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COURSE OUTCOMES

UNDER GRADUATE PROGRAMMES

COURSE OUTCOMES (CO): Course Outcomes (COs) describe the specific skills, knowledge, and abilities that students are expected to acquire upon completing a particular course. The courses are designed to equip students with the necessary skills and knowledge, and students can have a clear understanding of what they are expected to achieve by the end of the course.

- B.A. English
- B.A. Tamil
- B.A. History
- B.Sc. Mathematics
- B.Sc. Physics
- B.Sc. Chemistry
- B.Sc. Biochemistry
- B.Sc. Microbiology
- B.Sc. Zoology
- B.Sc. Computer Science
- B.C.A. Computer Applications
- B.Com. Commerce
- B.Com. Bank Management
- B.B.A. Computer Applications

B.A. ENGLISH

20LE101	COMMUNICATIVE ENGLISH I

CO 1-Acquire Basic English language skills
CO 2- Learn communication through language.
CO 3- Learn Basic English sounds and spelling.
CO 4- Learn report writing and use of punctuation.
CO 5-Acquire basic grammar.

EN101T	LITERARY FORMS AND TERMS

CO 1- Understand the significant elements of various poetry genres.
CO 2- Develop working knowledge of the short story as a literary genre.
CO 3- Comprehend literary techniques and conventions in Drama.
CO 4- Know novels their structure and meaning, using correct technology.
CO 5- Develop knowledge about the literary techniques.

EN102T	INDIAN ENGLISH LITERATURE

CO 1- Explore the uniqueness of Indian literature in English.
CO 2- Acquire major movements in Indian Literature.
CO 3-: Literary sensibility and respond emotionally in genre.
CO 4-: Effectively communicate ideas related to the literary works.
CO 5- Understand the human values and literary texts.

AEN101T	SOCIAL HISTORY OF ENGLAND

CO 1: Gain familiar with representative literary and cultural movements
CO 2: Effectively communicate and learn historical facts and context.
CO 3: Analyse and appreciate the developments of England.
CO 4: Knowledge pertaining to think and feel the influence of science and Social reforms.
CO 5: Differentiate today's England with the past.

PEAS01A	PROFESSIONAL ENGLISH FOR ARTS AND SOCIAL SCIENCES – I

CO 1: Recognise their own ability to improve their own competence in using the language
CO 2: Enhance the creativity of the students, which will enable them to think of innovative ways to solve issues in the workplace.
CO 3: Understand the importance of reading for life
CO 4: Read independently unfamiliar texts with comprehension
CO 5: Understand the importance of writing in academic life

20LE202	COMMUNICATIVE ENGLISH –II

CO 1. Fundamental knowledge of English language.
CO 2. Communication skills.
CO3. The task centering on language skills development.
CO 4. Train and develop the conversation skills.
CO 5. Develop creative and critical thinking and speaking skills.

21EN203	BRITISH POETRY

CO 1. Understand and appreciate the literary aspects of poetry.
CO 2. Understand analyse the various elements of poetry
CO 3. Critically analyse poetry
CO 4. Develop their own creativity from a variety of cultures, language and history
CO 5. Create their own poetry through the writing skills

19EN204	BRITISH DRAMA-I (Renaissance to Neo-Classical)

CO 1. Understanding of the origin and growth of drama in the early stages.
CO 2. Links found between drama and real life.
CO 3. Knowledge of the modern evolution of British Drama and the leading writers of the period.
CO 4. Understanding of the moral values in challenging current beliefs.
CO 5. Appreciation of the power of comedy and the spirit of joyous laughter.

19AEN202	HISTORY OF ENGLISH LITERATURE

CO 1. Knowledge of the principal works of authors, genres and period of British literature.
CO 2. Display knowledge of different historical events
CO 3. Literature using appropriate terminology and common theoretical figures
CO 4. Writing in multiple genres as well as achieve an awareness of critical and interpretive methods.
CO 5. Texts in their cultural and historical contexts.

PEAS02A	PROFESSIONAL ENGLISH FOR ARTS AND SOCIAL SCIENCES-II

CO 1: Recognize their own ability to improve their own competence in using the language
CO 2: Use language for speaking with confidence in an intelligible and acceptable manner
CO 3: Develop their competence and competitiveness and thereby improve the employability skills of students.
CO 4: Read independently unfamiliar texts with comprehension
CO 5: Understand the importance of writing in academic life

20LE303	COMMUNICATIVE ENGLISH –III

CO 1: Narrate simple experiences in a coherent manner.
CO 2: Make use of the students to practice the situational basic skills.
CO 3: Different types of warm up activities to discuss the theme of the play.
CO 4: Comprehend the local and global issues and using writing skills.
CO 5: Enhance their language Skills and understanding the social and literatures.

21EN305	AMERICAN LITERATURE

CO 1. Basic knowledge of the origin of American literature.
CO 2. The basic concepts of American literary texts.
CO 3. Difference in Indian and American literature.
CO 4. The classicism in the culture of American texts.
CO 5. The fundamentals of American literature.

19EN306	ENGLISH SHORT STORY

CO 1: Understand the various genres characteristic features.
CO 2: Identify the literary devices used in short story.
CO 3: Develop the skills of being a good reader and writer.

CO 4: Understand of the human value in the society.
CO 5: Differentiate the link between short story and other genres.

21ENF301 FIELD VISIT/ FIELD WORK

CO 1. Gained exposure to and responsibility for varied practical situations under qualified supervision.
CO 2. Gained knowledge and competence in working with individuals and groups in a structured program setting.
CO 3. Developed an in depth understanding of their needs, and the variations of services delivered by multiple agencies and organizations.
CO 4. Demonstrated through actions a level of competence in leadership, programming, and administrative abilities, as well as a commitment to human values and ethics.
CO 5. Demonstrated analytical and research abilities by means of written reports on the organizational structure and administrative functions of the Fieldwork agency.

20LE404 COMMUNICATIVE ENGLISH-IV

CO 1: Introduce themselves to the others through the soft skills.
CO 2: Comprehend the local and global issues through the play and novel.
CO 3: Different types of warm up activities can be used to group discussion.
CO 4: Use the interactive skills through the negations and homophones in the text.
CO 5: Enhance their language Skills and understanding the social background.

19EN407 BRITISH DRAMA– II (Victorian to Modern Age)

CO 1- Literary texts and understand drama in a skilled, knowledgeable and ethical manner
CO 2- Analyze the effect of the text in the audience or readers.
CO 3- Structure and learn the dramatic devices in writing a play.
CO 4- Develop reading, writing and analytical skills and enhance their critical and creative ideas.
CO 5-Rhetorical aspects of Drama, historical Contexts and psycho-social aspects.

19EN408 BRITISH PROSE

CO 1: Turn into skilled, knowledgeable and ethical interpreters of literary texts in English by nurturing their ability to understand prose.
CO 2: Learn the psycho-social aspects and discern the various cultural and moral values associated with the texts.
CO 3: Represent their experience and ideas critically and creatively.
CO 4: Develop a deeper appreciation of cultural diversity.
CO 5: Develop their own creativity and enhance their writing skills.

AEN404T JOURNALISM & MASS COMMUNICATION

CO 1. Understand basic concepts of communication in the society.
CO 2. Comprehend various types of journalism and their characteristics.
CO 3. Learn basics writing for print media, news values of reporters.
C0 4. Understand news values and media in the society.
CO 5. Knew the requirements of the electronic media organization.

19EN509 AMERICAN LITERATURE-I

CO 1: Love and yearning for another to condemn society, people, self, and nature.
CO 2: Developments in American literature from its beginning to the mid –twentieth century.
CO 3: The ideas related to the literary works during class and group activities.
CO 4: Poetic skills and rhyme pattern.
CO 5: American literary world and initiate to appreciate the literary works.

EN510S SHAKESPEARE

CO 1- Understand Shakespearean romances is terms of language, Character and themes
CO 2- Comprehend the elements of classical tragedy
CO 3- Comprehend the knowledge of Elizabethan history and culture
CO 4- Read, summarize and evaluate critical analysis of Shakespeare's works.
CO 5- Sufficient understanding of Elizabethan English.

19EN511 BRITISH FICTION

CO 1: Identify representative works in the field of novels.
CO 2: Experienced in art, life, sex and morality of modern people.
CO 3: knowledge pertaining to think and write creatively.
CO 4: Analyse and understand the fictional writings.
CO 5: Analyse novels based on their structure and meaning as a modern reader.

EEN512S COMMONWEALTH LITERATURE

CO 1- The significant elements of various poetry genre in commonwealth Literature.
CO 2- Cultural valves and literary developments.
CO 3- Emerging philosophies on the overall development of the human character.
CO 4- Colonialists and their former colonies on a platform of supposed equal relationship as independent nations.
CO 5- Established norms and values became models of interactions across national boundaries.

EEN512A TRANSLATION THEORY

CO 1: The theoretic background of Translations
CO 2: Translation literature.
CO 3: The transliteration and transcreation.
CO4: The importance problems of translation
CO 5: Translation as a literary activity

EEN513S HISTORY OF ENGLISH LANGUAGE

CO 1. Knowledge about the origin and development of the English language.
CO 2.A good knowledge of the growth of the English Language.
CO 3. Understanding of the fundamental concepts and terms in classical criticism.
CO 4. An adequate knowledge of British and American English.
CO 5. The texts in their cultural perspectives and language.

EEN513A A COMPARATIVE STUDY OF HISTORY OF ENGLISH LITERATURE & SOCIAL HISTORY OF ENGLAND

CO 1. Explore English literature and the history of England.
CO 2. Inculcate a comparative analytic sense and a research mind.
CO 3. Understand the link between comparative literature and translation studies.

CO 4. Develop critical analytical skills through the assessment of historical approaches.
CO 5. Understand texts in their cultural and historical contexts.

19EN614 AMERICAN LITERATURE-II

CO 1. Basic knowledge of the origin of American literature.
CO 2. The basic concepts of American literary texts.
CO 3. Difference in Indian and American literature.
CO 4. The classicism in the culture of American texts.
CO 5. The fundamentals of American literature.

EN615S LITERARY CRITICSM

CO 1: Familiarity with the critical ideas and the significance of poetry.
CO 2: Knowledge of the different types of criticism with concrete evidences.
CO 3: Understanding of the critical thought of study of poetry.
CO 4: Knowledge of the development and functions of criticism.
CO 5: Understand the fundamentals of literary criticism.

EEN617S AN INTRODUCTION TO MODERN LINGUISTICS

CO 1. Knowledge of the basic theoretical background of phonetics.
CO 2. Comprehension of understand the characteristics of language.
CO 3. Pronunciation skills and use it in their everyday speech.
CO 4. Knowledge of the classification of phonetics and kinds.
CO 5. Knowledge to develop the Link words naturally in phrases and sentences through phonetics.

EEN617A COMMUNICATIVE ENGLISH

CO 1- Develop their own interpretation and perspectives.
CO 2- Acquire personal and official oral form.
CO 3- Understand the structure of descriptive, narrative, expository and argumentative writing.
CO 4- Comprehend a range official support through formal and informal writings, preparing reports letters, memorandum, notices, agenda, minutes, etc.
CO 5- Develop sufficient ability for reading and understanding.

EEN618S WOMEN'S WRITING

CO 1- The social background and human characters of the era.
CO 2 - In analysing literacy texts through the perspective gender.
CO 3-The reaction of women to the images of women in literature.
CO 4- Aware of class, race and gender and social constructs towards Women's lives.
CO 5 -The plurality of female experiences.

EEN618A SUBALTERN STUDIES

CO 1: Familiarize with recent trends and concepts of subaltern literature.
CO 2: Explore the relationships between society and literature
CO 3: Familiarize the students with the theme of subaltern literature.
CO 4: Acquaint them with different socio cultural movements.
CO 5: Gain knowledge in new areas.

19GCA64B	AN ADVANCED COURSE IN COMMUNICATION SKILLS AND MEDIA AWARENESS

CO1: Demonstrate a basic understanding of communication
CO2: Identify and analyze basic theories of communication
CO3: Explore the impact of social media on people's relationships,especially the **family**, **gender**, **intimate relationships** and **friendships**.
CO4: Consider the current state of the 'digital divide' and how social media relates to the Social problems.
CO5: Examine other possible **welfare** benefits

19GBB31	ENGLISH FOR COMPETITIVE EXAMINATIONS

CO1: Creative thinking, decision making, communication, and understanding of operations and change
CO2 :Verbal ability and quantitative ability
CO3: Individual presentations and interview skills
CO4: The skills and self-confidence to assist in effective career
CO5: Professional life to work as a business manager and entrepreneur.

19GBM42	ENGLISH FOUNDATIONAL COURSE FOR BANK EXAMINATIONS

CO1: Creative thinking, decision making, communication, and understanding of operations and change
CO2: Verbal ability and quantitative ability
CO3: Individual presentations and interview skills
CO4: The skills and self-confidence to assist in effective career
CO5: Professional life to work as a business manager and entrepreneur.

19GCA64A	TECH- EMPOWERMENT ENGLISH TRAINING

CO1: Develop their intellectual, personal and professional abilities
CO2: Acquire basic language skills (listening, speaking, reading and writing) in order to communicate with speakers of English language
CO3: Comprehend the main ideas of texts or paragraphs, and guessing vocabulary from context.
CO4: Acquire professional skills integrating three basic skills, research, information technology and critical thinking
CO5: Gain Knowledge about the career goals and background.

B.A. TAMIL

21LTC01 TAMIL (Language)- 1

CO1: மரபுக்கவிதை,புதுக்கவிதை படிக்க எழுதக் கற்றல்
CO2: காப்பியங்கள்,சமயப்பாடல்கள்,சிற்றிலக்கியங்கள் பற்றிஅறிதல்
CO3: சிறுகதைகளின் சிறப்புகளைஅறிதல்
CO4: உரைநடையின் சிறப்பைக் கற்றல்
CO5: அணிகளின் வகைகளையும் வல்லொற்றுமிகும் இடம்,மிகா இடங்களை அறிதல்.

21LT01 TAMIL (Language) - 1

CO1: மரபுக்கவிதைபடிக்கஎழுதக் கற்றல்
CO2: புதுக்கவிதைபடிக்கஎழுதக் கற்றல்
CO3: புதுக்கவிதையாளர் மரபுகவிதையாளர் பற்றிவிளக்குதல் மற்றும் சிறுகதை இலக்கியத்தின் சிறப்பைக் கூறுதல்.
CO4: சிறுகதைகளின் சிறப்புகளைஅறிதல்
CO5: முதல் எழுத்துசார்பெழுத்துக்கள் பற்றியும் வல்லொற்றுமிகும் இடம்,மிகா இடங்களைப் பற்றியும் அறிதல்.

19TA101 இக்கால இலக்கியம்

CO1: பாரதியார்,பாரதிதாசன்,அறிவுமதி போன்ற கவிதையாளரின் கவிதைகளை படிக்க,எழுதக் கற்றுக்கொடுத்தல்.
CO2: உ.வே.சாவின் உரைநடையின் மூலம் உரைநடை எழுத,படிக்ககற்பித்தல்
CO3: ஜெயகாந்தனின் சிறுகதைகள் மூலம் சிறுகதைகள் படிக்க,எழுதககற்பித்தல்.
CO4: சா. கந்தசாமியின் நாவல் மூலம் நாவல்கள் எழுதகற்பித்தல்.
CO5 நாடகம் நடிக்கவும்,எழுதவும் சொல்லிக் கொடுத்தல்.

TA102 இலக்கணம் I (நன்னூல் - எழுத்ததிகாரம்)

CO1: எழுத்துகளின் பாகுபாடுமுறை, பெயர்,பிறப்பு ஆகியவற்றை கற்பித்தல்
CO2: பகுபத உறுப்புகள், பகுபதம், பகாபதம் போன்றவற்றையும் தமிழின் சிறப்பு எழுத்துகளையும் விளக்குதல்.
CO3: உயிரீற்றுப் புணரியலில் வேற்றுமை, அல் புணர்ச்சி, தொகாநிலை, தொகைநிலை ஆகியவற்றை உணர்த்துதல்.
CO4: மெய்யீற்றுப் புணரியலில் ணகர, றகர ழகர புணரியல் பற்றிக் கூறுதல்.
CO5 உருபுபுணரியல் பற்றி விளக்குதல்.

19ATA101 தமிழக வரலாறும் மக்கள் பண்பாடும்

CO1: தமிழகவரலாற்றையும், இயற்கை அமைப்பையும் கற்றல்.
CO2: சிந்துசமவெளிநாகரீகம், பண்பாடு அறிதல்.
CO3: தமிழ்வளர்த்த சங்கங்களையும்,சங்க இலக்கியங்களையும் கற்றல்.
CO4: பண்டைத்தமிழரின் வாழ்க்கை முறைகளை அறிதல்.
CO5: களப்பிரர், பல்லவர்களின் நான்காம் நூற்றாண்டு முதல் ஒன்பதாம் நூற்றாண்டு வுரையிலான சமூகநிலைகளை அறிதல்.

21LTC02 Tamil (Language) – II

CO1: எட்டுத்தொகை நூல்களின் சிறப்புகளையும் பண்பாட்டையும் விளக்குதல்
CO2: பத்துப்பாட்டு நூல்களின் சிறப்புகளையும் பண்பாட்டையும் விளக்குதல்
CO3: திருக்குறளின் கருத்துகளைஎடுத்துரைத்தல்
CO4: அறநூல்கள்,சங்க இலக்கிய நூல்களின் சிறப்புகளையும் கொடைச் சிறப்பையும் கூறுதல்
CO5: கடிதம்,கட்டுரை,சுருக்கிவரையகற்றுக்கொடுத்தல்.

21LT02 TAMIL (Language) II

CO1: சமய நூல்களின் சிறப்பைஎடுத்துரைத்தல்.
CO2: சிற்றிலக்கியத்தின் வகைகளையும் சித்தர் இலக்கியத்தின் வகைகளையும் எடுத்துரைத்தல்.
CO3: உரைநடையின் வளத்தைவிளக்குதல்
CO4: சமயத்தின் சமுகநோக்கையும்,சிற்றிலக்கியவளத்தையும் விளக்குதல்.
CO5: யாப்புஉறுப்புகளையும் அணி இலக்கணத்தின் சிறப்பைக் கூறுதல்.

EBT201 அடிப்படைத்தமிழ்

CO1: எளியமுறையில் தமிழ்க் கற்கஎடுத்துரைத்தல்.
CO2: உயிர் எழுத்துக்கள்,மெய்யெழுத்துக்களைகற்கவைத்தல்
CO3: உயிர்மெய் எழுத்துக்களின் வகைகளைவிளக்குதல்
CO4: சொல்லின் வகைகளைவிளக்குதல்.
CO5: உடல் உறுப்புபெயர்களின் சிறப்பைக் கூறுதல்.

19TA203 சிற்றிலக்கியம்

CO1: கலம்பக நூலானதிருக்காவலூர்க் கலம்பகம் பற்றிக் கற்றல்.
CO2: உமாபதிசிவாச்சாரியர் எழுதியநெஞ்சுவிடு தூதினைகற்பித்தல்.
CO3: திருக்குற்றாலகுறவஞ்சியின் சிறப்பினைகற்றல்.
CO4: குமரகுருபர் எழுதியசகலகலாவல்லிமாலையின் சிறப்பைஉணர்த்துதல்.
CO5: மீனாட்சியம்மைபிள்ளைத்தமிழ் மூலம் பத்துவகைபருவத்தைஅறிதல்..

TA204 இலக்கணம் II நன்னூல்- சொல்லதிகாரம்

CO1: சொல்லின் பொது இலக்கணத்தையும்,திணைபாகுபாடுமற்றும் மூவகை மொழிப் பற்றிகற்றல்.
CO2: பெயர்ச்சொல்லின் பொது இலக்கணத்தையும்,உயர்திணை அ.ஃறிணைபாகுபாடு மற்றும் மூவிடப்பெயர் பற்றிக் கூறுதல்.
CO3: வினைச்சொல்,வினையெச்சம் பெயரெச்சம் பற்றிக் கற்றல்.
CO4: பொதுவியலில் தொகைநிலை தொகாநிலை தொடர்கள், இரட்டைக்கிளவி, அடுக்குத்தொடர் பற்றிவிளக்குதல்.
CO5: இடைச்சொல்லின் இலக்கணம், உரிச்சொல் பற்றிவிளக்குதல்.

19ATA202 தமிழகவரலாறும் மக்கள் பண்பாடும்

CO1: சோழப்பேரரசின் தோற்றம் வளர்ச்சிவீழ்ச்சியையும் சமூகநிலையையும் கற்றல்.
CO2: பாண்டியரின் ஏற்றமும் வீழ்ச்சியும் மதுரைநாயக்கர் பற்றிகற்றல்.
CO3: தமிழகத்தின் பதிமூன்றாம் நூற்றாண்டு முதல் பதினெட்டாம் நூற்றாண்டு வுரையிலான சமூகநிலையினை கற்றல்.
CO4: ஐரோப்பியர்களின் வரவும் பத்தொன்பதாம் நூற்றாண்டின் சமூகநிலையினையும் கற்றல்.
CO5: இருபதாம்நூற்றாண்டில் தமிழகத்தின் சிறப்புகளைஅறிதல்.

LT 303T TAMIL (Language) III

CO1: இரட்டைக்காப்பியத்தின் ஒற்றுமைவேற்றுமையைவிளக்குதல்.
CO2: சீவசிந்தாமணியின் சிறப்பையும்,கம்பராமாயணத்தின் பெருமையையும் விளக்குதல்.
CO3: சைவ,கிறிஸ்த்துவ, இஸ்லாம் புராணத்தின் சிறப்புகளைஎடுத்துரைத்தல்
CO4: ஐம்பெருங்காப்பியம், ஐஞ்சிறுகாப்பியம், சோழர் கால காப்பியத்தின் சிறப்பை எடுத்துரைத்தல்.
CO5: தொகுப்பாளர் ஆவதற்கான தகுதிகளை எடுத்துரைத்து, பல்வேறு நிகழ்ச்சிகளை தொகுத்துரைக்க வைத்தல். கடிதம், கட்டுரை எழுதச் சொல்லித் தருதல்.

19TA305 சித்தர் இலக்கியம்

CO1: சித்தர்களைப் பற்றிய அறிமுகம், சித்தர்களின் இறைகொள்கைகள்,சித்தமருத்துவம் மற்றும் உடல்,உள்ளபயிற்சிப் பற்றிகற்பித்தல்.
CO2: சிவவாக்கியார் மற்றும் பட்டினத்ததாரின் புலம்பல் பற்றிக் கற்பித்தல்
CO3: பாம்பாட்டிச்சித்தர் மற்றும் பத்திரகிரியார் பாடல்களைக் கற்பித்தல்.
CO4: இடைக்காட்டுச்சித்தர் மற்றும் குதம்பைச்சித்தர் பாடல்களைக் கற்பித்தல்.
CO5: அகப்பேய்ச்சித்தர் மற்றும் கடுவெளிச்சித்தர் பாடல்களைக் கற்பித்தல்

19TA306 இலக்கணம் III யாப்பருங்கலக்காரிகை

CO1: யாப்புஉறுப்புகளானஎழுத்து,அசை,சீர் பற்றிக் கற்றல்.
CO2: தளை,அடி,தொடைப் பற்றிக் கற்றல்.
CO3: பாவகைகளானவெண்பா,ஆசிரியப்பாபற்றிக் கற்றல்.
CO4: கலிப்பா,வஞ்சிப்பாபற்றிக் கற்றல்.
CO5: ஒழிபியலில் சொல்லப்பட்டபாவின் சிறப்புகளைக் கற்றல்.

