

# **Carmel College (Autonomous), Mala**

## **Programme and Course Outcomes**

**2023-2024**

### **PROGRAMME OUTCOMES**

#### **UNDER GRADUATE PROGRAMME OUTCOMES**

PO1 Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives

PO2 Problem Solving: Understand and solve the problems of relevance to society to meet the specified needs using the knowledge, skills and attitudes acquired from humanities/science/arts

PO3 Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO4 Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering

PO5 Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO6 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio technological change

#### **POST GRADUATE PROGRAMME OUTCOMES**

PO1 Attain Competence in Discipline

PO2 Enable to develop Interdisciplinarity

PO3 Encourage Research Aptitude

PO4 Pertain Ethical Principles and entrust to Professional Ethics and responsibilities

PO5 Incorporate Self-directed and Life-long Learning

PO6 Cater Contemporary and Up-to-date Knowledge

PO7 Integrate Setting Goals

## DEPARTMENT OF ENGLISH

### Programme Specific Outcomes (PSOs) – B. A. Functional English Programme

	Programme specific outcomes
PSO1	To help learners gain better listening, speaking, reading and writing skills so that they can express themselves fluently in personal and professional contexts.
PSO2	To develop critical thinking ability and sensibility towards social, economic and societal situations by reading the texts from various genres of literatures.
PSO3	To get an awareness of the basic concepts and theoretical frameworks of Creative Writing, Translation Studies, Film Studies, Theatre for Communication, Advertising, Business English, Linguistics, English and Communication Technology and to develop research aptitude by learning literary and cultural theories
PSO4	To help learners to improve their proficiency in applying various skills in their personal and professional lives thereby enhancing their employability prospects.

### COMMON COURSES: COURSE OUTCOMES

Semester	Course Code	Course Name	Course Outcomes
I	A01	Transactions: Essential English Language Skills	<ul style="list-style-type: none"> <li>Learners get a general awareness of pronunciation, vocabulary and grammar of English Language and acquire essential LSRW skills needed for academic transactions, discussions presentation and debating.</li> </ul>
	A02	Ways with Words: Literatures in English	<ul style="list-style-type: none"> <li>Learners get acquainted with some of the landmark texts — poems, short stories and prose writings — from different literatures of English all over the world and get enlightened by the experience of reading them.</li> </ul>
II	A03	Writing for Academic & Professional Success	<ul style="list-style-type: none"> <li>Learners learn to develop writing skills and integrate writing and thought, to acquire the correct sense of format, syntax, grammar, punctuation and spelling along with the concepts, principles and vocabulary of reasoning and argumentation and use analysis, synthesis and evaluation of advance arguments.</li> </ul>

	A04	Zeitgeist: Readings on Society and Culture	<ul style="list-style-type: none"> <li>Learners are familiarized with some of the renowned writings related to the Indian Constitution and Secularism, Sustainable Environment, Gender and Human Rights to become socially committed citizens.</li> </ul>
III	A05	Signatures: Expressing the Self	<ul style="list-style-type: none"> <li>Learners are introduced to an interesting collection of personal narratives of the world-renowned personalities which includes autobiographical writings, memoirs, speeches, testimonies, diaries and letters that enable them to understand “how personal narratives interest with the larger social realities” and to realize that personal narratives are not about individual stories, but encompass the collective self.</li> </ul>
IV	A06	Spectrum: Literature and Contemporary Issues	<ul style="list-style-type: none"> <li>Learners become aware of the humanist dimensions of literature and media in the contemporary world enabling them to understand concepts like globalization, commercialization, intellectual property rights through literature, inculcating the spirit of universal brotherhood by presenting critiques of race, xenophobia, war and national borders and disseminating knowledge about the rights of minorities such as children, animals and the disabled and thus creating a positive change in the societal perception of them.</li> </ul>

### **CORE, COMPLEMENTARY AND OPEN COURSES: COURSE OUTCOMES**

Semester	Course Code	Course Name	Course outcomes
I	FEN1B01	Core Course-I: Communication Skills in English	<ul style="list-style-type: none"> <li>Learners improve their ability to express themselves in English in formal and informal situations.</li> </ul>
	FEN1(2)C O1	Complementary Course-I Literatures in English: From Chaucer to the Present	<ul style="list-style-type: none"> <li>Learners become familiar with the various movements and ages in English literature, get acquainted with the great classics in English literature and get enlightened by the experience of reading great works of literature.</li> </ul>
II	FEN2B02	Core Course-II Advanced English Grammar	<ul style="list-style-type: none"> <li>Learners get exposed to the advanced level of grammatical patterns and usages in English and improve their skills to speak and write English accurately.</li> </ul>

	FEN1(2)C O2	Complementary Course- II Cultural Studies: Perspectives in Culture	<ul style="list-style-type: none"> <li>Learners are able to discover the contours of Cultural Studies as a field of inquiry, situating their learning within explorations of the disciplinary and historical context of the field and to use interdisciplinary critical perspectives to examine the diverse and sometimes contested meanings of cultural objects and processes, establishing a basic knowledge of the theoretical paradigms of Cultural Studies.</li> </ul>
III	FEN3B03	Core Course- III Language and Technology	<ul style="list-style-type: none"> <li>Learners get skills in using the internet as a potential tool for language learning and acquire skills to use smartphones for better communicative mastery in English.</li> </ul>
	FEN3B04	Core Course IV Applied Phonetics	<ul style="list-style-type: none"> <li>Learners are able to identify distinctive English sounds, its production and the varied phonetic symbols and to handle the target language effectively in an internationally acceptable manner.</li> </ul>
	FEN4(3)C O1	Complementary Course III- Literatures in English: American and Postcolonial	<ul style="list-style-type: none"> <li>Learners get acquainted with some of the landmark texts of American Literature through the ages and a general understanding of the variety of postcolonial writings and the diverse voices that constitute postcolonial identity.</li> </ul>
IV	FEN4B05	Core Course V Fundamentals of Linguistics	<ul style="list-style-type: none"> <li>Learners understand the relationship between linguistics and related disciplines, to use linguistics as a tool in understanding and processing written or spoken text and acquire better communication and analytical abilities in English.</li> </ul>
	FEN4B06	Core Course VI Business English	<ul style="list-style-type: none"> <li>Learners get a comprehensive idea about business correspondence, develop ability to prepare business letters, business reports, technical proposal and the like which in turn, develop their employability skills.</li> </ul>
	FEN4(3)C O2	Complementary Course- IV Cultural Studies: Cultural Spaces	<ul style="list-style-type: none"> <li>Learners are able to connect cultural knowledge to everyday life and practices, gaining a preliminary understanding of the relationship of methodology (paradigms for study) to inquiry in Cultural Studies.</li> </ul>

X"	HGP 7D29"	Eqtg'Eqwtug'XKK' Vtcpuurvkqp'Uwf lgu"	<ul style="list-style-type: none"> <li>• Ngctpgtu"j cxg"cp"qxgcm'xlgy "qh'dcule vj gqtlgu"qh'tcpuurvkqp"cpf "ces vkt g"vj g unkmlp"tcpuurvkpi "xctkqwu"nkp u"qh'vgzu0</li> </ul>
	HGP 7D2: "	Eqtg'Eqwtug'XKK' Rtkpv'O gf lc"	<ul style="list-style-type: none"> <li>• Ngctpgtu"i gv"npqy rfi g"qh'vj g"j kvqt {" qh vj g" o gf lc." ces vkt g" hwpvkqpcn' npqy rfi g qh'vj g"hwf co gpcnu"qh'o gf lc"y tkkpi "cpf f gxgrqr "vj g"unkm'd {" r tcevek"qh'y tkkpi gf kqtkcu."hgcwtgu."tgxlg y u"cpf "vj g"rkg0</li> </ul>
	HGP 7D2; "	Eqtg'Eqwtug'KZ " Vj gcvg'Hqt " Eqo o wplecvkqp"	<ul style="list-style-type: none"> <li>• Ngctpgtu" dgeqo g" hco kktct " y kj " vj g vj gqtlgu" tgrcvf " vq" f tco c" cpf " vj gcvg. dqy " gcuvtp" cpf " y guvtp" htqo " Dj ctvc cpf "Ctkuvvg"vq"o qf gtp"vj gcvg"cpf "cdrg vq"wpf gtucpf "cpf "pcn{ ug"r n { u0</li> </ul>
	HGP 7D32"	Eqtg'Eqwtug'Z " Eqpvgo r qtct {" Nkgtct {" Vj gqt {"	<ul style="list-style-type: none"> <li>• Ngctpgtu"i klp" c" dcule" wpf gtucpf kpi " qh vj g"42" " egpwt {" "Nkgtct {" "Vj gqtlgu"cpf EtklecnCr r tqcej gu'y j lej 'kp'wtp gpj cpeg'vj g'vcuv'qh'htgugctej 'kp'vj go 0</li> </ul>
	HGP 7F 24"	Qr gp"Eqwtug'< Ncpi wci g" HqtCf xgtvkupi <Vj gqt {" ( "Rtcevek"	<ul style="list-style-type: none"> <li>• Ngctpgtu" i gv" cp" wpf gtucpf kpi " qh" vj g vgej pls wgu" cpf " r tqegf vtgu" lpxqrgf " kp cf xgtvkugo gpv' r tqf wvkqp" cpf " vq" pcn{ ug cf xgtvkugo gpv' kp" vgtu u" qh'etgcvkxk {" cpf gzgewkqp0</li> </ul>
XK	HGP 8D33"	Eqtg'Eqwtug/Z K' Gpi rkuj "Ncpi wci g" Vgcej kpi "	<ul style="list-style-type: none"> <li>• Ngctpgtu"ctg"cdrg"vq"vgej "dcule"Gpi rkuj ncpi wci g" eqo r qpgpv' kp" cp" ghgevxg y c {" " vq" wpf gtucpf " cpf " cej kxg" vj g twf ko gpvt {" unkm"ht "dgkpi "c"uweeguhtn Gpi rkuj "vgej gt."vq"tgrk g"vj g"tqrgu"qh'c vgej gt hgtptg "kp"o cnkpi "vj g"r tqeguu"qh vgej kpi "kpvgtcevxg"cpf "qweqo g/dcuqf cpf "vq"ces vkt g'dgwgt'r tgugpvvkqp"cpf eqo o wplecvkqp"cdkrlkgu'kp'Gpi rkuj 0</li> </ul>
	HGP 8D34"	Eqtg'Eqwtug/Z KK' Grgvtpke'O gf lc"	<ul style="list-style-type: none"> <li>• Ngctpgtu" i gv' hco kktctk gf " y kj " vj g hwf co gpcnu" qh' grgvtqple" o gf lc" cpf " c dcule"npqy rfi g"qh'vj g"hwf co gpcnu"qh y tkkpi "ht"vj g"grgvtqple"o gf lc0</li> </ul>
	HGP 8D35"	Eqtg'Eqwtug/Z KKK' Etgcvxg"Y tkkpi "	<ul style="list-style-type: none"> <li>• Ngctpgtu" ngctp" j qy " vq" kf gpvh {" cpf cr r tgekvg" xctkqwu" y tkkpi " uv{ rgu." vq f gxgrqr " cdrlkkgu" vq" etklecm {" tghgev' qp qj gtu'y tkkpi u'htqo "f khgtgpv'cpi rgu"cpf ces vkt g"unkm"vq"r twpg"vj gkt"y tkkpi "unkm cpf "pcn{ vkecn'unkm0</li> </ul>
	HGP 8D36"	Eqtg'Eqwtug/Z KK" Hko "Uwf lgu"	<ul style="list-style-type: none"> <li>• Ngctpgtu"f gxgrqr "unkm"vq"cr r tgekvg"hrk cu"cp"ctv' hqto "cpf "ku"cguy gvku." i gv' cp wpf gtucpf kpi " qh' xkuwn' cguy gvku." hqto u cpf "vgej pqnqj kecnlppqxcvkqp"cpf "f gxgrqr unkm" vq" " eqppgev' "hrk u" "y kj " "j kvqt {.</li> </ul>

			politics, technology, psychology and performance.
	FEN6B15	Core Course XV Language for Advertising: Theory & Practice	<ul style="list-style-type: none"> <li>Learners are able to get a general awareness of the role of advertising and to examine the importance and use of creativity in advertising.</li> </ul>
	FEN6B17	Project Work	<ul style="list-style-type: none"> <li>Learners get a space to express their talents and skills in creating their own artifact/product based on the knowledge and art they have acquired through their project works.</li> </ul>

### AUDIT COURSES

Semester	Course Code	Course Name	Course Outcomes
I	AUD1E01	Environment Studies	<ul style="list-style-type: none"> <li>Learners get familiarized with the fundamentals Environment Studies, concepts of sustainability a sustainable development, renewable and non-renewable resources, ecosystems, biodiversity and its conservati role of an individual in the prevention of environmen pollutions and environmental policies and practices become eco-friendly socially responsible individuals.</li> </ul>
II	AUD2E02	Disaster Management	<ul style="list-style-type: none"> <li>Learners are able to get a general awareness of natural and man-made disasters, disaster prevention and mitigation and disaster preparedness and management.</li> </ul>
III	AUD2E03	Human Rights	<ul style="list-style-type: none"> <li>Learners get an awareness of the concept of human rights: meaning, evolution and importance, UNO and human rights, Indian constitution and human rights and challenges to human rights to become socially responsible individuals.</li> </ul>
IV	AUD2E04	Gender Studies	<ul style="list-style-type: none"> <li>Learners are able to define and utilize key concepts and terminology central to Gender Studies and analyze complex interconnections of gender, race, class, sexuality, ability, and other categories of power and identity in various spheres of human endeavor ranging from the sociopolitical to the aesthetic.</li> </ul>

## DEPARTMENT OF POLITICAL SCIENCE

### Programmed Specific Outcomes (PSOs)–B.A Political Science Programme

1. Understand the political process, political thoughts and International relations
2. Understand the functioning of Indian state in a constitutional democracy
3. Application of different social theories and ideologies into socio-political context
4. Analyse the operation of selected international organizations and foreign policies of nation states
5. Examine the functions of three branches of government at national and regional levels
6. Examine the challenges to the Indian democracy

### Course Outcomes

SEM	Course code	Course Name	Course outcomes
1	POL1B01	Foundations of Political Science	<ol style="list-style-type: none"><li>1. Understand meaning, scope and important approaches to the study of Political Science</li><li>2. Understand interconnection between State and Society, Elements of State and various theoretical perspectives about the origin and functioning of State.</li><li>3. Analyze input-output and structural-functional characteristics of State</li></ol>

			<p>system.</p> <ol style="list-style-type: none"> <li>4. Understand meaning and different kinds of Sovereignty and its nature in the context of globalization.</li> <li>5. Understand the theory of Separation of Power.</li> <li>6. Examine various structures of Government and their functions.</li> </ol>
2	POL2B02	Concepts of Political Science	<ol style="list-style-type: none"> <li>1. Understand the nuances of Law, Equality, Liberty, Justice, Rights, Duties, power, influence, Authority, and Legitimacy.</li> <li>2. Analyze the Political Culture, Political Socialization, Political Modernization and Political Development.</li> <li>3. Examine the working of Democracy and different forms of Democracy.</li> <li>4. Analyze the role of political parties, interest groups, pressure groups, public opinion and propaganda.</li> <li>5. Understand Globalization, Environmentalism and Feminism.</li> </ol>
3	POL3B01	Indian Government and Politics	<ol style="list-style-type: none"> <li>1. Understand the different</li> </ol>



			<p>Govt. of India Acts and functioning of Constituent Assembly</p> <ol style="list-style-type: none"> <li>2. Understand the relevance and contents of preamble, Fundamental Rights, Fundamental Duties and Directive of State Policies in Indian constitution</li> <li>3. Examine the Rights of Freedom and Minority Rights in Indian Constitution</li> <li>4. Understand the composition and functions of Union and State Legislature and Executive</li> <li>5. Analyze the functions of Local Self Governments and Speaker</li> <li>6. Examine the operation of Judicial Review, Judicial Activism and Independence of Judiciary in India</li> <li>7. Understand the composition and functioning of Finance Commission, Niti Ayog and Emergency Powers of constitution</li> <li>8. Analysis of Centre-State relations in India.</li> </ol>
3	POL3B02	World Constitutions: Comparative Analysis	<ol style="list-style-type: none"> <li>1. Understand the nature and</li> </ol>

			<p>scope of Comparative Politics</p> <ol style="list-style-type: none"> <li>2. Examine the distinction between traditional and modern comparative politics</li> <li>3. Understand the difference between the term constitution and constitutionalism</li> <li>4. Analyse the features of the Constitutions of the UK, USA, France, Switzerland and China.</li> <li>5. Analyse the features of executive, Judiciary and Legislature of UK, USA, France.</li> <li>6. Compare federal systems of USA, INDA and Switzerland and unitary systems of UK, France and China</li> </ol>
4	POL4B01	Ancient and Medieval Political Thought	<ol style="list-style-type: none"> <li>1. Understand the importance of ancient and medieval political thought</li> <li>2. Recall the basic ideas of great Political philosophers</li> <li>3. Examine the contemporary relevance of ancient and medieval political thought</li> <li>4. Understand the contributions of Indian Political Thought</li> <li>5. Analyse and Compare</li> </ol>

			<p>different streams of ancient and medieval political thought</p> <ol style="list-style-type: none"> <li>6. Explain the views of St. Thomas Aquinas on Law and Justice</li> <li>7. Differentiate textual and contextual methods in political thought</li> <li>8. Critically examine and Apply thoughts of different political thinkers for the better understanding of present day politics.</li> <li>9. Analyse and evaluate the medieval political ideas critically</li> </ol>
4	POL4BO2	Issues in Indian Politics	<ol style="list-style-type: none"> <li>1. Understand the structure and operations of caste, class and religion in Indian context</li> <li>2. Understand the trends of party system in India</li> <li>3. Analyse the structure, functions and support base of national and regional political parties</li> <li>4. Examine the relevance and major challenges to secularism in India</li> <li>5. Analysis of major trends in Indian democracy</li> </ol>

			<p>80 Wpf gtucpf " vj g" kuwgu" qh f crku." vldgu" cpf " y qo gp" kp kpf kc</p>
7"	RQN7D23"	<p>Tgugctej " O gyj qf qm { "</p>	<p>30 Wpf gtucpf " vj g" uelgpkle o gyj qf u" vq" f q" c" uqekn uelgpeg'tgugctej</p> <p>40 Cr r necvkqp" qh' f khtgpv' v r gu qh'tgugctej "o gyj qf u</p> <p>50 Wpf gtucpf " f khtgpv' v r gu" qh tgugctej "f guki pu</p> <p>60 Cr r necvkqp" qh' f khtgpv' v r gu qh'uco r rpi "o gyj qf u</p> <p>70 Wpf gtucpf " f khtgpv' v r gu" qh f cv"eqngvqp</p> <p>80 Wpf gtucpf " vj g" hqto cv" qh tgr qtvy tkpi</p>
7"	RQN7D24"	<p>O qf gtp"Y guvgtp" Rqrklecn'Vj qwi j v'</p>	<p>30 Wpf gtucpf " vj g" guugpvkn dcem tqwpf " vq" o qf gtp Y guvgtp" Rqrklecn' Vj qwi j v cpf "ku" qtki kpu" kp" vj g" o k f r g qh'vj g'rcuv'o kngppkwo</p> <p>40 Gxcnvcg" O cej kcxgnk' cu" c o qf gtp'r qrklecn'vj kngt0</p> <p>50 Cpcn'ug" j qy " vj g" o qf gtp eqpegr v" qh" ugewrt" ucvg" j cu go gti gf</p> <p>60 Nku" qw" vj g" o qf gtp" r qrklecn vj kngtu" cpf " vj gk eqptkdwkpu" " kp" " O qf gtp r qrklecn'vj qwi j v</p>

			<ol style="list-style-type: none"> <li>5. Classify and compare thoughts of different modern political thinkers and assesses the contemporary relevance of these thinkers</li> <li>6. Compare the ideas of Hobbes, Locke and Rousseau.</li> <li>7. Examine the idealist thought in modern political philosophy</li> <li>8. Categorize different thinkers in liberal, Idealist and Marxian tradition.</li> </ol>
5	POL5B03	Society and Political Process in Kerala	<ol style="list-style-type: none"> <li>1. Examine the Caste and Class structure in 19th and 20th century Kerala.</li> <li>2. Understand Role of Missionaries, Social reforms, Reforms movements and rise of Representative Institutions in Kerala.</li> <li>3. Understand the genesis of social and Political Activism like various Memorials, movement and development of National Movement.</li> <li>4. Evaluate the role of social reform movements in the making of Kerala</li> <li>5. Examine the political party</li> </ol>

			<p>unt wewt g"kp" Mgtcr0</p> <p>80 Cpcn{ug" vj g" y qtnkpi " qh Rcepc c{cy k' Tcl" kpukwkqpu kp" Mgtcr0</p> <p>90 Gxcnvcg" vj g" Mgtcr" geqpqo { cpf" Mgtcr" o qf gr' qh f gxrgr o gpv</p>
7"	RQN7D26"	<p>Kvtqf wevkp"vq" KvgtpcvkpcnRqrkieu"</p>	<p>30 Wpf gtucpf " ueqr g. ko r qtvepeg" cpf" xctkqu cr r tqcej gu" vq" vj g" uwf {" qh KvgtpcvkpcnRqrkieu0</p> <p>40 Wpf gtucpf " Y gur j crkcp" qh Ucvg"U{uigo 0</p> <p>50 Cpcn{uku" qh' Ko r gtlcrkuo . Eqnplcrkuo "cpf"Eqf "Y ct</p> <p>60 Cpcn{  g" r qy gt." P cvkpcn Rqy gt" cpf" grgo gpw" qh' P cvkpcnRqy gt0</p> <p>70 Wpf gtucpf " Dcrpeg" qh Rqy gt." Eqmgevkg" Ugewtkv{. Rcelhe" Ugwrgo gpv' qh F kur wgu" cpf" Kvgtpcvkpcn Ney 0</p> <p>80 Gxcnvcg" vj g" r tcevleg" qh F kr mo ce{" kp" vj g" r quvEqf y ct'r gtlkf 0</p> <p>90 Cpcn{  g" f gvgto kpcpu" qh Hqtgki p"Rqrhe {0</p>
8"	RQN8D23"	<p>O qf gtp"Kf kcp" RqrkicnVj qwi j v"</p>	<p>30 Wpf gtucpf "vj g"o clqt"kf gcu r tqr qwpf gf "d{ "vj g"Telc"Tco O qi cp"Tq{."L{qyj kccq"Rj wrg.</p>

			<p>Vivekanda and Pandita Ramabhai</p> <ol style="list-style-type: none"> <li>2. Analysis of nationalism and religion in Indian context through the writings of V D Savrkar, Mohammed Ali Jinnah and Rabindranath Tagore.</li> <li>3. Understand the Gandhian concepts of Sathyagraha, Nonviolence Hind Swaraj and Swadeshi Trusteeship.</li> <li>4. Analyse the Nehruvian Socialism, Secularism and Development</li> <li>5. Understand the concepts of Radical Humanism, Socialism and Total Revolution of selected socialist thinkers</li> <li>6. Examine the views of Sree Narayana Guru, B R Ambedkar and E V Ramaswamy on Social Justice</li> </ol>
6	POL6B02	India's Foreign Policy	<ol style="list-style-type: none"> <li>1. Understanding the principles, objectives and basic determinants of India's Foreign Policy</li> <li>2. Analyze India's Relations with Pakistan, Bangladesh,</li> </ol>

			<p>Utk' Ncpne." P gr cn" WUC."  Twuuk"cpf "Ej kpc"  50 Cpcn{  g" Kpf kcau  Gpi ci go gpwu" y kj " CUGCP .  UCCTE"cpf "GW  60 Gxcnvcg" P qp/Crki po gpv  Rqrle{." Kpf kcau" P wengct  Rqrle{." Kpf kcau" Tqrg" kp" vj g  WP " cpf " Kpf kc" cpf " Erko cvg  Ej cpi g"P gi qvkvqpu</p>
8"	RQN8D25"	Kuuwu'kp'Kvgtpcvqpcn' Rqrkkuu'	<p>30 Cpcn{ug" Rquv/Eqrf " Y ct  Kvgtpcvqpcn' Rqrkkuu  kpenw'kpi ." vj g" pcwtg" qh  eqpvgo r qtet{" kvgtpcvqpcn  u{uvgo "cpf "vj g"tqrgu"qh"WUC.  Ej kpc"cpf "Kpf kc  40 Wpf gtucpf Ercuj " qh"  Ekxkkt cvkqpu"F gdcvg"  50 Cpcn{ug" vj g" hvpevqpu" qh  Gwtqr gcp" Wpkqp." CUGCP  cpf " qvj gt" P qp/Uvcg" Cevqtu  kp'Kvgtpcvqpcn'Rqrkkuu  60 Gxcnvcg" vj g" hgcwtgu" qh  I mqdcrk cvkqp." Kvgtpcvqpcn  Vgttqtluo ." F kucto co gpv.  Gpxktqpo gpcn' Kuuwu."I mqdcn  Tgulucpegu."Tghwi ggu  70 Wpf gtucpf " vj g" Utwewt g" cpf  Hvpevqpu"qh"Wpkqf "P cvkqpu  80 Gxcnvcg" vj g" tgutwewt kpi " qh  vj g"WP "Ugewtkv' "Eqvpek</p>



