO4	Enrich their skills and knowledge in preservation of food by chemicals
	CO5	Acquire knowledge about radiation of foods.

#### COURSE NAME: (ELECTIVE II )Accounting For Hotel Management COURSE CODE: 21UATET408

CO1	Understand about fundamentals of accounts
CO2	Illustrate how to journalize and post accounting entries and prepare trial balance for accounts.
CO3	Understand, analyze and evaluate business accounts
CO4	Prepare cost sheet and verify stock
CO5	Analyze the purposes of the uniform system of accounts and identify those systems that are relevant to the hospitality industry.

## COURSE NAME: (ELECTIVE II )Food Safety And Hygiene COURSE CODE: 21UATET409

CO1	Acquire basic knowledge about food safety.
CO2	Attain basic knowledge in role of micro organisms in food.
CO3	Gain knowledge of yeast in food.
CO4	Possess a thorough knowledge in contamination of foods
CO5	Enrich their skills and knowledge in sanitizing of foods.

#### Course Name: (Skill Based - Ii )Bar Management Course Code: 21UATST410

CO1	Attain knowledge of bar operations.
CO2	Possess a good knowledge in purchasing, storing and issuing of beverages.
CO3	Acquire knowledge in bar records and control process.
CO4	Possess a thorough knowledge in cocktails.
CO5	Enrich their skills and knowledge in bar sales and marketing.

#### **COURSE NAME: (Core Practical – III)Food Production - II COURSE CODE: 21UATCP403**

CO1	Attain basic knowledge about Indian foods.
CO2	Acquire good knowledge in Indian gravies.
CO3	Gain knowledge in the preparation of Indian breakfast and snacks.
CO4	Enrich their skills and knowledge in breads and rice varieties.
CO5	Possess a thorough knowledge in the preparation of popular dishes of India

#### COURSE NAME: (Core Practical – IV)Food& Beverage Service - II COURSE CODE: 21 UATCP404

CO1	Know the wine service procedures and its classification.
CO2	Attain practical ability in the service of spirits.
CO3	Know the legal responsibilities followed in serving alcohol.
CO4	Understand about the various cocktail making methods.
CO5	Enrich their skills in garnish and presentation of drinks.

#### COURSE NAME: (Allied – III) Housekeeping Management Practical COURSE CODE: 21UATAP405

CO1	Acquire a basic knowledge of Identification of cleaning equipments and agents
CO2	Attain knowledge in cleaning of various surfaces and polishing.
CO3	Know the room cleaning and bed making procedure.
CO4	Can enrich their knowledge in flower arrangement and duty rota preparations.
CO5	Possess knowledge about laundry and lost & found procedure.

## COURSE NAME: (Allied – IV)Front Office Operations Practical COURSE CODE: 21UATAP406

CO1	Attain knowledge of front office sections.
CO2	Possess knowledge in telephone handling skills.
CO3	Acquire knowledge in reservation and registration process.
CO4	Gain knowledge in handling guest complaints.
CO5	Enrich their skills and knowledge in front office statistical information.

#### COURSE NAME: (Skill Based - III) Bakery & Confectionery Practical COURSE CODE: 21UATSP411

CO1	Attain knowledge in methods of preparation of different breads and pastes
CO2	Acquire skills in the preparation of Cake and icing.
CO3	Possess a thorough knowledge inpreparation of cookies and biscuits.
CO4	Enrich their skills in making pies and cakes.
CO5	Gain knowledge in preparation of pastries.

#### COURSE NAME: (Non major Elective II )Hospitality Management COURSE CODE: 21 UATNT412

CU	COURSE CODE: 21 UAIN1412	
	CO1	Gain fundamental knowledge on hospitality industry
	CO2	Possess the activities of housekeeping department
	CO3	Gain knowledge about the departmental activities of front office.
	CO4	Attain a basic knowledge about Food & Beverage service departmental activities
	CO5	Acquire knowledge about the hospitality marketing.

#### **COURSE NAME:Fundamentals of Yoga COURSE CODE: 21SS02**

CO1	Understand the concepts of Yoga and its types
CO2	Know the impact of yoga on human body
CO3	Learn about the breathing techniques
CO4	Gain awareness on Surya Namaskar
CO5	Know about the benefits of Asanas

#### COURSE NAME: (Advanced Learners Course I) Room Divisionmanagement COURSE CODE: 21UATAL413

CO 1	Gain fundamental knowledge on room division management
CO 2	Attain basic knowledge about salesmanship.
CO 3	Gain knowledge about the guest related problems and resolving skills
CO 4	Attain a basic knowledge about planning and evaluating operations
CO 5	Acquire knowledge about the managerial skills in Room division management

#### **COURSE NAME: (Advanced Learners Course II) Food Service Facility Planning COURSE CODE: 21UATAL414**

CO1	Gain fundamental knowledge of food service facilities planning
CO2	Attain basic knowledge in planning process.
CO3	Gain knowledge about functional planning
CO4	Attain a basic knowledge in workplace design
CO5	Acquire knowledge about the space requirements.