LT 404T TAMIL (Language) IV

CO1: எட்டுத்தொகை நூல்களின் சிறப்புகளையும் பண்பாட்டையும் விளக்குதல்
CO2: பத்துப்பாட்டு நூல்களின் சிறப்புகளையும் பண்பாட்டையும் விளக்குதல்
CO3: திருக்குறளின் கருத்துகளைஎடுத்துரைத்தல்
CO4: அறநூல்கள்,சங்கநூல்களின் சிறப்புகளையும் கொடைச்சிறப்பையும் கூறுதல்
CO5: நேர்காணல்,பத்திரிக்கைக்குசெய்திசேகரித்தல்,சுருக்கிவரைய கற்றுக்கொடுத்தல்.

19TA407 சமய இலக்கியம்

CO1: திருஞானசம்பந்தர் மற்றும் திருநாவுக்கரசரின் தேவாரம் பற்றிஅறிவித்தல்.
CO2: சுந்தரர்,மாணிக்கவாசகர்,அருணகிரியாரின் சைவ நூல்களைகற்பித்தல்.
CO3: நம்மாழ்வார்,பெரியாழ்வார் திவ்வியபிரபந்தங்களைப் பற்றிஅறிவித்தல்.
CO4: குணங்குடியார் பாடல்கள் மூலம் இஸ்லாமியபாடல்களைகற்பித்தல்.
CO5: வீரமாமுனிவர் தமிழுக்குஆற்றியதொண்டினைகற்பித்தல்.

19TA408 தமிழ் இலக்கிய வரலாறு

CO1: சங்கங்கள்,சங்கஇலக்கியங்கள் மற்றும் சங்கம் மருவியகாலத்து இலக்கியங்களை கற்பித்தல்.
CO2: பல்லவர்,சோழர்,நாயக்கர் காலத்து இலக்கியங்களைகற்பித்தல்.
CO3: சமய நூல்களானசைவம்,வைணவம்,கிறிஸ்த்துவம், இஸ்லாமிய நூல்களின் சிறப்பை எடுத்துரைத்தல்.
CO4: உரைநடைவளர்ச்சிதற்காலம் இக்காலம் வரைஎடுத்துரைத்தல்.
CO5: இருபதாம் நூற்றாண்டு இலக்கியங்கள் மற்றும் தகவல் தொடர்புசாதனங்கள் பற்றி விளக்குதல்.

19A0T401 மொழிபெயர்ப்புக் கலை

CO1: மொழிபெயர்பின் விளக்கம், மொழிபெயர்பின் வகைகள்,மொழிபெயர்பின் பயன்கள் பற்றிகற்றல்.
CO2: பயனிலைமொழிபெயாத்தல், செயப்பாட்டுவினைமொழிபெயர்த்தல் பற்றிகற்றல்.
CO3: வருணனை மொழிபெயர்த்தலிலும், நீண்டதொடர்களில் மொழிபெயர்த்தலிலும் ஏற்படும் சிக்கலை கற்றல்.
CO4:தொடர்களை மொழிபெயர்த்துக் கற்றல்.
CO5;:மொழிபெயர்ப்பாளர் அடையும் சிக்கல்களைக் கற்றல்.

19TA509 காப்பியங்கள்

CO1: இரட்டைக்காப்பியத்தின் ஒற்றுமைவேற்றுமையைவிளக்குதல்.
CO2: சீவசிந்தாமணியின் சிறப்பையும்,கம்பராமாயணத்தின் பெருமையையும் விளக்குதல்.
CO3: சைவ,கிறிஸ்த்துவ, இஸ்லாம் புராணத்தின் சிறப்புகளைஎடுத்துரைத்தல்
CO4: இரட்சணியயாத்திரிகத்தின் சிறப்பைஎடுத்துரைத்தல்.
CO5: சீறாப்புறாணத்தின் சிறப்புகளைஎடுத்துரைத்தல்.

19TA510 இலக்கணம் IV (நம்பியகப்பொருள்)

CO1: அகத்திணையியல் பற்றிவிளக்குதல்.
CO2: களவியலில் பாங்கியற் கூட்டம் பற்றிக் கற்றல்.
CO3: களவியலில் பகற் குரிமுதல் வரைவிடைவைத்து பொருள்வயிற் பிரிவுமுடிய கற்றல்.
CO4: வரைவியல் இலக்கணத்தைக்கற்றல்.
CO5: கற்பியல் இலக்கணத்தையும் சிறப்பையம் கற்றல்.

19TA511 சுவடியலும் கல்வெட்டியலும்

CO1: சுவடியல் விளக்கம் சுவடிப் பயிற்சியின் இன்றியாமையைப் பற்றிக் கற்பித்தல்.
CO2: சுவடிகள் அமைப்பு, வகைகள், ஓலைச்சுவடிகள் தாள் சுவடிகள் பற்றிக் கற்பித்தல்
CO3: சுவடிகளின் எழுத்துமுறைவரிவடிவங்கள் பற்றிக் கற்பித்தல்.
CO4: சுவடிகளைத் திரட்டுதல் ஒப்பிட்டுமீட்டுருவாக்கம் செய்தல் பற்றிக் கற்பித்தல்.
CO5: கல்வெட்டுதோற்றம் வளர்ச்சிஅமைப்பு மற்றும் செப்பேடுகளின் களப்பணிப் பற்றிவிளக்குதல்.

19ETA53 தகவல் தொடர்பியல்

CO1: ஊடகங்களின் கொள்கைகளையும் கோட்பாடுகளையும் விளக்குதல்.
CO2: தகவல்தொடர்பு சாதனங்கள் எவைஎன்பதை விளக்குதல்
CO3: வானொலிநிகழ்ச்சிகள், அறிவிப்புகள் மற்றும் நிகழ்ச்சித் தொகுப்புப் பற்றி விளக்குதல்.
CO4: தொலைக்காட்சிநிகழ்ச்சிகள், அறிவிப்புகள் வானொலிக்கும் தொலைக்காட்சிக்கும் இடையேயான ஒற்றுமை வேற்றுமையை விளக்குதல்.
CO5: இணையத்தைஅறிமுகம் செய்தி இணையஇதழ்களில் தங்களதுபடைப்புகளை வெளியிடுவதுப் பற்றியும் விளம்பரங்கள் பற்றியவிழிப்புணர்வைவிளக்குதல்.

19ETA54 நாட்டுப்புறவியல்

CO1: நாட்டுப்புறவியலின் சமூகமுக்கியத்துவத்தைப் பற்றியும் நாட்டுப்புற இலக்கியம் தோன்றுவதற்கான காரணத்தை கற்பித்தல்.
CO2: நாட்டுப்புறகலைகள், நம்பிக்கைகள், சடங்குகள் பற்றிக் கற்றுத்தரல்.
CO3: பிறப்புமுதல் இறப்புவரையிலான சடங்குகள் விளையாட்டுகளைக் கற்றுக் கொடுத்தல்.
CO4:நாட்டுப்புற இலக்கியவகைகளைக் எடுத்துரைத்தல்.
CO5: நாட்டுப்புறபாடல்களின் இலக்கியசிறப்புகளைக் கற்றுக் கொடுத்தல்.

19TA612 சங்க இலக்கியம்

CO1: எட்டுத்தொகை நூல்களில் ஒன்றானஐங்குறுநூற்றைவிளக்குதல்
CO2: அகநானூற்றின் மூன்றுபிரிவுகளையும் அவற்றின் பாடல்களையும்விளக்குதல்
CO3: பதிற்றுப்பத்தில் சேரமன்னர்களின் சிறப்பையும் எட்டாம் பத்தின் சிறப்பையும் எடுத்துரைத்தல்.
CO4: குறிஞ்சிப்பாட்டின் சிறப்பையும் நெய்தல் பாடல்களையும் விளக்குதல்.
CO5: சிறுபாணாற்றுப்படையில் கொடைச்சிறப்பைவிளக்குதல்.

19TA613 இலக்கணம் V(புறப்பொருள் வெண்பாமாலை)

CO1: புறத்திணையின் சிறப்புபாயிரத்தையும்,வெட்சி,கரந்தைதிணையினையையும் அவற்றின் படலத்தையும் கற்றல்.
CO2: வஞ்சி,காஞ்சிதிணையினையையும் அவற்றின் படலத்தின் சிறப்பையும் கற்றல்.
CO3: நொச்சிப் படலம்,ஊழிஞ்சைபடலத்தின் போர் சிறப்பைக் கற்றல்.
CO4: தும்பை,வாகைபடலத்தின் போரையும் வெற்றியையும் கற்றல்.
CO5: பாடாண்,பொதுவியல் படலத்தில் கூறப்பட்டசெய்திகளைகற்றல்.

19TA614 தமிழ் மொழிவரலாறு

CO1: மொழியின் அமைப்புவரலாற்றையும் தொல் திராவிடமொழியையும் கற்பித்தல்.
CO2: பிராமிகல்வெட்டுமொழிமற்றும் தொல்காப்பியர்,சங்ககாலம்,சங்கம் மருவியகாலத் தமிழ் மொழிகளைக் கற்றல்.
CO3: பல்லவர்,சோழர்,நாயக்கர் காலத்தமிழ் பற்றிக் கற்றல்.
CO4: இருபதாம் நூற்றாண்டுதமிழ் மற்றும் கல்வெட்டுத்தமிழ் பற்றிக் கற்றல்.
CO5: பிறமொழிகலப்புமற்றும் தமிழில் வரிவடிவவரலாறுப் பற்றிக் கற்றல்.

19ETA65 படைப்பிலக்கியம்

CO1: படைப்பு இலக்கியங்களைஅறிமுகம் செய்துஅவற்றின் சிறப்புகளை எடுத்துரைத்தல்.
CO2: மரபுகவிதையின் சிறப்பைவிளக்கிமரபுகவிதைஆசிரியரின் திறமையை எடுத்துரைத்தல்.
CO3: புதுகவிதையைஎடுத்துக்காட்டுடன் விளக்குதல்.
CO4: சிறுகதையின் நடையினைபல்வேறுசிறுகதைஆசிரியரின் கதைகளைக் கொண்டுவிளக்குதல்.
CO5: நாடகத்தின் சிறப்பையும் அமைப்பையும் விளக்குதல்.

19ETA66 Project (களஆய்வு,நூல் ஆய்வு)

CO1: ஆய்வுக்குரிய இடங்களைநேரில் சென்றுபார்த்தல்.
CO2: களஆய்வுசெய்வதனால் பண்பாடு,கலாச்சாரம் அறிதல்.
CO3: களஆய்வு மூலம் கல்வெட்டியல்,சுவடியலின் தன்மையைஅறிதல்.
CO4: களஆய்வு மூலம் நேரடிமனிததொடர்புஉண்டாவுதல்.
CO5: நாடகத்தின் சிறப்பையும் அமைப்பையும் விளக்குதல்.

B.Sc. MATHEMATICS

21MT101 ALGEBRA AND TRIGONOMETRY

CO1: Find the solutions of cubic and polynomial equations.
CO2: Find the summation of varies types of series.
CO3: Find the rank, Eigen valves of matrices.
CO4: Solve system of linear congruence's and apply Euler-Fermat's, Wilson's theorem to Prove relations involving prime numbers.
CO5: Find expansions of trigonometric values and solutions of trigonometric equations.

MT102P ANALYTICAL GEOMRTRY OF THREE DIMENSIONS

CO1: Understand more about three dimension using planes
CO2: Learn straight lines and its symmetrical form problems using straight line
CO3: Study more about straight lines using coplanar and shortest distance between the lines
CO4: Analyze the concepts associated with spheres and solve problems using sphere
CO5: Analyze more about three dimensions using cone and cylinder

21MT203 CALCULUS

CO1: Knowing the basics of differential calculus
CO2: Getting the knowledge of coordinates in differential calculus
CO3: Knowing the asymptotes of differential calculus
CO4: Knowing the basics of integral calculus
CO5: Receiving the knowledge of applications of integrals

21MT204 NUMERICAL METHODS

CO1: Students able to solve the problems in Newton's forward and backward method.
CO2: Students able to solve analyze the difference between Gauss forward and backward, Stirring's method and Bessel's method.
CO3: Students able to certain equal intervals and unequal intervals.
CO4: Students able to determine the solutions for lineal algebraic equations.
CO5: Students able to determine the solutions for Numerical differential equations and integration.

20MT305 DIFFERENTIAL EQUATIONS AND LAPLACE

CO1: Students able to know the basics in Equations of the First Order and Higher Degree
CO2: Students able to understand Euler's homogeneous linear equations
CO3: Students able to do the problems in Different Methods in Differential Equations.
CO4: Students able to study the basics to know the Format of Partial Differential Equation
CO5: Students able to know the Laplace and inverse Transform and Formation of PDF

20MT306 VECTOR AND FOURIER ANALYSIS

CO1: learns to solve problems on gradient and divergence and curl
CO2: knows the difference in line, surface and volume integral and their interpretation
CO3: enables to understand the concepts on Fourier series expansions and familiarizes with half range Fourier series along with periodic functions
CO4: analyze sine and cosine transforms

CO5: enables to understand the properties of Fourier transform, Convolution and Parsevals theorem

MT407S FUZZY SETS AND APPLICATIONS

CO1: Provides knowledge on the basic definitions and fundamentals of Fuzzy set theory.
CO2: Able to understand idea on Fuzzy graphs and its properties
CO3: Improves their ability in the concept of Fuzzy relations in real life situations
CO4: Attains knowledge of the Fuzzy Logic in different forms
CO5: understands the applications of Fuzzy logic in day to needs

MT408 GRAPH THEORY

CO1: Know the variety of example and some elementary results.
CO2: Learn to justify some operation and mathematical expression on graph.
CO3: know the basic properties of connected and disconnected graphs.
CO4: Able to understand the concept of euler and Hamiltonian in the area of puzzles and Games
CO5: Enable to understand the Chemical composition using trees and colouring in real life Situations.

MT509 ABSTRACT ALGEBRA

CO1: Students able to identify groups and subgroups.
CO2: Students able to understand homomorphism and isomorphism.
CO3: Students able to do the problems in permutation.
CO4: Students able to study the basics of rings, ideals and integral domain.
CO5: Students able to apply Euclidean rings in theorems.

MT510 REAL ANALYSIS- I

CO1: Define and recognize the basic properties of the field of real numbers.
CO2: Define and recognize the sequence and convergence of sequences.
CO3: Find the limit of wide class of sequences of real numbers
CO4: Decide on convergence or divergence of a wide class of series of real numbers.
CO5: Define and recognize continuity of real functions, open and closed sets.

MT511A COMPLEX ANALYSIS-I

CO1: Analyze and solve problems using complex numbers.
CO2: Knowledge pertaining to functions of complex variables, limits and continuity.
CO3: Analyze and solve problems using Cauchy Riemann equations and analytic functions.
CO4: Knowledge pertaining to elementary functions.
CO5: Analyze and solve problems using Definite integrals of functions.

EMT512A MECHANICS

CO1: Analyze and solve problems of types of forces and resultant of the force.
CO2: Knowledge pertaining to kinematics and work, power, energy and Simple Harmonic mean.
CO3: Analyze and solving problems using projectiles.
CO4: Knowledge pertaining to solve problems using central orbit.
CO5: Analyze and solving problems about momentum of inertia.

EMT512A1 SPECIAL FUNCTIONS

CO1: Analyze the properties of linear operators and solve simultaneous linear differential equations.
CO2: Solve types of non-linear equations and numerical solutions using Taylors Series.
CO3: Analyze extrapolating data using differences properties of power series.
CO4: Solve second order differential equations.
CO5: Solve Bessel's function and Legendre function.

EMT513S MATLAB

CO1: Students able to know the basics to know Matlab and how to work on it.
CO2: Students able to do the programs based on operations.
CO3: Students able to know the Loops and how to work on it.
CO4: Students able to study the basics to polynomials used in Matlab.
CO5: Students able to solve equations and ordinary differential equations.

EMT513A THEORY OF FUZZY NUMBER SYSTEM (Optional Paper)

CO1: Provides knowledge on the basic definitions and fundamentals of Fuzzy set theory.
CO2: Able to understand idea on Fuzzy graphs and its properties
CO3: Improves their ability in the concept of Fuzzy relations in real life situations
CO4: Attains knowledge of the Fuzzy Logic in different forms
CO5: understands the applications of Fuzzy logic in day to needs

MT614 LINEAR ALGEBRA

CO1: Beginning with Linear Dependence and Linear Independence on Vector Space
CO2: Knowing about Dual spaces and Inner product spaces on Vector space
CO3: Learning to study about Algebra of Linear transformations and its characteristic roots
CO4: Converting Linear equations of Vector space to Matrices its canonical and triangular forms
CO5: Deriving Trace and Transpose of Matrices.

MT615 REAL ANALYSIS-II

CO1: Describe open sets, connected sets and bounded sets
CO2: Learn completeness and compactness of metric spaces
CO3: Determine the Riemann integrability of a bounded function and prove a selection theorems concerning integration
CO4: Apply the mean value theorem and the Fundamental theorem of calculus to problems in the context of real analysis
CO5: Study Taylor's, Binomial theorem and L'Hospital rule and find solution to problems

MT616 COMPLEX ANALYSIS-II

CO1: Analyze and solve problems using connected domains Liouville's theorem.
CO2: Knowledge pertaining to convergence sequence and series along with Taylor's and Laurent's series.
CO3: Analyze and solve problems using Cauchy Residue theorems and types of singular points.
CO4: Knowledge pertaining to improper and definite integrals involving sines and Cosines.
CO5: Analyze and solve problems using linear transformations and conformal mapping.

EMT617S PROGRAMMING IN C LANGUAGE

CO1: Knowledge pertaining to C-Language Fundamentals
CO2: Logic using Control Statements
CO3: Modular Programming using Functions
CO4: Knowledge pertaining to arrays and structures.
CO5: Advanced Programming techniques using pointers and files concepts.

EMT617A PROGRAMMING IN PYTHON

CO1: Knowledge pertaining to Python Fundamentals
CO2: The basics of Operators in Python
CO3: Modular Programming using Control statements
CO4: Knowledge pertaining to Mathematical functions.
CO5: Writing Python Scripts techniques.

EMT617A1 MATHEMATICAL MODELING (Optional Paper)

CO1: Describe standard modeling procedures, which involve observations of a natural system using first order O.D.E
CO2: Learn to use modelling in various fields like population, economics and medicine using system of O.D.E
CO3: Analyze and apply mathematical modelling for miscellaneous model
CO4: Study mathematical modelling through Difference equation
CO5: Analyze and draw modelling through Graphs

EMT618A OPERATIONS RESEARCH

CO1: Use knowledge of operational research, LPP.
CO2: Formulate physical problems as operational research using assignment models.
CO3: Understand analogies between transportation problem, phenomena in operational Research.
CO4: Classify operational research, game theory, interpret the solutions.
CO5: Interpret solutions in network analysis.

EMT618A1 ASTRONOMY

CO1: Students able to know the basics in Spherical Trigonometry basics
CO2: Students able to understand about Earth.
CO3: Students able to know Astronomical Refraction.
CO4: Students able to study the basics of Laws.
CO5: Students able to know about Moon.

21AMCS11 ALLIED MATHEMATICS – I

CO1: Knowledge pertaining to polynomials equations in varies field.
CO2: Able to find solutions of transformation of equation by increasing or decreasing roots.
CO3: Knowledge pertaining to consistency of equations of matrices and Eigen roots and Eigen vectors.
CO4: Knowledge pertaining to expansions of $\sin\boldsymbol{\theta}$, $\cos\boldsymbol{\theta}$, $\tan\boldsymbol{\theta}$ and Hyperbolic functions.
CO5: Knowledge pertaining to find solutions of nth- derivatives and radius of curvature.

21AMT11 ALLIED MATHEMATICS – I

CO1: Attains knowledge on finding roots for polynomial, irrational, complex equations.
CO2: develops the skill of transformation, approximation and reciprocal on equations.
CO3: adopts techniques in solving problem involving Matrices
CO4: provides skills on finding curvature and radius of curvature in Cartesian and polar co-ordinates.
CO5: enables to understand the applications of integration in real life situation.

21AMCA11 MATHEMATICAL FOUNDATIONS

CO1: Understand operators and solve problems using operators
CO2: Know the concept of set theory, relation and function
CO3: Solve problems using permutation and combination
CO4: Understand more about matrices and solve problems using matrices
CO5: Learn characteristic roots and characteristic vectors and solve problems

AMCS22A ALLIED MATHEMATICS – II

CO1: Find the solution using dominance property.
CO2: Solve Transportation Problem.
CO3: Find Perfect job allocation using Assignment Problem.
CO4: Compute scalar and vector product, gradient and curl of functions.
CO5: Find interpolating data using Lagrange and Newton's formula.

AMT202T ALLIED MATHEMATICS – II

CO1: Attains knowledge on finding the expansions of trigonometric and hyperbolic functions
CO2: provides a basic knowledge of Partial Differential equations and develops knowledge on handle practical problems.
CO3: adopts techniques in solving problems involving vector and scalar functions
CO4: provides skills on finding derivatives and gradients on vector differentiation and Integration.
CO5: enables to understand the applications of differentiation and integration in real life situation.

AMTCA302 NUMERICAL METHODS

CO1: develops the skill of calculation through forward and backward interpolations
CO2: learns to solve by central difference methods
CO3: knows to calculate interpolation for unequal intervals
CO4: collectively solves the solutions of simultaneous equations using different methods.
CO5: enables to understand the applications of integration in real life situation**.**

20ABM33 RESOURCE MANAGEMENT TECHNIQUES

CO1: Students able to know the basics in Operation Research and make the Model.
CO2: Students able to understand Transportation Method.
CO3: Students able to understand Assignment Model.
CO4: Students able to do the problems in Job problems.
CO5: Students able to study the basics to solve the Game problem.

20AMCA43	RESOURCE MANAGEMENT TECHNIQUES

CO1: Students able to know the basics in Operation Research and make the Model.
CO2: Students able to understand Transportation Method.
CO3: Students able to understand Assignment Model.
CO4: Students able to do the problems in Job problems.
CO5: Students able to study the basics to solve the Game problem.

AMCM401	BUSINESS MATHEMATICS

CO1: Know the basic concepts of operations on sets, relations and functions.
CO2: Learn to form an equations of straight line, distance, slope and interpretations.
CO3: Abel to find limit, continuity, average and marginal concepts using differential calculus.
CO4: Able to understand the operations on matrices and to find solution of system of linear equations.
CO5: Enable to calculate percentage, simple and compound interests.