6	POL6B04	Introduction to Public Administration	<ol style="list-style-type: none"> <li>1. Understand the different theories of Administration.</li> <li>2. Understand the differences between the Rule of Law and Administrative Law</li> <li>3. Examine the various Principles of Organisation</li> <li>4. Understand the Development Administration by analysing with different models.</li> <li>5. Compare different models of Personal Administration</li> <li>6. Examine the functions of Bureaucracy</li> </ol>
6	POL6 B 07	International Organisation and Administration	<ol style="list-style-type: none"> <li>1. Understand the Structure, Achievements and Failure of the League of Nations</li> <li>2. Understand the purposes, principles, structure and functions of the United Nations and specialized agencies</li> <li>3. Examine the Restructuring of the UN Security Council</li> <li>4. Examine Peacekeeping Operations, Collective Security measures and Disarmament under the United Nations</li> <li>5. Understand regional</li> </ol>

			<p>organizations and international financial organizations</p> <p>6. Analyse the concepts of Terrorism, Climate Change, Migration, Refugees, Poverty and Inequality</p>
5	POL5 D02	Human Rights in India	<ol style="list-style-type: none"> <li>1. Understand the concept and evolution of Human Rights and its important approaches</li> <li>2. Understand the different mechanisms of United Nations to ensure and protect the Human Rights</li> <li>3. Understand the different constitutional provisions and legislations to protect human rights in India</li> <li>4. Examine the functions of NHRC, Judiciary and PIL for protecting Human Rights In India</li> <li>5. Examine the challenges to human rights of different vulnerable sections</li> </ol>

**PART A**

	Semester	Course code	Course/topic name related
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Employability			
Entrepreneurship			
Skill Development			
Professional Ethics	5	POL5B01	Plagiarism
Gender	5,6,4	POL5BO3, POL6BO1 POL5 D02 POL4BO2	Marginalized groups and Social movements Pandita Ramabhai : Emancipation of Women Atrocities against women Marginalised Sections
Human Values	5	POL5 D02	Human Rights in India
Environment	5,2,6	POL5BO3 POL2BO2 POL6BO3	Environmental Movements in Kerala – Silent Valley and Plachimada Environmentalism Environmental Issues: Climatic change, Global warming
Sustainability	5	POL5BO3	Environmental Movements in Kerala – Silent Valley and Plachimada

**DEPARTMENT OF SOCIOLOGY**  
**Programme Specific Outcome:- BA Sociology**

<ul style="list-style-type: none"> <li>● PS01: Getting an exposure to the fundamental concepts and theories in acquiring skills for sociological imagination</li> </ul>
<ul style="list-style-type: none"> <li>● PS02: Achieve critical sensibility towards social, economic and political situation and to develop critical thinking ability</li> </ul>
<ul style="list-style-type: none"> <li>● PS03: Exhibit oral and written communication skills in disseminating sociological knowledge</li> </ul>

<ul style="list-style-type: none"> <li>• PS04: Improve proficiency in applying sociology and enhance employability Broadly, three orientations can be delineated with reference to the teaching of sociology <ul style="list-style-type: none"> <li>➤ Social orientation (as in responsible citizenship education)</li> <li>➤ Knowledge orientation (as in personality and skill development),</li> <li>➤ Job orientation (as in vocational courses)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• PS05: Keeping these orientations in mind, the Board of Studies emphasizes the following as objectives of sociology education: <ul style="list-style-type: none"> <li>➤ [a] to equip the students to critically understand and interpret social reality</li> <li>➤ [b] to generate in students a distinct sociological perspective on socioeconomic and cultural reality</li> <li>➤ [c] to enhance the social sensitivity and sensibility of the students</li> <li>➤ [d] to help students acquire skills that will be useful to them in their personal and professional life.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• PS06: It is of the view that assessment should support and encourage broad instructional goals such as basic knowledge of the discipline of sociology including phenomenology, theories, techniques, concepts and general principles, encouragement of students' attributes including curiosity, creativity and reasoned skepticism and understanding the link of sociology to other disciplines. With this in mind it aims to provide a firm foundation in every aspect of sociology and to explain the modern trends in sociology.</li> </ul>

### Course outcome

Semester	Course Code	Course Name	Course outcome
I	SGY1B01:	BASICS OF SOCIOLOGY	<ul style="list-style-type: none"> <li>• C01: Comprehension of the uniqueness of the sociological imagination</li> <li>• C02: Recognizing the difference between sociology and commonsense</li> <li>• C03: Conceptualization of society in the abstract</li> </ul>
			<ul style="list-style-type: none"> <li>• C04: Understanding the relation between the individual and society</li> <li>• C05: Understanding the parts and processes within society</li> </ul>

II	SGY2B02	INDIAN SOCIETY: STRUCTURE AND TRANSFORMATION	<ul style="list-style-type: none"> <li>• C01: To develop a sociological perspective for understanding the dynamics of Indian Society</li> <li>• C02: To sensitive the changes occurred in the various institutions in Indian Society</li> <li>• C03: To aware the issues and challenges of contemporary society</li> </ul>
III	SGY3B03	SOCIOLOGICAL THEORY: AN INTRODUCTION	<ul style="list-style-type: none"> <li>• C01: To provide an understanding of the historical condition in which sociology originated and developed as an independent academic discipline .</li> <li>• C02: To understand the intellectual and philosophical foundations of Sociological theories and contributions of Classical theorists to Sociology</li> </ul>
IV	SGY4B05	INTRODUCTION TO SOCIAL RESEARCH	<ul style="list-style-type: none"> <li>• C01: To familiarise the nature and scope of social research</li> <li>• C02: To understand steps and methods of social research</li> <li>• C03: To distinguish the characteristics of qualitative and quantitative research</li> </ul>
	SGY4B06	SOCIOLOGY OF KERALAM	<ul style="list-style-type: none"> <li>• C01: Recollect the social and cultural history of Kerala society</li> <li>• C02: Understand the major social transformation in Kerala and its implications in present society</li> <li>• C03: Analyse the various socio cultural issues concerning Kerala society through sociological lens.</li> </ul>
V	SGY5B07	SOCIAL ANTHROPOLOGY	<ul style="list-style-type: none"> <li>• C01: Understanding the basic concepts of Anthropology</li> </ul>
			<ul style="list-style-type: none"> <li>• C02: Familiarize with Anthropological studies in India by focusing on Tribal Communities in the country in general and in the state of Kerala in particular</li> </ul>

SGY5B08	SOCIOLOGY OF RURAL AND URBAN SOCIETIES	<ul style="list-style-type: none"> <li>• C01: Understanding major concepts and theoretical perspectives in urban sociology Familiarizing the views on urban social life</li> <li>• C02: Understanding the nature of urbanisation process in Indian context</li> <li>• C03: Perceiving the urbanisation process as a spatial transformation with a focus on Kerala scenario</li> <li>• C04: Achieve critical sensibility towards social, economic and political dimensions involved in decentralized governance in Kerala and their impact on land use pattern.</li> </ul>
SGY5B09	WOMEN IN CONTEMPORARY SOCIETY	<ul style="list-style-type: none"> <li>• C01: Understanding some major themes in gender knowledge</li> <li>• C02: Conceptual clarity regarding women's studies and feminism</li> <li>• C03: Grasp on structural issues faced by women</li> <li>• C04: Knowledge about factors affecting the status of women in Kerala over time</li> <li>• C05: Critical awareness regarding women empowerment in Kerala</li> </ul>
SGY5B10	ENVIRONMENT AND SOCIETY	<ul style="list-style-type: none"> <li>• C01: Learn the principles and major areas in the areas of sociology of environment.</li> <li>• C02: Understand the relationship between environment and human society.</li> <li>• C03: Comprehend the necessities of having environmental awareness.</li> </ul>
		<ul style="list-style-type: none"> <li>• C04: Gain awareness of the various environmental issues confronting in our immediate surroundings.</li> </ul>
SGY5&6B:	PROJECT WORK	

VI	SGY6B11	INVITATION TO SOCIOLOGICAL THEORY	<ul style="list-style-type: none"> <li>• C01: Traces the transformation from social thought to Sociological theory</li> <li>• C02: Identifies the basic components of theory</li> <li>• C03: Develops a sociological thinking</li> <li>• C04: Recognizes the paradigmatic orientations in Sociology</li> <li>• C05: Evaluates Sociology as a humanistic discipline</li> </ul>
	SGY6B12	SOCIAL PSYCHOLOGY	<ul style="list-style-type: none"> <li>• C01: Understanding of basic concepts in social psychology</li> <li>• C02: Understanding the basic psychological Process</li> <li>• C03: Aware the significance of attitude in developing social behavior</li> <li>• C04: Basic understanding on personality and its relation with social system</li> </ul>
	SGY6B13	POPULATION STUDIES	<ul style="list-style-type: none"> <li>• C01: To provide a basic theoretical explanation of population studies and related concepts.</li> <li>• C02: To provide critical analysis of the population theories</li> <li>• C03: To analyse the changes in population in society</li> </ul>
	SGY6B14	POLITICAL SOCIOLOGY	<ul style="list-style-type: none"> <li>• C04: Familiarizing the theoretical and conceptual discussions on Power and Politics</li> <li>• C05: Understanding the dynamics of Power</li> <li>• C06: Critically evaluating the political process in India</li> </ul>

	SGY6 B15	LIFE SKILL EDUCATION (ELECTIVE CORE COURSE FOR SINGLE CORE/SDE)	<ul style="list-style-type: none"> <li>• C01: To provide with the knowledge of necessary life skill for the application in everyday life</li> <li>• C02: To enhance the quality of addressing issue relevant to the life situations</li> <li>• C03: To enable the students to establish productive interpersonal relationships with others</li> <li>• C04: To equip students for handling specific issues</li> </ul>

### DEPARTMENT OF BUSINESS ADMINISTRATION

#### Programme Specific Outcomes (PSOs) – Bachelor of Business Administration

	Programme specific outcomes
PSO1	Critical Thinking Skills: Students are able to define, analyze, and devise solutions for structured and unstructured business problems and issues using cohesive and logical reasoning patterns for evaluating information, materials, and data.
PSO2	Communication Skills: Students are able to conceptualize a complex issue into a coherent written statement and oral presentation.
PSO3	Technology Skills: Students are competent in the uses of technology in modern organizational operations.
PSO4	Entrepreneurship and Innovation: Students can demonstrate the fundamentals of creating and managing innovation, new business development, and high-growth potential entities.
PSO5	Business Knowledge: Students can demonstrate technical competence in domestic and global business through the study of major disciplines within the fields of business.

#### Course Outcomes

##### New syllabus (2019 onwards)

Semester	Course Code	Course Name	Course outcomes
I	BBA1B01	Management theory and practices	<ul style="list-style-type: none"> <li>• CO1: Discuss different schools of management thought</li> <li>• CO2: Understand apply the concepts of planning, organizing, staffing and controlling for effective management</li> <li>• CO3: Aware and apply the ethically and socially responsible behaviour in Management</li> </ul>



			<ul style="list-style-type: none"> <li>• CO4: Aware and pursue the modern management practices in business</li> </ul>
I	BBA1C01	Managerial Economics	<ul style="list-style-type: none"> <li>• CO1: Acquire knowledge regarding relevant economic concepts applicable in managerial decisions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Design competition strategies, including costing, pricing, product differentiation and market environment according to the natures of products and the structures of the markets</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Make optimal business decisions by integrating the concepts of economics</li> </ul>
II	BBA2B02	Financial accounting	<ul style="list-style-type: none"> <li>• CO1: Discuss and apply fundamental accounting concepts, principles and conventions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Record basic accounting transactions and prepare annual financial statements for a sole proprietorship business</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Record accounting transactions in respect of hire purchase and instalment system and branches</li> </ul>
II	BBA2B03	Marketing management	<ul style="list-style-type: none"> <li>• CO1: Understand and develop insights and knowledge base of various concepts that driving marketing strategies.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Develop skills in organizing for effective marketing and in implementing the market planning process</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Evaluate the significance of marketing</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Analyze the relationships between marketing management and the political, economic, legal and social policies and its impact on business.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Identify the role and significance of various elements of marketing mix.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: To evaluate the role and relevance of marketing organization in current marketing conditions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Understanding the marketing concepts in global environment. and its relevance.</li> </ul>

KKK	DDC5C33"	Dcuke"P wo gtlecn'o gj qf u"	<ul style="list-style-type: none"> <li>EQ3-&lt;Ces wktg" npqy rfi g qh" pwo gtlecn' gs wcvkqpu." o cvtlegu" r tqi tguakqpu." hkppeken' o cvj go cvku" cpf "f guetkr vxg'ucvku0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Ƒ q"ecrewcvkqp"qh'ctkj o gvle o gcp." o gf kcp" cpf " o qf g" cpf r ctvkvqp"xcwgu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-Ƴpf gtucpf " eqttgrcvkqp tgi tguakqpu" cpcn{uku" cpf " vj gkt cr r rkecvkqpu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Ƴpf gtucpf "ucvkuken'vgukpi cpf "vj gkt"cr r rkecvkqpu0</li> </ul>
KKK	DDC5C34"	Rtqhguakqpcni'dwukpguu'unkm"	<ul style="list-style-type: none"> <li>EQ3-Ƴq"wr f cvg"cpf "gzc r cpf "dcuke kphqto cvku'unkm'qh'vj g'uwf gpw0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Ƴq" gs vkr " vj g" 'uwf gpw" vq ghgevxgnf "" wkrk g" vj g" f ki kcn npqy rfi g'tguqvtegu"ht "vj gkt "uwf {0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-Ƴq"vpf gtucpf "vj g'dcukeu'qh Dwukpguu'F cvc'Cpcn{uku</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Ƴr f cvg" cdqw' UqekqaE {dgt kphqto cvku</li> </ul>
KKK	DDC5D26"	Eqtr qtcvg"ceeqwpvpi "	<ul style="list-style-type: none"> <li>EQ3-Ƴj g" eqwtug" ces wcvkw" vj g uwf gpw"y kj "vj g"npqy rfi g"cdqw eqtr qtcvg"ceeqwpvpi 0'Vj g"o qf wgu kvqf weg" vj g" hwpf co gpvcn' kpf kcp ceeqwpvpi "ucpf ctf"cpf "gs vkr "vj g uwf gpw"y kj "unkm'ht "r tgr ctkpi eqtr qtcvg'ceeqwpw0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Ƴpf gtucpf " cpf " cr r n{ hwpf co gpvcn' kpf CUu" qp" kpxgpvtkgu. RRG." " r tqxkukqpu." " kpeqo g" " vz. dqtty kpi "equ'cpf "kvcpi kdrg"cuugu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-Ƴtr ctg" cppwcn' hkppeken ucwgo gpw" ht " eqo r cplgu" cpf eqo r wg'ceeqwpvpi "tcvku0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Ƴgeqtf " ceeqwpvpi vcpucevkvpu" kp" tgr gev' qh tgf go r kvp"qh' r tghgtgpeg"uj ctgu"cpf fgdgpwtgu</li> </ul>
KKK	DDC5D27"	Hkppeken'o cpci go gpv'	<ul style="list-style-type: none"> <li>EQ3-Ƴj ku" eqwtug" clo u" vq" gpcdrq uwf gpw" vq" vpf gtucpf " vj g" dcuke eqpegr w'qh'hkppeken'O cpci go gpv cpf " o cnq" vj go " cy ctg" qh'o clqt f gekukqpcn'ctgeu'qh'hkppeken o cpci go gpv0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Ƴpf gtucpf " cpf " f gxgr " kuki j w'cpf "npqy rfi g"dcug"qh' xctkwu'eqpegr w'qh'hkppeg"</li> </ul>

			<ul style="list-style-type: none"> <li>EQ5-F gxnqr " unkm" hqt" ghgevkxg Hkpcelcn" kpxguo gpv' cpf " F kxkf gpf f gekukpu'o cnkpi</li> </ul>
KK	DDC5E24"	Dwukpguu'tgi wcvkpu"	<ul style="list-style-type: none"> <li>EQ3-Vj ku"eqwtug"cko u"vq"lco krctkug vj g"uwf gpw" y kj " o clqt"ucwwgu chgevkpi "vj g"qr gtcvkpu'qh'dwukpguu qti cpk cvkpu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Kvgr tgv' ucwwqt { " r tqxlukpu tgrvgt "vq"dwukpguu"ncy u</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-Cpcn{ug'ngi cn'kuuwgu'ctkukpi 'kp fc{/vq/fc{ " dwukpguu" qr gtcvkpu r tgcrgpv'kp"kpfc</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Gxcncvg" vj g" eqtg" eqpegr vu" kp vj g" ngi cn' utwewtg" qh" dwukpguu qti cplucvkpu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ7-F kuewu" r quukdrg" uqmwkpu" vq kuuwgu"kp"qti cplucvkpu"kp"vj g"lco g y qtm'qh'dwukpguu'ncy u</li> </ul>
KK	DDC6C35"	Gpvtgr tpgwtuj kr " F gxnqr o gpv'	<ul style="list-style-type: none"> <li>E23-Vq"lco krctk g'vj g"uwf gpw'y kj vj g"eqpegr v'qh'gpvtgr tpgwtuj kr 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Vq'kf gpvh{ "cpf 'f gxnqr "vj g gpvtgr tpgwtkn' vrgpw" qh' vj g" uwf gpw0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-Vq i gpgtcvg" kppqxcvkxg" dwukpguu" kfgcu" kp" vj g" "go gti kpi " kpf wutkn'uegpctkq0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Dgeqo g cy ctg" qh' gpvtgr tpgwtuj kr qrr qtwpkku" cxckrdng'kp"vj g'uqekgv{ "hqt"vj g" gpvtgr tpgwt0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ7-Ces wcpv" " vj go " y kj " vj g ej cngpi gu" hregf " d{ " vj g gpvtgr tpgwt0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ8-F gxnqr " vj g" o qkxcvkp" vq gpj cpeg" " gpvtgr tpgwtkn eqo r gvgpe{0</li> </ul>
KK	DDC6C36"	Dcpnkpi "cpf "kpuwtcpeg"	<ul style="list-style-type: none"> <li>EQ3-Vq" gpcdrg" vj g" uwf gpw" vq ces vktg" npqy ngf i g" cdqw" dculeu" qh Dcpnkpi "cpf "kpuwtcpeg0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4-Vq" lco krctk g" vj g" uwf gpw y kj "vj g'o qf gtp"v'gpf u'kp"dcpnkpi 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5-I cxg" cp" gZR quwtg" qh" vj g vgej pls wgu" ( " cr r rkecvkp" qh eqpvgo r qtct{ "dcpnkpi 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6-Wpf gtucpf "vj g"Utwewtg"qh kpf kcp'Dcpnkpi "U{vgo 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ7-I clp" ur gekcrkv ngi cn' npqy ngf i g'cpf "cp"wpf gtucpf kpi "qh"</li> </ul>

			<p>vj g'vj gqgvecn'wvf gtr kppkpi u'qh' kpuwcepeg'Ncy 'y kj kp'c'r tcevecn' eqpvzv.'y j kuv'f gxgnr kpi "gZR gt vkug" kp'vj gug'ctgcu"</p> <ul style="list-style-type: none"> <li>EQ8-<del>E</del>tgcvg'xcnwcdrg'kpuki j vu'lpvq vj g'ng{'r tkpekr ngu'cpf 'r tcevegu'vj cv tgi wrcvg'vj g'kpuwcepeg'kpf wux {0</li> <li>EQ9-<del>R</del>tqxf g" npqy rgi g" cdqww cr r tqcej gu"vq"tkun'o cpci go gpv'cpf qj gt"guugpvkn'kuwgu0</li> </ul>
KK"	DDC6D28"	Equv'cpf "O cpci go gpv' ceeqwpkpi "	<ul style="list-style-type: none"> <li>EQ3-<del>V</del>j g" qdlgevkg"qh' vj g" eqwtug" ku vq" ces wckpv' vj g" uww'gpvu" y kj " vj g dcule'Eqpegr vu'cpf "vqnu'qh'equv'cpf O cpci go gpv'Ceeqwpkpi</li> <li>EQ4-<del>W</del>pf gtucpf " equv' cpf o cpci go gpv' ceeqwpkpi " eqpegr vu cpf " ku" cr r rdecvkp" hqt" fgekukqp o cnkpi 0</li> <li>EQ5-<del>C</del>y ctg" cu" vq" equv eqpuekwupguu" cpf " vj g" xctkquw o gj qf u'cpf "vgej pls vgu'qh'equkpi</li> <li>EQ6-<del>C</del>pcn'ug"ko r rdecvkpu'qh'equv'kp o cpci gtken'f gekukpu0</li> <li>EQ7-<del>R</del>tgr ctg'f khtgtpv'dwf i gw0</li> <li>EQ8-<del>W</del>pf gtucpf Dtgcml' Gxgp" eqpegr v0</li> <li>EQ9-<del>W</del>pf gtucpf "Ucpcf ctf "equkpi cpf "cpcn'uku'qh'f gxkcvkpu0</li> </ul>
KK"	DDC6E26"	Eqtr qtcvg"tgi wrcvkpu"	<ul style="list-style-type: none"> <li>E23-<del>V</del>q" hco kktckug" vj g" uww'gpvu"y kj eqtr qtcvg" rny " cpf " vq" o cmg" vj go cy ctg'qh'vj g'cr r rdecvkpu'qh</li> <li>ko r qtcpeg" qh' eqo r cp{ " rny " kp" vj g o cpci go gpv'qh'qti cpkucvkpu0</li> <li>E24-<del>W</del>pf gtucpf "vj g" hgcwv'gu'cpf f khtgtpv'v{r gu'qh'eqo r cplgu</li> <li>E25-<del>C</del>y ctg" cu" vq" vj g" hqto cvkpp" qh eqo r cplgu" cpf " cnq" cu" vq" f khtgtpv f qewo gpvu'qh'eqo r cplgu</li> <li>E26-<del>W</del>pf gtucpf " vj g" uj ctg" ecr ken cpf "qvj gt'tgrxcpv'r tqxkukpu'qh'vj g uco g</li> <li>E27-<del>W</del>pf gtucpf " vj g" o cpci go gpv. eqtr qtcvg" i qxgtcepeg." eqtr qtcvg uqeken'tgur qpukdkv{" cpf " uqo g" dcule cur gewu'qh'UGDK</li> </ul>

			<ul style="list-style-type: none"> <li>• C06:Understand the provisions of conducting meetings and also the winding up procedure of companies.</li> </ul>
IV	BBA4C05	Quantitative Techniques for Business	<ul style="list-style-type: none"> <li>• C01: To familiarise student with the use quantitative techniques in managerial decision making.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02:Understand and develop insights and knowledge base of various concepts of Quantitative Techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03:Develop skills for effectively analyse and apply Quantitative Techniques in decision making.</li> </ul>
V	BBA5B07	Human resources management	<ul style="list-style-type: none"> <li>• CO1:To give a conceptual understanding of human resource practices in organizations.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:Understand and develop insights and knowledge base of various concepts and Functions of Human Resource Management</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Learn the latest trends in Human Resource Management</li> </ul>
V	BBA5B08	Business research methods	<ul style="list-style-type: none"> <li>• CO1:To provide an insight into the fundamentals of business research and to acquire practical knowledge and required skills in carrying out research which they are expected to possess when they enter the industry as practitioners</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2;Understand and develop insights and knowledge base of various concepts in Research.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:Develop skills for conducting business research</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:Judge the reliability and validity of experiments and perform exploratory data analysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4:Use parametric and non-parametric hypothesis tests (and interpreting their results).</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5:Use computer-intensive methods for data analysis.</li> </ul>
V	BBA5B09	Operations Management	<ul style="list-style-type: none"> <li>• CO1:To familiarize the students with the concepts, tools and practices of operations management</li> </ul>

			<p>and to learn about the decisions and processes of operations management in a business firm.</p> <ul style="list-style-type: none"> <li>• CO2: Understand the different concepts of operation Management.</li> <li>• CO3: Acquire the knowledge to make plans at the operational level of an industry</li> <li>• CO4: Understand ever growing importance of Production and Operations management in uncertain business environment.</li> <li>• CO5: Gain an in-depth understanding resource utilization of an organization.</li> <li>• CO6: Appreciate the unique challenges faced by firms in services and manufacturing.</li> <li>• CO7: Develop skills to operate competitively in the current business scenario.</li> </ul>
V	BBA5B10	Income tax	<ul style="list-style-type: none"> <li>• CO1: To impart basic knowledge and equip students with application of principles and provisions of Income Tax Act, 1961 amended up-to-date.</li> <li>• CO2: On completing the course the students will be able to understand the latest provisions of Income Tax Act Law and as well as and</li> <li>• CO3: enable to compute different heads of income</li> <li>• CO4: enable to compute Total income</li> <li>• CO5: enable to compute tax liability.</li> </ul>
V	BBA5B11	Financial market and institutions	<ul style="list-style-type: none"> <li>• CO1: To provide basic knowledge about the structure, organisation and working of financial system in India.</li> <li>• CO2: The course helps to understand different aspects and components of financial Institutions and financial markets.</li> </ul>