#### **Programme Title: MSW**

**Programme Outcomes:** At the end of the programme the students will be able to

PO Number	PO Statement
PO1	<b>Critical Thinking:</b> Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid and looking at our ideas and decisions (intellectual, organizational and personal)from Different perspectives.
PO2	<b>Effective Communication:</b> Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	<b>Social Interaction:</b> Elicit views of others, mediate disagreements and help to reach conclusions in group settings.
PO4	<b>Effective Citizenship:</b> Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issue and participate in civic life through volunteering.
PO5	<b>Ethics:</b> Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
PO6	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.
PO7	<b>Self-directed and Life-long Learning:</b> Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

**Programme Specific Outcomes:** After the successful completion of MSW programme, students will be equipped with the knowledge in

PSO Number	PSO Statement
PSO1	The fields of social work and specializations.
PSUZ	To deal the labours, needy people in counselling and community with welfare schemes.
PSO3	To mold and shape an individual to increase their social contribution.
PSO4	Ability to analyze and evaluate the social problems and decision making.
PSO5	Gain knowledge of current social work and trends in their domain.

#### **SEMESTER: I**

#### **Course Name: Core 1: Introduction to Social Work Profession Course Code: 21PBCCT101**

CO1	Gain knowledge about the concept and methods of Social work
CO2	Know the ethics and models of social work
CO3	Learn the trends in social work profession and importance of field work
CO4	Attain knowledge about the fields of social work
CO5	Gain knowledge on international social work

#### Course Name: Core 2: Sociology for Social Work Practice Course Code: 21PBCCT102

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Ī	CO1	Enrich the knowledge on elements of Society	
Ī	CO2	Gain knowledge about the Socialization and Social groups.	
Ī	CO3	Understand the concepts of Marriage and Family System.	
Ī	CO4	Attain knowledge about Social stratification and Social Change	
Ī	CO5	Gain knowledge about the Social Problems with special reference to India.	

## Course Name: Core 3: Psychology for Social Work Practice

Course	Code:	<b>21PBC</b>	CT103

CO1	Acquire knowledge about basics of psychology and individual life span.		
CO2	Understand the various factors contributing for the personality of an individual.		
CO3	Acquire knowledge about perception, intelligence and emotion.		
CO4	Possess the sound knowledge of learning, motivation and attitudes.		
CO5	Attain knowledge about Abnormal psychology.		

#### Course Name: Core 4: Social Case Work Course Code: 21PBCCT104

CO1	Gain knowledge about the importance, values and principles of case work.	
CO2	Gain knowledge about the importance, values and principles of group work.	
CO3	Get familiarity about the components and process of case work.	
CO4	Enrich knowledge about the models of case work and group work.	
CO5	Understand the application of case work and group work in various settings.	

#### Course Name: Core 4: Social Group Work Course Code: 21PBCCT105

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	CO1	Understand values and principles of working with groups.	
	CO2	Possess sound knowledge about groups in organization.	
	CO3	Enhance understanding of the basic concepts, tools and techniques.	
	CO4	Develop appropriate skills and attitudes to work with groups.	
	CO5	Acquire knowledge about organizational change and development.	

#### **SEMESTER: II**

#### **Course Name: Core 1: Working with Communities and Social action. Course Code: 21PBCCT201**

CO1	Enrich knowledge about the community organization
CO2	Know the methods and models of community organization
CO3	Acquire knowledge about the application of community organization
CO4	Learn the concept of PRA
CO5	Imparted with the knowledge about Social Movements.

## Course Name: Core 2: Social Welfare Administration

#### Course Code: 21PBCCT202

CO1	Gain knowledge about the importance and scope of social welfare administration.
CO2	Enrich knowledge about the role of voluntary organizations in social welfare administration.
CO3	Learn the procedures to register an organization.
CO4	Acquire knowledge about the social policy.
CO5	Know the concept of project management.