AMBM401	MATHS FOR COMPETITIVE EXAMS

CO1: Know the basic concepts of operations on sets, relations and functions.
CO2: Learn to form an equations of straight line, distance, slope and interpretations.
CO3: Able to find limit, continuity, average and marginal concepts using differential calculus.
CO4: Able to understand the operations on matrices and to find solution of system of linear equations.
CO5: Enable to calculate percentage, simple and compound interests.

3NMTQA	QUANTITATIVE APTITUDE

CO1: Acquires the knowledge on calculative skills
CO2: develops the skill of analyzing
CO3: exposed to identify and solve different kinds of problems to be solved
CO4: to optimize inner confidence of approaching the task
CO5: gets knowledge on importance on quantitative techniques

B.Sc. PHYSICS

19PH101 PROPERTIES OF MATTER

CO1: Learn the basics of elasticity and its importance in beams
CO2: Study the concepts of Elasticity and the various methods to determine the parameters experimentally
CO3: Acquire Knowledge of bending of beams
CO4: Be familiar with the surface tension
CO5: Study the concepts of viscosity and surface tension and the various methods to determine the parameters experimentally

19PH102 MECHANICS

CO1: Understand the basic ideas of Centre of Gravity, Centre of Pressure and Fluid dynamics.
CO2: Understand the various concepts of mechanics involved in Rigid bodies.
CO3: Acquire the concepts of space science
CO4: Acquire the knowledge about the projectile and friction
CO5: Apply the knowledge to the mechanism of system of particles.

19PH203 THERMAL PHYSICS

CO1: Acquire knowledge of methods of heat transmission, different types of Heat engines and Entropy
CO2: Understand the nature and the kinetic theory of gases
CO3: Understand the different methods of liquefaction of gases.
CO4: Study the concepts of low temperature physics, refrigeration and air conditioning.
CO5: Understand the concepts of latent heat and its effect on boiling point and melting point and the significance of Maxwell's thermodynamical relations

19PH204 WAVES AND OSCILLATIONS

CO1: Acquire knowledge of Simple Harmonic Motion
CO2: Understand the character of Transverse waves
CO3: Understand the character of longitudinal waves and Doppler Effect
CO4: Acquire the knowledge of production, detection and applications of Ultrasonics
CO5: Acquire knowledge of Acoustics.

19PH305 ELECTRICITY AND MAGNETISM

CO1: Understand the concepts of Electrostatics and the laws associated with them.
CO2: Acquire knowledge of current electricity and thermoelectricity
CO3: Understand the growth and decay of charge and current in DC circuits.
CO4: Understand the basics of AC and Electromagnetic induction
CO5: Understand the concepts of magnetic properties of materials

19PH306 BASIC ELECTRONICS

CO1: Understand the concept of Diodes and its characteristics
CO2: Understand the characteristics of transistors
CO3: Acquire the knowledge of various oscillators.
CO4: Understand the wave shaping circuits and multi vibrators
CO5: Acquire the knowledge of various applications of electronics

19PH407	ATOMIC PHYSICS

CO1: Acquire knowledge through discharge phenomenon through gases
CO2: Get the basic knowledge of atomic structure
CO3: Acquire knowledge ionization potential and splitting of energy levels
CO4: Understand the concept of photo electricity and verifications by experiments.
CO5: Understand the production and properties of X-rays.

19PH408	APPLIED ELECTRONICS

CO1: Obtained knowledge of special devices and applications
CO2: Study of various linear operational amplifier circuits
CO3: Study of various applications of operational amplifier.
CO4: Basis introduction of555 timer and locked loop
CO5: Acquire basis ideas of D/A and A/D converter

19PH509	OPTICS & SPECTROSCOPY

CO1: Learn the basics of Geometrical Optics and Lenses
CO2: Study the concepts Interference and its applications
CO3: Acquire Knowledge about Diffraction and its applications
CO4: To Understand the concept of Polarization and its application in analyzing the optical activities
CO5: To Procure the Fundamental knowledge of Spectroscopy

19PH510	SOLID STATE PHYSICS

CO1: To Learn the Fundamental of Bonds in Solids
CO2: To Study the concepts of X-ray diffraction its applications in solids
CO3: Understanding the properties of Magnetism and its applications in quantum physics
CO4: Acquiring the knowledge of Dielectrics and its properties in various materials
CO5: To Procure the knowledge of Superconductivity and its applications

19PH511	DIGITAL ELECTRONICS

CO1: To Learn the Fundamental of Digital electronics & Microprocessor
CO2: To Study the functions of Boolean algebra
CO3: Obtaining the knowledge about Arithmetic circuits & Sequential Logic circuits
CO4: To Learn about the working of D/A & A/D Converters
CO5: To Introduce the concepts and working of microprocessor 8085

19EPH51A	ELECTRICAL WIRING

CO1: To learn the fundamentals of electricity, electrical parameters and testing tool.
CO2: Understand different methods of electricity generation and types of motors.
CO3: Study the electrical components, symbols, types of circuits and tools
CO4: To Study the various methods of joining conductors and electrical accessories
CO5: Learn the methods of wiring a house and industry and Hands on training on house wiring and troubleshooting the electrical circuits and appliances.

19EPH51B	NUMERICAL METHODS & BASIC COMPUTER PROGRAMMING

CO1: To Learn the Solve various Fundamental mathematical equations
CO2: To Study the functions of Interpolation methods

CO3: Acquiring the knowledge about Numerical integration & Differentiation
CO4: To Learn the Basic of C Language
CO5: To Procure the concepts of Control Statements in C Language

19EPH52A GEOPHYSICS

CO1: To know the information about the earth and solar system
CO2: To Learn the interpretation of Mathematical functions in geographical fields
CO3: Obtaining the knowledge about the Magnetic field on earth
CO4: To Learn the concepts of Seismology
CO5: To Learn the basics of Geodynamics

19EPH52B FIBER OPTIC COMMUNICATION

CO1: To understand the basics of optic fibers
CO2: To study the information about the characteristics of fiber optics
CO3: To obtain the knowledge about the Communication processes
CO4: To study the functions of couplers and connectors
CO5: Procuring the functions of Analog and Digital Links

21PH612 RELATIVITY & QUANTUM MECHANICS

CO1: To understand the concept of Relativity
CO2: To Learn the principles& properties of waves and matter
CO3: To know about the Schrodinger equations and its applications
CO4: To study the mathematical functions in physics
CO5: To Gain the knowledge about the special functions

19PH613 NUCLEAR &RADIATION PHYSICS

CO1: To understand the Basic concept Nuclear Structure
CO2: To Acquire knowledge about Radio Active Decay
CO3: Understanding the Construction & Working of various Particle Accelerators
CO4: To study the Working of Nuclear reactors & Radiation
CO5: To study the Basic Classification of Elementary Particles

19PH614 ASTROPHYSICS

CO1: Study about the History of Astronomy and Celestial Mechanics
CO2: Learn the concepts of astronomical instrumentation
CO3: Acquire Knowledge of Stellar Magnitudes and Colors
CO4: Be familiar with the Stellar structure
CO5: Apply the knowledge of stellar evolution

19EPH63A BASIC COMPUTATION FOR PHYSICS

CO1: Impart basic level appreciation programme for the common man
CO2: Use the computer for basic purposes of preparing his personnel/business letters
CO3: Understand the usage of spread sheet
CO4: Be familiar with making small presentations
CO5: Apply the knowledge of Origin software & Adobe Photoshop

19EPH63B	ENERGY PHYSICS

CO1: Study about the Conventional Energy Sources
CO2: Learn about the Non-Conventional Energy Sources
CO3: Acquire Knowledge of Biomass energy
CO4: Be familiar with the geothermal energy
CO5: Apply the knowledge of Energy storage and impacts of Non-conventional energy

APH301/401	ALLIED PHYSICS

CO1: Study about Bending of beams and sound
CO2: Learn concepts of Electricity and Magnetism
CO3: Using the computers and enjoy in the world of Information Technology
CO4: Be familiar with Interference and optical activity
CO5: Apply the knowledge of Quantum mechanics and Electronics

B.Sc. CHEMISTRY

19CH101 ORGANIC CHEMISTRY – I

CO1: Understanding of the basic principles of Organic Chemistry and the IUPAC rules for naming organic molecules.
CO2: Knowledge of Preparation and Reactions of the Hydrocarbons like Alkanes , Alkenes and Alkynes.
CO3: Knowledge of Preparation and Reactions of Dienes and Allenes.
CO4: Knowledge and understanding of Conformational isomerism and Geometrical isomerism.
CO5: Knowledge of methods of distinguishing geometrical isomers.

19CH102 KINETIC THEORY OF GAS AND CHEMICAL KINETICS

CO1: Students acquire the knowledge about units and their dimensions and a knowledge about gaseous laws and their applications.
CO2: Students learn the kinetic gas equation and understand the concepts like diffusion, effusion and Collisions.
CO3: Students learn the concept of equilibrium and adsorption.
CO4: A knowledge on Chemical kinetics is given with problem solving skills.
CO5: Students understand the knowledge of solutions, concentration terms and mesophases.

19CHP101 INORGANIC QUANTITATIVE ANALYSIS

CO1: Students learn inorganic quanitative analytical techniques.

20ACH101 ALLIED CHEMISTRY – I

CO1: To introduce the basic concepts of organic chemistry and chemical bonding.
CO2: Students will learn the fundamental aspects of co-ordination chemistry and bio-inorganic chemistry.
CO3: To study few basic and important concepts of physical chemistry.
CO4: Students acquire knowledge about the basics of pharmaceutical chemistry and learn about few drugs.
CO5: Students learn some applied chemistry methods such as polymer chemistry and Biofuels.

21CH203 INORGANIC CHEMISTRY – I

CO 1: Students acquire the knowledge about unit atoms and accommodation of electrons and their periodic trends.
CO 2: Students learn the comparative account of alkali and alkaline earth metals.
CO 3: Students learn the elements of boron and their applications.
CO 4: A knowledge on ionic, covalent bonds and nature solvents.
CO 5: Understanding on molecular orbital theory.

20CH204 ANALYTICAL CHEMISTRY- I

CO 1: Students will acquire knowledge of error analysis.
CO 2: To understand the various concentration units and to know how to prepare solutions of varying concentrations.
CO 3: To understand the basics of electronics.
CO 4: Data handling/ statistical treatment of data.

CO 5: Potentiometric, Coulometric, and Voltametric methods of analysis. Chromatographic techniques and applications.

CHP202	INORGANIC QUALITATIVE ANALYSIS AND PREPARATIONS

CO1: Students acquire the experimental skill of analyzing acid and basic radicals.
CO2: Students get to know the preparation of inorganic compounds.

21ACH202	ANALYTICAL CHEMISTRY

CO1: Students learn various crystallization and distillation methods involved in the purification of solid and liquid chemicals.
CO2: Students acquire the knowledge of various chromatographic separation techniques.
CO3: Students learn various analyzing abilities of Polarography, Polarimetry and Cyclic Voltammetry.
CO4: Students learn various Spectroscopic techniques.
CO5: Students learn the concepts of analysis, estimations and purification of water.

21ACH201	ALLIED CHEMISTRY FOR ZOOLOGY

CO1: Students will learn the fundamental aspects of basic chemistry which will be useful for their study.
CO2: Students will learn the purification techniques for the solid and liquid compounds.
CO3: Students will learn the basic Chromatographic techniques for separation and extraction of chemical compounds.
CO4: Students acquire the knowledge about basic spectroscopic techniques.
CO5: Students learn about the technology of water and various water treatment processes.

CH305A	INORGANIC CHEMISTRY-II

CO1: Students acquire the knowledge about the theory behind the practicals and solvents.
CO2: Students learn the comparative study of carbon group elements and their applications.
CO3: Students learn the elements of nitrogen and oxygen group elements.
CO4: A knowledge on halogen family and its applications.
CO5: Students acquire the knowledge about halogens and their reactivity.

CH306S	ANALYTICAL CHEMISTRY- II

CO1: Students learn about the principles of gravimetric analysis and thermo analytical methods.
CO2: Students learn separation and purification techniques.
CO3: Students learn about the principles and uses of Polarography, Polarimetry and Amperometry.
CO4: To learn UV- Visible spectroscopy and X-Ray methods.
CO5: To impart the knowledge of water treatment and parameter calculations.

20ACH301	ALLIED CHEMISTRY FOR PHYSICS

CO1: Students learn the basic concepts and applications in nuclear chemistry.
CO2: Students understand some important concepts in spectroscopy and the properties of dilute solutions.
CO3: Students learn the concepts in solid state chemistry.

CO4: Students learn the concepts of acid base titrations and basic principles and uses in conductometry, Amperometry and Voltametry.
CO5: Students understand the superconductors & electrode reactions.

19CHP303 PRACTICAL CHEMISTRY – III - QUALITATIVE ORGANIC ANALYSIS PRACTICAL

CO1: Students acquire the experimental skill of analyzing various organic functional groups.
CO2: Students get to know the preparation of organic compounds.

19CH407 ORGANIC CHEMISTRY - II

CO1: Knowledge pertaining to reaction and mechanism of aliphatic nucleophlic substitution.
CO2: Logic to explain aromatic electrophilic and nucleophlic substitutions.
CO3: Expertise in preparation and reactions of alcohols, ethers and phenols.
CO4: Expertise in reactions of aldehydesa and ketones.
CO5: Reaction of carboxylic acids.

19CH408 INTRODUCTION TO MOLECULAR STRUCTURE

CO1: To study the quantum concept and atomic and molecular structures.
CO2: To study about bonding and orbitals.
CO3: To study the principle, selection rules and applications of spectroscopy.
CO4: To study about symmetry elements and properties of solid state.
CO5: To understand about electronic, vibrational, raman and microwave spectroscopy to molecular level.

CHP404 PRACTICAL CHEMISTRY – IV - PHYSICAL METHODS PRACTICAL

CO1: Students learn the ability to find melting point and boiling point of chemicals.
CO2: Students learn the purification of impure Naphthalene and decolourisation of brown sugar.
CO3: Students learn the determination of Viscosity and Surface tension.

NCHEC401 ENTREPRENEURIAL CHEMISTRY

CO1: To get the knowledge about soaps and its manufacture.
CO2: To get the knowledge of different types of detergents.
CO 3: To get the knowledge of different types of Face and skin powders.
CO 4: To get the knowledge of different types of solid disinfectants.
CO5: To get the basic and synthetic knowledge of floor cleaning agents.

19CH509 ORGANIC CHEMISTRY - III

CO1: Students learn the chemistry of nitro compounds and their applications.
CO2: Students will learn the fundamental aspects of stereochemistry and its influence on chemical properties.
CO 3: Students acquire the knowledge in carbonyl compounds.
CO 4: Students learn the application of some named reactions and their mechanisms.
CO5: Students learn about chemistry of carbohydrate, amino acids and its applications.

19CH510 INORGANIC CHEMISTRY – III

CO1: To understand the general characteristics and the metallurgical process of the d block elements.
CO2: To explain the isomerism in coordination compounds.
CO3: To describe Werner's theory, valence bond theory, crystal field theory of coordination compounds
CO4: To improve the level of understanding of the CFSE, Jahn – Teller effect and its consequences.
CO5: To describe the principles concerning solid state structures

CH511S EQUILIBRIUM THERMODYNAMICS OF GASEOUS SYSTEMS

CO1: To learn the concept of thermodynamics and apply it to physical and chemical systems.
CO2: To study the fundamental aspects of thermochemistry and able to calculate enthalpy of reaction.
CO3: To understand the efficient way of converting energy into work from the thermodynamic perspective and to learn the physical significance of entropy.
CO4: To study the third law of thermodynamics and to acquire knowledge about the conditions for spontaneity of chemical reactions.
CO5: Students get to know the informations through Phase diagram and to learn the basic concepts of Phase equlibria.

ECH512 ANALYTICAL TECHNIQUES

CO1: To learn the basic analytical methods and appreciate what is involved in an analysis
CO2: To enable the students to develop instrumentation skills.
CO3: Be able to describe Ultraviolet and visible spectrophotometry.
CO4: Be able to know Infrared Spectroscopy.
CO5: Be able to Know Nuclear Magnetic Resonance (NMR).

ECH512A FORENSIC CHEMISTRY

CO1: Students acquire the awareness of adulteration in various food materials.
CO2: Students get to know the analytical idea for detecting various crime and defusing live bombs.
CO3: To give an exposure to find, analyze and suitable methods to detect the crime.
CO4: understanding and detecting forgery and Counterfeiting.
CO5: Able to explain medical application and prevention.

ECH513A CHEMISTRY OF INDUSTRIAL PRODUCTS

CO1: Students learn about the preparation and applications of soaps and detergents.
CO2: Students acquire the knowledge of shampoos and dyes.
CO3: Students learn about preparation of face powder and nail polish
CO4: Students learn about leather, sugar and agricultural chemistry
CO5: Students get to know the chemical aspects of lubricants and explosives

ECH513B FOOD CHEMISTRY

CO1: To impart the awareness about food adulteration.
CO2: Students aware of food poison and first aid for poison consumed victims.
CO3: Students learn about various concepts of food additives.

CO4: Students get the knowledge of beverages.
CO5: Students get to know edible oils and preventing of heart diseases.

CHP605 PHYSICAL CHEMISTRY PRACTICALS

CO1: Students get the exposure on kinetic experiments.
CO2: Students get the exposure on colligative properties.
CO3: Students learn the effect of impurity in solutions.

CHP606 GRAVIMETRIC ESTIMATION

CO1: Students learn various estimations through gravimetric methods.
CO2: Students learn how to handle the drying of precipitates.
CO3: Students learn the techniques of filtration.

CHP607 ANALYTICAL CHEMISTRY PRACTICALS

CO1: Students learn Chromatographic techniques of TLC and Column.
CO2: Students learn Conductometry and Potentiometry through various determinations.
CO3: Students learn Colorimetry and pH metry.

19SSCH52 EVERYDAY CHEMISTRY

CO1: Students know the basics of chemistry in our life. To know the chemicals used in day today life.
CO2: Students know their own diet and sources of nutrition.
CO3: Students know about the food colours, Plastics, drugs etc.
CO4: Understanding the importance of chemistry (and science) in developing sustainable environmental and agricultural practices.
CO5: Students know the preservation methods.

19CH614 ORGANIC CHEMISTRY -IV

CO1: Knowledge and understanding of the principles of UV and IR spectroscopic techniques and the ability to interpret the data obtained from UV and IR Spectrometers.
CO2: Knowledge and understanding of the principles of NMR and Mass spectroscopic techniques and the ability to interpret the NMR and Mass spectral data.
CO3: Knowledge of the oxidizing and reducing agents and their applications in organic synthesis.
CO4: Understanding of the principles of pericyclic and photochemical reactions and the ability to apply them in solving problems.
CO5: Knowledge of preparation and properties of heterocycles, Terpenoids and some specific alkaloids.

19CH615 INORGANIC CHEMISTRY - IV

CO1: To understand the chemistry of f-block elements.
CO2: To gain Knowledge on basic concepts in Nuclear chemistry.
CO3: To describe role of different metal ions in biological system and to recognize role of porphyrin ring in hemoglobin.
CO4: To know about the bond between transition metal and carbon, ligands and to count total of electrons in organometallic compound.
CO5: To understand the catalytic process in organo metallic chemistry.

CH616T	THERMODYNAMICS OF IDEAL AND NON-IDEAL SOLUTIONS

CO1: To learn partial molar properties of system, colligative properties and to acquire knowledge about the phase diagram of mixtures.
CO2: To study the principle of chemical equilibrium and the response of equilibrium to the conditions.
CO3: To acquire knowledge about hydrolysis of salt, common ion effect, acid base indicators and able to determine solubility product, pH of buffer solution and salt solution.
CO4: To understand the interconversion of chemical energy and electrical energy, electrode reactions and working principle of battery
CO5: To relate the laws of thermodynamics with electrochemistry and to gain the knowledge about electrochemical cells.

ECH617T	MEDICINAL CHEMISTRY

CO1: Students impart the knowledge in drug designing.
CO2: Students acquire the knowledge of antibiotics.
CO3: Students to get the knowledge about antineoplastic agents and cardiovascular drugs.
CO4: Students shall understand the chemistry of anti- infective drugs.
CO5: Students acquire the knowledge of psychoactive drugs.

ECH617A	AGRICULTURAL CHEMISTRY

CO1: To give the students the importance of Agricultural chemistry and exposure.
CO2: To find, analyze and find a suitable method to cultivate and promote agricultural methods.
CO3: To learn about fertilizers and pesticides.
CO4: To study the origin, characterization and testing of soils.
CO5: To understand ethical issues and responsibility of serving the society and the environment at large.

ECH618A	POLYMER CHEMISTRY

CO1: To know the concept of polymerization and types of polymers.
CO2: To understand the characteristics of polymers.
CO3: To acquire knowledge about the polymerization techniques and polymer processing.
CO4: To know the chemistry of individual polymers.
CO5: To have an idea about the recent advances in polymer sciences.

ECH618B	GREEN CHEMISTRY

CO1: Students learn the principles behind organic synthesis by Microwave-assisted synthesis and sonication method.
CO2: Students acquire the knowledge on green reactions.
CO3: Students understand the uses of green solvents.
CO4: Students learn the basics and Techniques to synthesize nanoparticles.
CO5: Students learn about Nano Materials and their Characterization.

B.Sc. BIOCHEMISTRY

BC101A BIOMOLECULES-I

CO1-Students are able to understand the nature and types of chemical bonds and types of isomerism.
CO2-Students are able to comprehend the classification of monosaccharides and their properties.
CO3-Students are able to gain knowledge about classification and properties of disaccharides and polysaccharides.
CO4-Students are able to acquire knowledge about the structure and types of DNA and RNA
CO5-Students are able to exhibit the understanding about the structure and functions of heterocyclic compounds

BC102A CELL BIOLOGY

CO1: To understand the structure and basic components of prokaryotic and eukaryotic cells and also gain insights about various types of membrane transport.
CO2: Students gain knowledge and understanding about the morphology, types and functions of cell organelles such as lysosomes, ribosomes and chloroplast.
CO3: Students acquire knowledge about the morphology and functions of cell organelles like Mitochondria, Golgi complex and micro bodies.
CO4: Tounderstand the structure and functions of chromosomes and learn the phases of cell cycle and cell division.
CO5: Students are able to understand the components and functions of cytoskeleton and cell adhesion molecules.

BC203A BIOMOLECULES-II

CO1: Students are able to understand the classification, structure and functions of lipids and their properties.
CO2: Students are able to gain knowledge about the classification of amino acids and their properties.
CO3: Students are able to learn and understand the different classification of proteins, properties, and their separation methods.
CO4: Students are able to acquire knowledge about the different levels of protein structure apart from the determination of amino acid sequences and chemical synthesis of proteins.
CO5: To acquire knowledge about the structure and function of biologically important peptides.