			<ul style="list-style-type: none"> <li>• CO3:This will enable the students to take rational decisions on financial market and institutions.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4:Identify roles of financial intermediaries within financial markets.</li> </ul>
V	BBA5D01	E-Commerce	<ul style="list-style-type: none"> <li>• CO1:To understand the importance of database systems for business management</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:To gain a practical orientation to database development and maintenance.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:On completing the course the students will be able to Understand the practice of E-commerce, e-payment and also the security issues.</li> </ul>
VI	BBA6B12	Organizational Behaviour	<ul style="list-style-type: none"> <li>• CO1:To familiarize the students with the basic concepts of individual behaviour and organizational behaviour</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:To enable the students to catch an idea about inter-personal and group behaviour</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To acquire knowledge regarding the organizational change and organizational development</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4:Understand the different concepts of Organisational Behaviour</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5:Analyse individual and group behaviour</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6:Understand and deal with organisational change, development and stress</li> </ul>
VI	BBA6B13	Management science	<ul style="list-style-type: none"> <li>• CO1:To provide a basic knowledge about operations research and to acquaint the students some common operations research tools for various business decision marketing situations.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:On completion of the course the students will be able to learn different OR techniques useful in managerial decisions.</li> </ul>

VI	BBA6B14	Project management	<ul style="list-style-type: none"> <li>• CO1: To enable the students to acquire basic knowledge of different facets of Project Management.</li> <li>• CO2: Understand the different concepts of managing a project</li> <li>• CO3: Analyse the viability of a project.</li> <li>• CO4: Identify and assess risks (including OHS) as well as the economic, social and environmental impacts of engineering activities.</li> <li>• CO5: Communicate in various ways to collaborate with other people, including accurate listening, reading and comprehension, based on dialogue when appropriate, taking into account the knowledge, expectations, requirements and terminology.</li> </ul>
VI	BBA6B15	Financial services	<ul style="list-style-type: none"> <li>• CO1: The students with an understanding of the various financial services and investment opportunities available in the country</li> <li>• CO2: On completion of the course students will be able to aware of various financial services available in Indian financial system</li> <li>• CO3: Describe operational, business, financial and traditional risk.</li> <li>• CO4: Distinguish among various financial intermediaries and markets.</li> </ul>
VI	BBA6B16	Investment management	<ul style="list-style-type: none"> <li>• CO1: To familiarise the students with the world of investments and to provide a theoretical framework for the analysis and valuation of investments.</li> <li>• CO2: By completing the course students will be able to aware of various investment opportunities from an investor's perspective of maximizing return on investment.</li> </ul>



			<ul style="list-style-type: none"> <li>EQ5&lt;" F g x g n r " v j g " t g n v k p u j k r d g y g g p " k p v t g u u " c p f " r t l e g u " q h d q p f u 0</li> <li>EQ6&lt;" W p f g t u c p f " v j g " p c w t g " q h ' u j c t g ' r t l e g u ' o q x g o g p v u 0</li> <li>EQ7&lt;" k p v t r t g v ' j g ' g x k f g p e g ' t g n v k p i v q ' o c t n g v g h h e l g p e { 0</li> </ul>
XK	DDC8D39" *RT+*	Rtqlgev'cpf "xkx"xeqg"	<ul style="list-style-type: none"> <li>EQ3&lt;" F g x g n r c " v j q t q w i j " w p f g t u c p f k p i " q h ' v j g ' e j q u g p ' u w d l g e v ' c t g c 0</li> <li>EQ4&lt;" F g o q p u t c v g " v j g " c d k r k v { " v q e q m v g " c p f " e t k l e c m { " c u g u u l k p v t r t g v f c v c</li> <li>EQ5&lt;" F g x g n r " c p " c d k r k v { " v q g h g e v x g n { " e q o o w p l e c v g " n p q y r g f i g k p " c ' u e l g p v k h e ' o c p p g t 0</li> <li>EQ6&lt;" R t q x k f g t g e q o o g p f c v k p u " d c u g f " q p ' t g u g c t e j ' h p f k p i u 0</li> </ul>

Name of Programme: **B.Com. Finance**

Pos	Cos
RQ/3"	<p>Vj g'uwf g p u ' y k n i g v ' p g y ' k f g c u . " k p u k i j u ' c p f " v j q w i j u 0 V j g ' o k p f u g v " q h ' u w f g p u ' y k n i e j c p i g 0 V j g { ' i g v ' p g y ' k f g c u ' c p f ' r t c e v l e c n ' g z r g t k e p e g 0 U w e j ' u w f g p u ' e c p ' h e g ' e j c m g p i g u " y k j " e q p h k f g p e g ' c p f ' u w e e g g f ' k p ' i h g 0</p>
RQ/4"	<p><b>BCM1B01: BUSINESS MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>Vq'w p f g t u c p f " v j g ' o c p c i g o g p v ' e q p e g r u ' c p f " v q r g c t p " e q p e g r u ' k p " t g c n i h k g " d w u k p g u u 0</li> <li>Vq'w p f g t u c p f " v j g ' e q p e g r v ' q h ' O c p c i g t k c n h w p e v k p u c p f " t g c r k u g " v j g " k o r q t v c p e g " q h ' N g c f g t u j k r " c p f O c p c i g o g p v 0</li> <li>Vq" w c p u h q t o " v j g " d w u k p g u u " e q p e g r v ' q h ' c p " k p f k x k f w c n ' h k o h t q o " c p ' k p f k i g p q w u ' r g t u r g e v x g " v q " c ' i m d c n i r g t u r g e v x g " c p f t g c r k u g " v j g " k o r q t v c p e g " q h ' d w u k p g u u " g y k e u ' k p " t g c n i h k g u k w c v k p 0</li> <li>Vq" t g c r k u g " v j g " i t q y k p i " k o r q t v c p e g " q h ' e q t r q t c v g " u e k e c n t g u r q p u k d k r k v { " k p " v j g " r t g u g p v " g t c " c p f " g z c o k p g " j q y " v j k u e q p e g r v j g r " v j g " d w u k p g u u " v q " h w h k r i k u " t g u r q p u k d k r k k g u v q y c t f u ' u e k e g v { 0</li> </ul>
RQ/5"	<p>Vj g'uwf g p u ' y k n i d g " e q p x g t u c p v " y k j " v j g " x c t k q w u ' c e e q w p v k p i " r t l e k r n g u ' c p f " r t c e v l e g u 0 C m i ' y k n i d g " e c r c d r g " q h ' t g e q t f k p i . " i g p g t c v k p i " h k p c p e k n i t g r q t u ' c p f " c t t k x k p i " c v " e q p e n w u k p u ' c p f " r t g f l e v k p u 0</p>

RQ/6"	Vj g'kpvt/f luek rkpct { 'cr r tqcej 'y km' j gr 'uwf gpw'v'q'urxg'dwukpguu' kuuwgu'gcu'k' 'cpf 'y km'go gti g'cu' uweeguhwi'g'p'v'gr t'gpgwtu'lp'hwwtg0'	<ul style="list-style-type: none"> <li>Vq"vcpuhqto 'vj g'iko kqf 'kf gc'cdqww'o cpci go gpv'v'c o qtg'eqo r tgj gpukxg'cpf 'j qruke'eqpegr v'cpf 'w'pf gtucpf cdqww</li> </ul>
RQ/7"	Vj g'o wnkf luek rkpct { 'lp/f gr vj " r'gctplpi 'cetqu'cm't'grv'gf 'v'qr leu'qh' dwukpguu'cpf 'lpf wut { 'y km' f gh'p'kgn' 'r'cxg'c'ut'qpi 'h'qwpf cv'kqp' hqt 'j ki j gt'rgctplpi 'lp'eqo o gteg' cpf "o cpci go gpv'	<p>vj g'o quv'ur j kulecv'gf "eqpegr u'cpf "v'gej pls wgu'lp O cpci go gpv'lp'xctk'qwu'eqw'p'v'k'gu0</p> <p><b>BCM1C01: MANAGERIAL ECONOMICS</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>W'pf gtucpf "O cetq" ( "O letq"geq'p'qo leu' ( "ku't'qrg k'p'o cpci g'k'cn'f gekuk'p'o c'nk'pi 0</li> <li>W'pf gtucpf " vj g' eqpegr v' qh' r'ey " qh' f ko k'p'kuj k'pi o c'ti k'p'cn'w'k'k'k' { 'j g'q' { 0</li> <li>W'pf gtucpf " vj g'ut'wew't'g'cpf "ko r qt'v'peg'qh'f k'h'gt'gpv v'f r'gu'qh'o c't'ng'u0</li> <li>W'pf gtucpf " vj g't'qrg'r r'c' { g'f 'd' { 'i q'x'g't'p'o g'p'v'lp t'gi w'v'k'pi "k'p'f k'p'geq'p'qo {</li> <li>W'pf gtucpf " c" eqpegr w'cn' n'p'qy r'g'f i g' t'gi c't'f k'pi k'p'f k'ca'i' h'q't'g'k'i p' v'c'f g' g' c'p'f " vj g' c'r r'k'ec'v'k'p' qh' vj k'u n'p'qy r'g'f i g'lp'ugew't'k'pi "d'w'uk'p'gu'q'r r'q't'w'p'k'k'gu0</li> </ul>
RQ/8"	K'p'f gr vj 'w'pf gtucpf k'pi 'qh' o cpci go g'p'v'r t'k'p'ek' r'gu'y k'n'j gr 'v'q' etgc'v'g'o cpci g'k'cn'f'c'v'w'f g'c'p'f " u'nk'm'i'lp'uwf g'p'u'y k'n'ih'q'v'gt' uweeguhwi'o cpci g'tu'h'q't'hw'wt'g0'	
RQ/9"	K'p'f gr vj 'w'pf gtucpf k'pi 'qh' Ceeq'w'p'v'k'pi 'r t'k'p'ek' r'gu'c'p'f 'r t'ce'v'legu' eqw' r'g'f 'y k'j 'k'p'v'gt'f luek rkpct { " r'gctplpi 'y k'n'j gr 'v'q'etgc'v'g'p'gy g't' k'f g'cu'k'p'cee'q'w'p'v'k'pi "c'p'f "y k'n'it'k'pi " k'p'k'p'p'q'x'c'v'x'g'c'p'f 'etgc'v'x'g' r t'q'h'g'u'k'p'c'ni'lp' 'H'p'c'peg. 'E'qu'v'c'p'f " O cpci go g'p'v0'	
RQ/:"	Vj g'n'p'qy r'g'f i g'q'h'f k't'gev'c'p'f " k'p'f k't'gev'v'c'z'c'v'k'p' 'y k'n'q'r g'p'w'r "c'p'gy " c't'g'c'q'h'k'k'k'pi 'd' { 'uwf g'p'u0' k'p'h'q'to c'v'k'p'q'p'd'q'v'j 'f k't'gev'c'p'f " k'p'f k't'gev'v'c'z'c'v'k'p' 'u' { u'g'o u'y k'n'ew' q'r g'p'c'y k'f g't'c't'g'c'q'h'go r m'q' { o g'p'v' c'p'f 'r t'q'h'g'u'k'p'c'r'k'uo 0'	<p><b>BCM2B02: FINANCIAL ACCOUNTING</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>U'w'f g'p'u'r'g'c't'p'v'q'r t'g'r c't'g'cee'q'w'p'u'g'x'g'p' 'h'q'o k'p'eqo r r'g'v'g'k'p'h'q'to c'v'k'p'0</li> <li>Vj g'r'g'c't'p'g't'rg'c't'p'u'v'q'r t'g'r c't'g'Eqo r c'p' { 'cee'q'w'p'u</li> <li>W'pf gtucpf u' vj g'eqpegr v'q'h'f g'd'g'p'w't'g'u'c'p'f "rg'c't'p'u v'q'cee'q'w'p'v'h'q't'f g'd'g'p'w't'g'u0</li> <li>W'pf gtucpf "vj g'c'r r'k'ec'v'k'p'q'h'K'H'U"lp'Eqo r c'p'k'gu</li> <li>E't'k'k'ec'm' { "rg'c't'p'u" : C'U'0'c'p'f "K'H'U</li> </ul>
RQ/;"	Vj g'ko r t'q'x'g'f "eqo o w'p'k'ec'v'k'p' " u'nk'm'i'c'p'f "d'c'ule"w'p'f gtucpf k'pi 'qh' r'ey u'lp'h'q't'eg'q'h'v'j g'eqw'p'v' { 'y k'n' f gh'p'k'gn' 'c'f f 'v'q'v'j g'eq'p'v'g'p'v'rg'x'g'n' c'p'f "rg'x'g'n'q'h'k'p'v'gt'c'ev'k'p' "d' { 'uwf g'p'u0'	
RQ/32"	U'w'f g'p'u'd'ge'qo g'o q't'g'eq'p'h'k'f g'p'v' " u'g'h't'g'k'c'p'v' "eqo r g'v'g'p'v'c'p'f " Eqo r g'v'k'x'g'y k'j 'r t'ce'v'k'ec'n'k'p'uki j v'u' c'p'f "vj q't'q'w'i j 'rg'c't'p'k'pi 0'	<p><b>BCM2C02 : MARKETING MANAGEMENT</b></p> <p><b>Course Outcome:</b></p>

- Vj g'rgctpgt 'w'pf gtucpf u'vj g'eqtg'o ctngvpi 'eqpegr w' cpf 'equwo gt'dw\kpi 'dgj cxkwt
- Vj g'Uej qrt'rgctpu'vj g'eqpegr v'qh'etgcvpi 'cpf ecr wtkpi 'xcmg0
- W'pf gtucpf 'vj g'eqpegr v'qh'o ctngvpi 'ej cpgnu'kp vj g'eqo r g'v'k'x'g'g'p'x'k'q'p'o g'p'0
- Ngctpu'v'q'g'ptlej 'vj g'h'to a'eqo r g'v'k'x'g'utgpi vj 0
- W'pf gtucpf "cpf 'f g'x'g'r' 'cp'k'f gc'cdqw'vj g'v'g'u'v't'g'p'f u'lp g/ eqo o g'teg'cpf 'g/o ctngvpi 0

**BCM3A11: BASIC NUMERICAL METHODS**

**Course Outcome:**

- Vj g'rgctpgt 'rgctpu'vj g'eqpegr w'qh'gs w'cv'k'p'u'cpf s'w'f t'c'v'e'h'q'to w'c0
- H'c'e'l'k'c'v'g'u'vj g'uej qrt'v'q'w'ug'o c'v'k'g'u'h'q't'r'c'ti g'x'q'n'w'o g'f'c'v

processing.

- This helps to solve problems involving arithmetic and geometric progressions.
- Able to choose the right mode of interest and EMI for debt repayment
- Develop the skill of using descriptive statistical tools.

### **BCM3A12: PROFESSIONAL BUSINESS SKILLS**

#### **Course Outcome:**

- Facilitates easy business communication
- Improved knowledge of E-learning resources and its delivery broadens vision and insight of management.
- Knowledge of artificial intelligence and data analysis helps to diversify and grow business cutting across obstacles
- Knowledge of existing national and international cyber laws makes communication and business easier.
- Digital marketing and its application of social media channels and advertisements enhances changes and horizon of business.

### **BCM3BO3: BUSINESS REGULATIONS**

#### **Course Outcome:**

- Helps to establish and run business as directed by the government.
- Knowledge of Indian Contract Act 1872 helps to enter into valid contracts in life and business.
- Learning of Sale of Goods Act helps to do business keeping all legal formalities.
- Understanding of the privileges and rights of consumers helps to do legally standing business admitting the status of the customers; increases business and relationships in the long run.
- Able to create LLP business with sound legal knowledge.

### **BCM3BO4: CORPORATE ACCOUNTING**

#### **Course Outcome:**

- Dgeqo gu'eqo r gvgpv'vq'r tgr ctg'ceeqwpw'tgrcvgf 'y kj tgf go r vkqp'qh'r tghgtpeg'uj ctgu.'dqpwu'uj ctgu.'tki j v'kuuwg'qh uj ctgu'cpf 'dw' 'dcen'qh'uj ctgu0
- Tgcrk gu'vj g'eqpegr v'qh'r tgr ctcvkqp'qh'hkpcn'ceeqwpw'qh dcpn'kpi 'eqo r cplgu0
- F gxxgr 'vj g'un'km'qh'r tgr ctcvkqp'qh'hkpcn'ceeqwpw'qh'rhg kpuwtcpeg'eqo r cplgu0
- Cdrq'vq'r tgr ctg'vj g'hkpcn'ceeqwpw'qh'i tqw 'eqo r cplgu0
- Wpf gtucpf 'vj g'eqpegr v'qh'f kuenuwtg'dcugf 'ceeqwpw'kpi ucuf ctf 'cpf 'kpvtko 'tgr qt'kpi 0

**BCM3C03: HUMAN RESOURCES MANAGEMENT**

**Course Outcome:**

- Mpqy ngf i g'qh'j wo cp'tguqwtg'o cpci go gpv'j gr u'vq'twp dwukpguu'ghgevkxgnf 0
- Wpf gtucpf 'vj g'pgeguuct { 'un'km'tgs vktgf 'hqt'vj g go r m' { o gpv'k'p'qti cpl' cvkqp0
- Hco kktk'v' y kj 'vj g'kpf wevkqp'cpf 'qti cpl' cvkqpcn'v'ckl'kpi r tce'v'egu'j gr u'vq'j cxg'ghgevkxg'v'ckl'pgf 'y qtm'hqteg'k'vj g qti cpl'cvkqp0
- Wpf gtucpf 'vj g'eqpegr v'qh'ectggt'r rcppl'kpi 'cpf 'r gthqto cpeg cr r tckur0
- K'uki j v'qp'eqo r gpucvkqp'cpf 'i tlgxcpeg'o cpci go gpv r tce'v'egu'j gr u'vq'v'cng'ghgevkxg'cpf 'cr r tqr tcv'f geluk'pu'qp vko g0

**BCM4A13: ENTREPRENEURSHIP DEVELOPMENT**

**Course Outcome:**

- K'o q'v'xcv'gu'vj g'rgctpgt'vq'dgeqo g'cp'gpv'tgr tgp'gwt
- Mpqy ngf i g'qh'uwr r qt'u'cxck'cdng'j gr u'vq'tgcr 'vj g'dgpg'ghku qh'gculn'
- K'ku'k'p'v'g'p'gf 'vq'v'ki i gt'vj g'o k'p'f 'ugv'qh' { qwj 'vq'guv'cd'rkuj 'cpf t'wp 'O UO Gu'k'p'rhg
- Mpqy ngf i g'qh'guv'cd'rkuj k'pi 'k'p'f wut'k'cn'v'pku'j gr u'vq'uv'ct'v'y kj dwukpguu'v'pku'gculn' 0
- Vj g'rgctpgt'ecp'f t'ch'v'cpf 'h'k'p'cn'kug'r t'ql'gev'tgr qt'v'y kj qw

gzvgtpcn'j gr u'cpf "uwr r qtu0'

#### **BCM4A14: BANKING AND INSURANCE**

##### **Course Outcome:**

- Ecpf kf cvgu'i gv'engct 'r lewtg'qh'vj g'dcpn'kpi "dwukpguu'kpf lc cpf "j g'ecp'r rcp'ceeqt f kpi n{ 0
- Mpqy ngf i g'qh'p'gi q'kcdrg'kpwtwo g'pva 'hgcwtgu'(' hqto crk'kgu'j gr u'vq'f gcn'y kj "ectg0
- Vj ku'j gr u'vj g'ecpf kf cvg'vq'dg'wr /vq/f cvg'kp'dcpn'kpi hqto crk'kgu'cpf 'hwpf 't'cpuhgt0
- Mpqy ngf i g'qh'kpwtcpeg'dwukpguu'j gr u'vq'j gf i g.'cxqkf .'cpf tgf weg'tkum'kp'dwukpguu0
- Mpqy ngf i g'qh'NE "cpf "KFC"j gr u'vq'o q'xg'y kj "kpwtcpeg r gqr ng'y kj "eqphk'f gpeg0

#### **BCM4B05: COST ACCOUNTING**

##### **Course Outcome:**

- Vj g'ngctpgt'i gw'kpuki j w'kp'vq'vj g'equ'kpi "cpf "equ'cee'q'w'p'kpi vq'qu'cpf "v'gej pls wgu0
- Vj g'ngctpgt'w'pf gtuc'p'f u'vj g'ue'k'p'v'k'le"o cvgt'k'ne'equ'eq'p't'qn o gcuwt'gu'kp'wug0
- Vj g'uej q'rt'i gw'wugf "vq'vj g'ue'k'p'v'k'le"rcdqwt'cpf "q'xgtj gcf equ'eq'p't'qn'o gcuwt'gu0
- Mpqy ngf i g'qh'xctk'q'wu"o gj qf u'qh'equ'kpi "j gr u'vj g'ngctpgt vq'r t'ce'v'eg'kp'rhg0
- Xctk'peg"cp'cn'f uku'j gr u'vq'k'f gp'v'kh'f 'ku'ecwugu'cpf "cng eqtt'ge'v'xg'ce'v'q'pu0

#### **BCM4B06: CORPORATE REGULATIONS**

##### **Course Outcome:**

- Mpqy ngf i g'qh'k'p'f k'p'Eqo r c'p'kgu'Cev'i k'xgu'vj g'rgi kur'v'xg d'ceni tq'w'p'f u'qh'c"eqo r cp{ 0
- Vj g'ecpf kf cvg'npqy u'vj g'hqto crk'kgu'hq't'hqto cv'kp'qh'c eqo r cp{"y j kej "y km'j gr "vq'hqto "o qtg'eqtr qtc'v'gu'kp'rhg0
- Vj g'npqy ngf i g'qh't'ck'k'p' "hwpf u'y km'j gr "vj g'ecpf kf cvg'vq' ej qq'ug'dgy ggp'f gdv'cpf "gs v'k'v'f "g'cuk'f
- Vj g'ecpf kf cvg'ecp'g'cuk'f "o c'p'ci g'c"eqo r cp{"cu"j g'npqy u

the rights, duties and powers of all positions.

- Knowledge of situations when a company may go for liquidation helps to run the business effectively.

#### **BCM4C04: QUANTITATIVE TECHNIQUES FOR BUSINESS**

##### **Course Outcome:**

- Knowledge of QT broadens vision and outlook of the candidate to face business problems.
- Understanding of correlation and regression analysis helps to predict with greater degree of accuracy.
- Awareness of probability and other theories helps to have critical thinking and rational decisions.
- Familiarity with theoretical distributions helps to correlate issues with standard theories and take decisions.
- Knowledge of LPP and modeling will be of great help in decision making.

#### **BCM5B07: ACCOUNTING FOR MANAGEMENT**

##### **Course Outcomes:**

- To make the learner aware of the methodologies of Management Accounting
- It is to make the candidate learn how to conceive and interpret financial statements
- Ratios are very helpful tools for analysis and interpretations.
- Knowledge of movements in working capital helps to check/control flow of funds/cash.
- Knowledge of CVP analysis will be of great help for managerial decision making.

#### **BCM5B08: BUSINESS RESEARCH METHODS**

##### **Course Outcome:**

- The learner knows the primary matters of business research
- The student know how to fix a research design, scaling checking validity etc.
- The candidate knows the method of data collection and its

processing and validation.

- The learner knows to process collected data, test hypothesis and arrive at conclusions
- The student knows well how to write an academic report and present it

#### **BCM5B09: INCOMETAX LAW AND ACCOUNTS**

##### **Course Outcome:**

- To understand the method and methodology of taxation on income in India.
- To learn the provisions related to computation of Taxable Salary Income.
- Knowledge of taxing income from house property helps the learner to compute taxable income under the head House Property correctly.
- Knowledge of computing income under the head profits and gains of business or profession helps the learner to do it effectively in life.
- Knowledge of computing income under the head Capital Gains and other sources makes the learner self-confident and competent to practice income tax.

#### **BC6B12: INCOME TAX & GST**

##### **Course Outcome:**

- Students will be able to compute tax liability of individuals
- The Learner can do filing of returns of income meeting statutory obligations
- The scholars understand the concept of GST and e-filing procedures
- The candidates understand the offences and penalties under the Acts.
- The Learner learns the rights, duties and powers of CAG and tax authorities.

#### **BCM6B13: AUDITING AND CORPORATE GOVERNANCE**

##### **Course Outcome:**

- Knowledge of auditing helps gives newer insights and wide



vision on the topic.

- Learns to do verification, vouching and valuation independently.
- Knows to set internal control system effectively to check frauds, errors and omissions.
- Solid understanding of the models and benefits of corporate governance.
- Evaluate different stakeholders' roles and significance in corporate governance.