#### **Course Name: Core 3: Social Work Research and Statistics Course Code: 21PBCCT203**

CO1	Inspire to learn about the fundamental of Research and Social Work Research.		
CO2	Gain knowledge about the Research Methodology.		
CO3	Understand the sampling and tools of data collection.		
CO4	Attain knowledge about data analysis and report writing.		
CO5	Gain knowledge about the Basic Statistics and Applications.		

#### **Course Name: Core 4: Legal System and Social Legislation in India Course Code: 21PBCCT204**

CO1	Gain knowledge about the constitution of India	
CO2	Enrich knowledge on various social justice and rights	
CO3	Learn the Division of laws and Legislations for women and Children	
CO4	Acquire knowledge about criminal justice system in India	
CO5	Know the role of correction and legal aid	

#### **Course Name: Elective Course II: Labour Legislation Course Code: 21PBCET205**

CO1	Attain knowledge on labour legislation	
CO2	Know the rights of employees at their working condition	
CO3	Learn the provisions relating to welfare measures	
<b>CO4</b>	Know the provisions relating to employee wages	
CO5	Gain knowledge on social security	

## **Course Name: Elective Course II: Community Health and Medical Social Work Course Code: 21PBCET206**

CO1	Gain knowledge about the health and health education
CO2	Possess the concept of family life education
CO3	Understand the application of Medical social work in various departments
CO4	Get familiarity about the role of multidisciplinary team
CO5	Learn about the role of social workers in rehabilitation

#### **Course Name: Elective Course II: Rural and Tribal Community Development Course Code: 21PBCET207**

CO1	To learn the community development and about the rural community.
CO2	Understand the rural problems.
CO3	Attain knowledge about the tribal community and their problems.
CO4	Gain knowledge on Panchayat Raj system and Administrative setups.
CO5	Learn the rural and tribal community development programmes of state and central government.

#### **SEMESTER : III**

#### Course Name :Social Welfare Course Code :17PBCCT301

C01	Gain knowledge about the importance and scope of social welfare administration.
CO2	Enrich knowledge about the role of voluntary organizations in social welfare administration
CO3	Learn the procedures to register an organization
CO4	Acquire knowledge about the social policy
CO5	Know the concept of projectmanagement

#### Course Name :Human Rights and Social Legislation Course Code :17PBCCT302

CO1	Learn the fundamentals of human rights
CO2	Gain the knowledge of fundamental duties and rights under the Indian constitution
CO3	Learn the concepts related to social planning
CO4	Gain knowledge about social legislation
CO5	Posses knowledge about national and international level and way to deals with legislation policies

#### Course Name :Labour Legislations Course Code :17PBCET303

C01	Attain knowledge on labour legislation <b>CO2:</b> Know the rights of employees at their working condition
CO2	Learn the provisions relating to welfare measures
CO3	Know the provisions relating to employee wages
CO4	Gain knowledge on social security
CO5	Attain knowledge on labour legislation <b>CO2:</b> Know the rights of employees at their working condition

#### Course Name :Hospital Administration Course Code :17PBCET304

CO1	Know about the hospital settings
CO2	Learn about the planning a hospital
CO3	Know the hospital administration
CO4	Gain knowledge about staffing
CO5	Understand the concepts related to hospital budget

### **Course Name :Urban Community Development Course Code: 17PBCET305**

CO1	Know about the urban community, slums and migration.
CO2	Gained knowledge about urbanization and urbanism.
CO3	Learned the urban community development.
CO4	Enriched with knowledge about the urban development administration.
CO5	Learn about the urban development programmes implemented in Tamil Nadu and

#### Course Name : Industrial Relations Course Code :17PBCET306

CO1	Gain knowledge about the concepts of industrial relations
CO2	Understand the ethical code and effects of industrial conflict
CO3	Possess the sound knowledge of industrial conflict and dispute
CO4	Acquire knowledge about trade unionism
CO5	Understand the collective bargaining and workers participation.

### Course Name :Foundation of Psychiatry – I Course Code: 17PBCET307

CO1	Inspired and use inner wisdom to work in the field of mental health
CO2	Learn about the concepts related to mental disorders
CO3	Know the information about neurotic disorders
CO4	Gain knowledge about functional psychosis
CO5	Understand the concepts related to psychopathology, diagnosis and treatment of organic disorders.

#### Course Name :Welfare of Weaker Sections Course Code: 17PBCET308

CO1	Gain knowledge about the different categories of weakersection.
CO2	Learn the impact of untouchability prevailing in the community.
CO3	Imparted with the knowledge about scheduled castes
CO4	Learn about the scheduled tribes.
CO5	Learn the status of women and empowerment.