BC204A NUTRITIONAL BIOCHEMISTRY

CO1: To understand and demonstrate their nutritional measurement of different food stuffs.
CO2: Able to gain knowledge about the biological value of proteins by different methods
CO3: To gain insights depth about the deficiency and functional aspects of different types of vitamins
CO4: To acquire knowledge about the physiological functions and deficiency of minerals
CO5: Able to demonstrate different dietary plan for different age groups

BC305A ENZYMOLOGY

CO1: To gain knowledge about the classification, mechanism and chemical nature of enzymes.
CO2: To aquire knowledge about the mechanism of enzyme action using different kinetic equations and also get indepth insights about various enzyme inhibition.
CO3: To understand and able to interpret the inhibition and regulation of Allosteric enzymes
CO4: To gain knowledge about the different types of enzyme catalysis and coenzymes.
CO5: To gain skill and knowledge about the purification andcommercial applications of enzymes.

BC306A BIOCHEMICAL TECHNIQUES

CO1: To gain knowledge about the properties of colloidal particles and understand the viscosity, surface tension and osmosis concept.
CO2: To acquire knowledge about the principles of pH and its measurement using electrodes and understand the buffers and its role in biological system.
CO3: To get in-depth understanding about the principles of spectroscopy and gain thorough knowledge about UV-Visible spectroscopy.
CO4: Able to gain knowledge and understanding about the working principles, instrumentation and applications of spectroscopic techniques such as spectrofluorimetric, flame photometry and atomic absorption spectroscopy.
CO5: To gain knowledge about the principles and applications of centrifugation and its types.

BC407A BIOENERGETICS & METABOLISM

CO1: To gain knowledge about the major pathways of carbohydrates such as Glycolysis, TCA cycle, Glycogen metabolism and pentose phosphate pathway
CO2: To acquire knowledge about the various pathways of lipids: how it generates energy and performs cellular work.
CO3: To understand the different catabolic pathwa y of amino acid metabolism along with urea cycle.
CO4: Able to understand the different biosynthetic and biodegrade pathway of nucleotide metabolism and its coenzymes.
CO5: To gain insights about the various components and metabolic steps involved in ETC.

BC408A BIOCHEMICAL TECHNIQUES – II

CO1: To gain knowledge about the operating principles & applications of chromatography
CO2: To gain knowledge about the working principle, instrumentation, & applications of various types of detectors used in chromatography.
CO3: To understand and acquire knowledge about the working principle, instrumentation & applications of different kinds of electrophoretic techniques.
CO4: Able to demonstrate their skills in basic concepts in types of radiation, detection and its measurement using radioisotope techniques.
CO5: To gain knowledge about the operating principles & applications of microscopy and Blotting techniques.

BC509A MOLECULAR BIOLOGY

CO1-Students are able to understand the central dogma of molecular biology & chromosome organization
CO2-Students are able to understand about the DNA as a genetic material replication.

CO3-Students are able to gain knowledge about the various essential steps involved in the transcription.
CO4-Students are able to acquire knowledge about genetic code and mechanism of the translation.
CO5-Students are able to understand the DNA mutation, repair and the recombination process.

BC510A IMMUNOLOGY

CO1: To understand basic concept of immune system and gain insight knowledge about T&B cell mediated immune response.
CO2: To acquire sufficient knowledge about antigen and its properties apart from structure of antibody and its sub class.
CO3: To gain appropriate knowledge about complement system, structure and functions of MHC molecules and also get cleare insight of transplantation.
CO4: To acquire in-depth knowledge about the hypersensitivity and autoimmune diseases.
CO5: To understand and gain insight about antigen – antibody reactions.

EBC51A ENVIRONMENTAL TOXICOLOGY

CO1: To understand and gain knowledge about the toxic substances, types, mechanism and factors influencing the toxicity.
CO2: Able to understand the toxic substances, sources and routes of exposure and transport of toxicants in environment.
CO3: To gain & understand Bioassy, neurotoxicity & nephrotoxicity.
CO4: To acquire knowledge about the herbs, characterization, usage and active constituents of plants and Preparation of herbal formulations for common ailments.
CO5: To gain insights about the herbal drugs for Dengue fever, urinogenital disorders, memory stimulants, kidney stones, inflammation and cancer.

EBC51B FOOD SCIENCE

CO1: To study the structure, composition, nutritional quality of milk products and implications of Food Adulteration.
CO2: To acquire knowledge about the important pathogens in food spoilage and the conditions under which they will grow.
CO3: To understand the source and variability of raw food materials and their impact on food processing operations.
CO4: To Emphasis the various properties of the raw materials used in food processing, different processing technologies required in transforming them into quality food products and material handling equipment involved in food processing operations.
CO5: To gain the knowledge about Food laws and quality control.

EBC51C HERBAL TECHNOLOGY

CO1: To understand and gain knowledge about the herbal drug preparation and authentication of herbal medicines.
CO2: Able to understand the neutrceutical value of herbs.
CO3: To gain & understand Bioassy, neurotoxicity & nephrotoxicity.
CO4: To acquire knowledge about the herbs, characterization, usage and active constituents of plants and Preparation of herbal formulations for common ailments.
CO5: To gain insights about the herbal drugs for various diseases

EBC52A PLANT BIOCHEMISTRY& PLANT THERAPEUTICS

CO1-Students are able to comprehend the structure and functions of the plant cells and the several processes involved in the exchange of ions.
CO2-Students are able to figure out the structure, biosynthesis and the biological functions of different hormones.
CO3-Students are able to gain knowledge about the structure and the physiological effects of pigments in photosynthesis.
CO4-Students are able to acquire knowledge on the various secondary metabolites and stress metabolism.
CO5: To gain knowledge about nitrogen fixing microorganism.

EBC52B PHARMACEUTICAL BIOCHEMISTRY

CO1: To acquire basic knowledge of drug design and its sources.
CO2: Able to understand drug absorption, Disposition, Elimination using pharmacokinetics, important pharmacokinetic parameters in defining drug disposition
CO3: To gain knowledge of antioxidant defense system and mode of action of different enzymes
CO4: To understand the different types of drug formulations and its uses
CO5: To gain knowledge about the common drugs used in different ailments.

EBC52C MOLECULAR BASIS OF INFECTIOUS DISEASES

CO1: Students able to understand the molecular basis of systemic inflammation
CO2: To relate and integrate the molecular processes in human disease
CO3: To know about the diseases caused by viruses
CO4: Students able know about the diseases caused by parasites
CO5: Students gain knowledge about the impact of fungal diseases.

SBC51A HISTOPATHOLOGICAL TECHNIQUES

CO1-Students are able to understand the general organization of histopathological laboratory.
CO2-Students are able to acquire the information about the basic steps in tissue processing fixation, embedding, microtome, staining and mounting.
CO3-Students are able to gain knowledge about the various essential steps involved in the fixation and decalcification processes.
CO4-Students are able to acquire knowledge about steps involved in tissue processing
CO5-Students are able to understand the mounting methods and the different steps involved in the staining process.

SBC51B MOLECULAR DIAGNOSTICS

CO1: To study about the history, scope and advanced techniques in molecular diagnostics.
CO2: To acquire knowledge about the cellular complexity.
CO3: To understand the source and variability of oncology.
CO4: To understand the various biomarkers and its diagnostics.
CO5: To gain knowledge about the cytogenetic analysis in human disorders.

SBC51C POLLUTANTS & MANAGEMENT

CO1: Students will be able to relate the concept of major conflicts of development and environment
CO2: Students Learn the sources of air pollution and its control.

CO3: Student capable of comprehend the term water pollution and soil pollution with its classification and impacts.
CO4: To understand the regulatory aspects of pollution control.
CO5: To analyze the removal of hazardous waste with its management.

SSBC52A LIFE STYLE DISEASES

CO1: To understand the Pathophysiology of Diabetes mellites and its complication.
CO2: To gain in depth insights about the lifestyle disease like obesity and asthma.
CO3: To understand the several complications and management of Genitourinary diseases.
CO4: To gain the knowledge about the cancer and its complications.
CO5: To acquire knowledge about the Neuro-psychiatric disorders.

SSBC52B FUNDAMENTALS OF PUBLIC HEALTH & EPIDEMIOLOGY

CO1: Students able to learn about the public health diseases and its criteria.
CO2: Students acquire knowledge about the parasite infections.
CO3: Students understand about the integrated vector management.
CO4: Students learn about the controlling and preventing vector borne diseases.
CO5: Students gain knowledge about the survey on epidemiology of vector-borne diseases.

SSBC52C FUNCTIONAL FOODS ON HUMAN HEALTH

CO1: To understand the basics, importance and applications of nutraceuticals
CO2: To acquire the knowledge about the concepts of functional foods with examples.
CO3: To understand the importance of Nutraceuticals and types of supplementations.
CO4: To gain knowledge about the common nutraceuticals used in day-to-day life
CO5: To acquire knowledge about the role of nutraceuticals in disease prevention.

BC611A MEDICAL BIOCHEMISTRY

CO1: Able to gain knowledge about the Diabetes mellitus and its complications.
CO2: To comprehend underlying factors involved in various lifestyle diseases.
CO3: To understand types and pathophysiology of inborn errors of aminoacid metabolism and lipid transport.
CO4: To understand the principle and importance of gastric and liver functional test.
CO5: To understand the principle and importance of renal functional test and diagnostic enzymes.

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BC612A GENETIC ENGINEERING & BIOPROCESS TECHNOLOGY

CO1: To gain knowledge about the basic principles of recombinant technology.
CO2: To acquire knowledge about different methods of gene transfer.
CO3: To understand the mechanisms of cloning.
CO4: To **u**nderstand the principle and applications of DNA sequencing, DNA fingerprinting and PCR.
CO5: To gain knowledge about different methods of gene transfer in plants, process of transgenic animals and its applications.

EBC63A CLINICAL ENDOCRINOLOGY

CO1: Able to gain in-depth knowledge about the importance of hormone and their effect on target cells.

CO2: To gain knowledge about the functions of pituitary, hypothalamus and pineal gland hormones and its regulations.
CO3: To learn and understand the structure and functions of thyroid, parathyroid hormones and its regulations.
CO4: To acquire knowledge about the structure and functions of adrenal hormones and its regulation.
CO5: To understand the structure and functions of gastrointestinal, male and female sex hormones and its regulation.

EBC63B HUMAN PHYSIOLOGY

CO1: To gain knowledge about the various types of RBC and WBC cells, different types of blood groups and basic structure and functions of heart.
CO2: To learn about the various types of digestion and absorption of macromolecules.
CO3: To understand about the respiration and its types, mechanism of exchange of gases, and structure and functions of nephrons.
CO4: To gain knowledge about the structure, types and functions of neurons, different parts of brain, spinal cord and its functions.
CO5: To gain knowledge about the structure and types of skeletal muscle and bone cells and also steps involved in molecular basis of muscle contraction

EBC63C BIOENTREPRENEURSHIP

CO1: To learn about the basic concepts of Bio entrepreneurship.
CO2: To learn and gain knowledge business plan and funding arrangements for Bio entrepreneurship development
CO3: To acquire the knowledge about importance of marketing strategies and usage technologies in Bio entrepreneurship
CO4: To gain knowledge about the legal requirements and data maintenance methods
CO5: To Illustrate the significance knowledge role of centers and organizations in Bio entrepreneurial business development.

EBC64A RESEARCH METHODOLOGY & BIOSTATISTICS

CO1: To understand the basic concepts of scientific research & preparation of manuscript
CO2: To gain appropriate knowledge about research problem, research design & reference styles
CO3: To acquire in-depth knowledge about the collection & diagrammatic representation of data.
CO4: To understand and gain insight knowledge about measures of central tendency & correlation, regression & student t-test.
CO5: To gain knowledge about the bioethics and patenting

EBC64B MEDICAL LABORATORY TECHNOLOGY

CO1: To gain the knowledge about the laboratory equipment, role of laboratory technician and the types of specimen collection.
CO2: To acquire the knowledge about the blood grouping and the significance of hematological parameters.
CO3: To understand the biochemical significance of marker enzyme and to gain the knowledge about the various processes involved in the histopathological studies.

CO4: To gain the knowledge about the culture of organism, culture media, gram staining and safety procedure in microbiological techniques
CO5: To gain knowledge about the procedure and applications laboratory instruments

EBC64C BIOSAFETY AND HOSPITAL MANAGEMENT

CO1: To gain the knowledge about the basic concepts on biosafety and ethics.
CO2: Able to understand the and apply the guidelines followed in Biosafety
CO3: To understand and gain knowledge about the health care sectors followed in India
CO4: To develop insights knowledge lab and healthcare associated diseases.
CO5: To acquire knowledge about the biomedical waste management.

SBC62A HORTICULTURE

CO1: To understand the economic importance of Horticulture.
CO2: To study about the importance of making different types of garden products
CO3: To acquire the knowledge about the importance of organic forming.
CO4: To acquire scientific knowledge on cultivating different types of crops.
CO5: To understand the uses of Bio fertilizers in Nursery practice.

SBC62B BIOINFORMATICS

CO1: To acquire knowledge about the applications of bioinformatics.
CO2: Able to understand biological database and its types.
CO3: To gain knowledge about the sequence alignment
CO4: To understand the importance and applications of different database sequences.
CO5: To gain knowledge about the applications of computational methods in Biology

SBC62C BIOMEDICAL INSTRUMENTATION

CO1: To acquire knowledge about the applications of biomedical instruments used in assessment of heart rhythms.
CO2: Able to understand lung function equipment and its applications.
CO3: To gain knowledge about the radio imaging equipment in medicine
CO4: To understand the importance of assessing equipment to increase the lifestyle
CO5: To gain knowledge about the therapeutic equipment involved in medicine

19ABC101 BASIC BIOCHEMISTRY (for I B.Sc. Microbiology)

CO1: To gain knowledge about the classification, structure, properties and functions of carbohydrates.
CO2: Able to understand the classification, structure, properties and importance of amino acids.
CO3: To understand and gain knowledge about the classification of proteins, levels of structural organization of proteins and its properties.
CO4: To gain insights about the types, structure and properties of nucleic acids.
CO5: To acquire knowledge about the classification, structure and properties of different types of lipids.

19ABC202 ADVANCED BIOCHEMISTRY (for I B.Sc. Microbiology)

CO1: To understand and gain knowledge about the metabolic pathways of carbohydrate such as Glycolysis, TCA cycle and HMP shunt.

CO2: Able to understand the classification of enzymes, mechanism of enzyme action and its inhibition.

CO3: To gain and understand the metabolic disorders such as diabetes mellitus, obesity, jaundice and gout.

CO4: To acquire knowledge about the amino acid metabolism and its inborn errors of metabolism.

CO5: To gain insights about the biochemical parameters and involved in the diagnostic purpose.

19ABC401 BIOPHYSICS (for II B.Sc. Physics)

CO1: To acquire knowledge about the structure and properties of biomolecules.

CO2: To understand about the structure, types and properties of nucleic acids

CO3: To know the mechanism how the muscle contraction and nerve conduction occurs

CO4: Able to demonstrate their skills in basic concepts in types of radiation, detection and its measurement using radioisotope techniques.

CO5: To learn the principle and applications of certain common instruments- FTIR, XRD, UV-Vis and Fluorescence spectra.

20EZ618A BIOINSTRUMENTATION (III B.Sc. Zoology)

CO1: To gain knowledge about the principles of pH measurement and the acid-base, buffers and biological buffers concepts and systems and determination of pH using electrodes.

CO2: To gain knowledge about the working principle, instrumentation, & applications of various types of chromatography.

CO3: To acquire knowledge about the working principle, instrumentation, & applications of centrifugation.

CO4: To understand the principles and applications of Electrophoresis.

CO5: To gain knowledge about the working principle, instrumentation, & applications of various types of spectroscopies.

19ABC303 ALLIED BIOCHEMISTRY (for II B.Sc. Zoology)

CO1: To gain the knowledge about the classification, structure, properties and functions of carbohydrates.

CO2: Able to understand the classification, structure, properties and importance of amino acids.

CO3: To understand and gain knowledge about the classification of proteins, levels of structural organization of proteins and its properties.

CO4: To gain insights about the types, structure and properties of nucleic acids.

CO5: To acquire knowledge about the classification, structure and properties of different types of lipids.

19A0FA31 FIRST AID (SKILL PAPER)

CO1: To understand basic concept of first aid, wounds, haemorrhages and also demonstrate skill needed to assess the ill or injuries.

CO:2 To demonstrate skill to assess and manage respiratory emergencies, DM and also gain knowledge about liver and kidney emergencies.

CO3: To acquire in depth knowledge about various types of poisoning, bites and also learn causes, symptom and treatment for heart attack

CO4: To gain knowledge about causes, symptom and treatment for head ache, ear ache, tooth ache common cold, diarrhoea, dysentery and constipation

CO5: To understand importance of fat, carbohydrate, protein, vitamins and its physiological function.

3NBCHH/4NBCHH PUBLIC HEALTH AND HYGIENE (SKILL PAPER)

CO1: Students are able to understand the way maintaining personal hygiene, public health by our self and with the society.

CO2: **G**ain knowledge about the way in which the dangerous diseases spreading and importance of cleanliness to abate it.

CO3: Understand the agents' causes diseases in public health, and the importance of diet in reduction of ailments during infection.

CO4: Students are able to acquire knowledge about the mode of transport of diseases in the public.

CO5: To acquire knowledge about the usage of drugs to control the disease and the method of preventing the spreading of disease in public.

B.Sc. MICROBIOLOGY

19MB101 FUNDAMENTALS OF MICROBIOLOGY

CO 1: will be able to appreciate the discoveries in Microbiology
CO 2: will be able to identify the various structures in bacterial cell
CO 3: will be able to apply the principles of various microscopes
CO 4: will be able to explain different methods of physical sterilization
CO 5: will be able to elaborate chemicals used in sterilization

19MB102 MICROBIAL TAXONOMY

CO 1: will be able to appreciate the concept of classification
CO 2: will be able to compare various groups of bacteria
CO 3: will be able to describe various fungi
CO 4: will be able to explain the characteristics of algae and protozoa
CO 5: will be able to elaborate the characteristics of viruses

19MB203 GROWTH AND NUTRITION OF MICROORGANISMS

CO1: will be able to describe microorganisms based on nutrition
CO2: will be able to identify the factors affecting bacterial growth
CO3: will be able to apply the concept of microbial growth
CO4: will be able to explain the process of bacterial reproduction and motility
CO5: will be able to explain different methods of nutrient uptake in microorganisms

19MB204 MICROBIAL METABOLISM

CO1: will be able to appreciate the concept of energetics
CO2: will be able to explain anaerobic energy production
CO3: will be able to explain aerobic energy production
CO4: will be able to describe respiration without oxygen
CO5: will be able to elaborate on bacterial photosynthesis

19MB305 IMMUNOLOGY

CO1: will be able to differentiate types of immunity
CO2: will be able to describe antigens and antibodies
CO3: will be able to appreciate the concept of Complement
CO4: will be able to explain the structure and functions of immune cells
CO5: will be able to explain the concept of hypersensitivity

19MB306 MOLECULAR BIOLOGY

CO 1: will be able to appreciate the Central dogma of Molecular biology
CO 2: will be able to explain the structure of nucleic acids
CO 3: will be able to describe the organization of prokaryotic genetic material
CO 4: will be able to explain the process of DNA replication
CO 5: will be able to explain the process of gene expression

19MB407 IMMUNOTECHNOLOGY

CO 1: will be able to describe antigen and antibody reactions
CO 2: will be able to describe immunodeficiency diseases

CO 3: will be able to appreciate the concept of autoimmunity
CO 4: will be able to explain transplantation and malignancy
CO 5: will be able to explain the applications of immunohematology

19MB408 MICROBIAL GENETICS

CO 1: will be able to appreciate bacterial transformation
CO 2: will be able to explain Bacterial Conjugation
CO 3: will be able to describe the Regulation of gene expression
CO 4: will be able to explain Phage genetics
CO 5: will be able to explain the process of Transduction

19MB509 FOOD AND DAIRY MICROBIOLOGY

CO 1: will be able to describe the importance of microorganisms in food and methods used for food preservation.
CO 2: will be able to identify the source of contamination and spoilage causing microorganisms in different foods
CO 3: will be able to understand the role of microorganisms in food fermentation.
CO 4: will be able to apply the knowledge in dairy product production and develop the skill for testing milk sample.
CO 5: will be able to understand food borne diseases and detect the pathogens in different food samples.

19MB510 MEDICAL BACTERIOLOGY

CO 1: will comprehend the role of virulence factors in bacterial infections
CO 2: will gain knowledge on pathogenic bacteria of Enterobacteriaceae
CO 3: will gain knowledge on Gram positive bacterial pathogens
CO 4: will become familiar with the pathogenic potential of rare bacterial species
CO 5: will be able to recognize intracellular bacterial pathogens

19MB511 MEDICAL PARASITOLOGY

CO 1: Acquires knowledge about the laboratory diagnosis and treatment of parasitic diseases.
CO 2: Learns about the diseases caused by amoebae and flagellates.
CO 3: Gains knowledge about the diseases caused by sporozoa and ciliate protozoan.
CO 4: Understands the diseases caused by cestode and trematode.
CO 5: Attains knowledge about the diseases caused by nematode.

19MB512 INDUSTRIAL MICROBIOLOGY

CO 1: will acquire the knowledge about the study of practical understanding of fermentation.
CO 2: will gain knowledge about product purification by downstream process
CO 3: will get insight knowledge about microbial metabolites
CO 4: will get depth insights about the microbial synthesis of industrially important enzymes.
CO 5: will acquire the knowledge about the industrial production of antibiotics and vitamins

19EMB51A ENVIRONMENTAL MICROBIOLOGY

CO 1: understands the different kind of microflora present in air and water environments
CO 2: will be able to know the different process to treat the waste water and drinking water
CO 3: knows about water pollution, and the process of composting and bioremediation
CO 4: knows different kinds of microbes present in extreme environments

CO 5: knows interactions among microorganisms and the study of non-cultivable microbes

19EMB51B ALGAL TECHNOLOGY

CO 1: knows the importance of algae and their occurrence
CO 2: understands the technique of microalgae cultivation
CO 3: studies mass cultivation of macro algae and different applications of seaweeds
CO 4: appreciates the economic importance of algae
CO 5: becomes familiar with the emerging technologies in algal biotechnology

19SMB51A BIOREMEDIATION

CO 1: Understands Bioremediation and its types
CO 2: Lists the microbes involved in Bioremediation
CO 3: Knows the mechanisms of Bioremediation
CO 4: Understands the Bioremediation practices to treat soil and water pollution
CO 5: Is aware of the anaerobic treatments for different wastes

19SMB51B ANTIBIOTICS AND ANTIMICROBIAL RESISTANCE

CO 1: will be able to describe various types of antimicrobial agents
CO 2: will be able to list various antibacterial agents
CO 3: will be able to understand the mode of action of antibacterial agents
CO 4: will be able to explain different methods of testing antimicrobial activity
CO 5: will be able understand drug resistance mechanisms

19SMB51C FOOD SAFETY

CO 1: acquires knowledge of Food safety
CO 2: understands the problem of Food Adulteration
CO 3: becomes familiar with Food safety operations
CO 4: describes Food Quality Indicators in foods
CO 5: gains knowledge of Food safety management

19SMB51D ENTREPRENEURIAL MICROBIOLOGY

CO 1: will understand the basic concepts of entrepreneurship in microbiology.
CO 2: will describe different microbial products and their production methods.
CO 3: will get knowledge about mushroom cultivation and its uses.
CO 4: will appreciate the microbial pigments and their uses.
CO 5: will have knowledge on biofertilizers and brewing.