#### **BCM5B10: FINANCIAL MARKETS AND SERVICES**

##### **Course Outcome:**

- The; learner acquires thorough knowledge about the financial markets and products available
- The scholar understands Indian Money Market, Players in the market, Instruments traded, and their functions.
- The candidate gets clear idea of the composition Indian Capital Market, Who all are the major players in it, how indices are constructed and major indices in use. This will help the candidate to enter such a market with confidence.
- The Student get acquainted with various NBFCs in playing in India, major instruments traded in the country, factoring, leasing etc.
- The scholar gets clear idea of the regulatory mechanism in India and role of RBI and SEBI in enforcing transparent fair dealings. This will help the candidate to master the topic easily with confidence.

#### **BCM5B11: FINANCIAL MANAGEMENT**

##### **Course Outcome:**

- Knowledge of financial management and time of value money helps decisions making effective.
- Understanding of capital investment evaluation techniques makes investment selection easier.
- Familiarity with cost of capital helps to use capital judiciously
- Knowledge of dividend policies helps to take appropriate decision on dividend
- Helps to have effective working capital management.

#### **BCM6B14: FUNDAMENTALS OF INVESTMENT**

**Course Outcome:**

- Develops a broad understanding of the concept of investment management
- Learn security valuation of bonds, preference shares and equity shares
- Study calculation of return on investment and expected return through examples
- Understand analysis of securities, approaches, tools, stock charts, patterns and theories
- Understands portfolio management, analysis and redress issues easily.

**BCM6B15: FINANCIAL DERIVATIVES****Course Outcome:**

- This helps to master capital market segment and derivatives market
- This develops knowledge on derivatives trading and its legal framework
- It helps to differentiate between various types of derivatives.
- Understand the trading strategies adopted on option trading
- It helps to learn forwards, futures, and swaps.

Name of Programme: **B.Com. Co-operation**

PO		CO
PO-1	The students will get new ideas, insights and thoughts. The mindset of students will change. They get new ideas and practical experience. Such students can face challenges with confidence and succeed in life.	<p><b>BCM1B01: BUSINESS MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>To understand the management concepts and to learn concepts in real life businesses.</li> <li>To understand the concept of Managerial functions and realise the importance of Leadership and Management.</li> <li>To transform the business concept of an Individual firm from an indigenous perspective to a global perspective and realise the importance of business ethics in real life situation.</li> <li>To realise the growing importance of corporate social responsibility in the present era and examine how this concept help the business to fulfil its responsibilities towards society.</li> <li>To transform the limited idea about management to a more comprehensive and holistic concept and understand about the most sophisticated concepts and techniques in Management in various countries.</li> </ul> <p><b>BCM1C01: MANAGERIAL ECONOMICS</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>Understand Macro &amp; Micro economics &amp; its role in managerial decision making.</li> <li>Understand the concept of law of diminishing marginal utility theory.</li> <li>Understand the structure and importance of different types of markets.</li> <li>Understand the role played by government in regulating Indian economy</li> <li>Understand a conceptual knowledge regarding India's foreign trade and the application of this knowledge in securing business opportunities.</li> </ul> <p><b>BCM2B02: FINANCIAL ACCOUNTING</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>Students learn to prepare accounts even from incomplete</li> </ul>
PO-2	The students will be thorough with the procedures and formalities of establishment and management of business units. As all aspects are well debated, it will be easy for them to establish and successfully run business units.	
PO-3	The students will be conversant with the various accounting principles and practices. All will be capable of recording, generating financial reports and arriving at conclusions and predictions.	
PO-4	The inter-disciplinary approach will help students to solve business issues easily and will emerge as successful entrepreneurs in future.	
PO-5	The multidisciplinary in-depth learning across all related topics of business and industry will definitely pave a strong foundation for higher learning in commerce and management	
PO-6	In depth understanding of management principles will help to create managerial aptitude and skills in students will foster successful managers for future.	
PO-7	In depth understanding of Accounting principles and practices coupled with interdisciplinary learning will help to create newer ideas in accounting and will bring in innovative and creative professionals in Finance, Cost and Management.	

<p>PO-8</p>	<p>The knowledge of direct and indirect taxation will open up a new area of living by students. Information on both direct and indirect taxation systems will cut open a wider area of employment and professionalism.</p>	<p>information.</p> <ul style="list-style-type: none"> <li>• The learner learns to prepare Company accounts</li> <li>• Understands the concept of debentures and learns to account for debentures.</li> <li>• Understand the application of IFRS in Companies</li> <li>• Critically learns ‘AS’ and IFRS.</li> </ul>
<p>PO-9</p>	<p>The improved communication skills and basic understanding of laws in force of the country will definitely add to the content level and level of interaction by students.</p>	<p><b>BCM2C02 : MARKETING MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• The learner understands the core marketing concepts and consumer buying behaviour</li> <li>• The Scholar learns the concept of creating and capturing value.</li> <li>• Understand the concept of marketing channels in the competitive environment.</li> <li>• Learns to enrich the firm’s competitive strength.</li> <li>• Understand and develop an idea about the latest trends in e-commerce and e-marketing.</li> </ul> <p><b>BCM3A11: BASIC NUMERICAL METHODS</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• The learner learns the concepts of equations and quadratic formula.</li> <li>• Facilitates the scholar to use matrices for large volume data processing.</li> <li>• This helps to solve problems involving arithmetic and geometric progressions.</li> <li>• Able to choose the right mode of interest and EMI for debt repayment</li> <li>• Develop the skill of using descriptive statistical tools.</li> </ul> <p><b>BCM3A12: PROFESSIONAL BUSINESS SKILLS</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• Facilitates easy business communication</li> <li>• Improved knowledge of E-learning resources and its delivery broadens vision and insight of management.</li> </ul>

P10: Students become more confident, self-reliant, competent and Competitive with practical insights and thorough learning

- Knowledge of artificial intelligence and data analysis helps to diversify and grow business cutting across obstacles Knowledge of existing national and international cyber laws makes communication and business easier.
- Digital marketing and its application of social media channels and advertisements enhances changes and horizon of business.

### **BCM3BO3: BUSINESS REGULATIONS**

#### **Course Outcome:**

- Helps to establish and run business as directed by the government.
- Knowledge of Indian Contract Act 1872 helps to enter into valid contracts in life and business.
- Learning of Sale of Goods Act helps to do business keeping all legal formalities.
- Understanding of the privileges and rights of consumers helps to do legally standing business admitting the status of the customers; increases business and relationships in the long run.
- Able to create LLP business with sound legal knowledge.

### **BCM3BO4: CORPORATE ACCOUNTING**

#### **Course Outcome:**

- Becomes competent to prepare accounts related with redemption of preference shares, bonus shares, right issue of shares and buy back of shares.
- Realizes the concept of preparation of final accounts of banking companies.
- Develop the skill of preparation of final accounts of life insurance companies.
- Able to prepare the final accounts of group companies.
- Understand the concept of disclosure based accounting standard and interim reporting.

### **BCM3C03: HUMAN RESOURCES MANAGEMENT**

#### **Course Outcome:**

- Knowledge of human resource management helps to run business effectively.
- Understand the necessary skills required for the employment in an organization.
- Familiarity with the induction and organizational training practices helps to have effective trained work force in the organisation.
- Understand the concept of career planning and performance appraisal.
- Insight on compensation and grievance management practices helps to take effective and appropriate decisions on time.

#### **BCM4A13: ENTREPRENEURSHIP DEVELOPMENT**

##### **Course Outcome:**

- It motivates the learner to become an entrepreneur
- Knowledge of supports available helps to reap the benefits of easily
- It is intended to trigger the mind set of youth to establish and run MSMEs in life
- Knowledge of establishing industrial units helps to start with business units easily.
- The learner can draft and finalise project report without external helps and supports.

#### **BCM4A14: BANKING AND INSURANCE**

##### **Course Outcome:**

- Candidates get clear picture of the banking business India and he can plan accordingly.
- Knowledge of negotiable instruments, features & formalities helps to deal with care.
- This helps the candidate to be up-to-date in banking formalities and fund transfer.
- Knowledge of insurance business helps to hedge, avoid, and reduce risk in business.
- Knowledge of LIC and IRDA helps to move with Insurance people with confidence.

#### **BCM4B05: COST ACCOUNTING**

##### **Course Outcome:**

- The learner gets insights into the costing and cost accounting tools and techniques.
- The learner understands the scientific material cost control measures in use.
- The scholar gets used to the scientific labour and overhead cost control measures.
- Knowledge of various methods of costing helps the learner to practice in life.
- Variance analysis helps to identify its causes and take corrective actions.

#### **BCM4BO6: CORPORATE REGULATIONS**

##### **Course Outcome:**

- Knowledge of Indian Companies Act gives the legislative backgrounds of a company.
- The candidate knows the formalities for formation of a company which will help to form more corporates in life.
- The knowledge of raising funds will help the candidate to choose between debt and equity easily
- The candidate can easily manage a company as he knows the rights, duties and powers of all positions.
- Knowledge of situations when a company may go for liquidation helps to run the business effectively.

#### **BCM4C04: QUANTITATIVE TECHNIQUES FOR BUSINESS**

##### **Course Outcome:**

- Knowledge of QT broadens vision and outlook of the candidate to face business problems.
- Understanding of correlation and regression analysis helps to predict with greater degree of accuracy.
- Awareness of probability and other theories helps to have critical thinking and rational decisions.
- Familiarity with theoretical distributions helps to correlate issues with standard theories and take decisions.
- Knowledge of LPP and modeling will be of great help in decision making.

### **BCM5B07: ACCOUNTING FOR MANAGEMENT**

#### **Course Outcomes:**

- To make the learner aware of the methodologies of Management Accounting
- It is to make the candidate learn how to conceive and interpret financial statements
- Ratios are very helpful tools for analysis and interpretations.
- Knowledge of movements in working capital helps to check/control flow of funds/cash.
- Knowledge of CVP analysis will be of great help for managerial decision making.

### **BCM5B08: BUSINESS RESEARCH METHODS**

#### **Course Outcome:**

- The learner knows the primary matters of business research
- The student know how to fix a research design, scaling checking validity etc.
- The candidate knows the method of data collection and its processing and validation.
- The learner knows to process collected data, test hypothesis and arrive at conclusions
- The student knows well how to write an academic report and present it

### **BCM5B09: INCOMETAX LAW AND ACCOUNTS**

#### **Course Outcome:**

- To understand the method and methodology of taxation on income in India.
- To learn the provisions related to computation of Taxable Salary Income.
- Knowledge of taxing income from house property helps the learner to compute taxable income under the head House Property correctly.
- Knowledge of computing income under the head profits and gains of business or profession helps the learner to do it



effectively in life.

- Knowledge of computing income under the head Capital Gains and other sources makes the learner self-confident and competent to practice income tax.

#### **BC6B12: INCOME TAX & GST**

##### **Course Outcome:**

- Students will be able to compute tax liability of individuals
- The Learner can do filing of returns of income meeting statutory obligations
- The scholars understand the concept of GST and e-filing procedures
- The candidates understand the offences and penalties under the Acts.
- The Learner learns the rights, duties and powers of CAG and tax authorities.

#### **BCM6B13: AUDITING AND CORPORATE GOVERNANCE**

##### **Course Outcome:**

- Knowledge of auditing helps gives newer insights and wide vision on the topic.
- Learns to do verification, vouching and valuation independently.
- Knows to set internal control system effectively to check frauds, errors and omissions.
- Solid understanding of the models and benefits of corporate governance.
- Evaluate different stakeholders' roles and significance in corporate governance.

#### **BCM5B10:CO-OPERATIVE THEORY AND PRACTICE**

##### **Course Outcome:**

- It helps to learn about cooperation, cooperative movement and its principles
- It facilitates a comparative study of cooperation and other economic systems
- It helps to learn cooperative training houses and methods of

training.

- Idea on different types of cooperatives helps to choose from as when needed.
- History of successful business houses motivates to start new cooperative business houses.

#### **BCM5B11: LEGAL ENVIRONMENT FOR CO-OPERATIVES**

##### **Course Outcome:**

- Knowledge of cooperative movement in India helps to form new cooperatives.
- Knowledge of cooperative legislations helps to go by law and take valid decisions.
- Learning of Kerala Cooperative Societies Act helps to run societies easily.
- Administrative set up of Cooperatives helps to contact the right person at the right time.
- Banking Regulation Act helps to have a comparative study of both the Acts.

#### **BCM6B14: INTERNATIONAL CO-OPERATIVE MOVEMENT**

##### **Course Outcome:**

- Acquire knowledge about the cooperative movement in the world,
- Understand the structure and aim of international alliances
- Be aware about the significance of international organizations.
- Impart knowledge on the inter-cooperative relations in the country.

#### **BCM6B15: CO-OPERATIVE MANAGEMENT AND ADMINISTRATION**

##### **Course Outcome:**

- Understand the concepts and characteristics of cooperatives
- Understand the functional and management aspects of cooperatives
- Develop an insight about cooperative leadership
- Equip students with preparation of documents and financial statements Develop skills do verification and valuation of

		assets and liabilities.
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**Name of Programme: B.Com. Computer Application**

Pos		Cos
PO-1	The students will get new ideas, insights and thoughts. The mindset of students will change. They get new ideas and practical experience. Such students can face challenges with confidence and succeed in life.	<p><b>BCM1B01: BUSINESS MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>To understand the management concepts and to learn concepts in real life businesses.</li> <li>To understand the concept of Managerial functions and realise the importance of Leadership and Management.</li> <li>To transform the business concept of an Individual firm from an indigenous perspective to a global perspective and realise the importance of business ethics in real life situation.</li> <li>To realise the growing importance of corporate social responsibility in the present era and examine how this concept help the business to fulfil its responsibilities towards society.</li> <li>To transform the limited idea about management to a more comprehensive and holistic concept and understand about the most sophisticated concepts and techniques in Management in various countries.</li> </ul> <p><b>BCM1C01: MANAGERIAL ECONOMICS</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>Understand Macro &amp; Micro economics &amp; its role in managerial decision making.</li> </ul>
PO-2	The students will be thorough with the procedures and formalities of establishment and management of business units. As all aspects are well debated, it will be easy for them to establish and successfully run business units.	
PO-3	The students will be conversant with the various accounting principles and practices. All will be capable of recording, generating financial reports and arriving at conclusions and predictions.	
PO-4	The inter-disciplinary approach will help students to solve business issues easily and will emerge as successful entrepreneurs in future.	
PO-5	The multidisciplinary in-depth learning across all related topics of business and industry will definitely pave a strong foundation for higher learning in commerce	

	and management	<ul style="list-style-type: none"> <li>• Understand the concept of law of diminishing marginal utility theory.</li> <li>• Understand the structure and importance of different types of markets.</li> <li>• Understand the role played by government in regulating Indian economy</li> <li>• Understand a conceptual knowledge regarding India's foreign trade and the application of this knowledge in securing business opportunities.</li> </ul>
PO-6	In depth understanding of management principles will help to create managerial aptitude and skills in students will foster successful managers for future.	
PO-7	In depth understanding of Accounting principles and practices coupled with interdisciplinary learning will help to create newer ideas in accounting and will bring in innovative and creative professionals in Finance, Cost and Management.	
PO-8	The knowledge of direct and indirect taxation will open up a new area of living by students. Information on both direct and indirect taxation systems will cut open a wider area of employment and professionalism.	
PO-9	The improved communication skills and basic understanding of laws in force of the country will definitely add to the content level and level of interaction by students.	
PO-10	Students become more confident, self-reliant, competent and Competitive with practical insights and thorough learning.	
		<p><b>BCM2B02: FINANCIAL ACCOUNTING</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>• Students learn to prepare accounts even from incomplete information.</li> <li>• The learner learns to prepare Company accounts</li> <li>• Understands the concept of debentures and learns to account for debentures.</li> <li>• Understand the application of IFRS in Companies</li> <li>• Critically learns 'AS' and IFRS.</li> </ul> <p><b>BCM2C02 : MARKETING MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• The learner understands the core marketing concepts and consumer buying behaviour</li> <li>• The Scholar learns the concept of creating and capturing value.</li> <li>• Understand the concept of marketing channels in the competitive environment.</li> <li>• Learns to enrich the firm's competitive strength.</li> <li>• Understand and develop an idea about the latest trends in e-commerce and e-marketing.</li> </ul> <p><b>BCM3A11: BASIC NUMERICAL METHODS</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• The learner learns the concepts of equations and quadratic formula.</li> <li>• Facilitates the scholar to use matrices for large volume data</li> </ul>

processing.

- This helps to solve problems involving arithmetic and geometric progressions.
- Able to choose the right mode of interest and EMI for debt repayment
- Develop the skill of using descriptive statistical tools.

### **BCM3A12: PROFESSIONAL BUSINESS SKILLS**

#### **Course Outcome:**

- Facilitates easy business communication
- Improved knowledge of E-learning resources and its delivery broadens vision and insight of management.
- Knowledge of artificial intelligence and data analysis helps to diversify and grow business cutting across obstacles
- Knowledge of existing national and international cyber laws makes communication and business easier.
- Digital marketing and its application of social media channels and advertisements enhances changes and horizon of business.

### **BCM3BO3: BUSINESS REGULATIONS**

#### **Course Outcome:**

- Helps to establish and run business as directed by the government.
- Knowledge of Indian Contract Act 1872 helps to enter into valid contracts in life and business.
- Learning of Sale of Goods Act helps to do business keeping all legal formalities.
- Understanding of the privileges and rights of consumers helps to do legally standing business admitting the status of the customers; increases business and relationships in the long run.
- Able to create LLP business with sound legal knowledge.

### **BCM3BO4: CORPORATE ACCOUNTING**

#### **Course Outcome:**

- Dgeqo gu'eqo r gvgpv'vq'r tgr ctg'ceeqwpw'tgrcvgf 'y kj tgf go r vkqp'qh'r tghgtpeg'uj ctgu.'dqpwu'uj ctgu.'tki j v'kuuwg'qh uj ctgu'cpf 'dw' 'dcen'qh'uj ctgu0
- Tgcrk gu'vj g'eqpegr v'qh'r tgr ctcvkqp'qh'hkpcn'ceeqwpw'qh dcpnkpi 'eqo r cplgu0
- F gxgnr 'vj g'unkm'qh'r tgr ctcvkqp'qh'hkpcn'ceeqwpw'qh'rhg kpuwtcpeg'eqo r cplgu0
- Cdrq'vq'r tgr ctg'vj g'hkpcn'ceeqwpw'qh'i tqw 'eqo r cplgu0
- Wpf gtucpf 'vj g'eqpegr v'qh'f kuenquwtg'dcugf 'ceeqwpw'pi ucpcf ctf 'cpf 'kpvtko 'tgr qtvpki 0

**BCM3C03: HUMAN RESOURCES MANAGEMENT**

**Course Outcome:**

- Mpqy ngf i g'qh'j wo cp'tguqwtg'o cpci go gpv'j gr u'vq'twp dwukpguu'ghgevxgnf 0
- Wpf gtucpf 'vj g'pgeguuct { 'unkm'tgs vktgf 'hqt'vj g go r mq{o gpv'kp'cp'qti cplk cvkqp0
- Hco kktkvt' y kj 'vj g'kpf wevkqp'cpf 'qti cplk cvkqpcn'vtcklpi r tcevegu'j gr u'vq'j cxg'ghgevxg'vtckpgf 'y qtm'hqteg'kp'vj g qti cplkcvkqp0
- Wpf gtucpf 'vj g'eqpegr v'qh'ectggt'r rcpplpi 'cpf 'r gthqto cpeg cr r tckucr0
- Kpuki j v'qp'eqo r gpucvkqp'cpf 'i tlxcpge'g'o cpci go gpv r tcevegu'j gr u'vq'cng'ghgevxg'cpf 'cr r tqr tcv'f gekukpu'qp vko g0

**BCM4A13: ENTREPRENEURSHIP DEVELOPMENT**

**Course Outcome:**

- K'o qkxcv'vj g'rgctpgt'vq'dgeqo g'cp'gpvgr tpgpwt
- Mpqy ngf i g'qh'uwr r qt'u'cxckrdng'j gr u'vq'tgcr 'vj g'dgpghku qh'gculn{
- K'ku'kpvpgf gf 'vq'vki i gt'vj g'o kpf 'ugv'qh' { qwj 'vq'guvdrkuj 'cpf twp'O UO Gu'kp'rhg
- Mpqy ngf i g'qh'guvdrkuj kpi 'kpf wutkcn'wpku'j gr u'vq'uvctv'y kj dwukpguu'wpku'gculn{ 0
- Vj g'rgctpgt'ecp'f tch'v'cpf 'hkpcn'g'r tqlgev'tgr qt'v'y kj qw

external helps and supports.

#### **BCM4A14: BANKING AND INSURANCE**

##### **Course Outcome:**

- Candidates get clear picture of the banking business India and he can plan accordingly.
- Knowledge of negotiable instruments, features & formalities helps to deal with care.
- This helps the candidate to be up-to-date in banking formalities and fund transfer.
- Knowledge of insurance business helps to hedge, avoid, and reduce risk in business.
- Knowledge of LIC and IRDA helps to move with Insurance people with confidence.

#### **BCM4B05: COST ACCOUNTING**

##### **Course Outcome:**

- The learner gets insights into the costing and cost accounting tools and techniques.
- The learner understands the scientific material cost control measures in use.
- The scholar gets used to the scientific labour and overhead cost control measures.
- Knowledge of various methods of costing helps the learner to practice in life.
- Variance analysis helps to identify its causes and take corrective actions.

#### **BCM4B06: CORPORATE REGULATIONS**

##### **Course Outcome:**

- Knowledge of Indian Companies Act gives the legislative backgrounds of a company.
- The candidate knows the formalities for formation of a company which will help to form more corporates in life.
- The knowledge of raising funds will help the candidate to choose between debt and equity easily
- The candidate can easily manage a company as he knows

the rights, duties and powers of all positions.

- Knowledge of situations when a company may go for liquidation helps to run the business effectively.

#### **BCM4C04: QUANTITATIVE TECHNIQUES FOR BUSINESS**

##### **Course Outcome:**

- Knowledge of QT broadens vision and outlook of the candidate to face business problems.
- Understanding of correlation and regression analysis helps to predict with greater degree of accuracy.
- Awareness of probability and other theories helps to have critical thinking and rational decisions.
- Familiarity with theoretical distributions helps to correlate issues with standard theories and take decisions.
- Knowledge of LPP and modeling will be of great help in decision making.

#### **BCM5B07: ACCOUNTING FOR MANAGEMENT**

##### **Course Outcomes:**

- To make the learner aware of the methodologies of Management Accounting
- It is to make the candidate learn how to conceive and interpret financial statements
- Ratios are very helpful tools for analysis and interpretations.
- Knowledge of movements in working capital helps to check/control flow of funds/cash.
- Knowledge of CVP analysis will be of great help for managerial decision making.

#### **BCM5B08: BUSINESS RESEARCH METHODS**

##### **Course Outcome:**

- The learner knows the primary matters of business research
- The student know how to fix a research design, scaling checking validity etc.
- The candidate knows the method of data collection and its



processing and validation.

- The learner knows to process collected data, test hypothesis and arrive at conclusions
- The student knows well how to write an academic report and present it

### **BCM5B09: INCOMETAX LAW AND ACCOUNTS**

#### **Course Outcome:**

- To understand the method and methodology of taxation on income in India.
- To learn the provisions related to computation of Taxable Salary Income.
- Knowledge of taxing income from house property helps the learner to compute taxable income under the head House Property correctly.
- Knowledge of computing income under the head profits and gains of business or profession helps the learner to do it effectively in life.
- Knowledge of computing income under the head Capital Gains and other sources makes the learner self-confident and competent to practice income tax.

### **BC6B12: INCOME TAX & GST**

#### **Course Outcome:**

- Students will be able to compute tax liability of individuals
- The Learner can do filing of returns of income meeting statutory obligations
- The scholars understand the concept of GST and e-filing procedures
- The candidates understand the offences and penalties under the Acts.
- The Learner learns the rights, duties and powers of CAG and tax authorities.

### **BCM6B13: AUDITING AND CORPORATE GOVERNANCE**

#### **Course Outcome:**

- Knowledge of auditing helps gives newer insights and wide

vision on the topic.

- Learns to do verification, vouching and valuation independently.
- Knows to set internal control system effectively to check frauds, errors and omissions.
- Solid understanding of the models and benefits of corporate governance.
- Evaluate different stakeholders' roles and significance in corporate governance.

#### **BCM5B10: COMPUTER APPLICATIONS IN BUSINESS**

##### **Course Outcome:**

- Knowledge of networking and its application business helps students to learn in a networked community much easily.
- Knowledge of website creation and its updation and maintenance magnifies the identity and scope of business at much cheaper a cost.
- This helps to grow business across boarders easily.
- Students become more competitive in this digital era for he knows these entire well.
- Knowledge of the threats present in the Net helps to take preventive measures early and thereby could be avoided on time.