#### **Course Name Social Work with Transgender Course Code: 17PBCAL310**

CO1	The students would learn about transgender
CO2	Attain knowledge on Transgender healthcare
CO3	Make the students to understand the Problems of transgender
CO4	Enrich their knowledge on Social work practice with transgender
CO5	Learn about the Legal measures for transgender.

#### Course Name :Disaster Management Course Code: 17PBCAL311

CO1	The student would learn about disaster management
CO2	Attain knowledge on preventive measures.
CO3	Make the students understand about rehabilitation.
CO4	Enrich their knowledge on Relief measures
CO5	Study about the role of NGOs and social worker in disaster management.

#### **SEMESTER: IV**

#### **Course Name :Social Entrepreneurs- Hip and Corporate Social Responsibility Course Code: 17PBCCT401**

CO1	The student would learn about entrepreneurial skills and its growth
CO2	Attain knowledge about updating on MDG's
CO3	Make the students understand the business ethics and CSR in global scenario.
CO4	Enrich their knowledge on social reporting
CO5	Learn about the emerging trends of CSR.

#### Course Name :Human Resource Management Course Code: 17PBCET402

CO1	Effective management of human capital
CO2	Gain knowledge on HR aspects
CO3	Learn the importance of training and roles of training manager
CO4	Learn the wage system and fringe benefits
CO5	Update the trends in HRD.

# Course Name :Foundation of Psychiatry –II Course Code: 17PBCET403

CO1	Inspired to learn about childhood disorders
CO2	Learn about the concepts of personality disorders
CO3	Gain knowledge on Behavioural Syndromes associated with psychological disturbances
CO4	Possess familiarity about different types of drugs
CO5	Understand the concepts of trans-cultural psychiatry

# Course Name :Social Development Course Code: 17PBCET404

CO1	Learn the basic concept of development
CO2	Gaining knowledge about the social development and challenges of social development
CO3	Learn the economic policy and development, privatization and liberalization
CO4	Know the globalization and sustainable development goals
CO5	Learn the core life skills and to develop thelife skills

## **Course Name :Organizational Behaviour Course Code: 17PBCET405**

CO1	Learn the foundations of organizational behavior
CO2	Possess sound a knowledge about individual and groups in organization
CO3	Gain knowledge about motivation and communication
CO4	Learning concepts related to organizational structure
CO5	Acquire knowledge about organizational change and development.

#### **Course Name :Psychiatric Social Work Practice Course Code: 17PBCET406**

CO1	Learn the foundations of psychiatric social work
CO2	Sound knowledge about treatment for the mentally ill patients
CO3	Gain knowledge about psychological methods for the mentally ill patients
CO4	Learn concepts related to role of psychiatric social worker
CO5	Acquire knowledge about policies and

### Course Name :Management of Non-Profit Organization Course Code: 17PBCET407

CO1	Know about the basics of Non-profit organization
CO2	Learn the establishment of the NPOs and also about the policy making
CO3	Gain knowledge about the project identification and project formulation
CO4	Aware of fund raising of NGOs
CO5	Learn about the project evaluation and monitoring

### **Programme Title: PGDCA**

**Programme Outcomes:** At the end of the programme, the students will be able to

PO Number	PO Statement
PO1	Critical Thinking: Apply the strategies and techniques in order to solve real world problems.
PO2	Effective Communication: Communicate the concepts in oral and written form.
PO3	Social Interaction: Identify the accurate solutions for the society oriented problems using the Domain Knowledge.
PO4	Effective Citizenship: Attain the ability to identify, formulate and solve challenging problems of the society and nation.
PO5	Knowledge Formulation: Demonstrate and apply various specialized areas of advanced topics and its applications using modern tools.
PO6	Environment and Sustainability: Instill a sense of attitude in tackling social and environmental issues.
P07	Self-directed and Life-long Learning: Identify their own educational and career needs from the global challenges.

Programme Specific Outcomes: At the end of the programme, students will be equipped with the Knowledge in

PSO Number	PSO Statement
PSO1	The ability to understand, analyze and develop computer language programs in the areas related to software design, web development, data analytics, and cloud computing
PSO2	The ability to apply standard practices and strategies in software project development to deliver applications for industry
PSO3	The ability to employ modern computer languages and technologies in inter disciplinary career opportunities where the information technology is applied.
PSO4	Develop ability to work with team, with analytical reasoning for solving multi domain applications.
PSO5	Develop ability to apply modern computer technical skills in higher education, research and teaching.