19MB613 SOIL AND AGRICULTURAL MICROBIOLOGY

CO 1: Understands different soil microflora and their roles in improving soil fertility
CO 2: Knows the plant-microbe interactions and their outcomes
CO 3: Studies different cyclical movement nutrients and different kinds of biofertilizers and biopesticides
CO 4: Understands different plant diseases due to bacterial and fungal phytopathogens
CO 5: Studies different plant diseases due to viruses and nematodes

19MB614 MEDICAL VIROLOGY

CO 1: Understands the basic properties and medical importance of viruses.
CO 2: Learns viral infections caused by contagious group of viruses.

CO 3: Acquires knowledge about respiratory borne viruses.
CO 4: Gains knowledge on pandemic viral diseases and sporadic viral diseases.
CO 5: Learns the importance of Retro viruses in detail and other viral infections in children.

19MB615 MEDICAL MYCOLOGY

CO 1: Acquires knowledge about the laboratory diagnosis and treatment of fungal diseases.
CO 2: Attains knowledge about superficial and cutaneous mycoses.
CO 3: Learns about subcutaneous mycoses.
CO 4: Understands systemic mycoses.
CO 5: Gains knowledge about opportunistic fungal infections and mycotoxicoses

19MB616 BIOTECHNOLOGY

CO1: Understands the basics of recombinant DNA technology and cloning vectors.
CO2: Gains knowledge about the DNA and its amplification.
CO3: Acquires knowledge about enzymes and biofuels.
CO4: Understands the usage of plants and exploitation of them through genetic modification
CO5: Understands the usage of animals and exploitation of them through genetic modification, patenting and intellectual property rights.

19EMB62A COMPUTER APPLICATIONS IN BIOLOGY

CO 1: Understands basics of computers and importance of internet.
CO 2: Knowledge to access data from various biological databases.
CO 3: Comprehends the concept of sequence alignment using algorithms.
CO 4: Analyzes biological data using softwares and tools.
CO 5: Understands the applications of genomics and proteomics in biology.

19EMB62B CLINICAL MICROBIOLOGY

CO 1: will be able to organize a clinical bacteriology lab
CO 2: will be able to collect and process clinical specimens
CO 3: will be able to determine antimicrobial sensitivity
CO 4: will be detail the diseases transmitted by various modes
CO 5: will be familiar with laboratory animals and hospital acquired infections

AMBC302 ALLIED MICROBIOLOGY

CO 1: will be able to appreciate the discoveries in Microbiology
CO 2: will be able to apply the principles of various microscopes
CO 3: will be able to explain different methods of sterilization
CO 4: will be able to apply the concept of microbial growth
CO 5: will be able to elaborate on the important groups of microorganisms and their role

19AMB404 ALLIED MICROBIOLOGY

CO 1: will be able to appreciate the discoveries in Microbiology
CO 2: will be able to apply the principles of various microscopes
CO 3: will be able to explain different methods of sterilization
CO 4: will be able to apply the concept of microbial growth
CO 5: will be able to elaborate on the important groups of microorganisms and their role

20EZ513A	BIOFERTILIZER TECHNOLOGY

CO 1: will be able to appreciate the role of soil microorganisms
CO 2: will be able to describe various nitrogen fixing organisms
CO 3: will be able to explain different nutrient solubilizing bacteria
CO 4: will be able to gain knowledge on production of biofertilizers
CO 5: will be able to elaborate on the formulation of biofertilizers

NMEFT401	FOOD PROCESSING TECHNOLOGY

CO1: could understand the principles of food preservation and processing
CO2: could obtain knowledge about preservation of food at various temperatures
CO3: could acquire knowledge about food preservation by radiation
CO4: could comprehend government regulations and policies on food control
CO5: could gain knowledge about processed foods

B.Sc. ZOOLOGY

19ZO101 INVERTEBRATA-I

CO1: To describes the principles of taxonomy and classification of animal kingdom
CO2: To identify the phylum Protozoa and parasitic protozoans
CO3: To classify the phylum Porifera upto classes with examples
CO4: To understand the classification and polymorphism in Coelenterata and coral reefs
CO5: To describe the general characters and classification of phylum Platyhelminthes

19ZO102 INVERTEBRATA-II

CO1: To understand the general characters and classification of phylum Aschelminthes
CO2: To know the classification of phylum Annelida and their parasitic adaptation
CO3: To understand the phylum Arthropoda, affinities of peripatus and importance of Crustacean larvae
CO4: To understand the general characters, classification and torsion of phylum Molluca
CO5: To classify Echinodermata upto classes and to describe the significance of their larvae

ABZ101A ALLIED BOTANY

CO1: To understand the taxonomy of plants
CO2: To describe the structure and components of prokaryotic and eukaryotic plant cells.
CO3: To understand plant physiology and embryology
CO4: To describe the structure and life history of the plant species included in the syllabus
CO5: To acquire knowledge on plant genetics, evolution and ecology

19ZO203 CHORDATA-I

CO1: To describes the general characters and affinities of Cephalochordata
CO2: To know the general characters and affinities of Hemichordata
CO3: To understand the general characters and affinities of Urochordata
CO4: To describes the salient features and classification of Phylum chordata and their origin
CO5: To know classification of phylum Pisces, Accessory respiratory organs and Migration in fishes

19ZO204 CHORDATA-II

CO1: To classify phylum Amphibia and explain their adaptive features and parental care
CO2: To classify the phylum Reptilia and biting mechanism of poisonous snakes
CO3: To describe the phylum Aves and migration and flight adaptation in birds
CO4: To understand the Phylum Mammalia and egg laying mammals
CO5: To understand the Origin of Primates and adaptations of aquatic mammals

19ZO305 CELL BIOLOGY

CO1: To understand the Principles of microscopes and Cytological techniques
CO2: To describe the Cell theory, Ultra structure of animal cell
CO3: To recognize the properties of cytoplasm and Ultra structure of nucleus.
CO4: To explain the structure and functions cell organelles
CO5: To obtain knowledge on cell cycle and cell division

19ZO306 MOLECULAR BIOLOGY

CO1: To get knowledge on biochemical and cell culture techniques
CO2: To know chromosomes structure and giant chromosomes.
CO3: To understand the structure and function of DNA and types of RNA.
CO4: To realize cancer biology and process of aging
CO5: To describe the mechanism of DNA replication and Protein synthesis

19ZO407 GENETICS

CO1: To acquire basic information on genetics and Mendelian laws
CO2: To understand multiple alleles and pedigree analysis in human traits.
CO3: To define linkage and crossing over.
CO4: To describe non-disjunction and gynandromorphs and fine structure of gene
CO5: To acquire knowledge on mutation, applied genetics and population genetics

19ZO408 BIOTECHNOLOGY

CO1: To know the scope and applications of biotechnology
CO2: To acquire knowledge on techniques of genetic engineering and rDNA technology.
CO3: To realize gene cloning in prokaryotes and basics of human genome project.
CO4: To describe transgenic plants and animals
CO5: To understand the application of recombinant DNA technology

20ZO509 BIOSTATISTICS AND COMPUTATIONAL BIOLOGY

CO1: To acquire knowledge on scope and sampling methods in biostatistics
CO2: To understand the measure of central tendency and measures of dispersion.
CO3: To understand types of computers, operating systems and its applications
CO4: To acquire knowledge on biological databases like NCBI, GenBank etc.
CO5: To gain knowledge on DNA and RNA sequencing

20ZO510 DEVELOPMENTAL BIOLOGY AND IMMUNOLOGY

CO1: To acquire knowledge on gametogenesis and parthenogenesis
CO2: To understand the process of cleavage and blastulation.
CO3: To realize embryonic adaptation and artificial reproductive technology.
CO4: To describe lymphoid organ and immune system
CO5: To gain information regarding immunoglobulin and immune deficiency diseases

20ZO511 ANIMAL PHYSIOLOGY

CO1: To describe the process of nutrition and digestion
CO2: To understand the process of respiration and circulation.
CO3: To recognize excretory system and osmo-ionoregulation in fishes and mammals.
CO4: To describe nervous system and muscular system
CO5: To understand receptors and structure, secretions and functions of endocrine glands

20EZ512A ELECTIVE-I APPLIED ENTOMOLOGY

CO1: To describe the economic classification of insects
CO2: To understand the types of insect development
CO3: To know pests of stored products and their control
CO4: To describe pest control methods and application
CO5: To understand the production and marketing of pesticides

20EZ513B ELECTIVE – II-PUBLIC HEALTH AND HYGIENE

CO1: To understand public health and hygiene
CO2: To realize environment and health hazards
CO3: To understand the communicable diseases and their control measures.
CO4: To understand the non-communicable diseases and their control measures
CO5: To know the health education in India

20ZO614 ENVIRONMENTAL BIOLOGY

CO1: To realize the scope and concept of environmental biology
CO2: To describe structure and functions of ecosystem.
CO3: To understand biogeochemical cycles and animal association
CO4: To describe population and community of an ecosystem and management of natural resources
CO5: To get knowledge on environmental degradation and their effects and remedy measures

20ZO615 ECONOMIC ZOOLOGY

CO1: To acquire knowledge on vermiculture, apiculture and sericulture
CO2: To describe prawn culture, pearl culture and pisciculture
CO3: To acquire knowledge on poultry
CO4: To describe dairy farm and sheep farm
CO5: To understand future strategies for livestock development

20ZO616 EVOLUTION

CO1: To describe the evidences of evolution
CO2: To realize the theories of evolution like Lamarckism and Darwinism,
CO3: To recognize natural selection and types of variation.
CO4: To describe mimicry behavior and distribution of animals
CO5: To understand isolation and evolution of man

20EZ617A ELECTIVE-III AQUACULTURE

CO1: To understand the principles of site selection for aquaculture.
CO2: To describe different types of aquaculture practices.
CO3: To know the criteria for aquaculture species selection and water quality management.
CO4: To describe nutritional requirements and feed formulation for aquaculture organisms
CO5: To acquire knowledge in Mari culture

20EZ618B SERICULTURE (SKILL BASED SUBJECT)

CO1: To gain knowledge on introduction and importance of sericulture
CO2: To understand classification and biology of silk moth
CO3: To describe the tools of sericulture
CO4: To get knowledge on harvesting methods in sericulture
CO5: To realize the economic status of sericulture

19AZMB31 ALLIED CLASSICAL GENETICS & BIO-STATISTICS

CO1: To understand the history of genetics and Mendel's laws
CO2: To understand recombination in Eukaryotes
CO3: To describe molecular, human and cytogenetics
CO4: To obtain knowledge on introduction, scope, importance and functions of biostatistics
CO5: To analyze correlation, regression and test of significance

19AZMB42 APPLIED ENTOMOLOGY

CO1: To obtain knowledge on basic introduction of entomology
CO2: To recognize beneficial and harmful insects in the agricultural entomology
CO3: To describe vector borne diseases, control measures and awareness in medical entomology
CO4: To identify productive insects in industrial entomology
CO5: To understand pest control methods and application

AZBC401T ADVANCED ZOOLOGY

CO1: To describe structure and functions of some invertebrate species
CO2: To describe structure and functions of some chordate species
CO3: To analyze cytological techniques and human genetics
CO4: To understand developmental biology
CO5: To understand the basic concepts of ecology and evolution

EVS301S ENVIRONMENTAL STUDIES

CO1: To understand the natural environment and its relationships with human activities.
CO2: To demonstrate an awareness and knowledge of the intrinsic values of ecological system.
CO3: To characterize and analyze human impacts on biodiversity and its conservation.
CO4: To demonstrate an ability to integrate the many disciplines and fields that intersect with environmental concerns
CO5: To integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at local and global levels**.**

EVS401S ENVIRONMENTAL STUDIES

CO1: To understand the natural environment and its relationships with human activities.
CO2: To demonstrate an awareness and knowledge of the intrinsic values of ecological system.
CO3: To characterize and analyze human impacts on biodiversity and its conservation.
CO4: To demonstrate an ability to integrate the many disciplines and fields that intersect with environmental concerns
CO5: To integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at local and global levels**.**

4NZOFC ORNAMENTAL FISH CULTURE (NON-MAJOR ELECTIVE)

CO1: To understand the scope of ornamental fish culture.
CO2: To describe Common characters and sexual dimorphism of Ornamental fishes.
CO3: To know the food and feeding of ornamental fishes.
CO4: To describe handling and packing of live fish transport.
CO5: To acquire knowledge on maintenance of aquarium.

B.Sc. COMPUTER SCIENCE

CS101S PROGRAMMING IN C

CO1: To make use of various data types in C Programming.
CO2: To know the flow of various control structures.
CO3: To have familiarity with function calling mechanism.
CO4: To transform a problem into programming constructs.
CO5: To write C programs using Structures, Strings, Arrays, Pointers and File Handling Programs.

CS102S DIGITAL LOGIC FUNDAMENTALS

CO1: To know the basic design of computer, arithmetic operation, digital number system and its conversion.
CO2: To understand the Boolean algebra and the operations of Logic Gates.
CO3: To know Simplification of Boolean expressions using K-map.
CO4: Gain knowledge about Arithmetic and Data Processing Digital Circuits.
CO5: Understand the principles of Sequential Logic Circuits such as Flip-flops and Counters.

CSP101S PRACTICAL - PROGRAMMING IN C

CO1: To write programs using Control structures & Looping structures
CO2: To Understanding the String Manipulation.
CO3: To equip with the knowledge of Sorting & Searching
CO4: Ability to learn the concept of Matrix Manipulations & Recursion.
CO5: To Understand the concept of Handling File Operations

CS203S PROGRAMMING IN C++

CO1: To learn the basic concepts& principles of Object-Oriented programming
CO2: To understand the C++ Fundamentals and Functions
CO3: To build logic using C++ with class and objects and Constructor
CO4: To learn and implement Inheritance and its types
CO5: To Understand the concept of streams and file management in C++

CS204S FUNDAMENTALS OF DATA STRUCTURES

CO1: To understand the Fundamental concepts in Data Structure and Arrays Structure.
CO2: To Learn the Stack and Queue operations and applications.
CO3: To gain knowledge about Linked List Concept and its applications.
CO4: To have knowledge about tree concept and ability to traverse trees.
CO5: To learn basics of graph and gain working knowledge about shortest path.

CSP202S PRACTICAL- PROGRAMMING IN C++

CO1: To provide a sound understanding of the basic concepts of OOPs.
CO2: To equip the students with the knowledge of classes and objects
CO3: To understand the core concepts of Constructor and Inheritance
CO4: Ability to learn the concept of functions and Operator overloading
CO5: To learn the nuances of programming for data structures using C++ languages

19CS305 JAVA PROGRAMMING

CO1: Understanding the principles and practice of object-oriented concepts and basic Java programs.
CO2: Knowledge of creating and using of Packages, Multithreading, Exception Handling
CO3: Design and implement Applet programming and AWT
CO4: Acquire knowledge of JDBC programming techniques in Java.
CO5: Learn to apply networking and RMI concepts through Java program.

CS306S FUNDAMENTALS OF ALGORITHMS

CO1: Ability to understand fundamental of Algorithms.
CO2: Ability to know about Multistage Graph Work with Trees with examples.
CO3: Ability to understand the Basic Traversal and Search Techniques.
CO4: Ability to Work with Greedy method.
CO5: Ability to know the basic concept of Np Hard and Np Complete

19CSP303 PRACTICAL - JAVA PROGRAMMING

CO1: To generate ability to Create simple packages.
CO2: Demonstrate the behavior of Multiple Inheritance.
CO3: Construct the program of Multithreading and Exception handling in Java.
CO4: Implement the GUI techniques (Applet and AWT).
CO5: Creating JDBC methods to establish connection with database and simple Networking && Java Bean programs.

19CS407 INTERNET PROGRAMMING

CO1: To attain a basic knowledge about HTML and its tags
CO2: To Design and develop web pages using HTML
CO3: To Describe the basic JavaScript syntax and structures
CO4: To Understand the Document Object Model Forms in JavaScript
CO5: To Ability to identifying the basic suitable tags and CSS styles to design web pages and also to know the benefits of using XML.

19CS408 COMPUTER ARCHITECTURE

CO1: To know about registers and functions of data transfer.
CO2: To understand the function of Arithmetic Instruction Pipelining.
CO3: To understand the different algorithms used in architecture
CO4: To acquire knowledge about data transfer between peripheral devices.
CO5: To understand the memory types and organization.

19CSP404 PRACTICAL - INTERNET PROGRAMMING

CO1: To create a static web page that defines all text formatting tags of HTML.
CO2: Ability to create a static webpage using table tags of HTML
CO3: Construct the webpage using list tags in HTML
CO4: Integrating the concepts of CSS in creating web pages.
CO5: Ability to create webpage using FORMS in JavaScript and to understand the functionality
to Develop programs in JavaScript

CS509	RELATIONAL DATABASE MANAGEMENT SYSTEM

CO1: Ability to understand the Database management system concepts
CO2: Ability to understand Entities and entity sets – relationships and relationship sets, E-R diagram and Keys.
CO3: Ability to understand Relational Model
CO4: Ability to know the basic knowledge of Normalization
CO5: Ability to learn the basic concept of DDL, DML, DCL operations

CS510S	DOT NET TECHNOLOGIES

CO1: Understand the basic concepts of DOT NET framework and its components.
CO2: Acquire the basic programming knowledge using .NET framework.
CO3: Identify and differentiate the ASP and ASP.NET and its architecture.
CO4: Understand the fundamental controls and web controls in C#.
CO5: Understand about ADO.NET and have an effective database as a backend.

19ECS51A	SOFTWARE ENGINEERING

CO1: Ability to understand the Software Engineering and Models
CO2: Ability to understand Requirement Engineering and Requirement Engineering Tasks
CO3: Ability to understand Building Analysis Model
CO4: Ability to know the Testing strategies
CO5: Ability to learn the basic concept of the Management Spectrum

19ECS51B	MANAGEMENT INFORMATION SYSTEM

CO1: Ability to understand the basics of Information Systems (IS)
CO2: Ability to understand Information systems for business operations
CO3: Ability to understand Managing Information Technology
CO4: Ability to know the Enterprise Resource Planning (ERP)
CO5: Ability to learn the basic concept of ERP implementation

19ECS52A	DATA COMMUNICATION AND NETWORKS

CO1: To know about basics of networks and internetworks.
CO2: To understand the function of layers and signals.
CO3: Ability to understand the different transmission medium with error correction and detection.
CO4: Ability to acquire knowledge about switching
CO5: To understand the concept of networking, internetworking devices and routing algorithm.

19ECS52B	ELECTRONIC COMMERCE

CO1: To know about basics of E-Commerce.
CO2: To understand the use of Electronic Payment.
CO3: To understand the various security policies.
CO4: To acquire knowledge about various cards used for transactions.
CO5: To know about the Internet Applications for E-commerce.

19SCS51	PYTHON PROGRAMMING

CO1: To write, test, and debug simple Python programs.
CO2: To implement Python programs with conditionals and loops

CO3: Represent compound data using Python lists, tuples, dictionaries.
CO4: To learn database connectivity in python.
CO5: Students can understand Python and apply to get Employability skills.

CSP505 PRACTICAL – ORACLE

CO1: Ability to understand the Simple queries using DDL, DML and DCL
CO2: Ability to understand Views and snapshots.
CO3: Ability to understand PL/SQL Block
CO4: Ability to know the basic PL/SQL functions, procedures and Triggers
CO5: Ability to learn the basic concept of Oracle Reports.

CSP506S PRACTICAL - DOT NET TECHNOLOGIES

CO1: Knowledge to develop windows and web applications.
CO2: Develop a simple bio-data storage application.
CO3: Usage of the standard controls for creating color chooser and notepad applications.
CO4: Learn to create login form using MS-Access as backend.
CO5: Acquire a good programming knowledge for creating database applications and design a simple website using master page.

19CS613 OPERATING SYSTEM

CO1: Ability to understand the services provided by the OS and also to understand the history of the OS.
CO2: Ability to understand about process and how the processes are Communicated and scheduled.
CO3: Ability to understand the different techniques of memory management.
CO4: Ability to know the basic knowledge of protection and security mechanisms.
CO5: Ability to learn the basic concept of operating system using UNIX operating System.

19CS614 OPEN-SOURCE TECHNOLOGIES-PHP

CO1: To gain knowledge about basics of PHP.
CO2: To understand the concept of strings and arrays.
CO3: To implement function and control structures
CO4: Ability to learn about controls for reading data in Web page.
CO5: To implement the concept of database in PHP.

19ECS65A WEB GRAPHICS

CO1: Understand the basic concepts of web graphics and basic HTML tags to design awebsite.
CO2: Understand the built-in tools of Photoshop.
CO3: Designing and adding multimedia to the webpage
CO4: Understanding and implementing the basic tools of Photoshop.
CO5: Acquire knowledge to handle images in an effective manner.

19ECS65B COMPUTER GRAPHICS

CO1: Ability to learn about the basic knowledge of Graphics systems
CO2: Ability to know about the Attributes of I/O and 2-D transformation models.
CO3: Ability to understand clipping, interactive graphics I/P and picture Construction techniques
CO4: Ability to understand 3-D display methods
CO5: Ability to know about Projections and Projection operations.

19ECS66A	MULTIMEDIA

CO1 : Understand the basic need and ways of using multimedia.
CO2 : Understanding the basics of text and its origin.
CO3 **:** Gain knowledge about the multimedia project developing team.
CO4 **:** Acquire the knowledge about video and its standards.
CO5 **:** To develop and understand about the multimedia project planning and Costing.

ECS66B	BIG DATA ANALYTICS

CO1: Ability to acquire knowledge on the basics of Big Data.
CO2: Knowing the role and use of virtualization in big data.
CO3: Ability to have a clear idea on hadoop tools and techniques used in big data.
CO4: Ability to become a Big Data Analytics.
CO5: Ability to appreciate the Big Data Storage concepts and technologies

19SCS62	GIMP

CO1: Acquire Fundamental knowledge on GIMP.
CO2: Learn the Basics of GIMP Interface and its practical impact.
CO3: Solve the effects related to effects applied on GIMP.
CO4: Develop an idea about new techniques applied in GIMP.
CO5: Create Applications like Banner, Business Card used for Employability Training.

CSP607S	PRACTICAL – OPEN-SOURCE TECHNOLOGIES-PHP

CO1: Learn to develop simple web application in PHP.
CO2: To implement string and array and user defined function in Web application.
C**O3:** Acquire knowledge and skills for creating Home page using PHP.
CO4: Learn to create web form and use POST method in PHP.
CO5: Develop web applications to implement database concept and Learn to build some common web applications using controls.

JCS601	MINI PROJECT

CO1: Ability to perform Critical Thinking, Reasoning, and Creative Thinking.
CO2: Ability to use the technology
CO3: Ability to visualize the problems and Provide Solution
CO4: Ability to test technical skills.
CO5: Ability to work both independently and in groups on presentations and/or development of Projects.