#### **BCM5B11: BUSINESS INFORMATION SYSTEMS**

##### **Course Outcome:**

- Knowledge of MIS helps to gather, process and take decisions easily.
- It helps to provide right information at the right time at the right quantity
- Knowledge of DBMS helps to process data scientifically keeping all manifestations.
- Understanding of ERP helps easy automation and results in reduced costs.
- Business Process Reengineering results in increased dignity in business and profits

#### **BCM6B14: OFFICE AUTOMATION TOOLS**

##### **Course Outcome:**

- Students understand how to prepare documents using MS-

Word

- Learner demonstrates excel spreadsheets and its applications.
- The candidate knows Power Point Presentations and its use in business meetings.
- Scholar acquires knowledge on distributed and client server computing.
- Understand the applications of internet in the field of business education and governance.

### **BCM6B15 COMPUTERISED ACCOUNTING WITH TALLY**

#### **Course Outcome:**

- Helps to develop awareness on accounting concepts and principles
- Aids to perform documentation, accounting and inventory operations using Tally
- Assist preparation of financial statements, tax documents, budgets and presentations
- Develop adequate knowledge on accounting information system and their application.
- To excel in budgets, reporting and accounting using Tally.

## DEPARTMENT OF PHYSICS

### Programme Specific Outcomes (PSOs) – B. Sc Applied Physics (2020 Admissions)

	Programme specific outcomes
PSO1	Understand the basic concepts of methodology of science and the fundamentals of mechanics, properties of matter and electrodynamics
PSO2	Understand the theoretical basis of quantum mechanics, relativistic physics, nuclear physics, optics, spectroscopy, solid state physics, astrophysics, statistical physics, photonics and thermodynamics
PSO3	Understand and apply the concepts of electronics in the designing of different analog and digital circuits
PSO4	Understand the basics of computer programming and numerical analysis
PSO5	Apply and verify theoretical concepts through laboratory experiments

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	APH1B01	<b>MECHANICS I</b>	<ul style="list-style-type: none"> <li>• CO1-Understand and apply the basic concepts of Newtonian Mechanics to Physical Systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand and apply the basic idea of work-energy theorem to physical systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand and apply the rotational dynamics of rigid bodies</li> </ul>
II	APH2B02	MECHANICS II	<ul style="list-style-type: none"> <li>• CO1-Understand the features of non-inertial systems and fictitious forces</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand and analyze the features of central forces with respect to planetary motion</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the basics ideas of harmonic oscillations</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Understand and analyze the basics concepts of wave motion</li> </ul>
III	APH3B03	ELECTRODYNAMICS I	<ul style="list-style-type: none"> <li>• CO1- Understand and apply the fundamentals of vector calculus</li> </ul>

			<ul style="list-style-type: none"> <li>EQ4/" Wpf gtucpf " cpf " cpcn{   g" vj g grgevtquvcle" r tqr gt vku" qh" rj {ulecn u{uگو u</li> <li>EQ5/"Wpf gtucpf "vj g'o gej cpluo "qh grgevtle'hgrf 'lp'o cwgt0</li> <li>EQ6/"Wpf gtucpf "cpf "cpcn{   g'vj g o ci pgve" r tqr gt vku" qh" rj {ulecn u{uگو u</li> <li>EQ7/"Wpf gtucpf "vj g'o gej cpluo "qh o ci pgve'hgrf 'lp'o cwgt0</li> </ul>
KK'	C33"	R[ VJ QP "	<ul style="list-style-type: none"> <li>EQ3/"Wpf gtucpf "xctkquw'ucvgo gpw. f cve'v{r gu'cpf 'hwpevkpu'lp'R{ vj qp</li> <li>EQ4/"F gxgrq 'r tqi tco u'lp'R{ vj qp r tqi tco o kpi 'rpi wei g</li> <li>EQ5/" Wpf gtucpf " vj g" dcukeu" qh Qdlgev'qtkpvgf "r tqi tco o kpi "wukpi R{ vj qp</li> </ul>
KK'	C34"	UGP UQTU'CPF " VTCP UF WEGTU"	<ul style="list-style-type: none"> <li>EQ3/"Gzr rkp'tgukucpeg.'kpf wecpeg cpf "ecr cekcpeg'vcpuf wegtu0</li> <li>EQ4/Rgtegkxg" vj g" eqpegr u" qh vgo r gtcwtg" cpf " r tguwtg vcpuf wegtu0</li> <li>EQ5/"Rgtegkxg"vj g"eqpegr u"rgxgn vcpuf wegtu" uvej " cu" cpf " huy vcpuf wegtu</li> <li>EQ6/"Gzr rkp Grgestqo ci pgve" vcpuf wegtu'cpf "tcf kvkqp'ugpuqtu"</li> <li>EQ7/" Gzr rkp" hqteg" cpf " vqts wg vcpuf wegtu'cpf "uqwpf "vcpuf wegtu</li> </ul>
KK"	CRJ 6D26"	GNGEVTQF [ P CO KEU" KK'	<ul style="list-style-type: none"> <li>EQ3/"Wpf gtucpf "vj g"dcule"eqpegr u qh'grgestqf {pco leu</li> <li>EQ4/"Wpf gtucpf "cpf "cpcn{   g'vj g r tqr gt vku'qh'grgestqo ci pgve"y cxgu</li> <li>EQ5/"Wpf gtucpf "vj g"dgj cxkqt"qh vcpukgpv'ewtgpw</li> <li>EQ6/"Wpf gtucpf "vj g"dcule"cur gewu qh'ce'ektewku</li> <li>EQ7/" Wpf gtucpf " cpf " cr r n{ grgevtkecn'pgy qtn'vj gqtgo u</li> </ul>
KK"	C35"	F CVC" EQO O WP KECVIQP "( " QRVKCN"HDGTU"	<ul style="list-style-type: none"> <li>EQ3/"Wpf gtucpf "vj g'hwpf co gpvcu qh'vcpuo kukqp</li> <li>EQ4/"Wpf gtucpf "vj g'o wnr ngzkpi</li> <li>EQ5/"Wpf gtucpf " vj g f hgtgpv" r tqveqn'tgi ctf kpi "f cve'kpm</li> </ul>

			<ul style="list-style-type: none"> <li>EQ6/"Wpf gtucpf "yj g"hwpf co gpvcu qh'QHE</li> </ul>
KX"	C36"	O KETQRTQEGUUQTU'6" CTEJ KGEVWTG" CPF " RTQI TCO O KPI "	<ul style="list-style-type: none"> <li>EQ3/"Wpf gtucpf "yj g"hwpf co gpvcu qh'c'o letqeqo r wgt</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4/"Wpf gtucpf "yj g"o letqr tqeguqt r tqi tco o lpi</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5/"Wpf gtucpf "yj g"hwpf co gpvcu qh'O letqr tqeguqt "ctej kgewtg</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6/Wpf gtucpf " yj g" dcukeu" qh K VGN": 2: 7</li> </ul>
			<ul style="list-style-type: none"> <li>EQ7/"Wpf gtucpf "xctkqu'eqptqu"qh K VGN": 2: 7.: 2: 8</li> </ul>
KX"	CRJ 6D27*3+ "	RTCEVÆCN/K3+ "	<ul style="list-style-type: none"> <li>EQ3/Crr n" cpf " kmwtcvg" yj g eqpegr u" qh'r tqr gtvku" qh'o cwgt yj tqwi j "gزر gtlo gpu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4/Crr n" cpf " kmwtcvg yj g" eqpegr u" qh' ggevtlek{ " yj tqwi j " gزر gtlo gpu"</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5/Crr n" cpf " kmwtcvg" yj g eqpegr u" qh' qr vku" yj tqwi j gزر gtlo gpu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6/Crr n" cpf " kmwtcvg" yj g r tlpekr ngu" qh' o ci pgvuo " yj tqwi j " gزر gtlo gpu"</li> </ul>
KX"	CRJ 6D27*4+ "	RTCEVÆCN/K4+ "	<ul style="list-style-type: none"> <li>EQ3/Crr n" cpf " kmwtcvg" yj g eqpegr u" qh' qr vku" yj tqwi j gزر gtlo gpu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4/Crr n" cpf " kmwtcvg" yj g eqpegr u" qh' ggevtlek{ " yj tqwi j " gزر gtlo gpu"</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5/Crr n" cpf " kmwtcvg" yj g eqpegr u" qh' yj gto qf {pco leu" yj tqwi j gزر gtlo gpu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6/Crr n" cpf " kmwtcvg" yj g r tlpekr ngu" qh' o ci pgvuo " yj tqwi j gزر gtlo gpu</li> </ul>
X"	CRJ 7D28"	EQORWCVIQPCN" RJ [ UKU"	<ul style="list-style-type: none"> <li>EQ3/Wpf gtucpf " yj g" Dcukeu" qh R{ yj qp'r tqi tco o lpi</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4/"Wpf gtucpf "yj g"cr r ðecvqpu"qh R{ yj qp"o qf wgu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5/Wpf gtucpf " yj g dcule" vgej pls vgu"qh'pwo gtecr'cpcn{ uku</li> </ul>

			<ul style="list-style-type: none"> <li>• CO4-Understand and apply computational techniques to physical problems</li> </ul>
V	APH5B07	QUANTUM MECHANICS	<ul style="list-style-type: none"> <li>• CO1-Understand the particle properties of electromagnetic radiation</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Describe Rutherford – Bohr model of the atom</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-Understand the wavelike properties of particles</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Understand and apply the Schrödinger equation to simple physical systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5- Apply the principles of wave mechanics to the Hydrogen atom</li> </ul>
V	APH5B08	OPTICS	<ul style="list-style-type: none"> <li>• CO1- Understand the fundamentals of Fermat’s principles and geometrical optics</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand and apply the basic ideas of interference of light</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand and apply the basic ideas of diffraction of light</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Understand the basics ideas of polarization of light</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5- Describe the basic principles of holography and fibre optics</li> </ul>
V	APH5B09	ELECTRONICS (ANALOG & DIGITAL)	<ul style="list-style-type: none"> <li>• CO1-Understand the basic principles of rectifiers and dc power supplies</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand the principles of transistor</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the working and designing of transistor amplifiers and oscillators</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Understand the basic operation of Op – Amp and its applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5- Understand the basics of digital electronics</li> </ul>
V	APH5D01(1)	NONCONVENTIONAL ENERGY SOURCES	<ul style="list-style-type: none"> <li>• CO1- Understand the importance of non conventional energy sources</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand basic aspects of solar energy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand basic principles of wind energy conversion</li> </ul>

			<ul style="list-style-type: none"> <li>• CO4-Understand the basic ideas of geothermal and biomass energy and recognize their merits and demerits</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5- Understand the basic ideas of oceans and chemical energy resources and recognize their merits and demerits</li> </ul>
VI	APH6B10	THERMODYNAMICS	<ul style="list-style-type: none"> <li>• CO1- Understand the zero and first laws of thermodynamics</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-Understand the thermodynamics description of the ideal gas</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the second law of thermodynamics and its applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Understand the basic ideas of entropy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5- Understand the concepts of thermodynamic potentials and phase transitions</li> </ul>
VI	APH6B11	STATISTICAL PHYSICS, SOLID STATE PHYSICS, SPECTROSCOPY & PHOTONICS	<ul style="list-style-type: none"> <li>• CO1-Understand the basic principles of statistical physics and its applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand the basic aspects of crystallography in solid state physics</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the basic elements of spectroscopy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Understand the basics ideas of microwave and infra red spectroscopy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-Understand the fundamental ideas of photonics</li> </ul>
VI	APH6B12	NUCLEAR PHYSICS AND PARTICLE PHYSICS	<ul style="list-style-type: none"> <li>• CO1- Understand the basic aspects of nuclear structure and fundamentals of radioactivity</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Describe the different types of nuclear reactions and their applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the principle and working of particle detectors</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Describe the principle and working of particle accelerators</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5 Understand the basic principles of elementary particle physics</li> </ul>



VI	APH6B13	RELATIVISTIC MECHANICS AND ASTROPHYSICS	<ul style="list-style-type: none"> <li>• CO1-Understand the fundamental ideas of special relativity</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand the basic concepts of general relativity and cosmology</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-Understand the basic techniques used in astronomy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Describe the evolution and death of star</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-Describe the structure and classification of galaxies</li> </ul>
VI	APH6B14 (EL2)	MICROPROCESSOR AND MICROCOMPUTER SYSTEMS	<ul style="list-style-type: none"> <li>• CO1- Understand the fundamentals of a microcomputer.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-Understand the different number systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Understand the fundamentals of Microprocessor architecture</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Understand the basics of INTEL 8085</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5 Understand the instructions and various controls of INTEL 8085</li> </ul>
VI	APH6B15:	PRACTICAL II	<ul style="list-style-type: none"> <li>• CO1-Apply and illustrate the principles of semiconductor diodes and transistors through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-Apply and illustrate the principles of transistor amplifier and oscillator through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-Apply and illustrate the principles of digital electronics through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Analyze and apply computational techniques using C programming</li> </ul>
VI	APH6B16	PRACTICALS III	<ul style="list-style-type: none"> <li>• CO1- Apply and illustrate the ideas of Network theorems through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-Apply and illustrate the concepts of multivibrators through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Apply and illustrate the ideas of Operational amplifiers through experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Apply and illustrate the ideas of digital electronics through experiments</li> </ul>

VI	APH6B17(P)	PROJECT	<ul style="list-style-type: none"> <li>• CO1-Understand research methodology</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- Understand and formulate a research project</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3- Design and implement a research project</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Identify and enumerate the scope and limitations of a research project</li> </ul>

### Department of Botany

#### Programme Specific Outcomes (PSOs) – B. Sc Botany Core Course and Complementary Course

#### B. Sc Botany Core Programme

	Programme specific outcomes
PSO1	<b>Scope and importance of Botany:</b> Understand scope and importance of Botany in every field especially in dealing with societal and environmental issues, agriculture, ethics and healthcare.
PSO2	<b>Environmental concern:</b> Understand the and the role of plants in sustaining life on earth and the interrelationship between human beings and nature, create awareness on natural resources and their importance in sustainable development, analyze the importance of biodiversity conservation, estimate biodiversity loss and develop conservation strategies.
PSO3	<b>Scientific temper:</b> Develop scientific temper and undertake scientific projects.
PSO4	<b>Practical applications:</b> Identify and classify plants according to the principles of plant systematics, apply techniques like plant propagation methods, organic farming, mushroom cultivation, preparation of biofertilizers, biopesticides etc. in daily life.
PSO5	<b>Awareness on life processes:</b> Understand plant life processes, biomolecules, basic hereditary and evolutionary principles.

#### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	BOT1B01T	Angiosperm Anatomy, Reproductive Botany and Palynology	CO1: Demonstrate the ability to differentiate plant organs by observing anatomical features.
			CO2: Understand the non-living inclusions of plants and their significance.

			CO3: Differentiate tissues and their functions.
			CO4: Illustrate primary and secondary (normal and anomalous) structures of plant organs.
			CO5: Explain various developmental details of angiosperms.
			CO6: Realize the significance and applications of palynology.
II	BOT2B02T	Microbiology, Mycology, Lichenology And Plant Pathology	<ul style="list-style-type: none"> <li>• CO1: Understand basics of microbial life and their economic importance.</li> <li>• CO2: Develop general awareness on the diversity of microorganisms, fungi and lichens.</li> <li>• CO3: Analyze the ecological role played by bacteria, fungi and lichens</li> <li>• CO4: Identify plant diseases and find out control measures</li> <li>• CO5: Realize the significance of plant diseases as far as crop production is concerned.</li> </ul>
III	BOT3B03T	Phycology, Bryology and Pteridology	<ul style="list-style-type: none"> <li>• CO1: Appreciate the diversity and evolutionary significance of lower plant groups</li> <li>• CO2: Classify algae, bryophytes and pteridophytes.</li> <li>• CO3: Understand the economic and ecological importance of lower plant groups.</li> </ul>
IV	BOT4B04T	Methodology and Perspectives In Plant Science	<ul style="list-style-type: none"> <li>• CO1: Develop scientific temper and problem solving skills.</li> <li>• CO2: Undertake scientific projects and prepare project reports</li> </ul>

			<ul style="list-style-type: none"> <li>EQ5&lt;Uwo o ctk g. qti cplk g'cpf f kur r{ s wcpvkcxg f cv" cpf f gtxg"eqpenwukpu</li> <li>EQ6&lt;Rtgr ctg'r gto cpgpv urkf gu."cr r n kpi "vj g j kxqej go lecn'gej pls wgu</li> </ul>
X"	DQV7D28V"	I {o pqur gto u." Rcrxgdqvcp{." Rj {vqi gqi tcr j {"	<ul style="list-style-type: none"> <li>EQ3&lt;Wpf gtucpf " vj g" tqrg qh' i {o pqur gto u" cu" c eqppgevpj ""rkpm""dgy ggp r vgtkqr j {vgu" cpf cpi kqur gto u</li> <li>EQ4&lt;Crr tgekvj g r tqegui'qhqi cple gxqnwkq0</li> <li>EQ5&lt;Tgcrk g"vj g ko r qtvcpeg'qhquki'uwf {0</li> <li>EQ6&lt;Wpf gtucpf "vj g erko cvk"eqpf kqpu'qh'vj g r cuv'cpf 'tgcrl g'vj g'ej cpi gu j cr r gpgf</li> <li>EQ7&lt;Tgeqi plk g'vj g r j {vqi gqi tcr j k' qpqu'qh kpf k0</li> </ul>
X"	DQV7D29V"	Cpi kqur gto " O qtr j qqi {" cpf "U{ungo cvku"	<ul style="list-style-type: none"> <li>EQ3&lt;Crr tgekvj " vj g f kxgtugo qtr j qqi {"qh cpi kqur gto u0</li> <li>EQ4&lt;K gpvh{ "cpf "ercukh{ r rcpvdcugf "qp"czqpqo le r tkpek rgu0</li> <li>EQ5&lt;O cng'uelgpvhe kmwutcvkpuqh'xgi gcvkxg cpf "tgr tqf wevkxg utwewtgu'qh'r rcpw</li> <li>EQ6&lt;F gxgr " vj g unkn' qh uelgpvhe'ko ci kpi "qh r rcpw0</li> <li>EQ7&lt;Tgcrk g"vj g ko r qtvcpeg'qhkrf "uwf {</li> <li>EQ8&lt; Ej cpi g" vj gkt cvkwf g" vqy ctf u" qxgt gzr rpkcvkp" qh tctglpf go k"r rcpw0</li> </ul>
X"	DQV7D2: V"	Vkuwg'E wmwg." J qtve wmwg." Geqpqo k'Dqvcp{ "cpf " Gj p qdqvcp{ "	<ul style="list-style-type: none"> <li>EQ3&lt;Etkekcm{ "" gxcnvcg vj g" cf xcpvi gu" qh' vkuwg ewmwg" cpf " j qtve wmwg qxgt"eqpxgpvkpen o gj qf u'qh'r tqr ci cvkq0</li> </ul>

			<ul style="list-style-type: none"> <li>• CO2: Apply various horticultural practices in the field.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Experiment on the subject and try to become entrepreneurs.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Identify the economically important plants</li> </ul>
V	BOT5B09T	Cell Biology and Biochemistry	<ul style="list-style-type: none"> <li>• CO1: Appreciate the</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Enumerate the functions of each cell organelle</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Draw and explain the structure of biomolecules.</li> </ul>
V	BOT2D02T	Open Course-Choice II Applied Botany	<ul style="list-style-type: none"> <li>• CO1: Develop general awareness on applied aspects of Plant science.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Realize the role of plants in everyday life.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Apply vegetative propagation methods in everyday life.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Realize the economic importance of plants</li> </ul>
VI	BOT6B10T	Genetics And Plant Breeding	<ul style="list-style-type: none"> <li>• CO1: Appreciate the facts behind heredity and variations.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Understand the</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Solve problems related to classical genetics.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Predict the pattern of inheritance</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Understand various plant breeding techniques</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Realize the role of plant breeding in increasing crop productivity.</li> </ul>
VI	BOT6 B11T	Biotechnology, Molecular Biology And Bioinformatics	<ul style="list-style-type: none"> <li>• CO1: Analyze the role of biotechnology in daily life.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Understand the</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Explain the concepts in molecular biology.</li> </ul>
VI	BOT6B12T	Plant Physiology	<ul style="list-style-type: none"> <li>• CO1: Identify the</li> </ul>

		AndMetabolism	<p>physiologicalresponses of plants.</p> <ul style="list-style-type: none"> <li>• CO2:Analyze the role of external factors in controlling the physiology of plants.</li> <li>• CO3:Explain the metabolicprocesses taking place in each cell.</li> <li>• CO4:Appreciate the energy fixing and energy releasing processes taking place in cells.</li> </ul>
VI	BOT6B13T	Environmental Science	<ul style="list-style-type: none"> <li>• CO1:Realize the importance ofecological studies.</li> <li>• CO2:Develop environmental concern in all their actions and practise Reduce, Reuse andRecycle.</li> <li>• CO3:Try to reduce pollution and environmental hazards and change their attitude towards throwing away plastic wastes</li> <li>• CO4:Spread awareness of theneed of conservation of biodiversity and natural resources.</li> <li>• CO5:Analyze the reasons for climate change and find out ways to combat it.</li> </ul>
VI	BOT6B14T(E3)	Genetics And Crop Improvement	<ul style="list-style-type: none"> <li>• CO1:Understand varioustechniques employed for increasing crop productivity</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Identify diseases affectingcrop plants</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:Attain general awareness on various crop research stations of the country.</li> </ul>

**Name of Programme : B.Sc. Botany (Complementary Course)**

Semester	Course Code	Course Name	Course outcomes
I	BOT1C01T	Angiosperm Anatomy And Microtechnique	CO1: Explain the types, structure and functions of plant tissues.
			CO2: Explain primary and secondary (normal and anomalous) structures of plant organs.
			CO3: Identify plant organs by observing anatomical features.
			CO4: Illustrate primary and secondary (normal and anomalous) structures of plant organs.
			CO5: Apply the histochemical techniques in laboratory works.
II	BOT2C02T	Cryptogams, Gymnosperms and Plant Pathology	CO1: Analyze the role of the lower plants in the process of evolution.
			CO2: Explain the ecological significance of lower plants.
			CO3: Identify plant diseases and take remedial measures to control them.
III	BOT3C03T	Morphology, Systematic Botany, Economic Botany, Plant Breeding and Horticulture	CO1: Appreciate the diverse morphology of angiosperms.
			CO2: Identify and classify plants based on taxonomic principles
			CO3: Make scientific illustrations of vegetative and reproductive structures of plants
			CO4: Identify the economically important plants
			CO5: Understand the basic principles of plant breeding
			CO6: Apply various horticultural practices in the field
IV	BOT4C04T	Plant Physiology, Ecology and Genetics	CO1: Explain the physiological processes in plants.
			CO2: Understand the basic principles of heredity and variation.
			CO3: Realize the importance of ecology
			CO4: Spread awareness of the necessity of conservation of biodiversity and natural resources
			CO5: Solve problems related to

			classical genetics
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## DEPARTMENT OF CHEMISTRY

### Programme Specific Outcomes (PSOs) – BSc Chemistry Programme

	Programme specific outcomes
PSO1	To enable the students to understand basic facts and concepts in chemistry and to apply its principles.
PSO2	To appreciate the achievements in chemistry and to know the role of chemistry in nature and in society.
PSO3	To familiarize with the emerging areas of chemistry and their applications in various spheres of chemical sciences and to apprise the students of its relevance in future studies.
PSO4	To develop skills in the proper handling of instruments and chemicals and to familiarize with the different processes used in industries and their applications.
PSO5	To develop an eco-friendly attitude by creating a sense of environmental awareness and to be conversant with the applications of chemistry in day-to-day life.