#### **SEMESTER: I**

#### Course Name: Core I: OPERATING SYSTEMS Course Code : 21PBJCT101

CO1	Understand the operating system overview.
CO2	Know the different types of operating systems, servers and DNS.
CO3	Do the server installation and monitoring.
CO4	Do the server backup and storage management.
CO5	Develop the server group policy management.

## Course Name: Core II: DATABASE MANAGEMENT SYSTEMS

#### Course Code : 21PBJCT102

CO1	Understand the basic database concepts and normalization.
CO2	Gain knowledge over Oracle 9i.
CO3	Implement the data management and retrieval by using DML
CO4	Work on the basics of PL/SQL.
CO5	Gain knowledge over advanced concepts of PL/SQL.

## Course Name: Core III: SCRIPTING LANGUAGES

#### Course Code : 21PBJCT103

CO1	Develop the basic concepts of HTML programming.
CO2	Work the basic concepts of XML and CSS.
CO3	Do scripting with Java Script.
CO4	Understand the Power shell scripting basics.
CO5	Gain knowledge over advanced features of Power shell scripting

#### Course Name: Elective I: PYTHON PROGRAMMING Course Code : 21PBJET104

CO1	Understand the algorithmic problem solving concepts.
CO2	Gain knowledge over the data, expressions and statements of Python
CO3	Work with control flow statements and functions of Python
CO4	Develop the lists, tuples and dictionaries of Python
CO5	Implement the files, modules and packages of Python

#### Course Name: Elective I: CLOUD COMPUTING Course Code : 21PBJET105

CO1	Gain knowledge over distributed systems.
CO2	Understand the cloud computing concepts.
CO3	Gain knowledge over virtualization.
CO4	Know the features of virtual machines.
CO5	Develop the data center architecture for cloud computing

#### Course Name: Core Practical – I: PYTHON PROGRAMMING LAB Course Code : 21PBJCP106

CO1	Implement dynamic and interactive Python applications
CO2	Develop programs using different data types in python
CO3	Implement mail merge concepts in Python
CO4	Develop games using GUI
CO5	Develop a Python application and establish connectivity with a MySQL

#### Course Name: Core Practical – II: SCRIPTING LANGUAGES LAB Course Code : 21PBJCP107

CO1	Define the basic HTML tags for Website design
CO2	Understand the Table, Frames and Hyperlinks tags in webpage.
CO3	Create a webpage using Forms and apply Cascading Style Sheet
CO4	Implement Client-side validation using JavaScript
CO5	Implement basic commands in Power Shell scripting

#### Course Name: Core Practical – III: MULTIMEDIA LAB Course Code : 21PBJCP108

CO1	Design logos and pictures
CO2	Create web pages using 3D Effects
CO3	Implement images, audio and video techniques
CO4	Apply transition effects to the shapes
CO5	Develop a games using animation

#### **SEMESTER: II**

## Course Name: Core Practical – IV: .NET PROGRAMMING

Course Code : 21PBHCT201

CO1	Explain the architecture of .NET framework and object oriented programming concepts
CO2	Understood the basic programming concepts of C#
CO3	Know the data accessing with database
CO4	Develop the web applications using ASP.NET through C#
CO5	Create ASP.NET applications using standard .NET controls

#### Course Name: Elective II: SOFTWARE TESTING Course Code : 21PBJET202

CO1	Introduce to testing automation with Selenium.
CO2	Working on basics of Selenium IDE.
CO3	Gain knowledge over Selenium methods and features.
CO4	Understand the dialogs and windows of Selenium.
CO5	Gain knowledge over frameworks and grids of Selenium

#### **Course Name: Elective II: COGNITION AND PROBLEM SOLVING Course Code : 21PBJET203**

CO1	Understand the basic concepts of cognitive psychology.
CO2	Gain knowledge over perceptual processes.
CO3	Know the different types of memory and it's strategies.
CO4	Gain knowledge over problem solving, reasoning and decision making.
CO5	Gain knowledge over future skills.

#### Course Name: Core Practical – IV: C# LAB Course Code : 21PBJCP204

CO1	Use C# basics
CO2	Design, document, code and test small C# console and GUI applications
CO3	Create simple application using standard web controls
CO4	Structure and model the programming language C #
CO5	Implement and create Applications with C#.

#### Course Name: PROJECT WORK AND VIVA VOCE Course Code : 21PBJCV205

CO1	Acquire practical knowledge within a area of technology
CO2	Identify, analyze, formulate projects with a comprehensive and systematic approach
CO3	Compare and contrast the several existing solutions
CO4	Contribute as an individual or in a team in development of technical projects
CO5	Develop effective communication skills for presentation of project related activities