3N CS IT	INTRODUCTION TO INFORMATION TECHNOLOGY

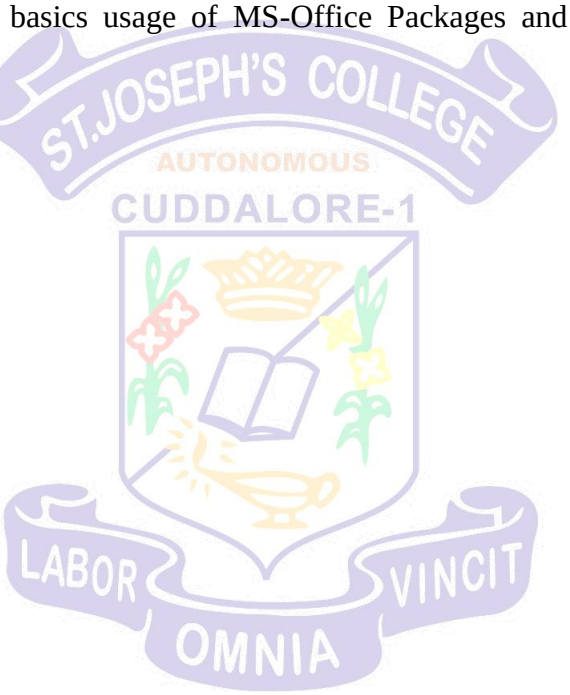
CO1: This course is specially designed to get exposure on the fundamentals of a computer System
CO2: To attain knowledge about Computer Networks, Input, and Output Devices.
CO3: It enables the students by giving them sufficient knowledge on Internet Basics.
CO4: To acquire knowledge about types of Web Browsers and
CO5: To learn about Basics Concepts of E-Commerce.

19ETA31 BASICS OF COMPUTERS AND ITS APPLICATIONS

CO1: To understand what is a Computer and Basic operating system
CO2: Aware about various types of Computers, types of input and output devices, Installing& Removing of Software
CO3: To Understand the basic usage of MS-Office Packages – MS-Word
CO4: To Understand the basic usage of MS-Office Packages – MS-Excel
CO5: To Understand the basic usage of MS-Office Packages – MS-PowerPoint and the basics concept of Internet.

19ACS401 BASICS OF COMPUTERS AND ITS APPLICATIONS

CO1: To understand what is a Computer and Basic concept of computer is.
CO2: Aware about various types of Computers, types of input and output devices
CO3: To Learning about the Installing& Removing of Software
CO4: Understand computer viruses and its types.
CO5: To Understanding basics usage of MS-Office Packages and the basics concept of Internet.



B.C.A. COMPUTER APPLICATIONS

CA101A PROGRAMMING IN C

CO1: Knowledge pertaining to C-Language Fundamentals
CO2: Logic using Control Statements
CO3: Modular Programming using Functions
CO4: Knowledge pertaining to arrays and structures.
CO5: Advanced Programming techniques using pointers and files concepts.

CA102A DIGITAL LOGIC FUNDAMENTALS

CO1: Knowledge pertaining to Number System
CO2: Simplification Logic using K-Map and Tabulation Method
CO3: Designing Skills using Adders and Subtractors.
CO4: Designing Skills using Combinational Logic.
CO5: Advanced Designing Skills using Sequential Logic Circuit.

CAP101T PROGRAMMING IN C – Practical

CO1: Programming Skills using Operators and Control Statements
CO2: Programming Skills using Functions and Recursive Functions
CO3: Programming Skills using Arrays and Structures
CO4: Programming Skills using Pointers.
CO5: Programming Skills using Files.

CA203A OBJECT ORIENTED PROGRAMMING USING C++

CO1: Knowledge pertaining to C++-Language Fundamentals
CO2: Knowledge pertaining to Principles of OOP
CO3: Knowledge pertaining to Fundamentals of OOP
CO4: Programming Skills using Functions, Polymorphism.
CO5: Advanced Programming techniques using files.

CA204A FUNDAMENTALS OF DATA STRUCTURES

CO1: Knowledge pertaining to Fundamentals of Data Structure
CO2: Stacks and Queues Implementation Techniques.
CO3: Logical Skills using Linked List.
CO4: Traversing Programming Skills using Trees.
CO5: Advanced Programming techniques using Graph.

CAP202T PROGRAMMING IN C++

CO1: Knowledge pertaining to Fundamentals of Data Structure
CO2: Stacks and Queues Implementation Techniques.
CO3: Logical Skills using Linked List.
CO4: Traversing Programming Skills using Trees.
CO5: Advanced Programming techniques using Graph.

CA305A PROGRAMMING USING JAVA

CO1: Programs using Java Control Statements.
CO2: Programs using OOP Concepts in Java.

CO3: An application using Packages and Interfaces
CO4: Programs using Threads and Streams.
CO5: Programs using String and Predefined Classes.

CA306B COMPUTER ALGORITHMS

CO1: Algorithm based on time and space Complexity.
CO2: Algorithm based on Divide and Conquer method.
CO3: Algorithm based on Dynamic Programming
CO4: Algorithm based on Greedy Method
CO5: Algorithm based on Graph Techniques.

19CAP303 JAVA PROGRAMMING – PRACTICAL

CO1: Programs using Java Control Statements.
CO2: Programs using OOP Concepts in Java.
CO3: An application using Packages and Interfaces
CO4: Programs using Threads and Streams.
CO5: Programs using String and Predefined Classes.

CA407A INTERNET TECHNOLOGIES

CO1: Programs using Java Control Statements.
CO2: Programs using OOP Concepts in Java.
CO3: An application using Packages and Interfaces
CO4: Programs using Threads and Streams.
CO5: Programs using String and Predefined Classes.

CA408B ADVANCED JAVA PROGRAMMING

CO1 Programming Skills using AWT.
CO2: Network Programming Skills using Java.
CO3: An application developing skills using JDBC
CO4: An application developing skills using RMI
CO5: An application developing skills using Servlet

CAP404T ADVANCED JAVA PROGRAMMING – PRACTICAL

CO1: Programs using Java Control Statements.
CO2: Programs using OOP Concepts in Java.
CO3: An application using Packages and Interfaces
CO4: Programs using Threads and Streams.
CO5: Programs using String and Predefined Classes.

CA509A RELATIONAL DATABASE MANAGEMENT SYSTEMS

CO1: Knowledge in Basic Database Concepts.
CO2: Knowledge in Entity Relationship Model.
CO3: Knowledge in Normalization Techniques.
CO4: Programming Skill set in SQL
CO5: Programming Skill set in PL/SQL

CA510A PROGRAMMING IN ASP.NET USING C-SHARP

CO1: Knowledge in Dot Net Framework.
CO2: Programming Skill set in C#.Net
CO3: Programming Skill set in Asp.Net
CO4: Programming Skill set in C# Controls
CO5: Programming Skill set in ADO.Net

ECA511A DATA COMMUNICATION NETWORKS

CO1: Inhibit basic Knowledge about Computer Graphics
CO2: Explore Output Primitive Features
CO3: Explore 2D Concepts.
CO4: Explore 3D Concepts.
CO5: Perform Transformation based Animation.

ECA511C MULTIMEDIA AND VIRTUAL REALITY

CO1: Inhibit basic Knowledge about Multimedia.
CO2: Explore Sound and Images Features
CO3: Explore Video and Animation features.
CO4: Co-ordinate a Multimedia Project
CO5: Incorporate Virtual Reality wherever needed.

ECA511B COMPUTER GRAPHICS

CO1: Inhibit basic Knowledge about Computer Graphics
CO2: Explore Output Primitive Features
CO3: Explore 2D Concepts.
CO4: Explore 3D Concepts.
CO5: Perform Transformation based Animation.

GCA52B ORGANIZATIONAL BEHAVIOUR

CO1: Deliver proper behavior inside an organization.
CO2: Deliver proper Individual Behavior
CO3: Deliver proper Group Behavior
CO4: Communicate and Exhibit Leadership Qualities.
CO5: Adjust to Organizational Climate and Culture.

CAP505T RDBMS Package - ORACLE

CO1: Knowledge in Basic Database Concepts.
CO2: Knowledge in Entity Relationship Model.
CO3: Knowledge in Normalization Techniques.
CO4: Programming Skill set in SQL
CO5: Programming Skill set in PL/SQL

19CAP506 PROGRAMMING IN ASP.NET USING C-SHARP

CO1: Knowledge in Dot Net Framework.
CO2: Programming Skill set in C#.Net
CO3: Programming Skill set in Asp.Net
CO4: Programming Skill set in C# Controls
CO5: Programming Skill set in ADO.Net

19SCA51 PYTHON PROGRAMMING

CO1: Knowledge pertaining to Python Fundamentals, Plots and Files
CO2: Logic using List, Strings and Files
CO3: Knowledge pertaining to arrays, images, matrix and operators
CO4: Knowledge pertaining to Loops, List and Sets.
CO5: Advanced Programming techniques using Functions, Python Modules andScripts.

CA614A OPEN SOURCE TECHNOLOGY – PHP

CO1: Knowledge in Basics of PHP.
CO2: Programming Skill set in OOP using PHP
CO3: Programming Skill set in Files Concept using PHP
CO4: Programming Skill set in developing Web Pages
CO5: Programming Skill set in developing Database Application using PHP.

CA615B OPERATING SYSTEMS

CO1: Knowledge in Basics of Operating System.
CO2: Knowledge pertaining to process and deadlock.
CO3: Knowledge pertaining to memory management.
CO4: Knowledge pertaining to GUI and Security.
CO5: Knowledge pertaining to Unix OS.

ECA616C COMPUTER ARCHITECTURE

CO1: Knowledge pertaining to Central Processing Unit.
CO2: Knowledge pertaining to Arithmetic Pipeline.
CO3: Knowledge pertaining to Computer Arithmetic.
CO4: Knowledge pertaining to Input and Output Organization.
CO5: Knowledge pertaining to Advanced Memory Organization

ECA616B MANAGEMENT INFORMATION SYSTEMS

CO1: Knowledge on information systems.
CO2: Knowledge on information systems for business operations.
CO3: Capability to manage information Technology.
CO4: Knowledge in ERP
CO5: Capability to implement ERP.

ECA616A SOFTWARE ENGINEERING

CO1: Knowledge on different process models
CO2: Knowledge on how requirements can be collected.
CO3: Knowledge pertaining to building an Analysis Model.
CO4: Knowledge to test Software.
CO5: Managerial Capabilities to Deploy a Project.

GCA63A BIG DATA

CO1: Understand Big data and its analytics in the real world.
CO2: Analyse the big data framework like Hadoop and NOSQL to efficiently storeand process big data to generate analytics

CO3: Design of algorithms to solve data intensive problems using map reduceparadigm
CO4: Design and implementation of big data analytics using pig and spark to solve data intensive problems and to generate analytics
CO5: Implement big data analytics using hive

GCA63B FUNDAMENTALS OF DATA SCIENCE

CO1: Obtain, clean/process, and transform data
CO2: Analyze and interpret data using an ethically responsible approach
CO3: Use appropriate models of analysis, assess the quality of input, derive insightfrom results, and investigate potential issues
CO4: Apply computing theory, languages, and algorithms, as well as mathematical and statistical models, and the principles of optimization to appropriately formulateand use data analyses
CO5: Formulate and use appropriate models of data analysis to solve hiddensolutions to business-related challenges

GCA63C FUNDAMENTALS OF DATA SCIENCE

CO1: Display a comprehensive understanding of different data mining tasks andthe algorithms most appropriate for addressing them.
CO2: Evaluate models/algorithms with respect to their accuracy.
CO3: Demonstrate capacity to perform a self-directed piece of practical work that requires the application of data mining techniques.
CO4: Critique the results of a data mining exercise.
CO5: Develop hypotheses based on the analysis of the results obtained and test them.

CAP607Q OPEN SOURCE TECHNOLOGIES - PHP

CO1: Knowledge in Basics of PHP.
CO2: Programming Skill set in OOP using PHP
CO3: Programming Skill set in Files Concept using PHP
CO4: Programming Skill set in developing Web Pages
CO5: Programming Skill set in developing Database Application using PHP.

B.Com. COMMERCE

CM101Q FINANCIAL ACCOUNTING – I

CO1: Understand the various aspects of Fundamentals of book keeping and apply the same in real life situation with due regard to the type and circumstances of book keeping.
CO2: Ascertain the profit and loss account and balance sheet of Single-entry system.
CO3: Prepare Income and expenditure account and balance sheet of Non trading organization.
CO4: Understand the procedures of consignment accounts from accounting perspective.
CO5: Understand the nuances of joint venture account and separate book keeping.

CM102T BUSINESS ORGANISATION

CO1: Familiarize with Modern Business, Profession & social responsibility of business.
CO2: Identify different forms of business organizations viz; Sole Proprietorship, Partnership, Joint stock companies & Co-operative Organizations.
CO3: Acquiring knowledge on the theories of Location.
CO4: Understand different forms of business combination and their relative merits.
CO5**:** Distinguish and outline the MNCs, GC and TNC.

CM203T FINANCIAL ACCOUNTING –II

CO1: Understand the concept and gain the knowledge on Average Due Date and Account Current.
CO2: Be familiar with the nuances of different systems of accounting followed for Branches.
CO3: Acquire the Knowledge about Departmental Accounts.
CO4: Be acquainted with the accounting treatments required for admission, retirement and death of partners in Partnership firms.
CO5: Understand the accounting procedures involved in the Dissolution of firm under different situations.

CM204A PRINCIPLES OF MARKETING

CO1: Understand the basic concept of marketing and have a complete knowledge of the 10 P's of marketing.
CO2: Learn the classification of products, product mix, product life cycle, branding, packing and quality management.
CO3: Understand the pricing mechanism of marketing.
CO4: Know the basic aspects of the channels of distribution and buyers' behaviours.
CO5: Articulate sales Promotional techniques used in modern marketing.

CM305P CORPORATE ACCOUNTING-I

CO1: Record transactions relating to issue of shares.
C02: Record transactions relating to redemption of preference shares.
CO3: Familiarize the concept of acquisition of business, and profit prior to incorporation.
CO4: Familiarize the concept of Profits Prior to Incorporation.
CO5: Prepare Balance sheet and to prepare the final statement of account of companies.

CM306A PRINCIPLES OF MANAGEMENT

CO1: Understand the concept and gain the knowledge of Fundamentals of management.
CO2: Be familiar with the planning and its types.

CO3: Acquire the knowledge about organizing and staffing.
CO4: Identify the different types of motivation and structures of directing.
CO5: Advanced Programming techniques using to control and coordinate.

CM511Q COST ACCOUNTING

CO1: Familiarize with cost accounting concepts and principles and prepare cost sheets.
CO2: Calculate pricing of materials and inventory control and determine wages payable under different plans.
CO3: Understand Job costing and Batch costing.
CO4: Apply the concepts relating to process cost and compute the cost of production in each stage.
CO5: Understand the complete contract and incomplete contract of cost accounts.

CM512P HUMAN RESOURCE MANAGEMENT

CO1: Explain the basic concepts of human resource management.
CO2: Ability to plan Human resource and evaluate the nature of job.
CO3: Understand the sources of recruitment and design the selection procedure.
CO4: Identify the methods of Training and Development.
CO5: Evaluate the various methods of Performance and Potential Appraisal.

19CM514 INCOME TAX LAW AND PRACTICE

CO1: Have knowledge of the basic concepts of Income Tax Act, 1961 and to analyze the components of taxable salary and compute it.
CO2: Classify the types of house properties and compute their taxable annual values.
CO3: Understand the basic concepts of and provisions relating to income from business or profession and compute taxable capital gains.
CO4: Know the income taxable under the head income from other sources and apply the provisions for deductions and rates of tax.
CO5: Analysis Set off and Carry Forward of losses in business application.

19ECM513 BUSINESS LAWS

CO1: Know the framework of Indian Contract Act 1872.
CO2: Understand the other essential elements of Indian Contract 1872.
CO3: Explain the provisions of Special Contracts and Modes of Discharge.
CO4: Acquire the Knowledge of Sale of Goods Act 1930.
CO5: Perceive the concepts Consumer Protection Act 2019.

ECM513A ENTREPRENURIAL DEVELOPMENT

CO1: Understand the basic concepts and theories of entrepreneurship.
CO2: Exemplify knowledge on course contents, curriculum and constraints of EDP.
CO3: Conceive business ideas and convert them into business projects.
CO4: Become familiar with institutions support various forms of assistances and subsidies.
CO5: Learn the MSMEs schemes provided to budding entrepreneurs.

GCM515T INDIAN CAPITAL MARKET

CO1: Explain the financial systems in India, Compare primary market and secondary market.
CO2: Familiarise with the money market system in India.
CO3: Evaluate the functions and progress of merchant banking and venture capital, Differentiate the concept of discounting and factoring and evaluate the services of credit rating agencies as CRISIL, DFHI,ICRA.
CO4: Identify the different types of mutual funds available to investors.
CO5: Explain the working of stock exchanges in India.

GCM515A INNOVATION MANAGEMENT

CO1: Understand the role of innovation and technical change in enterprise and national level economic performance.
CO2: Understand the technological, human, economic, organizational, social and other dimensions of innovation.
CO3: Gain exposure to various theories of innovation.
CO4: Explore and better manage the effects of new technology on people and work systems.
CO5: Inculcate the Shade of innovation for the success of business.

CM616Q MANAGEMENT ACCOUNTING

CO1: Understand the various aspects of Management accounting concepts and principles and prepare various statement of analysis.
CO2: Calculate various types of ratio analysis and interpret them relevantly.
CO3: Prepare fund flow statement and cash flow statement.
CO4: Draft various kinds of budgets for a business concern.
CO5: Understand the concepts of marginal costing and its importance in decision making.

CM619C CUSTOM, EXCISE AND GOODS AND SERVICETAX

CO1: Imbibe the basics concepts of Customs and Excise duty.
CO2: Know the fundamental concepts of Goods and Service Tax (GST).
CO3: Understand the Goods and Service Tax Registration.
CO4: Analyze the procedures of Levy and Collection of GST.
CO5: Be acquainted with theAssessment Returns and Refund of Goods and Service Tax.

CM618 PRACTICAL AUDITING

CO1: Gain knowledge about fundamentals of Auditing, be proficient with the general principles of auditing and identify various types of audits.
CO2: Know the significances of vouching principles and procedures.
CO3: Understand the process of verification and valuation of the assets and liabilities.
CO4: Know the statutory rights, duties, roles and qualification and disqualifications of auditors
CO5: Familiarize with Investigation and the EDP based environment in limited companies.

19ECM617 COMPANY LAW

CO1: Learn the basic concepts of company and different kinds of Companies.
CO2: Express the procedure of the Formation of a Company.
CO3: Study the various types of Share Capitals and Prospectus Company.
CO4: Acquire the Knowledge about the Management of Companies.
CO5: Explain the process of winding up of Companies.

ECM6I7A ADVERTISEMENT AND SALESMANSHIP

CO1: Know the fundamental aspects of advertising.
CO2: Be aware of the online Advertising
CO3: Understand the concept of Advertising agency
CO4: Know the basic aspects of the salesmanship
CO5: Knowledge pertaining to Sales Organisation and Sales Territory

ECM620T INVESTMENT MANAGEMENT

CO1: Familiarize the Fundamentals of Investment.
CO2: Awareness the knowledge pertaining to Security Investment.
CO3: Acquire Knowledge about Non-Security Investment.
CO4: Attain the information related to scientific reasoning about Risk and Return.
CO5: Apply reflective thinking through Fundamental and Technical

ECM620A QUANTITATIVE TECHNIQUES FOR BUSINESSDECISIONS

CO1: Appreciate the scope of operation research in decision making and learn to apply Graphical and simplex methods of linear programming model.
CO2: Apply different models and techniques available to solve inventory related problems.
CO3: Solve transportation problems regarding determination supply to destinations from appropriate sources and Assign work or job to suitable person, machine or process.
CO4: To Understand the application of queuing techniques in business decision
CO5: Analyse various decisions using different decision analysis techniques.

ACMT301Q ACCOUNTING FOR BUSINESS

CO1: Understand the fundamental aspects of financial accounting and prepare trial balance.
CO2: Acquire skills to prepare Subsidiary Books and Bank Reconciliation Statement.
CO3: Prepare final accounts and balance sheets of sole trader concern.
CO4: Be familiar with cost accounting principles and concepts and prepare cost sheet.
CO5: Understand the concept of marginal costing and apply its techniques.

19GCA31B MANAGEMENT AND PROFESSIONALLEADERSHIP

CO1: Demonstrate to apply general management know-how in practical business situation.
CO2: Explain the various concepts of management, Develop and make the students to know the organization hierarchy; authority and responsibility relationships associated with the different levels of Management.
CO3: Discover good interpersonal Communication and Experiment the role of Communication in the success of a business.
CO4: Infer professional challenges that managers face in various organization.
CO5: Adapt the students to appreciate the emerging ideas and practices in the field of Management.

ACCA401 FINANCIAL ACCOUNTING

CO1: Know the basic and fundamental aspects of financial accounting.
CO2: Acquire skills to prepare Subsidiary Books and Trial Balance.
CO3: Understand the concept of cash book and pass book and prepare Bank Reconciliation Statement.
CO4: Apply the procedures and methods of providing depreciation.
CO5: Prepare final accounts and balance sheets of sole trader concern.

NCMED401 ENTREPRENEURIAL DEVELOPMENT

CO1: Understand the basic concepts and theories of Entrepreneurship.
CO2: Exemplify knowledge on Course Contents and Curriculum.
CO3: Conceive business ideas and convert them into project.
CO4: Become familiar with Institutional Support and various form of assistance and subsidies.
CO5: Know about MSMEs and Major Schemes.

NCMED402 PRINCIPLES OF MANAGEMENT

CO1: Understand the concept and gain the knowledge of Fundamentals of management.
CO2: Be familiar with the planning and its types.
CO3: Acquire the knowledge about organizing and staffing.
CO4: Identify the different types of motivation and structures of directing.
CO5: Advanced Programming techniques using to control and coordinate.

EBB51A LEGAL PRINCIPLES IN BUSINESS

CO1: Know the framework of Indian Contract Act 1872.
CO2: Understand the other essential elements of Indian Contract 1872.
CO3: Explain the provisions of Special Contracts and Modes of Discharge.
CO4: Acquire the Knowledge of Sale of Goods Act 1930.
CO5: Perceive the concepts Consumer Protection Act 2019.