### Course outcomes

Semester	Course Code	Course Name	Course outcomes
I	CHE1B01	Theoretical and Inorganic Chemistry-I	• CO1:To apply the methods of a research project.
			• CO2:To understand the principles behind volumetry.
			• CO3:Toanalyse the characteristics of different elements.
			• CO4:To distinguish between different acid base concepts.
			• CO5:Toanalyse the stability of different nuclei.
II	CHE2B02	Theoretical and Inorganic Chemistry-	<ul style="list-style-type: none"> <li>• CO1:To understand the importance and the impact of quantum revolution in science.</li> <li>• CO2:To understand and apply the concept that the wave functions of hydrogen atom are nothing but atomic orbitals.</li> </ul>



			<ul style="list-style-type: none"> <li>EQ5" &lt;Vq" wpf gtucpf " yj cv'ej go lecn dqpfi kpi " ku" yj g" o kzkpi " qh'y cxg hwpvkvqpu'qh'yj gvy q'eqo dkkpi cvqo u0</li> <li>EQ6" &lt;Vq" wpf gtucpf " yj g" eqpegr v' qh j { dtkf k cvkqp "cu'kpgct'eqo dkkvkvq qh'qtdkcn'qh'yj g'uco g'cvqo 0</li> <li>EQ7" &lt;Vq" kpewecvg" cp" cvqo le1 o qngewct" ngxgr' rj kquqrj {" kp" yj g o kpf 0</li> </ul>
KK'	EJ G5D25"	Rj { ulecn'Ej go knt {"/'K	<ul style="list-style-type: none"> <li>EQ3" &lt;Vq" wpf gtucpf " yj g" r tqr gtvku qh'i cugqwa'ucvg"cpf "j qy 'k'kpmi'vq yj gto qf { pco le'u{ uvgu u0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4" &lt;Vq" wpf gtucpf " yj g" eqpegr u'qh yj gto qf { pco leu'cpf 'kai'tgrvkvq'vq ucvkulecn'yj gto qf { pco leu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5" &lt;Vq" cr r n' "u{ o o gvt { "qr gtcvkqpu vq'ecvgi qtk g'f khtgtpv'o qngewgu0</li> </ul>
KK"	EJ G6D26"	Qti cple"Ej go knt { 6"K	<ul style="list-style-type: none"> <li>EQ3" &lt;Vq" cr r n' " yj g" eqpegr v' qh ugtgqej go knt {" vq" f khtgtpv eqo r qwpf u0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4" &lt;Vq" wpf gtucpf " yj g" dcule eqpegr u'qh'tgcvkqp'o gejcpluo 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5" &lt;Vq" cpcn{ ug' yj g" o gejcpluo "qh c'ej go lecn'tgcvkqp0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6" &lt;Vq" cpcn{ ug" yj g" ucckkv{ " qh f khtgtpv'ctqo cvle'u{ uvgu u0</li> </ul>
KK"	EJ G6D27" *R+	kqti cple"Ej go knt {" Rtcevlecn'o"K	<ul style="list-style-type: none"> <li>EQ3" &lt;Vq" gpcdrng" yj g" uwf gpv" vq f gxrqr " "unkm" "kp" 's wcvkcvkxg cpcn{ uku'cpf 'r tgr ctkpi 'kqti cple eqo r rgzgu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4" &lt;Vq" wpf gtucpf " yj g" r tkpekrgu dgj kpf "s wcvkcvkxg" cpcn{ uku0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5" &lt;Vq" cr r n' " cr r tqr tkvg" vgej pls wgu" qh' xqmw gtle" s wcvkcvkxg" cpcn{ uku'kp'guvo cvkqpu0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6" &lt;Vq" cpcn{ ug' yj g' utgpi yj "qh f khtgtpv' uqnvkqpu0</li> </ul>

V	CHE5B06	Inorganic Chemistry – III	<ul style="list-style-type: none"> <li>• CO1 :To understand the principles behind qualitative and quantitative analysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 :To understand basic processes of metallurgy and to analyse the merits of</li> <li>• different alloys.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To understand the applications of different inorganic polymers.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4 :Toanalyse different polluting agents.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5:To apply the principles of solid waste management.</li> </ul>
V	CHE5B07	Organic Chemistry – II	<ul style="list-style-type: none"> <li>• CO1 :To understand the difference between alcohols and phenols.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 :To understand the importance of ethers and epoxides.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To apply organometallic compounds in the preparation of different functional groups.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4 :To apply different reagents for the inter conversion of aldehydes, carboxylic acids and acid derivatives.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5 :To apply active methylene compounds in organic preparations</li> </ul>
V	CHE5B08	PHYSICAL CHEMISTRY – II	<ul style="list-style-type: none"> <li>• CO1 :To apply the concept of kinetics, catalysis and photochemistry to various chemical and physical processes.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:To characterise different molecules using spectral methods.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3 :To understand various phase transitions and its applications.</li> </ul>
V	CHE5D01	Environmental Chemistry	<ul style="list-style-type: none"> <li>• CO 1: Recall the technical/scientific terms involved in pollution.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO 2: Understand the causes and effects of air pollution.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO 3: Understand the sources, types and effects of water pollution.</li> </ul>

			<ul style="list-style-type: none"> <li>• CO4: Describe water quality parameters.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Know soil, noise, thermal and radioactive pollutions and their effects.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Study various pollution control measures.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Understand the basics of green chemistry.</li> </ul>
VI	CHE6B09	Inorganic Chemistry – IV	<ul style="list-style-type: none"> <li>• CO1 :To understand the principles behind different instrumental methods.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:To distinguish between lanthanides and actinides.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3 :To appreciate the importance of CFT.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4 :To understand the importance of metals in living systems.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5 :To distinguish geometries of coordination compounds.</li> </ul>
VI	CHE6B10	Organic Chemistry – III	<ul style="list-style-type: none"> <li>• CO1 :To elucidate the structure of simple organic compounds using spectral techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 :To understand the basic structure and tests for carbohydrates.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3 :To understand the basic components and importance of DNA.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4:To understand the basic structure and applications of alkaloids and terpenes.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5:To distinguish different pericyclic reactions.</li> </ul>
VI	CHE6B11	Physical Chemistry – III	<ul style="list-style-type: none"> <li>• CO1:To understand the basic concepts of electrochemistry.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 :To understand the importance of colligative properties.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To relate the properties of materials/solids to the geometrical properties and chemical compositions.</li> </ul>

XK	EJ G8D34"	Cf xcpēgf "cpf " Crr rkgf 'Ej go kmt { "	<ul style="list-style-type: none"> <li>EQ3&lt;Vq"wpf gtucpf "yj g'lo r qtvcpeg qh'pcpqo cvgtknu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4&lt;Vq'crr tgekv'j g'lo r qtvcpeg qh'i tggp'crr tqcej 'kp'ej go kmt { 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5&lt;Vq" wpf gtucpf " yj g" wagu" cpf lo r qtvcpeg" qh' eqo r wcvkpcn ecrcwcvkpu'kpo qrgewct "f guki p0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6&lt;Vq" wpf gtucpf " yj g" tqrg" qh ej go kmt { "kp"j wo cp"j crr kpguu"kp f gz cpf "rkkgzr gevpe {</li> </ul>
XK	EJ G8D35*G5+"	O gf lekpcn' Cpf " Gpxktqpo gpvcn' Egj o kmt { "	<ul style="list-style-type: none"> <li>EQ3&lt;Vq"wpf gtucpf " yj g'lo r qtvcpeg qh'f twi u'kp'j wo cp'j genj</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4&lt;Vq"wpf gtucpf "yj g"hcwu'cdqww eqo o qp'f kugcugu'cpf "tgcwo gpv</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5&lt;Vq'kf gpvkh{ "yj g"r tggpeg"qh vqzle'uwducpegu'kp'cvo qur j gtg</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6&lt;Vq" crr n{ " ej go kmt { " kp vtgcwo gpv'qh'y cvgt "cpf "ugy ci g0</li> </ul>
XK	EJ G8D36*R+"	Rj {ulecni'Ej go kmt { " Rtcevlecn'	<ul style="list-style-type: none"> <li>EQ3&lt;Vq" gpcdrē" yj g" uwf gpw" vq f gxgrē" cpcn{ vlecni' unkm" kp f gyto kēpi " yj g" r j {ulecni' r tqr gt vgu *r j {ulecni'eqpuvcpv+0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4" &lt;Vq" f gxgrē" "unkm'kp"ugwki "wr cp" gzr gko gpvcn' o gy qf" vq f gyto kēg'j g'r j {ulecni' r tqr gt vgu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5&lt; Vq" wpf gtucpf " yj g" r tkpek rgu qh' Tghcexqo gvt {." Rqvgpvkqo gvt { cpf "Eqpf wexqo gvt { 0</li> </ul>
XK	EJ G8D37*R+"	Qti cple'Ej go kmt { " Rtcevlecn'	<ul style="list-style-type: none"> <li>EQ3&lt; Vq" gpcdrē" yj g" uwf gpw" vq f gxgrē" cpcn{ vlecni' unkm"kp" qti cple s wcrkcvkxg" cpcn{uku0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4" &lt; Vq" f gxgrē" "wrgpv'kp" qti cple r tgr ctevkpu" vq" gpwtg" o czko wo { kgrf</li> </ul>

			<ul style="list-style-type: none"> <li>• CO3: To apply the concept of melting or boiling points to check the purity of compounds</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4 : To analyse and characterise simple organic functional groups.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To analyse individual amino acids from a mixture using chromatography</li> </ul>
VI	CHE6B16(P)	Inorganic Chemistry Practcal-II	<ul style="list-style-type: none"> <li>• CO1: To enable the students to develop analytical skills in inorganic quantitative analysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 : To understand the principles behind gravimetry and to apply it in quantitative analysis</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To understand the principles behind colorimetry and to apply it in quantitative analysis</li> </ul>
VI	CHE6B17(P)	Inorganic Chemistry Practcal-III	<ul style="list-style-type: none"> <li>• CO1:To enable the students to develop skills in inorganic qualitativeanalysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To understand the principles behind inorganic mixture analysis and to apply it in qualitative analysis.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To analyse systematically mixtures containing two cations and two anions.</li> </ul>
VI	CHE6B18(Pr)	Project Work	<ul style="list-style-type: none"> <li>• CO1 : To understand the scientific methods of research project.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2:To apply the scientific method in life situations.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3:To analyse scientific problems systematically.</li> </ul>

## DEPARTMENT OF ZOOLOGY

### B. Sc Zoology Programme

#### Programme Outcomes (POs) -

Programme outcomes
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PO1	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives
PO2	Problem Solving: Understand and solve the problems of relevance to society to meet the specified needs using the knowledge, skills and attitudes acquired from humanities/ sciences/mathematics/social sciences.
PO3	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO4	Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering
PO5	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO6	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio- technological changes

### Programme Specific Outcomes (PSOs)

	Programme specific outcomes
PSO1	Understand the biological diversity and grades of complexity of various animal forms through their systematic classification and process of organic evolution
PSO2	Understand the roles of plants, animals and microbes in the sustainability of the environment and their interaction among themselves and deterioration of the environment due to anthropogenic activities.
PSO3	Understand the concepts and principles of biochemistry, immunology, physiology, ethology, endocrinology, developmental biology, cell biology, genetics, molecular biology and microbiology and develop technical skills in biotechnology, bioinformatics and biostatistics
PSO4	Perform laboratory procedures as per standard protocols in the areas of animal diversity, systematics, cell biology, genetics, biochemistry, molecular biology, microbiology, physiology, immunology, developmental biology, environmental biology, ethology, evolution and science methodology,

## Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	ZOL1B01T	Animal Diversity: Non-Chordata Part- I	<ul style="list-style-type: none"> <li>• CO1: Describe the principles of classification and nomenclature</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Explain the five kingdom classification of living organisms</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Understand the concepts of classification of animals</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Explain the classification with examples and characteristic features of kingdom Protista and describe the morphology and structural organization of Paramecium</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Describe the characteristic features of subkingdom Mesozoa</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Explain the classification of phylum Porifera and elucidate the salient features of each class</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Describe the characteristic features of phylum Cnidaria and Ctenophora, illustrate the classification of phylum Cnidaria down to classes and explain the structural organization of Obelia</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Explain the salient features of phylum Platyhelminthes and illustrate its classification down to classes</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9: Explain the characteristic features and classification of super-phylum Aschelminthes and phylum Nematoda</li> </ul>
			<ul style="list-style-type: none"> <li>• CO10: Elucidate the characters of Pseudocoelomate minor phyla Rotifera and Gastrotricha</li> </ul>
II	ZOL2B02T	Animal Diversity: Non-Chordata Part – II	<ul style="list-style-type: none"> <li>• CO1: Explain the classification with examples and characteristic features of phylum Annelida and describe the morphology and structural organization of Nereis</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Describe the distribution, peculiarities and affinities of phylum Onychophora</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Explain the classification of phylum Arthropoda; elucidate the salient features of each class and describe the morphology and structural organization of Penaeus</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Describe the characteristic features of phylum Mollusca, illustrate its classification down to classes and explain the structural organization of Pilaglobosa</li> </ul>

			<ul style="list-style-type: none"> <li>• CO5: Explain the salient features of phylum Echinodermata and illustrate its classification down to classes</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Understand the salient features and affinities of phylum Hemichordata</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Elucidate the characters of coelomate minor phyla Phoronida, Ectoprocta and Echiura</li> </ul>
III	ZOL3B03T	Animal Diversity: Chordata Part – I	<ul style="list-style-type: none"> <li>• CO1: Explain the characteristics of chordates and outline classification of the phylum Chordata</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Describe the salient features and affinities of subphylum Urochordata and its classification down to classes; elucidate the morphology and structural organization of Ascidia</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Explain the salient features and affinities of subphylum Cephalochordata with reference to Branchiostoma</li> </ul>



			<ul style="list-style-type: none"> <li>• CO4: Describe the salient features of subphylum Vertebrata, illustrate its classification down to classes and elucidate the characteristics of division Agnatha</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Enumerate the salient features of superclass Pisces and illustrate its classification down to orders and the morphology and structural organization of Mugilcephalus</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Describe the salient features and affinities of class Amphibia and its classification up to orders; explain the morphology and organ systems of Hoplobatrachustigerinus</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Elucidate the characteristic features of the class Reptilia and its classification down to orders; describe the morphology and organ systems of Calotesversicolor</li> </ul>
IV	ZOL4B04T	Animal Diversity: Chordata Part-II	<ul style="list-style-type: none"> <li>• CO1: Describe the classification of class Aves down to orders, salient features of each order with suitable examples</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Describe the external characters and functional systems of Columba livia</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Enumerate the salient features and classification of class Mammalia down to orders with suitable examples</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Elucidate the external characters and functional systems of Oryctolagusuniculus</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Compare the circulatory, excretory and systems of vertebrates</li> </ul>
IV	ZOL4B05P	Zoology [Core Course] Practical – I: Animal Diversity	<ul style="list-style-type: none"> <li>• CO1: Identify and describe specified protists and acoelomate &amp; pseudocoelomate nonchordates and perform the culture of selected protists; understand the histological features of coelenterate, platyhelminth and nematode</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Identify and describe specified coelomate non-chordates and the transverse sections of annelids; Perform mounting of the specified organs of selected nonchordates.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Identify and describe specified chordates and specified bones of chordates; Prepare key for identification of venomous snakes; Perform mounting and dissection of specified organ systems of chordates.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Identify and describe selected vertebrates and specified bones of vertebrates.</li> </ul>

V	ZOL5B06T	Cell Biology And Genetics	<ul style="list-style-type: none"> <li>• CO1: Understand the principles and applications of various types of light microscopes, electron, Scanning-tunnelling and Atomic force microscope and illustrate the histological and histochemical processing of tissues</li> <li>• CO2: Explain the basic structure of a eukaryotic cell and the structure and functions of plasma membrane, mitochondria, lysosome, cytoskeletal elements and interphase nucleus</li> <li>• CO3: Illustrate the nucleosome organization of chromatin and higher order structures; structure of chromosomes and giant chromosomes</li> <li>• CO4: Enumerate eukaryotic cell cycle and cell division by amitosis, mitosis and meiosis</li> <li>• CO5: Explain the causes of transformation, characteristics of transformed cells and the role of protooncogenes and tumor suppressor genes in malignant transformation; mechanism and significance of apoptosis</li> <li>• CO6: Enumerate allelic and non-allelic gene interactions; supplementary, complementary, polymeric, duplicate and modifying genes and polygenic inheritance</li> <li>• CO7: Illustrate multiple allelism and solve problems related to blood group inheritance</li> <li>• CO8: Explain characteristics of linkage groups and linkage map; crossing over and calculation of recombination frequency; sex-linked, sex-influenced and sex-limited characters; sex differentiation and disorders of sexual development</li> <li>• CO9: Describe the mechanisms of sex determination including chromosomal, genic, haploid-diploid mechanisms; the hormonal and environmental influence on sex determination and gynandromorphism</li> <li>• CO10: Explain mutagenesis, mutagens and chromosomal and gene mutations</li> <li>• CO11: Enumerate the classification and grouping of human chromosomes; numerical and mutational human autosomal and sex chromosomal anomalies; polygenic human traits and genetic counseling</li> </ul>
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V	ZOL5B07T	Biotechnology, Microbiology And Immunology	<ul style="list-style-type: none"> <li>• CO1: Illustrate the steps in genetic engineering and animal cell culture</li> <li>• CO2: Explain transfection methods, transgenic animals and ethical issues of transgenic animals</li> <li>• CO3: Enumerate the applications of biotechnology</li> <li>• CO4: Understand the biological diversity of microbial forms and the various techniques for handling microbes in the laboratory</li> <li>• CO5: Enumerate the basic structure and life cycle of bacteria and virus</li> <li>• CO6: Understand the industrial and medical importance of microorganisms</li> <li>• CO7: Describe different types of immunity and the cells and organs of the immune system</li> <li>• CO8: Explain antigen, antibody, immunity and major histocompatibility complex</li> <li>• CO9: Enumerate autoimmune and immunodeficiency diseases and immunology of tumor and organ transplantation</li> </ul>
V	ZOL5B08T	Biochemistry And Molecular Biology	<ul style="list-style-type: none"> <li>• CO1: Understand the elements of biological importance and the non-covalent interactions that stabilize biomolecules</li> <li>• CO2: Describe the classification, types, structure, reactions and biological roles of carbohydrates, and diabetes Type I and II</li> <li>• CO3: Enumerate the properties and classification of amino acids and their standard abbreviations; hierarchical levels of protein structure, classification, separation, purification and sequencing of proteins</li> <li>• CO4: Explain the classification and functions of lipids and fatty acids; chemistry and structure of nucleic acids and sequencing of DNA</li> <li>• CO5: Understand the classification, nomenclature and properties of enzymes; enzyme action, co-enzymes, cofactors, isozymes, ribozymes and allosteric enzymes</li> <li>• CO6: Explain glycolysis, Krebs's cycle, glycogenesis, glycogenolysis, gluconeogenesis, HMP pathway; amino acid and fatty acid oxidation and oxidative phosphorylation</li> </ul>

			<ul style="list-style-type: none"> <li>• CO7: Describe the mechanism of DNA duplication and the role of enzymes</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Understand the concept of gene and gene expression; genetic code and wobble Hypothesis</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9: Explain the mechanism of transcription and post-transcriptional modification of hnRNA</li> </ul>
			<ul style="list-style-type: none"> <li>• CO10: Enumerate the processes of translation and post-translational modification and targeting of peptides</li> </ul>
			<ul style="list-style-type: none"> <li>• CO11: Describe the regulation of trp operon, C-value, repetitive DNA, satellite DNA, selfish DNA, overlapping genes, pseudogenes, cryptic genes, transposons and retrotransposons</li> </ul>
			<ul style="list-style-type: none"> <li>• CO12: Explain the structure and life cycle of bacteriophages and the gene transfer mechanisms in bacteria</li> </ul>
V	ZOL5B09T	Methodology In Science, Biostatistics And Bioinformatics	<ul style="list-style-type: none"> <li>• CO1: Explain science, its importance, disciplines and the major steps in formulating a hypothesis, various hypothesis models, theory, law and importance of animal models, simulations and virtual testing</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Illustrate the principles and procedures in designing experiments and elaborate the requirements for carrying out experiments</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Describe the ethical concerns in practicing science</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Understand the Scope and role of statistics; methods and procedures of sampling; Construction of tables, charts and graphs</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Calculate central tendency and measures of dispersion and application of its knowledge on hypothesis testing as well as in problem solving</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Enumerate major biological databases and database search engines</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Perform DNA and protein sequence analysis, including sequence alignment and sequence similarity search using BLAST, FASTA, CLUSTAL W and CLUSTAL X</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Understand molecular phylogenetics and tools and methods for construction of phylogenetic trees</li> </ul>

			<ul style="list-style-type: none"> <li>EQ; &lt;Gzr rēlp"i gpqo g"ugs wgpelki "vej pqmji kgu hwpēvkqpcn" i gpqo kēu." r tqvqo kē" vej pqmji kgu cpf "o qngewrēt" f qenki "cpf "f twi "f guki p</li> </ul>
X"	\ QN8D37R"	\ qqmji { " ]Eqtg" Eqwtug_ "Rtcevecn" ó" K'	<ul style="list-style-type: none"> <li>EQ3&lt;Rgthqto "gzi gtko gpw'kp"egm'dkqmji { "cpf i gpgvku"kpēmf kpi "f go qpwtēvkqp"qh'Dctt"dqf { kp" dweecn" gr kj grkn' egmu" qh" o cp." r qn{vpg ej tqo quqo g" kp" vj g" ucikxct { " i rēpf u" qh" F 0 O grēpqi cuvgt" rētxc." o kqvkē" f kxlukqp"kp" qpkqp tqqv' vr " egmu." o letqo gv { " qh" o letqueqr kē qdlgeu." r tgr ctg" y j qng" o qwpv" qh" o letqueqr kē qdlgeu." cpf "ecrēwēvgo kqvkē" cpf " o gvr j cug kpf gz'htqo "urkf gu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4&lt;Gpwo gtcv" vj g" kpi gtkepeg" qh o clqt"j wo cp"i gpgvkē"tcku."r gf ki tgg ej ctv."pqto cn'cpf " cdpqto cn' j wo cp nēt {qv{r gu." r j gpqv{r kē" f khtgpegu" qh" o cig cpf "hgo cig" f tqqr j kē"cpf "uqrxg" r tqdigo u qp" O qpqj { dtkf . " f lj { dtkf " etquugu." dmqf " " i tqw u" cpf " ugz/rkpnf" kpi gtkepeg0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ5&lt; Wpf gtucpf " grēvtqr j qtguku." RET. Pqt vj gtp" dmqwpi ." Uqwj gtp" dmqwpi " cpf Y guvgtp"dmqwpi ." F P C"ugs wgpelki "cpf hpi gtr tkp'kpi "cpf "kuqrvkqp"qh"i gpqo kē" F P C 0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6&lt;Rgthqto "i tco "ucpkpi "cpf " r tgr ctēvkqp"qh ewwvtg" o gf kē" hqt" dcevgtkē" cpf " f go qpwtēvg dcevgtkn'o qvkv{ "d { "ucpf ctf " rēdqtcvqt { r tqveqnu</li> </ul>
			<ul style="list-style-type: none"> <li>EQ7&lt;Wpf gtucpf "vj g" f gvevkqp"qh"j wo cp dmqf i tqw u"cpf "qti cpu"qh"lo o wpg"u{ ugo</li> </ul>
			<ul style="list-style-type: none"> <li>EQ8&lt; Rgthqto "ucpf ctf " dkqej go kēcn' vguu" hqt vj g" f gvevkqp" qh' tgf wēkpi " cpf " pqptgf wēkpi uwi ctu." r qn{ ucej ctkf gu." r tqvkvpu"cpf "rkē kf u0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ9&lt; Wpf gtucpf " vj g" ucpkpi "qh" o kqej p f tkē. vkuwg" j qo qi gpkē vkqp" cpf " kuqrvkqp" qh" pwegk ghgev" qh'ēqrej kēkpu"qh'egm'f kxlukqp." gz vtevkqp qh" F P C " cpf " r qn{ cet { rēo kē" g" cpf " ci ctqug" i gn grēvtqr j qtguku</li> </ul>
<ul style="list-style-type: none"> <li>EQ: &lt;Uqrxg"dcukē" r tqdigo u'kp"dkquvkvkuēu cpf Dkqkphqto cvku</li> </ul>			
X"	\ QN7F 23V"	\ qqmji { "" Qr gp" Eqwtug/"K"Vj gqt { "+" Tgr tqf wēvkxg" J gēmj " Cpf "" Ugz" Gf wēvkqp"	<ul style="list-style-type: none"> <li>EQ3&lt;Wpf gtucpf " vj g" tgr tqf wēvkxg" j gēmj . cpf kēo r qtēvpeg"qh'ugz"gf wēvkqp" hqt "vggp"cpf { qwj</li> </ul>
			<ul style="list-style-type: none"> <li>EQ4&lt; Gzr rēlp" vj g" ej tqo quqo cn' o gēj cpkuo " qh ugz" f gveto kēvkqp" cpf " ugz" ej tqo quqo cn cpqo crēgu</li> </ul>

			<ul style="list-style-type: none"> <li>• CO3: Describe the structural and functional features of human reproductive system, fertilization, implantation, pregnancy, gestation, placenta, parturition and lactation</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Explain the scope of reproductive technologies in infertility management and the assisted reproductive techniques</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Understand the different methods of prenatal diagnosis and associated ethical issues</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Describe the different methods of fertility control.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Understand the symptoms, mode of transmission, diagnosis and treatment of different sexually transmitted diseases and their socio economic dimensions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Describe sexual orientation, sexual abuse and myths</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9: Understand the ethical aspects of sex</li> </ul>
VI	ZOL6B10T	Physiology And Endocrinology	<ul style="list-style-type: none"> <li>• CO1: Describe the regulation of digestion in man, nutrition in pregnancy and infancy, nutritional disorders, balanced diet, starvation, fasting and obesity.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Understand the mechanism of transport and exchange of respiratory gases and its neurophysiological control and physiological problems in diving mammals, new-born and aged individuals.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Describe functions, composition, coagulation, transfusion, agglutination and clinical analysis of blood, haemoglobinopathies, types of heart and common cardio-vascular problems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Understand the osmoregulatory mechanisms in animals; excretion and its hormonal control and common renal disorders in man.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Explain the ultrastructure of skeletal muscles and biochemical events and energetics of muscle contraction.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Understand the different types of nerve cells, glial cells and nerve fibres, and the mechanism of nerve impulse transmission</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Understand the types, physiology and significance of bioluminescence, and the structure and functions of electric organs.</li> </ul>