EBB51B INDUSTRIAL RELATIONS

CO1: Understand the basic concepts about industrial relations, relationship among. IR, technology, productivity, Indian culture and IR.
CO2: To comprehend about trade union, legislations about trade union, social responsibility of trade unions, welfare and productivity.
CO3: Acquainted with knowledge about employee counselling, methods, problems and workers development.
CO4: Cognize and interpret about grievance procedures and grievance redressal machinery and various redressal procedures.
CO5: Equip with ethical issues in collective bargaining, process, skills and strength

B.Com. BANK MANAGEMENT

19BM101 PRINCIPLES OF MANAGEMENT

CO1: Know the basic concepts, roles, skills and functions of Management.
CO2: Understand better about Planning and Decision making.
CO3: Understanding the concepts, theories and process of Organizing.
CO4: Provides idea about Motivation, and practice the method of Leadership
CO5: Gather and analyze both Qualitative and Quantitative information appropriate to isolate issues and formulate best control methods

BM102T FINANCIAL ACCOUNTING –I

CO1: Acquire knowledge of double entry system, keeping accounting records and able to prepare profit and loss account and balance sheet of a business entity
CO2: Understand the procedure and principles of single-entry system and able to assess the results of business entity under single entry system
CO3: Maintain the accounting books and records of non -profit organisations and to able to Prepare its final accounts and statements.
CO4: Familiar with the practices of consignment and acquire knowledge to pass journal entries, value the stock at end and calculate profit and loss of each consignment
CO5: Know the joint venture system and gain knowledge to prepare joint venture accounts, assessing the results and determine the settlement amount

BM203Q FINANCIAL ACCOUNTING- II

CO1: Understand the procedure to calculate average due date and able to determine the interest and instalment amount.
CO2: Acquire basic knowledge of different methods adopted to find profit and loss of a branch.
CO3: Accumulate the knowledge of distributing common expenditures among the departments and able to prepare of trading and Profit & Loss account of the department.
CO4: Know the changes take place when a new partner is admitted or retired or died and acquire knowledge to incorporate these changes in partnership books of accounts and final statements
CO5: Familiar with dissolution procedures of the partnership and able to prepare a statement of distribution of cash from sale of assets and close the books of accounts of partnership business.

19BM204 BUSINESS CORRESPONDANCE

CO1: Learn and understand the essentials of an Effective Business Letters.
CO2: Draft various Business and Personnel correspondence.
CO3: Outline letters related to Bank, Insurance, Agency and Secretarial Correspondence.
CO4: Prepare Office Correspondence such as Reports, Minutes of Meeting, Agenda, Circular and Notes.
CO5: Get acquainted with Modern forms of Communication and how it facilitates Business operations.

BM305T INDIAN FINANCIAL SYSTEM

CO1: Understand the components of Indian financial system and functions of Indian money market and capital market.
CO2: Know the management and functions of Reserve Bank of India.
CO3: Familiarize with functions and recent trends in Indian Commercial banks
CO4: Know about the functions of various All India Development Banks
CO5: Understand the functions and role of State Level Banks

BM306S CORPORATE ACCOUNTING

CO1: Understand the company law provisions and procedures of issue of shares to the public and able to pass journal entries of the issue in the books of the company
CO2: Gain knowledge to pass journal entries, prepare balance sheet of a company when it purchases the business of a sole trader and partnership and ability to calculate profit prior to incorporation.
CO3: Familiarize with company law provisions relating to schedules and final accounts of the company and able to prepare profit and loss accounts and balance sheet of company.
CO4: Acquire ability to prepare liquidators final statements when the company closes its business and understand the winding up procedure and various modes of winding up of a company.
CO5: Acquaint with banking law provisions relating to bank's final accounts and gain ability to prepare schedules, profit and loss account and balance sheet of the banks.

BM408Q BANKING LAW AND PRACTICE

CO1: Gather knowledge about Banking structure and different types of banking operations.
CO2: Understand the characteristics of different types of Negotiable instruments
CO3: Understand the relationship between Banker and Customer.
CO4: Impart knowledge on the functioning of Rural Banking services
CO5: Gain knowledge on the latest developments of banking activities.

BM409S COST ACCOUNTING

CO1: Acquire knowledge of the basic concepts of cost, costing methods and able to prepare cost sheet of product and service to determine cost of production and fixing selling price.
CO2: Develops ability to maintain to keep store ledger, fixing stock level and economic order quantity and determine the price at which materials issued to the production center.
CO3: Understand the primary and secondary distribution of overheads to different production and service departments and to know how the overheads are charged to a product/service.
CO4: Acquires knowledge in preparing contract account and able to calculate profit of each contract.
CO5: Acquaint a skill of critical and rational thinking, and decision making ability by dividing cost into fixed and variable and understand the application of marginal costing technique in business decision.

BM501A INCOME TAX LAW AND PRACTICE

CO1: Enlighten with the basic concepts related to Income Tax and Residential Status.
CO2: Obtain the knowledge on the computation of Income on Salaries.
CO3: Procure skills related to the computation of Income from House Property.

CO4: Understand the procedures and techniques for computing income from Business and related deductions and depreciation thereof.
CO5: Acquire knowledge on the methods of computation of Income from Capital Gains and other sources with various Deductions u/s 80C to 80U

BM502A RISK MANAGEMENT FOR BANKS

CO1: Identify and know about the various risks faced by an organisation.
CO2: Know about the credit risk and RBI guidelines for Risk Management
CO3: Acquire the knowledge about the types and causes for operational risk.
CO4: Understand the types of foreign Exchange risks and FEMA Act.
CO5: Familiarise with the Money Laundering and Anti-Money Laundering Act

BM503A ENTREPRENEURIAL DEVELOPMENT

CO1: To familiarize the students with the concept of entrepreneurship.
CO2: Impart knowledge regarding creativity and Innovation
CO3: To make aware of Innovation and Entrepreneurship in a Social Context.
CO4: To enable the student to learn about family business and Entrepreneurship.
CO5: To make them know about the financing for entrepreneurial business.

18EBM504 INTERNATIONAL BANKING

CO1: To impart the students with knowledge in the field of international banking, international financial transactions across borders.
CO2: To enrich the students understanding with respect to foreign exchange, spot and forward cover and hedging.
CO3: To familiarise with international financial institutions and functions of international financial bodies.
CO4: To understand sources of foreign exchange earnings, receipts and borrowings with respect to NRI.
CO5: To acquire insights regarding foreign exchange management, currency convertibility and foreign exchange reserves

18EBM505 CORPORATE SOCIAL RESPONSIBILITY

CO1: To impart conceptual understanding of business ethics, values and its relevance to modern business**.**
CO2: To acquire insights regarding social responsibility of a business and its influence on Indian firms.
CO3: To understand the concepts of consumerism and unethical practices in business.
CO4: To acquire familiarity in market eco systems, environment sensibility and sustainability.
CO5: To enrich the students understanding with respect to SEBI and Competition Commission of India.

19EBM55A RETAIL MARKETING MANAGEMENT

CO1: Define retailing and various types of retailers.
CO2: Acquire in depth knowledge of merchandise management.
CO3: Gain knowledge on the retail location, site location and layout.
CO4: Know various promotion of retail outlets.
CO5: Articulate Information Technology techniques used in retailing.

18EBM506 PRACTICAL AUDITING

CO1: Understand the fundamental concepts of Auditing.
CO2: Be able to create a Structure Audit Planning and Programme.
CO3: Learn how to verify and value Assets and Liabilities.
CO4: Know the statutory rights, Duties, Role and Qualification of Auditor.
CO5: Familiarize with the EDP based environment

18EBM507 E-BANKING

CO1: Understanding the basic concepts of E-Banking.
CO2: Determining the overall view of electronic payment systems.
CO3: Know about the Electronic the fund transfer systems of Banking.
CO4: Understand the methods and technology management.
CO5: Learn the significance of security features of E- Banking Systems.

19EBM508 PRINCIPLES OF INSURANCE

CO1: Know about the concept of insurance and its types
CO2: Understand the Management of risk by and contribution of insurance to the society
CO3: Familiarize with Constituents and operations of Insurance market
CO4: Understand and know about the insurance customers
CO5: Know about the significance and principles of insurance contract

18BM601 CUSTOMER RELATIONSHIP MANAGEMENT

CO1: Understand the Basic Concepts about the Customer Relationship Management.
CO2: Get acquainted with the knowledge about E- CRM.
CO3: Understand the process of Lead Management in CRM.
CO4: Procure ideas about Data Management techniques related to customer database.
CO5: Highlight the significance of Customer satisfaction and its outcomes

18BM602 MANAGEMENT ACCOUNTING

C01: Develop basic knowledge of management accounting concepts, tools for analysing financial statements and have practical knowledge to analysis the final accounts and able to prepare reports to indicate critical situation.
C02: Familiarize in various accounting ratios and its applications to evaluate operating, turnover performance and solvency position of a company.
C03: Acquire a skill to prepare a cash flow statement for a company as per AS-3.
C04: Develop knowledge to prepare various functional budgets and ability to compare with actual and making a report to management if unfavorable situations warrant.
C05: Develop ability to take rational decisions on heavy capital outlay requiring projects and selecting the best projects among the alternatives.

18BM603 HUMAN RESOURCE MANAGEMENT

CO1: Gain exposure on the principles and practices of Human resource Management.
CO2: Be familiar with effective Human resource Planning.
CO3: Understand various aspects of recruitment and Selection.
CO4: Equip himself with various Dimensions of Training and development.
CO5: Gain knowledge about Performance Appraisal and different methods

18EBM604 RETAIL BANKING

CO1: Define and understand the basic concepts of retailing.
CO2: Acquire an overview of Retail Products and their development process and the requirements of customers.
CO3: Know about the Eligibility, Process and purpose of using Credit and Debit Cards.
CO4: Understand the methods and techniques of marketing and selling Retail Products.
CO5: Learn the significance of role and impact of Customer Relationship Management in Retail banking.

18EBM605 FINANCIAL MANAGEMENT

CO1: Understand and familiarize with basic concepts of financial management and know the various source of finance.
CO2: Gain practical knowledge to determine cost of capital and leverages and understand its application in financing decisions.
CO3: Acquire knowledge in deciding optimum capital structure and dividend giving benefit to the shareholders, creditors and company
CO4: Have a Practical knowledge to estimate the working capital amount and decide the optimum credit policy favorable to the company.
CO5: Gain knowledge to do critical evaluation on various alternatives available and choose the best project or machinery among the alternatives

19EBM65A MERCHANT BANKING

CO1: Familiarize with merchant banking and its legal framework
CO2: Understand the various pre and post issue activities and issue marketing
CO3: Determine the most suitable type of merger and acquisition and credit rating
CO4: Enable to get familiarize with leasing and hire purchasing CO5 Making a deep understanding on real estate financing, discounting bills and factoring.
CO5: Making a deep understanding on real estate financing, discounting bills and factoring

18EBM606 SERVICES MARKETING

CO1: Know about the nature, types and significance of services marketing.
CO2: Understand the features of marketing of financial services
CO3: Familiarize with the marketing of hospitality services.
CO4: Identify and know about the services of Marketing of Non-profit organization
CO5: Understand the 7P's in Marketing mix in services marketing

18EBM607 CO-OPERATIVE BANKING

CO1: Acquire the basic knowledge of co-operative banking law, provision and recovery of debt.
CO2: Familiarize with credit management, MSME finance and operations.
CO3: Understand the Investment Management - CRR / SLR Management - Financial Markets
CO4: Obtaining the approach of Banks to profitability, Effects of NPA on profitability and Profitability Model
CO5: Exhibits the Regulatory aspects Banking Regulation Act and Role of Directors and Corporate Governance Best Practices

18EBM606C BUSINESS ENVIRONMENT

CO1: Learn about factors of environment in India.
CO2: Impart knowledge on economic environment
CO3: Learn about Socio-cultural environment and its impact in business
CO4: Gain knowledge about Natural Environment and its impact in business
CO5: Understand technological impact in business in India.

ABM401A TECHNOLOGY IN BANKING

CO1: Understand about the bank computerization
CO2: Acquire knowledge about various Bank back-office operations
CO3: Understand the various E-Payment Methods
CO4: Know about the contemporary issues in banking techniques and Cyber laws
CO5: Know about the E-Payment securities

19ABE303 FUNDAMENTALS OF DIGITAL BANKING

CO1: Familiar with types of banks, accounts opened in banks and digital banking products
CO: Gain Knowledge on various operations done through ATM machines and fund transfer.
CO3: Understand the working of cash deposit machines, technology applied, cash recycler and risk associated with cash deposit operations.
CO4: Acquire knowledge and skill in online banking operations, e-commerce transactions and mobile banking operations.
CO5: Gain ability to do payments through AEPS, NFS, RTGS, NEFT and E-Wallets

21ABB34 FINANCIAL ACCOUNTING AND ANALYSIS (BBA(CA))

CO1: To acquire knowledge of double entry system, keeping accounting records.
CO2: To acquire knowledge to prepare profit and loss account and balance sheet of a business entity
CO3: To familiarize in various accounting ratios and its applications to evaluate operating, turnover performance and solvency position of a company.
CO4: To acquire a skill to prepare a cash flow statement for a company as per AS-3.
CO5: To develop knowledge to prepare various functional budgets and ability to compare with actual and making a report to management if unfavorable situations warrant.

B.B.A. COMPUTER APPLICATIONS

21BB101 BUSINESS ORGANISATION AND MANAGEMENT

CO1: Understand the basic concepts in business organisation and operations of MNC's in India.
CO2: To comprehend different forms of business organization, its merits, demerits and applications.
CO3: Understand the basic concepts of management theories
CO4: To understand the managerial functions of planning and organizing
CO5: To understand the managerial functions of directing, coordinating and controlling.

19BB102 FUNDAMENTALS OF INFORMATION TECHNOLOGY

CO1: Knowledge pertaining to Fundamentals of Computer Model.
CO2: Knowledge pertaining to Data Storage.
CO3: Basics knowledge of CPU.
CO4: Knowledge pertaining to Fundamentals of Computer Networking.
CO5: Fundamentals of output devices and programming Languages.

BB203A ENTREPRENEURIAL DEVELOPMENT

CO1: Understand the basic concepts and theories of entrepreneurship.
CO2: Exemplify knowledge on course contents, curriculum and constraints of EDP.
CO3: Conceive business ideas and convert them into business projects.
CO4: Become familiar with institutions support various forms of assistances and subsidies.
CO5: Learn the MSMEs schemes provided to budding entrepreneurs.

BB204A FUNDAMENTALS OF MS OFFICE

CO1: Basics of MS OFFICE.
CO2: Knowledge pertaining to MS WORD.
CO3: Knowledge about AutoCorrect and AutoFormat
CO4: Basics knowledge of data handling in Excel, different functions and format in Excel.
CO5: Knowledge pertaining to MS PowerPoint.

BP201A MS OFFICE - LAB

CO1: Skills using editing, formatting in Excel.
CO2: Skills using filtering and sorting in Excel.
CO3: Skills using different functions in Excel.
CO4: Programming Skills in Macros.
CO5: Skills using Pivot Tables in Excel.

19BB301 PRODUCTION MANAGEMENT

CO1: To understand the core features, scope and significance of production management and overall idea about Plant location and plant layout.
CO2: To enlighten the ideas about work, time and motion study, types of plant and how to maintain a plant.
C03: To understand about production planning control, its elements and to have an insight into routing and scheduling.
CO4: To explore about different quality certification marks, quality control and inspection, maintenance, maintenance cost preventive and predictive maintenance.

CO5: To acquire knowledge about managing materials, purchasing procedure, store keeping objectives and the modern methods of material handling.

19BB302 MANAGEMENT INFORMATION SYSTEM

CO1: Knowledge on information systems.
CO2: Knowledge on information systems for business operations.
CO3: Capability to manage information Technology.
CO4: Knowledge in ERP
CO5: Capability to implement ERP.

ABB304A PRINCIPLES OF MARKETING

CO1: To understand about marketing management concepts and frameworks, marketing mix, market segmentation and apply these to a new or existing business.
CO2: To cognize and able to differentiate industrial and consumer goods, the concepts of new product development and product life cycle.
CO3: To have an overview of pricing, pricing objectives and to develop skills to analyze, determine price for various products and methods of pricing.
CO4: To demonstrate various distribution channel, channel partners, importance and services offered by various middlemen.
CO5: To synthesize information and derive insights related to sales promotion and advertising, various modes of advertising, its merits and demerits.

BB401A DIGITAL AND SOCIAL MEDIA MARKETING

CO1: To understand about digital marketing.
CO2: To cognize and able to understand trends in digital marketing.
CO3: To have an overview of web marketing.
CO4: To demonstrate various search engines.
CO5: To synthesize information and derive insights into social media marketing.

19BB402 RELATIONAL DATABASE MANAGEMENT SYSTEM

CO1: Knowledge in Basic Database Concepts.
CO2: Knowledge in Different Function concepts.
CO3: Knowledge in basic SQL commands.
CO4: Programming Skill set in database integrity
CO5: Programming Skill set in SQL.

19BP402 RELATIONAL DATABASE MANAGEMENT SYSTEM LAB

CO1: Knowledge in Basic Database Concepts.
CO2: Knowledge in Entity Relationship Model.
CO3: Knowledge in Normalization Techniques.
CO4: Programming Skill set in SQL
CO5: Programming Skill set in PL/SQL

19GBB42 ORGANISATIONAL BEHAVIOUR

CO1: Understand the fundamental concept of OB
CO2: Acquire Knowledge of individual and group behavior
CO3: Acquire Knowledge about motivation of moral
CO4: Learn about power and politics
CO5: Learn about culture and conflict

ABB405A FINANCIAL ACCOUNTING AND ANALYSIS

CO1. To acquire knowledge of double entry system, keeping accounting records.
CO2. To acquire knowledge to prepare profit and loss account and balance sheet of a business entity
CO 3. To familiarize in various accounting ratios and its applications to evaluate operating, turnover performance and solvency position of a company.
CO 4. To acquire a skill to prepare a cash flow statement for a company as per AS-3.
CO 5. To develop knowledge to prepare various functional budgets and ability to compare with actual and making a report to management if unfavorable situations warrant.

19ABB46 E-COMMERCE AND ITS APPLICATIONS

CO1: Basic Knowledge pertaining to E-Commerce
CO2: Basic Knowledge pertaining to HTML Language.
CO3: Skills in Marketing on the web.
CO4: E-Commerce Web site, Security Services.
CO5: E-Commerce Payment Models.

17BB501 FINANCIAL MANAGEMENT

CO1: Understand the different financing decision and estimate the value of different financial instruments.
CO2: Decide the source of finance for an organisation and formulate the optimum Capital Structure
CO3: Estimate cash flows and make capital budgeting decisions under both certainty and uncertainty.
CO4: Analyze the factors influencing the dividend decision and formulate the dividend policy of the firm
CO5: Describe and assess how companies manage the components of working capital to minimize the cost of carrying current assets and the cost of short-term borrowing.

17BB502 RESEARCH METHODOLOGY

CO1: To impart the students with knowledge in the field of research and to enhance them to utilize various methods of research.
CO2: To enrich the students to identify appropriate research topics, select and define appropriate research problem and parameters, develop a better research design and to synchronize with the research problem to fill the research gap.
CO3: To familiarize with preparing a project proposal (to undertake a project), sampling design, different types of data, data collection methods and various sources of primary and secondary data.
CO4: To enable the students to perform data processing, editing, coding of data, tabulation, data analysis using various tools.
CO5: To enhance the skills of writing a research report and thesis report writing, referencing and toexplore to various reporting standards.

19BB503 LEGAL ASPECTS OF BUSINESS

CO1: To Demonstrate an understanding of the nature of the company law and legal aspect.
CO2: To understand the documents of AoA, MoM, and other securities related legal documents
CO3: Understand the concept of management and partnership and formalities in creation, admission and dissolution of partnership firm

CO4: Demonstrate the conceptual and practical knowledge in contract Act
CO5: Elaborate to possessed the knowledge of special contract and bailment

19EBB51A INVESTMENT MANAGEMENT

CO1: Students will understand the characteristics of different financial assets such as money market instruments, bonds, and stocks, and how to buy and sell these assets in financial markets.
CO2: Students will understand the benefit of diversification of holding a portfolio of assets, and the importance played by the market portfolio.
CO3: Students will know how to apply different valuation models to evaluate fixed income securities, stocks, and how to use different derivative securities to manage their investment risks.
CO4: Students will have the knowledge and skills to select and employ base level tools for financial analysis.
CO5: Students will have the knowledge and skills to develop portfolio strategies for individual and institutional investors.

17EBB51B RETAIL MARKETING MANAGEMENT

CO1: To understand about retail marketing management concepts, frameworks and apply these to Recent times business.
CO2: To cognize about merchandise management.
CO3: To have an overview of location of retail units and its influences.
CO4: To demonstrate various promotion activities of retail outlets.
CO5: To synthesize the inevitable role of technology in retail marketing.

EBB51C EXPORT IMPORT MANAGEMENT

CO1: Students will understand the Import Export Policy of Government of India.
CO2: Students will know the Government authorities involved in Import & Export operations.
CO3: Students will know the significance of export documentation.
CO4: Students will understand the export procedure.
CO5: Students will have the knowledge about GST and related terminologies.

17EBB52A INTERNET AND ITS APPLICATION

CO1: Knowledge in Internet Connection Technologies.
CO2: Basics of HTML.
CO3: Programming Skills using Basic HTML Tags
CO4: Programming Skills to create tables in HTML tags.
CO5: Programming Skills to create forms in HTML

17EBB52B INFORMATION SYSTEM DESIGN

CO1: Knowledge on information systems.
CO2: Basic Knowledge on Computers.
CO3: Knowledge on System Analysis.
CO4: Capability to manage information Technology.
CO5: Skill set in Decision support system.

EBB52C COMPUTER GRAPHICS

CO1: Inhibit basic Knowledge about Computer Graphics
CO2: Explore Output Primitive Features

CO3: Explore 2D Concepts.
CO4: Explore 3D Concepts.
CO5: Perform Transformation based Animation.

17BB601	HUMAN RESOURCE MANAGEMENT

CO1: To understand fundamentals about human resource management, qualities of a HR manager problems and challenges faced by a HR manager.
CO2: To understand the human resource planning process, analysis of job and various methods of job analysis.
CO3: Will know the methods of recruitment and selection process.
CO4: Will have the knowledge about the need for training, training and evaluation methods.
CO5: Will have the knowledge about performance and potential appraisal, grievance handling and disciplinary procedures.

17BB602	PROGRAMMING USING MICROSOFT TECHNOLOGY (C#.net)

CO1: Knowledge in Dot Net Framework.
CO2: Programming Skill set in C#.Net
CO3: Programming Skill set in windows forms using C#.
CO4: Programming Skill set in different controls using C#.
CO5: Programming Skill set in ADO.Net

17BBP601	PROGRAMMING USING MICROSOFT TECHNOLOGY (C#.net) LAB

CO1: Basic Programming skill set in C#.
CO2: Object Oriented Programming Skill set in C#
CO3: Programming Skill set in windows forms using C#.
CO4: Programming Skill set in different controls using C#.
CO5: Programming Skill set in ADO.Net

19BB603	STRATEGIC MANAGEMENT

CO1: Understand the basic concepts about strategic management and strategic decision making process.
CO2: Characterize and differentiate mission, vision, goals, objectives, policies and strategies.
CO3: Analyze the business environmental variables.
CO4: Cognize and interpret about various business and corporate level strategies
CO5: Understand about strategic alliances, collaborative partnerships, merger, acquisition and diversifications.

19EBB63A	FINANCIAL AND CAPITAL MARKETS

CO1: To understand fundamentals of Indian Financial Market.
CO2: To understand the functions and purpose of capital markets.
CO3: To know the operations and functions of secondary markets
CO4: To understand the functions and operations of money market.
CO5: To understand the functions and regulations of the regulator (SEBI)

17EBB63B INDUSTRIAL RELATIONS

CO1: Understand the basic concepts about industrial relations, relationship among. IR, technology, productivity, Indian culture and IR.
CO2: To comprehend about trade union, legislations about trade union, social responsibility of trade unions, welfare and productivity.
CO3: Acquainted with knowledge about employee counselling, methods, problems and workers development.
CO4: Cognize and interpret about grievance procedures and grievance redressal machinery and various redressal procedures.
CO5: Equip with ethical issues in collective bargaining, process, skills and strength.

EBB63C COMPENSATION MANAGEMENT

CO1: Understand the basic concepts about Compensation.
CO2: To comprehend about Compensation classifications & Compensation determination.
CO3: Acquainted with knowledge about Wage theory and incentive plans.
CO4: Cognize and interpret about compensation packages and pay system.
CO5: Equip with wage boards, employee benefit programmes.

17JBB64A PROJECT WORK

C01. Know the technique how to write the introduction, familiar with research methodology and the contents are included in the introduction part.
C02. Acquire knowledge to write review of literature and organize them to suit with objectives
C03. Know how to write and organize the profile of study area and study population.
C04.Acquire knowledge to choose and apply various statistical tools and how to write interpretation.
C05.Obtain a skill to prepare a project report and organize of the contents of the project reports

17EBB64B ENTREPRENEURIAL DEVELOPMENT

CO1: Understand the basic concepts and theories of entrepreneurship.
CO2: Exemplify knowledge on course contents, curriculum and constraints of EDP.
CO3: Conceive business ideas and convert them into business projects.
CO4: Become familiar with institutions support various forms of assistances and subsidies.
CO5: Learn the MSMEs schemes provided to budding entrepreneurs.

EBB64C CONSUMER BEHAVIOUR

CO1: Student shall be able to learn and understand the importance of consumer behavior in marketing and differential consumer behavior in Indian context.
CO2: To understand role of marketing in influencing consumer behavior.
CO3: To analyse the role of marketer & the consumer in adverting.
CO4: To sensitize the students to the changing trends in consumer behavior.
CO5: To understand Post purchase Behaviour.

JBB65A INTERVIEW SKILLS TRAINING

CO1: To understand the fundamentals of interview.
CO2: To prepare oneself when the interview is scheduled
CO3: To prepare before the interview

CO4: To prepare during the interview
CO5: To prepare after the interview.

19GBM31 MARKETING MANAGEMENT

CO1: To understand about marketing management concepts and frameworks, marketing mix, market segmentation and apply these to a new or existing business.
CO2: To cognize and able to differentiate industrial and consumer goods, the concepts of new product development and product life cycle.
CO3: To have an overview of pricing, pricing objectives and to develop skills to analyze, determine price for various products and methods of pricing.
CO4: To demonstrate various distribution channel, channel partners, importance and services offered by various middlemen.
CO5: To synthesize information and derive insights related to sales promotion and advertising, various modes of advertising, its merits and demerits.

19GCM42A ENTREPRENEURIAL DEVELOPMENT

CO1: Understand the basic concepts and theories of entrepreneurship.
CO2: Exemplify knowledge on course contents, curriculum and constraints of EDP.
CO3: Conceive business ideas and convert them into business projects.
CO4: Become familiar with institutions support various forms of assistances and subsidies.
CO5: Learn the MSMEs schemes provided to budding entrepreneurs.

19GCM42B RETAIL MARKETING MANAGEMENT

CO1: students learn the concept of retailing, types and its important functions.
CO2: understand the knowledge about merchandise management.
CO3: identify factors that site location and layout of retail units.
CO4: familiarize with the promotions of retail, objectives with its functions.
CO5: acquire knowledge about e-retailing like IT-in retail, e-cash, e-commerce and smart cards etc.

B.A. HISTORY

HI101S HISTORY OF INDIA – I (From earliest times to 1206 A.D)

CO1: Students will demonstrate knowledge of the chronology of history of ancient India.
CO2: Students will correctly extract evidence from primary sources by analyzing and understanding the ancient state system to modern state system.
CO3: Students will evaluate primary historical sources like inscription like as well as literature by analyzing them in relation to the evidence that supports them their theoretical frameworks, and other secondary historical literature.
CO4: Students will acquire the knowledge of the civilization of ancient people of the study period.

HI102S TOURISM: CONCEPTS AND PRINCIPLES

CO1: Know the History of Tourism in India from the rudimentary stage.
CO2: Understand the basics of Tourism as an Industry with much prospects of employment.
CO3: Realise the Historical and Cultural Glories of Tamil Nadu through Art and Architecture, Fairs and festivals which are of major Tourism potential
CO4: Voice against the adverse effects of Tourism like Human Vandalism and Cultural and Environmental Challenges

HI203S HISTORY OF INDIA- II (FROM 1206 A.D TO 1761 A.D)

CO1: Students will demonstrate knowledge of the Muslim empire, secularism, and unexplored areas of history.
CO2: Students will correctly extract evidence from primary sources by analyzing and understanding the ancient state system to modern state system.
CO3: Students will evaluate primary historical sources like inscription like as well as literature by analyzing them in relation to the evidence that supports them their theoretical frameworks, and other secondary historical literature
CO4: Students will acquire the knowledge of the Indian history during the medical period

HI204S TRAVEL AGENCY AND HOSPITALITY MANAGEMENT

CO1: Students will demonstrate knowledge of the growth of travel agencies in India.
CO2: Students will correctly extract evidence from primary sources by Analyzing and understanding the concepts of banking exchange, Regulation of passport and visa.
CO3: Students will evaluate primary sources like hospitality management Like as well as travel agencies by analyzing them in relation to that supports them their tourist development.
CO4: Students will acquire the knowledge of the accommodation, travel agencies and history of tourism.

HI305S HISTORY OF INDIA III– (FROM 1761 A.D. TO 1947 A.D.)

CO1: Understand about the political condition that prevailed in India during the decline of Mughal rule, Judiciary advent of Europeans
CO2: Know about the diversified ambitions of Europeans in India to colonise and their subsequent success in wars achieving their goal
CO3: Acquire knowledge about the various reforms administrative measures taken by the company through its Governor Generals in a bid to consolidate their military gains.

CO4: Trace the socio religious reforms, educational reforms, and judicial reforms, reforms in Transport and communication and on the subsequent outbreak of Mutiny.

19HI306 HISTORY OF TAMIL NADU UPTO 850 A.D

CO1: The students will be aware about the various sources such as archaeological, inscriptional and literary sources on Tamil Nadu History
CO2: Be aware of the novel characteristics of the Sangam Society
CO3: Will be in a position to understand and analyse the political condition that existed till 885 C.E.
CO4: To be well versed in the evolution of art history in Tamil Country

20HI408 HISTORY OF TAMIL NADU (FROM 850 AD TO 1565 AD)

CO1: To visualize the political history of Tamilnadu from 9th Century C.E to 16th century C.E.
CO2: To improve their knowledge on various achievements from later Cholas to the Nayaks till 1565 C.E Tamil Country
CO3: To know about the achievements of Second Pandyan Empire Art, Architecture, Trade
CO4: To understand the invasion of Muslims, how vijayanagar empire played a vital role in expanding their rule in Tamil Country, Hindu revivalism and how it filled the vacuum in the polity of South India.

HI407S HISTORY OF CHINA AND JAPAN

CO1: Understand the Traditional China, ChieseRevolutio of 1911 ad First World War and China.
CO2: Understand more about Chiang – Kai – Shek and Mao – Tse – Tung.
CO3: Study more about the Japan in the First half of the 19th century and Russo, Japanese War (1904 – 05).
CO4: Know the Manchurian Crisis of 1931, Manchurian Crisis of 1931 and Surrender of Japan.

19HI509 HISTORY OF EUROPE –I(FROM 1453 A.D. TO 1789 A.D.)

CO1: Know about the onset of a Modern Thought Process in Europe through the Speeches and Writings of European Philosophers.
CO2: Clearly know about the active participation of German Protestant Leaders towards Reformation in Christian Religion.
CO3: Visualize on the Rise and fall of Great Dynasties and on the Era of Enlightened Despots in Europe.
CO4: Grasp on the emergence of nascent form of democratic institutions in Europe, replacing the autocratic rule.

HI510 HISTORY OF THE U.S.A. COLONIES TO 1865.A.D

CO1: Understand the challenges of USA in the construction of its own government
CO2: now the accomplishment of Presidents of USA for ascertaining its internal progress
CO3: Obtain knowledge on how the USA tackled problems like geographical expansion and slavery.
CO4: Assess the basic principles affluence and influence are being still experimented by USA

19HI511 CONTEMPORARY INDIA SINCE 1947

CO1: Understand the constitutional developments, fundamental rights and duties, Indian legislature, Executive, Judiciary their powers and functions
CO2: Know about the administration of Congress and Non-Congress Governments, Indian Democracy, Centre State Relations towards the national integration and secularism.
CO3: Visualize the diversified policies initiated by Non-Congress Regimes towards progressive India
CO4: Be aware of the developments in Social Policies, science and Technology, Industry and Agriculture.

EHI512 HISTORY OF GREECE UPTO 323 B.C

CO1: Understand about the Geographical Features of Greece, its significance and the Ancient Civilizations of Greece
CO2: Vi Visualize about the Homeric Age and on literary marvels of Iliyad and Odessey
CO3: Know about the emergence of City States in Greece, Political and Socio-Economic Reforms.
CO4: Evaluate the Philosophy of Socrates, Plato, Aristotle, Legacy of Greece to the World and its contribution to Science and Technology

EHI513 HUMAN RIGHTS

CO1: Now the Indian Justice and Human Rights – Liberty and Equality.
CO2: Understand the international Covenants on Human Rights – Economic Social & Cultural Rights.
CO3: Visualize on Constitutional Guarantee on Human Rights – Fundamental Rights of India.
CO4: Clearly know the Contemporary issues in Human Rights. Private Human Rights Organization.

19HI614 HISTORY OF EUROPE II (FROM 1789 A.D TO 1945 A.D)

CO1: Understand about the Age of Revolution and impacts in Europe
CO2: Know about the Unification process which emanated by 19thcentury in European countries and on the Industrial Progress
CO3: VI Visualize on the Age of Enlightment in France, Italy, Russia, Austria and Hungary.
CO4: Clearly know about the World Wars, Inter war developments and emergence of Global Institutions such as League of Nations and UNO to ensure peace.

HI615 HISTORY OF THE U.S.A (FROM 1866 A.D TO 2000 A.D)

CO1: Know about the U.S.A in the early 20thcentury and the contributions of Theodore Roosevelt to the internal policy of USA.
CO2: Understand the role of USA in the First World War and the efforts of Woodrow Wilson in the formation of League of Nations
CO3: Grasp the situation that prevailed in USA in the interwar period such as the Great Depression and soon.
CO4: Evaluate the New Deal Policy of F.D.Roosevelt and the Foreign Policy of USA during the World War II.

19HI616 HISTORY MODERN TAMILNADU (1600 TO 2000A.D.)

CO1: Know the Anglo, French Rivalry in Tamil Nadu and Treaty of Carnatic in 1801.
CO2: Study more about Kattabomman, Pulidhevan, Maruthu Brothers and Vellore Mutiny 1806.
CO3: Learn about the Zamindari Systems, Adminsitration of Munroe and the Ryotwari System.
CO4: Getting the knowledge about Impact of Christianity and Justice Party

EHI618S PRINCIPLES OF PUBLIC ADMINISTRATION

CO1: The students got how the from administrative work in India.
CO2: The student gets knowledge administrative structure of government
CO3: The students getting benefits of the knowledge to the various administrative government.
CO4: State Administration: Governor & District Superintendent of Police - Block development officer- Local Administration.

EHI617A PRINCIPLES AND METHODS OF ARCHEOLOGY

CO1: Knowledge on the functions and the value of archeology as a primary source
CO2: Understand the significance of heritage and humanism.
CO3: Knowledge relating to the contributions of eminent archeologists
CO4: Learn more about archeology in TamilNadu
CO5: Value of field visit and project work

ALLIED STATISTICS

18SMT101 ALLIED STATISTICS – I

CO1: Understand the Definition, Uses, Merits and demerits, relationship of Location, Dispersion, Skewness and Kurtosis
CO2: Understand the concept of Probability and its related theorem
CO3: Know the concept of random variables and its use in various density functions
CO4: Understand the concept of Mathematical Expectation its properties and Chebychev's inequality
CO5: Understand the concept of Correlation and Regression and its uses in various fields.

18SMT202 ALLIED STATISTICS – II

CO1: Understand the Discrete distribution & definition, derivation of Mean and variance for each distribution and its moment generating functions
CO2: Understand the Continuous distribution and definition, derivation of Mean and variance for each distribution, concept of sampling distribution and its relationship
CO3: Know the concept of tests of significance (small sample) test and how to apply in real life situation
CO4: Understand the concept of large sample test and its proportion, mean and Standard deviation of correlation coefficients
CO5: Understand the concept of Analysis of variance and its uses, whereas learn how to classify and analyze the problems in various fields.

18SMP201 ALLIED STATISTICS PRACTICAL

CO1: Understand how to solve measures of Location, Dispersion, Skewness and Kurtosis problems.
CO2: Understand how to solve Correlation and two regression equations.
CO3: Set up the hypothesis for small sample test problems and goodness of fit.
CO4: Set up the hypothesis for large sample test problems and its mean, proportions.
CO5: Solve and analyze One way, Two way classifications, CRD, RBD and LSD.

19ASCS31 STATISTICAL METHODS FOR COMPUTER APPLICATIONS –I

CO1: Understand the Scope and limitation of Statistical methods, diagrammatic and graphical representation of data, merits and demerits
CO2: Understand the concept of measures of Location, Dispersion, Absolute and relative measures
CO3: Know the concept of measures of skewness and learn how to measure the samples by the following methods Karl Pearson's, Bowley's, Kelly's coefficient of Skewness and kurtosis
CO4: Understand the concept of Probability and its related theorem.
CO5: Know the concept of random variables and its use in various density functions understand the concept of Mathematical Expectation its properties and Chebychev's inequality.

19ASCS42 STATISTICAL METHODS FOR COMPUTER APPLICATIONS – II

CO1: Understand the concept of Correlation and Regression and its uses in various fields.
CO2: Understand the definition of Binomial, Poisson and Normal distributions and derivation of Mean and variance for each distribution.

CO3: Know the concept of tests of significance (small sample) test. Understand the concept of large sample test and its proportion, mean and Standard deviation of correlation coefficients.
CO4: Understand the concept of Analysis of variance, basic principles of design of experiments and problems related to CRD, RBD and LSD.
CO5: Understand the diagrammatic representation of data, average, median, mode, STDEV, VAR, skewness and kurtosis functions using MS- Excel.

ASCP401A STATISTICAL METHODS FOR COMPUTER APPLICATIONS PRACTICAL

CO1: Construct Univariate and Bivariate frequency distributions, represent the statistical data and frequency distributions diagrammatically and graphically
CO2: Solve measures of Location, Dispersion, Skewness and Kurtosis problems
CO3: Solve Karl Pearson's coefficients of correlation, Rank correlation and two regression equations problems
CO4: Solve fitting of Binomial, Poisson, Normal distributions (Area Method) and testing its goodness of fit. Set up the hypothesis for small sample test and large sample test problems and its mean, proportions problems and Chi square distributions
CO5: Solve and analyze ANOVA for CRD, RBD and LSD

ASCA202A STATISTICAL METHODS

CO1: Understand the concepts of Measures of Central tendency and Measures of Dispersion
CO2: Understand the concept of Measures of Skewness
CO3: Understand the concepts of Correlation and Regression with its uses in various fields
CO4: Know the concept of tests of significance (small sample) and its application in real life situation
CO5: Understand the concept of Analysis of Variance with One way and two way classifications.

ASBM301A BUSINESS STATISTICS

CO1: Understand the concept of collection of data, classification, tabulation and measures of central tendency
CO2: Understand the concept of measures of dispersion
CO3: Understand the concept of Correlation, Regression and its uses in various fields
CO4: Understand the concept of index number, constructing, trending, learning and predicting situation based on period
CO5: Understand the concept of time series, formation of trend, planning trend line and learning measures of seasonal variation time.

ASCM301A BUSINESS STATISTICS

CO1: Understand the concept of collection of data, classification, tabulation and measures of central tendency
CO2: Understand the concept of measures of dispersion
CO3: Understand the concept of Correlation, Regression and its uses in various fields
CO4: Understand the concept of index number, constructing, trending, learning and predicting situation based on period
CO5: Understand the concept of time series, formation of trend, planning trend line and learning measures of seasonal variation time.

21ABS22	BUSINESS STATISTICAL METHODS

CO1: Understand the concept of collection of data, classification, tabulation and measures of central tendency
CO2: Understand the concept of measures of dispersion
CO3: Understand the concept of Correlation, Regression and its uses in various fields
CO4: Understand the concept of index number with different methods of construction
CO5: Understand the concept of time series with different methods.

PCM701A	QUANTITATIVE TECHNIQUES

CO1: Understand the concept of Probability and Mathematical Expectations.
CO2: Setup the hypothesis for small and large samples using in t, F and chi- square.
CO3: Understand the concept of Analysis of variance using CRD, RBD and LSD.
CO4: Understand the concept of LPP, optimal solution transportation problems using North West, least cost and Vogel's approximation methods and Non parametric tests.
CO5: Understand and the concept of inventory model, definition and techniques of inventory control- EOQ model.

21EPM16A	BIOSTATISTICS

CO1: Understand the various methods measures of central tendency and dispersion.
CO2: Understand the concept of Correlation and Regression and its uses in various fields.
CO3: Understand the concept of sampling and non-sampling error, advantage and its disadvantages in sampling.
CO4: Setup the hypothesis for small and large samples using in t, F and chi- square.
CO5: Know the concept of Analysis of variance and Basic principles of design of experiments.

ALLIED ECONOMICS

21AECM11 BUSINESS ECONOMICS - I

CO1: Understands the Meaning, Definitions of Economics, Business Economics & their relationship
CO2: Knowledge about Demand &Elasticity of Demand
CO3: Understands the concept Demand Forecasting & methods to Forecast
CO4: Knowledge about factors of production features & Laws of production
CO5: Understands the Cost & Revenue Concepts & Relationship.

21AEBM11 BUSINESS ECONOMICS

CO1: Understand the Meaning, Definitions of Economics, Business Economics & their relationship
CO2: Knowledge about Demand &Elasticity of Demand
CO3: Understand the concept Demand Forecasting & methods to Forecast
CO4: Knowledge about factors of production features & Laws of production
CO5: understands Various Cost Concepts & Revenue Concepts.

17ABE11 APPLICATION OF ECONOMICS IN BUSINESS

CO1: Understands the definitions and Scope of Economics.
CO2: Analyzes the concepts of Demand, Supply& Elasticity of demand.
CO3: Acquires knowledge about all the Cost concepts and Revenue concepts.
CO4: Understands the Production function & Pricing in imperfect Competition
CO5: Knowledge about the Business cycle and theories related to business cycle.

21AEHI11 TAMIL NADU ECONOMY

CO1: acquires knowledge about the Natural resources in Tamil Nadu.
CO2: Understands the Human Resources & the Human development index.
CO3: gains knowledge of agricultural sector in Tamil Nadu.
CO4: Knowledge of the industrial sector in Tamil Nadu.
CO5: Understands the Service sector of Tamil Nadu.

21AECM22 BUSINESS ECONOMICS – II

CO1: Understands the Market structure, Output & Price determination in Perfect Competitions & Role of Time in a Perfect market.
CO2: Understands different Imperfect Market competitions, Output & Price determination in Imperfect Competitions.
CO3: Get knowledge about Marginal productivity theory in Factor pricing.
CO4: Knowledge about how Interest & profit is determined.
CO5: Understands the importance of Capital Budgeting

19AEBM22 MONETARY ECONOMICS

CO1: Understands the definitions &Functions of Money.
CO2: Analyzes the concept of value of money with the help of various theories
CO3: Understands the classical &Keynesian view of Demand & Supply money,
CO4: Understands the concept of Inflation, &Measures to control inflation.
CO5: Understands the Monetary policy & role of Central bank.

21AEHI22 INDIAN ECONOMIC POLICY

CO1: acquires knowledge of the Economic System of India.
CO2: knowledge of Present situation of Indian Agriculture
CO3: gains knowledge of industrial sector before and after globalization.
CO4: gains knowledge of infrastructure in India.
CO5: understands the Energy classification, sources & measures to conserve Energy.

21AEHI33 INDIAN MACRO ECONOMIC ENVIRONMENT

CO1: Understand the concepts of Economic Growth and Development.
CO2: acquires awareness about the population and its effects on India.
CO3: understands the concept unemployment, poverty & Employment programs to remove poverty.
CO4: gains knowledge of Monetary Policy in India.
CO5: understands the Fiscal Policy of India.

22AEHI44 INTERNATIONAL ECONOMICS

CO1: Knowledge about International Trade.
CO2: Understands India's Balance of Payment &Balance of trade,
CO3: Knowledge about Globalization merits &demerits of Globalization.
CO4: Understands World Trade Organization, TRIPS and TRIMS.
CO5: gains Knowledge about International Financial organizations.

EPCM705A MANAGERIAL ECONOMICS

CO1: Understands the Meaning, Definitions, Features, Scope of Managerial Economics, and understand the role of Managerial Economist towards society
CO2: knowledge about the fundamental concepts which help Managerial Economist in Decision making process.
CO3: Understands different pricing methods, cost functions, Revenue functions, Break even analysis.
CO4: Knowledge of different methods of appraising profitability
CO5: Understands meaning & difference between linear economy and circular economy &importance of Circular economy for managerial Economist

EPCM705B MATHEMATICAL ECONOMICS

CO1: Understands the variables, constants, derivatives, differentiation & product quotient rules.
CO2: knowledge about the slope of a curve, points of inflexion & production function.
CO3: Understands the Integral calculus, standard form, consumer surplus & producer surplus.
CO4: Understands Homogenous and Linear Differential Equations, application of various cost & elasticity.
CO5: Understands Growth rate simple & compound depreciation, future & present value calculations.

ALLIED PSYCHOLOGY

VE101A VALUE EDUCATION

CO1: Understand the meaning, concept of value and also enrich the importance of value education in their personal life.
CO2: Understand about Attitude and behavior, factors that influence attitude strength, change of attitude to match behavior.
CO3: Get knowledge about positive psychology, keys to sustain happiness, identifying positive emotions.
CO4: Knowledge about creative problem solving, guidelines for convergent and divergent thinking, advantages and disadvantages of group decision making.
CO5: Get knowledge about soft skill, importance of leadership skill, enhancing leadership skill.

EPD201A DYNAMICS OF PERSONALITY

CO1: Understand the meaning, determinants of personality and need for personality development.
CO2: Understands pro-social behavior, factors affecting helping behavior, effects of positive mood.
CO3: Get knowledge about factors that influence mental health, ways to enhance mental health.
CO4: Knowledge about motivation, classification and sources of motivation, advantages of motivation and goal setting theory.
CO5: Understand the importance of personality assessment, various techniques to assess personality.

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