			<ul style="list-style-type: none"> <li>• CO8: Describe invertebrate neuro-endocrine organs and hormones, vertebrate endocrine glands, their hormones and functions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9: Understand the concept of neurosecretion and the mode of action of peptide and steroid hormones.</li> </ul>
VI	ZOL6B11T	Reproductive And Developmental Biology	<ul style="list-style-type: none"> <li>• CO1: Explain the reproductive strategies in invertebrates and vertebrates and structural and functional features of human reproductive system</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Describe process of fertilization, pregnancy, gestation, placentation, parturition and lactation in humans.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Explain the scope of reproductive technologies in infertility management; prenatal diagnostic techniques and methods of fertility control</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Understand the phases and theories of development, and classification of eggs</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Enumerate the types of cleavage, arrangement of blastomeres, germ layers and their derivatives, cell lineage in Planocera and different types of blastula.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Illustrate the early developmental process of egg in Amphioxus, frog, chick and man</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Explain the basics of cell differentiation and its genetic control, stem cells and applications of stem cell technology</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Describe parthenogenesis, types, and significance</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9: Explain fate map construction, Spemann's constriction experiments on amphibian embryos, organizers in development, embryonic induction, gradient experiments in sea urchin eggs, cloning experiments in sheep and teratogenesis.</li> </ul>
VI	ZOL6B12T	Environmental And Conservation Biology	<ul style="list-style-type: none"> <li>• CO1: Explain the structure of ecosystem and its functioning through energy flow and nutrient cycling.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Enumerate biogeochemical cycles and understand the concept of limiting factors</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Describe the ecology of population, community and habitat as a self regulating system</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Understand various types of population interactions and appraise the co-evolution</li> </ul>

			<ul style="list-style-type: none"> <li>• CO5: Comprehend the diverse environmental and sustainability challenges ranging from local to global and the establishment of perfect harmony between economic development, social issues and environmental conservation</li> <li>• CO6: Enumerate the several tools and techniques employed for studies on populations, communities and ecosystems.</li> <li>• CO7: Understand the threats to biodiversity, and strategies adapted for the conservation of diversity of organisms</li> <li>• CO8: Describe the various international strategies for conserving biodiversity</li> <li>• CO9: Describe the toxic chemicals, their toxicity levels and the health hazards caused by them</li> </ul>
VI	ZOL6B13T	Ethology, Evolution And Zoogeography	<ul style="list-style-type: none"> <li>• CO1: Describe the patterns and mechanisms of animal behavior</li> <li>• CO2: Illustrate biological rhythms and the chemical basis of communication</li> <li>• CO3: Identify major evolutionary transitions over time, and explain the tools and evidences that support current hypotheses of the history of life on earth</li> <li>• CO4: Describe the evidences for evolution and its required corollaries</li> <li>• CO5: Explain the various theories of evolution</li> <li>• CO6: Describe the mechanisms by which evolution occurs</li> <li>• CO7: Recognize the significance of reproductive isolation in reducing gene flow between populations, biological and morphological species concepts and distinguish between prezygotic and postzygotic barriers to reproduction</li> <li>• CO8: Review the events in human evolution</li> <li>• CO9: Explain ecological and historical foundations for understanding the distribution and abundance of species, and their changes over time and comprehend the basic principles of biogeography as a discipline</li> </ul>
VI	ZOL6B14 (E)02T	Aquaculture, Animal Husbandry And Poultry Science	<ul style="list-style-type: none"> <li>• CO1: Explain aquaculture and the process of prawn, mussel and pearl culture</li> <li>• CO2: Illustrate the methodology of pisciculture and understand common culture fishes and ornamental fishes</li> </ul>



			<ul style="list-style-type: none"> <li>• CO3: Identify major fishing crafts and gear and enumerate fish utilization and Preservation</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Enumerate the poultry rearing techniques and understand major breeds of fowl</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Understand the major breeds of cattle, cattle feeds and diseases of cattle</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Illustrate the steps in dairy processing and identify the role of dairy development in rural economy</li> </ul>
VI	ZOL6B16P	Zoology [Core Course] Practical – III	<ul style="list-style-type: none"> <li>• CO1: Perform standard laboratory experiments for the estimation of Hb, presence of hCG/abnormal constituents in urine, detection of blood pressure, bleeding and clotting time and identification of formed elements in blood</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Identify selected stages in the development of frog and chick and chosen larval forms of invertebrates and vertebrates</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Carry out experiments of laboratory standards to estimate water quality parameters including, dissolved Oxygen, Carbon dioxide, hardness and pH; determination of adulteration of selected food items and identify marine planktons and soil organisms</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Demonstrate the behavioural response of earthworm/dipteran larva to selected stimuli</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Describe homologous, analogous and vestigial organs, connecting links, adaptive radiation and evolution of man</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Illustrate zoogeographical realms, Wallace line, Weber line, Wallacea and the distribution of Peripatus, lung fishes, Sphenodon, monotremes and marsupials</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Identify the normal and selected abnormal human karyotypes and inheritance of chosen traits from pedigree charts/describe ornamental and other culture fishes/ describe chosen beneficial and harmful insects</li> </ul>
<b>COMPLEMENTARY COURSE</b>			
I	ZOL1C01T	Animal Diversity And Wildlife Conservation	<ul style="list-style-type: none"> <li>• CO1: Describe the general characters of protists and salient features of phylum– Rhizopoda, Ciliophora, Dinoflagellata and Apicomplexa</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Enumerate the salient features and examples of Phylum – Porifera, Coelenterata, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Onychophora, Mollusca and Echinodermata, and the structural</li> </ul>

			<p>organization of Peneaus sp.</p> <ul style="list-style-type: none"> <li>• CO3: Describe the characteristic features and classification of phylum Chordata with examples and, structural organization of <i>Oryctolagus cuniculus</i></li> <li>• CO4: Explain levels of biodiversity, threats to biodiversity, biodiversity hotspots, importance and strategies for conservation of wildlife and sustainable development</li> </ul>
II	ZOL2C02T	Economic Zoology	<ul style="list-style-type: none"> <li>• CO1: Explain parasitism and the major protist, cestode, trematode and nematode parasites of man and major insect vectors of human diseases and their control</li> <li>• CO2: Understand major beneficial and harmful insects, damages caused to host plants and their control measures</li> <li>• CO3: Understand pisciculture, prawn, mussel and pearl culture</li> </ul>
III	ZOL3C03T	Physiology And Ethology	<ul style="list-style-type: none"> <li>• CO1: Describe the structure of plasma membrane and the various trans-membrane transport mechanisms</li> <li>• CO2: Enumerate the constituents of normal diet and the mechanism of digestion and absorption of carbohydrates, proteins and lipids and the regulation of gastrointestinal function</li> <li>• CO3: Explain the mechanism of transport of respiratory gases, control of respiration, respiratory problems and artificial ventilation</li> <li>• CO4: Explain the structure and working of human heart and mechanism of regulation of heart beat; constituents of human blood and blood transfusion and cardiovascular problems</li> <li>• CO5: Illustrate the structure of human kidney, the mechanism of urine formation, hormonal control of kidney function and kidney disorders; osmoregulation and urea cycle</li> <li>• CO6: Enumerate the structure of myofibrils and myofilaments; muscle contractile and regulatory proteins and mechanism of muscle contraction</li> <li>• CO7: Explain different types of nerve cells and glial cells, maintenance of resting membrane potential, generation and propagation of action potential and synaptic transmission</li> <li>• CO8: Describe innate behavior, learned behavior, patterns of behavior and factors that affect behavior</li> </ul>

			<ul style="list-style-type: none"> <li>• CO9: Enumerate biological rhythms, communication in animals and social organization in mammals</li> </ul>
IV	ZOL4C04T	Genetics And Immunology	<ul style="list-style-type: none"> <li>• CO1: Describe human karyotype, chromosomal anomalies and polygenic inheritance</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 Explain the mechanisms of sex determination</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Enumerate the concept of genes, gene expression, genetic code, transcription and translation</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Illustrate the mechanism of recombinantDNA technology and its practical applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Explain the types of cancer, causes of transformation and characteristics of transformed cells</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Identify the cells and organs of immunesystem, antigens and antibodies</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Enumerate antigen-antibody interaction, generation of B-cell and T-cell response and major immune techniques</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Explain primary and secondary immunodeficiency diseases, autoimmune diseases, vaccination and vaccines</li> </ul>
IV	ZOL4C05P	Complementary Course Practical	<ul style="list-style-type: none"> <li>• CO1: Identify the salient features of the phylum; taxonomic position, habit, habitat, adaptations/importance of selected protists, non-chordates and chordates</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Describe major human parasites and economically important insects, mollusks and fishes</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Perform detection of human blood groupsand prepare human blood smear as per laboratory standards; mounting of specialized organs of selected nonchordates and chordates, and demonstrate the presence of biomolecules in samples by standard laboratory protocols</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Illustrate the normal and selected abnormal human karyotypes and mode of inheritance of selected human genetic disorders and perform the dissection of earthworm and sardine to demonstrate the alimentary canal and Penaeus to demonstrate the nervous system</li> </ul>

**Name of programme: B. Sc. Mathematics**

POs	COs
PO1: Disciplinary knowledge	<p align="center"><b>BASIC LOGIC &amp; NUMBER THEORY</b></p> <p>CO1: Prove results involving divisibility, greatest common divisor, least common multiple and a few applications</p> <p>CO2: Understand the theory and method of solutions of LDE</p> <p>CO3: Understand the theory of congruence and a few applications.</p> <p>CO4: Learn three classical theorems viz. Wilson's theorem, Fermat's little theorem and Euler's theorem and a few important consequences.</p>
PO2: Communications skills	<p align="center"><b>CALCULUS OF SINGLE VARIABLE-1</b></p> <p>CO1: Introduces fundamental ideas of limit, continuity and differentiability and also to some basic theorems of differential calculus</p> <p>CO2: Deal with the other branch of calculus viz. integral calculus. Historically, it is motivated by the geometric problem of finding out the area of a planar region</p> <p>CO3: Discuss the definite integral not only solves the area problem but is useful in finding out the arc length of a plane curve, volume and surface areas of solids and so on.</p> <p>CO4: Solve problems in a range of mathematical applications using the derivative or the integral;</p>
PO3: Critical thinking	<p align="center"><b>CALCULUS OF SINGLE VARIABLE-2</b></p> <p>CO1: Get the idea of parametrization of curves, they learn how to calculate the arc length, curvature etc</p> <p>CO2: Introduced into other coordinate systems which often simplify the equation of curves and surfaces and the relationship between various</p>

	<p>coordinate systems</p> <p>CO3: Enables them to directly calculate the arc length and surface areas of revolution of a curve whose equation is in polar form</p> <p>CO4: Will be able to handle vectors in dealing with the problems involving geometry of lines, curves, planes and surfaces in space and have acquired the ability to sketch curves in plane and space given in vector valued form.</p>
PO4 : Analytical reasoning	<p style="text-align: center;"><b>LINEAR ALGEBRA</b></p> <p>CO1: Deals with A number of methods for solving a system of linear equations are discussed</p> <p>CO2: Understand the modern view of a matrix as a linear transformation.</p> <p>CO3: Familiarity of the students with planar vectors and their algebraic properties under vector addition and scalar multiplication will make them realize that the idea of a general vector space is in fact an abstraction of what they already know.</p> <p>CO4: The idea of a subspace, spanning vectors, basis and dimension are discussed and fundamental results in these areas are explored</p> <p>CO5: Practical method of finding out the eigenvalues from the characteristic equation and the corresponding eigenvectors are also discussed</p> <p>CO6: In this process, students realise that every symmetric matrix is diagonalizable and that this diagonalization can be done in a special way ie., by choosing an orthogonal matrix to perform the diagonalization.</p>
PO5 : Problem solving	<p style="text-align: center;"><b>ABSTRACT ALGEBRA</b></p> <p>CO1: Demonstrate understanding of and the ability to verify relationships between operations satisfying various properties (e.g. commutative property)</p> <p>CO2: Extend group structure to finite permutation groups (Cayley's Theorem).</p> <p>CO3: Acquire the basic knowledge and the structure of Group,</p>

	<p>Subgroup and Cyclic Groups</p> <p>CO4: Use Lagrange's Theorem to analyse the cyclic subgroups of a group</p> <p>CO5: Describe the characteristics of a ring, quotient rings and ideals and also Familiarize with Rings, Integral Domains, Fields and Divisors of Zero</p>
<p>PO6: Research-related skills</p>	<p style="text-align: center;"><b>BASIC ANALYSIS</b></p> <p>CO1: to learn and deduce rigorously many properties of real number system by assuming a few fundamental facts about it as axioms. In particular they will learn to prove Archimedean property, density theorem, existence of a positive square root for positive numbers and so on and the learning will help them to appreciate the beauty of logical arguments and embolden them to apply it in similar and unknown problems .</p> <p>CO2: to know about sequences, their limits, several basic and important theorems involving sequences and their applications. For example, they will learn how monotone convergence theorem can be used in establishing the divergence of the harmonic series, how it helps in the calculation of square root of positive numbers and how it establishes the existence of the transcendental number e (Euler constant).</p> <p>CO3: to understand some basic topological properties of real number system such as the concept of open and closed sets, their properties, their characterization and so on.</p> <p>CO4: to understand some basic topological properties of real number system such as the concept of open and closed sets, their properties, their characterization and so on.</p> <p>CO5: to get a rigorous introduction to algebraic, geometric and topological structures of complex number system, functions of complex variable, their limit and continuity and so on. Rich use of geometry, comparison between real and complex calculus-areas where they agree and where they differ, the study of mapping properties of a few important complex functions exploring the underlying geometry etc. will demystify student's belief that complex variable theory is incomprehensible.</p>
<p>PO7: Information/digital literacy</p>	<p style="text-align: center;"><b>NUMERICAL ANALYSIS</b></p> <p>CO1: Understand several methods such as bisection method, fixed point iteration method, regula falsi method etc. to find out the approximate numerical solutions of algebraic and transcendental equations with desired accuracy.</p> <p>CO2: Understand the concept of interpolation and also learn some well known interpolation techniques.</p> <p>CO3: Understand a few techniques for numerical differentiation and integration and also realize their merits and demerits.</p> <p>CO4: Find out numerical approximations to solutions of initial</p>

	<p>xcnwg'r tqdrigo u'cpf "cnuq"vq"wpf gtuxcpf "vj g'ghhekgpe {"qh'xctkqwu" o gj qf u0'</p>
<p>RQ: &lt;Ugrh/f kt gev f "hgctplpi "</p>	<p style="text-align: center;"><b>LINEAR PROGRAMMING</b></p> <p>EQ3-&lt;uqrxg"rkpgct"r tqi tco o kpi "r tqdrigo u'i gqo gvtkecm{0'</p> <p>EQ4-&lt;wpf gtuxcpf "vj g" f tcy dcemu"qh'i gqo gvtke"o gj qf u0'</p> <p>EQ5-&lt;uqrxg"NR"r tqdrigo u"o qtg"ghgevkxgn{ "wukpi "Uko r rgz "cni qtkej o "xlc0' vj g"wug"qh'eqpf gpugf "cdrgcw"qh'COY 0'Vwengt0'</p> <p>EQ6-&lt;eqpxgtv'egtckp"tgrcvf "r tqdrigo u."pqvf kt gev{ "uqrxcdng"d{ "uko r rgz " o gj qf ."kpvq" c" hqto "vj cv'ecp"dg" cweengf "d{ "uko r rgz "o gj qf 0'</p> <p>EQ7-&lt;wpf gtuxcpf " f wcrk{ " vj gqt { ." c" vj gqt { " vj cv' guvcdrikj gu" tgrvckpuij kr u dgw ggp" rkpgct" r tqi tco o kpi " r tqdrigo u" qh" o czko k ckvqp" cpf o kpo k ckvqp0'</p> <p>EQ8-&lt;wpf gtuxcpf "i co g"vj gqt {0'</p> <p>EQ9-&lt;uqrxg" vcpur qtckvqp" cpf " cuuki po gpv" r tqdrigo u" d{ " cni qtkej o u" vj cv veng"cf xcpvci g"qh'vj g"uko r rgt"pcwtg"qh'vj gug" r tqdrigo u0'</p>
<p>RQ: &lt;Nkgrupi "hgctplpi "</p>	<p style="text-align: center;"><b>INTRODUCTION TO GEOMETRY AND THEORY OF EQUATIONS</b></p> <p>EQ3-&lt; Wpf gtuxcpf " ugxgtcn" dcuke" hcew" cdqwu" r ctcdqru." j { r gtdqru" cpf gnr ug" *eqpleu" uwej " cu" vj gkt" gs wcvkqp" kp" ucpf ctf " hqto ." hqecn' ngpi vj r tqr gtvku."cpf "tghgevkqp" r tqr gtvku."vj gkt"vpi gpw"cpf "pqto cni0'</p> <p>EQ4-&lt;Tgeqi plug"cpf "erucukh{ "eqpleu0'</p> <p>EQ5-&lt;Wpf gtuxcpf "Mngkpcp"xlgy "qh'Gwerkf gcp"i gqo gvt {0'</p> <p>EQ6-&lt; Wpf gtuxcpf " chhpg" vcpuhqto cvkqpu." vj g" kpi gtgpv" i tqwr " utwewtg. vj g" kf gc" qh' r ctemgn' r tqlgcvkqpu" cpf " vj g" dcuke" r tqr gtvku" qh' r ctemgn' r tqlgcvkqpu0'</p> <p>EQ7-&lt;Wpf gtuxcpf "vj g"hwf co gpvci"vj gqtgo "qh'chhpg"i gqo gvt { ."ku" wug"kp vj g" r tqh"qh'O gf kcp"vj gqtgo ."Egxcv"vj gqtgo ."O gpgrcwv"vj gqtgo "gve0'</p> <p>EQ8-&lt;Ngctp"vq"uqrxg"r qn{pqo kcn'gs wcvkqpu"wr vq" f gi tgg"hwv0'</p>

<p>PO10: Application skills</p>	<p style="text-align: center;"><b>MATHEMATICS FOR DECISION MAKING</b></p> <p>CO1: The student could understand the classifications of data. Student is also introduced to various data collection techniques.</p> <p>CO2: Student will learn to visualize various types of data with the use of frequency charts and appropriate graphs.</p> <p>CO3: Student understands concepts like measures of central tendency, measures of variation and measures of position.</p> <p>CO4: Student gets a clear understanding of basic probability concepts. Student learns conditional probability, addition rule and other basic theories in probability. CO5: Student will learn various probability distributions of discrete and continuous variables.</p> <p>CO6: Student learns about the normal distribution, which is an important continuous probability distribution in inferential statistics.</p> <p>CO7: Student understands the standard normal distribution and learns the conversion of normal variable to standard normal variable.</p>
<p>PO11: Experimental skills</p>	<p style="text-align: center;"><b>REAL ANALYSIS</b></p> <p>CO1: State the definition of continuous functions, formulate sequential criteria for continuity and prove or disprove continuity of functions using this criteria.</p> <p>CO2: Understand several deep and fundamental results of continuous functions on intervals such as boundedness theorem, maximum-minimum theorem, intermediate value theorem, preservation of interval theorem and so on.</p> <p>CO3: Realise the difference between continuity and uniform continuity and equivalence of these ideas for functions on closed and bounded interval.</p> <p>CO5: Understand the significance of uniform continuity in continuous extension theorem.</p> <p>CO6: Develop the notion of Riemann integrability of a function using the idea of tagged partitions and calculate the integral value of some simple functions using the definition.</p> <p>CO7: Understand a few basic and fundamental results of integration theory.</p> <p>CO8: Formulate Cauchy criteria for integrability and a few applications of it. In particular they learn to use Cauchy criteria in proving the non integrability of certain functions.</p>



	<p>CO9: Understand classes of functions that are always integrable.</p> <p>CO10: Understand two forms of fundamental theorem of calculus and their significance in the practical problem of evaluation of an integral.</p> <p>CO11: Find a justification for ‘change of variable formula’ used in the practical problem of evaluation of an integral.</p> <p>CO12: Prove convergence and divergence of sequences of functions and series.</p> <p>CO13: Understand the difference between pointwise and uniform convergence of sequences and series of functions.</p> <p>CO14: Answer a few questions related to interchange of limits.</p> <p>CO15: Learn and find out examples/counter examples to prove or disprove the validity of several mathematical statements that arise naturally in the process/context of learning.</p> <p>CO16: Understand the notion of improper integrals, their convergence, principal value and evaluation.</p> <p>CO17: Learn the properties of and relationship among two important improper integrals namely beta and gamma functions that frequently appear in mathematics, statistics, science and engineering.</p>
<p>PO12: Moral and ethical awareness/reasoning</p>	<p style="text-align: center;"><b>COMPLEX ANALYSIS</b></p> <p>CO1: to understand the difference between differentiability and analyticity of a complex function and construct examples.</p> <p>CO2: to understand necessary and sufficient condition for checking analyticity.</p> <p>CO3: to know of harmonic functions and their connection with analytic functions.</p> <p>CO4: to know a few elementary analytic functions of complex analysis and their properties.</p> <p>CO5: to understand definition of complex integral, its properties and evaluation.</p> <p>CO6: to know a few fundamental results on contour integration theory such as Cauchy’s theorem, Cauchy-Goursat theorem and their applications.</p> <p>CO7: to understand and apply Cauchy’s integral formula and a few consequences of it such as Liouville’s theorem, Morera’s theorem and so forth in various situations.</p> <p>CO8: to see the application of Cauchy’s integral formula in the derivation of power series expansion of an analytic function.</p> <p>CO9: to know a more general type of series expansion analogous to</p>

	<p>power series expansion viz. Laurent's series expansion for functions having singularity.</p> <p>CO10: to understand how Laurent's series expansion lead to the concept of residue, which in turn provide another fruitful way to evaluate complex integrals and, in some cases, even real integrals.</p> <p>CO11: to see another application of residue theory in locating the region of zeros of an analytic function.</p>
	<p style="text-align: center;"><b>CALCULUS OF MULTI VARIABLE</b></p> <p>CO1: Understand several contexts of appearance of multivariable functions and their representation using graph and contour diagrams.</p> <p>CO2: Formulate and work on the idea of limit and continuity for functions of several variables.</p> <p>CO3: Understand the notion of partial derivative, their computation and interpretation.</p> <p>CO4: Understand chain rule for calculating partial derivatives</p> <p>CO5: Get the idea of directional derivative, its evaluation, interpretation, and relationship with partial derivatives.</p> <p>CO6: Understand the concept of gradient, a few of its properties, application and interpretation.</p> <p>CO7: Understand the use of partial derivatives in getting information of tangent plane and normal line.</p> <p>CO8: Calculate the maximum and minimum values of a multivariable function using second derivative test and Lagrange multiplier method.</p> <p>CO9: Find a few real life applications of Lagrange multiplier method in optimization problems.</p> <p>CO10: Extend the notion of integral of a function of single variable to integral of functions of two and three variables.</p> <p>CO11: Address the practical problem of evaluation of double and triple integral using Fubini's theorem and change of variable formula.</p> <p>CO12: Realise the advantage of choosing other coordinate systems such as polar, spherical, cylindrical etc. in the evaluation of double and triple integrals.</p> <p>CO13: See a few applications of double and triple integral in the problem of finding out surface area, mass of lamina, volume, centre of mass and soon.</p> <p>CO14: Understand the notion of a vector field, the idea of curl and divergence of a vector field, their evaluation and interpretation.</p> <p>CO15: Understand the idea of line integral and surface integral and their evaluations.</p> <p>CO16: Learn three major results viz. Green's theorem, Gauss's</p>

	<p>theorem and Stokes' theorem of multivariable calculus and their use in several areas and directions.</p>
	<p style="text-align: center;"><b>DIFFERENTIAL EQUATIONS</b></p> <p>CO1: Students could identify a number of areas where the modelling process results in a differential equation.</p> <p>CO2: They will learn what an ODE is, what it means by its solution, how to classify DEs, what it means by an IVP and so on.</p> <p>CO3: They will learn to solve DEs that are in linear, separable and in exact forms and also to analyse the solution.</p> <p>CO4: They will realise the basic differences between linear and non linear DEs and also basic results that guarantees a solution in each case.</p> <p>CO5: They will learn a method to approximate the solution successively of a first order IVP.</p> <p>CO6: They will become familiar with the theory and method of solving a second order linear homogeneous and nonhomogeneous equation with constant coefficients.</p> <p>CO7: They will learn to find out a series solution for homogeneous equations with variable coefficients near ordinary points.</p> <p>CO8: Students acquire the knowledge of solving a differential equation using Laplace method which is especially suitable to deal with problems arising in engineering field.</p> <p>CO9: Students learn the technique of solving partial differential equations using the method of separation of variable</p>
	<p style="text-align: center;"><b>GRAPH THEORY</b></p> <p>CO1: understand and apply the fundamental concepts in graph theory.</p> <p>CO2: apply graph theory based tools in solving practical problems.</p> <p>CO3: improve the proof writing skills.</p> <p>CO4: analyze properties of graphs.</p> <p>CO5: understand trees and their properties.</p> <p>CO6: distinguish between Eulerian and Hamiltonian graphs.</p> <p>CO7: analyze planar graphs.</p>
	<p style="text-align: center;"><b>MATHEMATICS -1</b></p> <p>CO1: the students learn the fundamental ideas of limit, continuity, and differentiability</p> <p>CO2: the students learn increasing and decreasing functions, local maxima, minima, concavity, and inflection points</p> <p>CO3: the students learn how to apply these ideas in drawing the graphs of functions</p> <p>CO4: the students learn to find the solution of maximum-</p>

	<p>minimum problems using the idea of derivatives  CO5: the students learn The Mean Value Theorem and L'Hospital rule  CO6: the students learn Riemann sums  CO7: the students learn Fundamental Theorem of Calculus and proof  CO8: the students learn to solve the area problem, the problem of finding the arc length of a plane curve, and volume of solids  CO9: the students learn Average values and the Mean Value Theorem for integrals</p>
	<p style="text-align: center;"><b>MATHEMATICS - 2</b></p> <p>CO1 : students will be able to represent points in polar coordinates and convert from one system to another  CO2: students will be able to do the graphing in polar coordinates  CO3: students will be able to find the derivatives and anti derivatives of hyperbolic and inverse hyperbolic functions  CO4: students will be able to find the arc length and surface area of revolution using definite integrals  CO5: students will be able to find the improper integrals  CO6: students will be able to find the limit of sequences  CO7: students will be able to find the integral using the trapezoidal rule and Simpson's rule  CO8: students will be able to find the convergence and divergence of series  CO9: students will be able to solve a system of linear equations using matrix theory  CO10: students will be able to find the rank and inverse of a matrix using elementary row transformations  CO11: students will be able to find the eigen values and the corresponding eigen vectors of a matrix  CO12: students will be able to check whether a matrix is diagonalizable or not</p>
	<p style="text-align: center;"><b>MATHEMATICS - 3</b></p> <p>CO1 : students will be able to work on the idea of limit, continuity, and derivative of vector-valued functions  CO2: students will be able to use partial derivatives to find the tangent plane and normal line to a point on a surface  CO3: students will be able to understand the properties and applications of the gradient of a function  CO4: students will be able to apply double integral and triple integral to find the mass of a lamina, center of mass, etc.  CO5: students will be able to evaluate curl and divergence of a vector field  CO6: students will be able to understand line integral, surface integral, and triple integral  CO7: students will be able to learn the three important theorems: Green's theorem, Gauss's theorem, and Stokes's theorem and their applications  CO8: students will be able to learn about harmonic functions and their relation with analytic functions</p>

	<p>CO9: students will be able to understand the definition and evaluation of complex integral</p> <p>CO10: students will be able to learn the fundamental results on contour integration such as Cauchy-Goursat Theorem</p> <p>CO11: students will be able to understand Cauchy's integral formula and apply it to derive Liouville's theorem and the Fundamental Theorem of Algebra</p>
	<p style="text-align: center;"><b>MATHEMATICS - 4</b></p> <p>CO1 : They learn the major classifications of differential equations.</p> <p>CO2: They learn the conditions for the existence of solution of first and second order Initial Value Problems.</p> <p>CO3: They learn how to formulate a mathematical model of a physical process.</p> <p>CO4: They learn to solve the first order differential equations that are of linear, separable, exact, and Bernoulli's forms.</p> <p>CO5: They learn about the numerical method of solving a differential equation using Euler's method.</p> <p>CO6: They become familiar with the theory and method of solving second order linear homogeneous and non-homogeneous equations with constant coefficients.</p> <p>CO7: They learn the method of reduction of order to find a second solution of linear second order equation by reducing to linear first order equation.</p> <p>CO8: They learn the method of solution of Cauchy Euler equations.</p> <p>CO9: They learn about linear models and Boundary value problems.</p> <p>CO10: They acquire the knowledge of solving a differential equation using the Laplace method, which is useful to deal with problems in engineering.</p> <p>CO11: They are familiarized with the Fourier series.</p> <p>CO12: They learn the technique of solving partial differential equations using the method of separation of variables.</p>

## DEPARTMENT OF STATISTICS

### Complimentary Courses-BSc Mathematics

#### Course outcome

SEMESTER	COURSE CODE	COURSE NAME	COURSE OUTCOMES
			<ul style="list-style-type: none"> <li>• CO1: To able to understand basic concepts in Statistics</li> </ul>

1	STA1C01	INTRODUCTORY STATISTICS	<ul style="list-style-type: none"> <li>• CO2: Understand various Statistical organizations in India and their functions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Summarize the data and use the measures of central tendency, measures of location, measures of dispersion and measures of shape</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Understand the differences between regression and correlation when attempting to explain the relationship between two or more variables..</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Acquire knowledge on time series, Index numbers and calculate indices from given data.</li> </ul>
2	STA2C02	PROBABILITY THEORY	<ul style="list-style-type: none"> <li>• CO1: Understand basic concepts of probability theory</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Understand and utilize the results and theorems to calculate the probability of events.</li> </ul>
			CO3: learn the discrete and continuous random variables and their probability distributions including expectation and moments
			<ul style="list-style-type: none"> <li>• CO4: Understand and utilize the concepts of bivariate random variables and their probability distributions;</li> </ul>
3	STA3C03	PROBABILITY DISTRIBUTIONS AND	<ul style="list-style-type: none"> <li>• CO1: Understand basic statistical distributions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: learn about the applications of various distributions</li> </ul>

		SAMPLING THEORY	<ul style="list-style-type: none"> <li>• CO3: Explain and apply laws of large numbers and Central Limit Theorems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To able to understand various sampling techniques</li> </ul>
4	STA4C04	STATISTICAL INFERENCE AND QUALITY CONTROL	<ul style="list-style-type: none"> <li>• CO1: Understand and apply the theory of estimation.</li> <li>• CO2: Understand and apply the testing of hypothesis.</li> <li>• CO3: Understand concept about nonparametric method and some basic nonparametric tests</li> <li>• CO4: Basic knowledge in Statistical quality control</li> </ul>

**Carmel College (Autonomous), Mala**

**Accounting & Taxation**

**2023- 24**

POs		COs
RQ/3"	F gxgrqr u" eqo o wplecvkqp" unkm" cpf " dwrk" eqplkf gpeg" vq" hceg" vj g" ej cmgpi gu" qh" vj g" eqtr qtcvg'y qtrf 0'	<p><b>SDC1AT01- BUSINESS MANAGEMENT</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• Wpf gtucpf kpi "vj g'eqpegr wu'qh O cpci go gpv'cpf "O cpci go gpv Ngxgnu</li> <li>• Wpf gtucpf "vj g'hwpevkqpu'qh O cpci go gpv</li> <li>• Wpf gtucpf "Eqpegr wu'qh O qvxcvkqp'cpf "Ngcf gtuj kr</li> <li>• Dktf /g{ g'xlgy "qp"Dwukpguu'Gjy leu</li> <li>• Wpf gtucpf "cpf 'tgo go dgt go gti kpi 'ej cpi gu'kp O cpci go gpv</li> </ul> <p><b>SDC1AT02- INCOME TAX – 1</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>• Ces vkt g'vj g'eqo r rgy npqy rgi i g'qh'ldcuk'e'eqpegr wu qh'kpego g'vcz</li> <li>• Wpf gtucpf "vj g'eqpegr v'qh gzgo r vgf "kpego gu0</li> <li>• Uwf gpw'y km'cr r n' "etk'lecn vj kpi kpi "cpf 'r tqdngo "lqrxkpi unkm'tgrcvgf "vq"vczcvkqp'qh kpf kxk wenu.'mgy "vj tqwi j gpv'kku."cpf "eqtr qtcv'kpu0</li> <li>• Uwf gpw'y km'eqpxgtv eqo r rgy "cpf "vgej plecn'vcz vgo kpmi { "kpv'rcpi wci g</li> </ul>
RQ/4"	Gpcdrqu"rgctpgtu"vq"i gv"vj gqg'vlecn'cpf " r tce'vlecn' g'z quwtg" kp" vj g" eqo o gteg" ugevt" y j lej " kpenw' gu'Ceeqwpw.'Eqo o gteg." O ctngv'kpi ." O cpci go gpv." Geqpqo leu.'Gpxkqpo gpv'gve0'	
RQ/5"	Gpj cpegu'vj g'ecr cd'k'v' q'hf gekukqp'o cni'kpi " cv'r gtucp'cn'cpf "r tq'huukqpcn'rgx'gnu0'	
RQ/6"	O cmgu'uwf gpw'kpf wut { 'tgc'f { 'cpf 'f gxgrqr " xctk'qu"o cpci g'k'cn'cpf "cee'qwp'kpi "unkm" hq' "dgwgt "r tq'huukqpcn'qr r qtwp'k'ku"	
RQ/7"	Utgpi vj g'pu'vj g'k'ecr cek'ku'kp'xct'k'f "ct'gcu" qh'eqo o gteg"cpf "kpf wut { 'cko kpi "vqy ctf u" f gxgrqr o gpv'qh'rgctpgtu0'	
RQ/8"	Vq"go r qy gt'uwf gpw'kpf "r vtuv'kpi " r tq'huukqpcn'eqwt'ugu'rkng'Ej ct'vgt'gf " Ceeqwp'vpe { . 'Eqw' " cpf "O cpci go gpv' Ceeqwp'vpe { . 'Eqo r cp { 'Uget'gct { 'gve0'	
RQ/9"	Vq'Gpj cpeg'vj g'uwf gpw'vc'ng'pv'kp'vj g'h'grf " qh'r tq'huukqpcn'cee'qwp'v'p'f'k'ge'v'cpf " kpf k'ge'v'cz'cvkqp."o cpci g'k'cn'unkm"cpf " eqo o wplecvkqp'unkm0'	
RQ/: "	Vq'k'p'v'gi tcv'g'npqy rgi i g.'unkm'cpf "cv'kwf g" vj cv'y km'u'w'v'cl'p'cp'gp'x'k'q'po gpv'qh'rgct'p'kpi " cpf "et'g'cv'k'k' { "co qpi "vj g'uwf gpw0'	



that translates to non-technical audiences.

**SDC1AT03-FINANCIAL ACCOUNTING**

**Course outcome:**

- Apply knowledge of Generally Accepted Accounting Principles (GAAP) and managerial accounting theories to business organizations and non-profit organizations
- Detailed understanding of accounting information systems, principles and concepts.
- Combine practical and theoretical knowledge of financial accounting
- Acquire conceptual knowledge of basics of accounting
- Identify events that need to be recorded in the accounting records
- Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP
- Equip with the knowledge of accounting process and preparation of final accounts of sole trader
- Preparing financial statements in accordance with appropriate standards

**SDC1AT04- OFFICE  
AUTOMATION TOOLS – LAB**

**Course Outcome:**

- Application of the MS Word Knowledge in creation of Documents
- Understand Data Managing and application of the same
- Remembering creation of slides and applying it on office environment and project works
- Identify and apply the menus in MS-Word
- Understand the components of Power point
- Acquire practical knowledge of selecting and working with menus of MS Power point

**SDC1AT05(P)- LISTENING AND  
SPEAKING SKILLS IN  
ENGLISH**

**Course Outcome:**

- To expand their vocabulary so as to enhance their proficiency in reading and listening to academic texts, writing, and speaking.
- To heighten their awareness of correct usage of English grammar in writing and speaking
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening

- To assist a student to become a more competent, efficient, and perceptive academic reader who is able to communicate to others through writing and speaking the contents and main ideas of what is read.

**SDC2AT06 -INCOME TAX – II**

**Course Outcome:**

- Identify and comply with the relevant provisions of the Income Tax Act as it relates to the income tax of individuals
- Students will be able to compute income from salaries, house property, business/profession, capital gains and income from other sources
- Students will be able to understand the various benefits/ deductions under Chap VI-A of the Income tax act, 1961 which are to be reduced from the gross total income of the assessee.
- To make the students determine the net total taxable income of an assessee after reducing the deductions from the gross total income
- Students will be able to compute the net total income and the total tax liability of an individual assessee considering the income from all heads of income and the deduction under Chap VI- A of the Income tax act,1961

**SDC2AT07-  
BUSINESS RESEARCH METHODS**

		<p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>● Analyze a business problem and apply the research theories in solving the same.</li> <li>● R,U-Remembering and understanding main qualitative and quantitative methods of business research along with their advantages and disadvantages.</li> <li>● U,C-Develop research skills and help in the application of choosing sampling, measurement, questionnaire design, conducting interviews and surveys and creating a Research report.</li> </ul> <p><b>SDC2AT08 – BUSINESS COMMUNICATION</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>● Students will be able to understand the importance of communication in the business</li> <li>● Students will get ability to develop writing skills and presentations</li> <li>● Students will able to writing business proposals and letters</li> <li>● Students will able to understand application of business communication in self-development process.</li> </ul> <p><b>SDC2AT09(P)- FINANCIAL ACCOUNTING USING TALLY</b></p> <p><b>Course Outcome:</b></p>
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- Gain an in-depth knowledge in accounting software practices using tally
- Analyze Accounts with and without insurance
- Familiarize with statutory features of tally and Evaluate Financial Positions using ratios
- Student will learn to create company, enter accounting voucher entries including advance voucher entries, do reconcile bank statement, do accrual adjustments, and also print financial statements, etc. in Tally ERP.9 software
- Enter the accounting transactions in computerized format and find the financial result concern.
- Acquire the skill of financial decision making in a systemized manner.
- Interpret the financial statements as well as evaluation of stock at the end.

#### **SDC2AT10(Pr)- MINI PROJECT**

##### **Course Outcome:**

- Students are able to apply the theoretical knowledge to the practical business situations
- Understand to prepare a project report relevant to their topic or problem
- Analyzing the same methodologically making intelligent observation and offering practical suggestions.

**AT11- BASIC NUMERICAL METHODS**

**Course Outcome:**

- Able to become professional by acquiring various soft skills needed for business success.
- Explore the world of e-learning and the various consequences of Cyberspace and crimes
- Application of data analysis and the role of artificial intelligence in e-business.
- Apply the skills of digital marketing and e-commerce

**A12 – PROFESSIONAL BUSINESS SKILSS**

**Course Outcome:**

- Develop strong written and verbal communication skills.
- Present ideas clearly and persuasively.
- Develop skills in decision-making and problem solving.
- Utilize technology and software tools for business operations.

**SDC3AT11- INCOME TAX ASSESSMENT**

**Course Outcome:**

- Illustrate the taxable income and tax liability of firms, AOP & BOI.
- Find the tax liability of co-operative society

- Scrutinize the tax liability of HUF.
- Value the taxability of Companies' income
- Articulate tax planning provisions of an assessee.

### **SDC3AT12- MARKETING MANAGEMENT**

#### **Course Outcome:**

- Understanding of broad marketing functions in management
- Understand and assess fundamental marketing concepts, consumer behavior : product, price, place, distribution
- Remembering the conceptual framework for E-commerce

### **SDC3BF13 - MANAGEMENT ACCOUNTING**

#### **Course Outcome:**

- Preparation of financial statements and its analysis
- Identifying cash and non cash items
- Analyzing cost volume profit techniques to determine optimal managerial decisions
- Outline and apply various management tools and techniques

### **SDC3AT14(P) - ADVANCE EXCEL – LAB**

**Course Outcomes:**

- Gain an in-depth knowledge in accounting using spreadsheets
- Analyze Accounts using Financial Formulas
- Understand usage of Macros

**SDC3AT15 (P)-MARKETING MANAGEMENT –CASE STUDY**

**Course Outcome:**

- Improve Individual Problem Solving Skills
- Describe Strategic Planning.
- Understand and Explain the Market Environment.
- Understanding Segmentation, Targeting market and Positioning concept and roles
- Apprise theories and models of marketing management (Knowledge)
- Implement different tools of marketing mix in different business situations (Skill)
- Conduct preliminary market studies for assessing market conditions (Role in context)
- Prepare and critically analyze professional marketing reports and



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- Create a comprehensive and well-structured business plan.
- Develop financial acumen for budgeting and financial forecasting.
- Evaluate and mitigate potential business risks.
- Develop the ability to pitch business ideas effectively.

#### **AT – 14 BANKING AND INSURANCE**

##### **Course Outcome:**

- Understand the fundamental principles of banking and finance.
- Learn the core functions and processes within a bank.
- Understand the principles of credit risk management.
- Learn about various insurance products, such as life, health, property, and casualty insurance.

#### **SDC4AT17 – AUDITING**

##### **Course Outcome:**

- Able to handle vouching of trading transactions.
- Able to verify and value assets and liabilities
- Able to identify special areas audit.

#### **SDC4AT18 COST ACCOUNTING**

##### **Course Outcome:**

- Able to select the cost according to their impact on business
- Able to differentiate methods of scheduling costs per unit of production
- Able to identify the specifics of different costing methods.

**SDC4AT19- GOODS AND SERVICES TAX**

**Course outcome:**

- Will able to compute the assessable value of transactions related to goods and services for levy and determination of duty liability
- .Identify and analyze the procedural aspects under different applicable statutes related to indirect taxation.
- Understand the basic principles underlying the Indirect Taxation Statutes with reference to GST
- Understand Tax treatment of GST and its classifications.

**SDC4AT20(P) COST ACCOUNTING – LAB**

**Course outcome:**

- Analyze and evaluate information for cost ascertainment ,planning, control and decision making

**SDC4AT21(P) GST LAB****Course outcome:**

- To acquire practical knowledge regarding GST
- Indicate GST application, differentiation of application, and GST compliance and attendance.
- Relate transaction amounts to GST liability.

**SDC5AT23- E3: ORGANISATIONAL BEHAVIOR****Course Outcome:**

- Analyze and compare different models used to explain individual behavior related to motivation and rewards
- Identify the process used in developing communication and resolving conflicts
- Assess the Group dynamics and demonstrate skills required for working in groups

**SDC5AT24-BUSINESS REGULATION****Course Outcome:**

- This course is designed to provide the student with knowledge of Indian legislation and demonstrate an understanding of the legal environment of business in India.
- On the completion of this course, student will be able to communicate effectively using

standard business and legal terminology.

- The student will get the basic legal knowledge to business transactions and its enforceability in the court of law.
- Upon the completion of this course, the students will be able to describe the various important Act related to business.

### **SDC5AT25-CORPORATE ACCOUNTING**

#### **Course Outcome:**

- Understand the concepts of accounting standards of asset, Liabilities and Revenue
- Asses the Redemption procedures and get a bird's eye view on Journalising
- Understand and evaluate problems related to final accounts of Banking Companies
- Asses the Consolidation procedure in Group companies

### **SDC5AT26 BANKING & FINANCIAL SERVICES**

#### **Course outcome:**

- To enable learners to know basics of Banking and its Functions
- To make them undersatnd about basic terminology in Banking and Finance
- The learners will be able to remember and understand the various financial services

- They will be able to apply financial concepts, theories and tools and will be in a position to evaluate the legal, ethical and economic environment related to financial services.

#### **SDC5AT27- ACCOUNTING STANDARDS**

##### **Course Outcome:**

- Understand the concepts of accounting standards
- Understand the concepts of accounting bodies
- Theoretical clarity on selected standards
- Provides an in-depth analysis of the accounting and disclosure requirement under IFRS.
- Enables the participants to understand the IFRS framework in comparison with the Indian financial reporting requirements (Indian GAAP) and explain the differences £ in Indian GAAP and IFRS

#### **SDC5AT28-E4- HUMAN RESOURCE MANAGEMENT**

##### **Course Outcome:**

- Contribute to the development, implementation and evaluation of employee recruitment, selection, and retention plans and processes
- Develop implement and evaluate employee orientation, training and development programs.

**SDC5AT29(P) PEACHTREE- LAB**

**Course Outcome:**

- Gain an in-depth knowledge in accounting software practices using Peachtree.
- Able to process payments
- Able to produce purchase orders and financial reports.

**SDC5AT30(P) PAYROLL MANAGEMENT**

**Course Outcome:**

- The student will develop personnel and payroll records that provide the information required under current laws and process payroll data and tax data and prepare reports.
- Able to Understand payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.
- Prepare payroll reports containing gross taxable compensations, common withholdings, net pay amounts, and do the related accounting in a non-automated system.
- Prepare payroll reports and form filings in compliance with government regulations.
- Use a basic payroll system to determine employer's and employees' taxes to be paid.

## **Programme Specific Outcome (PSO)**

PSO-1 Develop analytical skills and offer a solid grounding and professional competence in all aspects of accounting and taxation

PSO-2 It will develop knowledge and understanding of concepts, principles, practices and procedures of accounting and taxation

PSO-3 Acquaintance with latest trends in accounting field

PSO-4 Have been cleared the basics regarding banking practices relevant for maintaining a book of accounts and various other records, documents, and vouchers basic to accounting activities

PSO-5 They should have the ability to analyze data, calculate and basic understanding of GST and the latest taxation laws

PSO-6 Understand the application of business Knowledge in both theoretical and practical aspects.

PSO-7 Enables learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management, Economics, Environment etc.

PSO-8 Creates an understanding of the basic concept of Direct Tax and basic definition related to Direct Tax and assessee.

PSO-9 Provides learners an idea of the process and techniques of calculation of taxability and tax liability



## CARMEL COLLEGE AUTONOMOUS MALA

### Name of the Programme – B.Voc Agriculture

Programme Outcomes	Course Outcomes
PO-1 To impart first hand knowledge on agriculture and allied sciences	<p><b>SEMESTER –I</b></p> <p><b>Course No:1.4</b>  <b>Course Code:SDC1AG01</b>  <b>Course Name:Fundamentals of Agronomy</b></p> <p><b>Course Outcomes</b>                      CO1: Describe the importance of agriculture in India and Kerala.                      CO2: To understand the agricultural classification of crops                      CO3: Explain the Soil productivity and fertility                      CO4: Describe the crop nutrition and nutrient cycling through manures and fertilizers.                      CO5: Explain the Integrated Nutrient Management.                      CO6: Explain the irrigation and irrigation methods.</p> <p><b>Course No:1.5</b>  <b>Course Code:SDC1AG02</b>  <b>Course Name:Fundamentals of Horticulture</b></p> <p><b>Course Outcomes</b>                      CO1: Describe the definition, importance, division and classification of horticultural crops                      CO2: Explain the layout, planting systems and management practices in an orchard                      CO3: Describe the training and pruning in horticultural crops                      CO4: Describe the fruit drop and seedlessness in horticultural crops..</p>
PO-2 Understand the impact of the professional agricultural solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	
PO-3 To demonstrate research based knowledge of the legal and ethical environment impacting agriculture organizations and exhibit an understanding and appreciation of the ethical implications of decisions.	
PO-4 To demonstrate an understanding of and appreciation for the importance of the impact of globalization and diversity in modern agriculture organizations. Understanding of globalization, and NGO working.	
PO-5 To understand and analyze the current events and issues that are occurring in agriculture and how they affect futuristic agriculture.	
PO-6 To understand and analyze the current events and issues that are occurring in agriculture and how they affect futuristic agriculture.	
PO-7 Able to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions. To understand mechanics of a agripreneurship	

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**Course No:1.6**  
**Course Code:SDC1AG03**  
**Course Name :Fundamentals of Soil  
Science**

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**Course No:1.7**  
**Course Code:SDC1AG04(P)**  
**Course Name:Fundamentals of Agronomy  
and Horticulture –Practicals.**

**Course Outcomes**

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CO5- Explain the fertilizer recommendation and calculation for major cereals and pulses  
CO6. Fertilizer recommendation and calculation for major cereals and pulses  
CO7-Familiarization with green manure crops and cover crops, Different planting systems and layout and the propagation methods.

**Course No:1.8**  
**Course Code:SDC1AG05(P)**  
**Course Name-Fundamentals of Soil Science –Practicals.**

**Course Outcomes**

CO1- Identification of soil properties for crop production  
CO2- How to collect and prepare soil sample  
CO3. Describing the methods of determination of different nutrient contents in soil.

**SEMESTER-II**

**Course No:2.4**  
**Course Code:SDC2AG06**  
**Course Name:Plantation Crops,Spices and Fruits.**

**Course Outcomes**

CO1- Explain the importance - area, production ,origin, distribution of plantation crops.

CO2:Students will get knowledge on technical cultivation techniques of different fruits and plantation crops.

CO3:Students will able to identify different practical issues related to fruits and plantation crops

CO4: Analyze the propagation, planting, irrigation ,and manuring of Coconut and Rubber.

**Course No:2.5**

**Course Code:SDC2AG07**

**Course Name:Fundamentals of Seed Technology.**

**Course Outcomes**

CO1:Core competency in the subject & comparative evidence on development of seed.

CO2:High analytical ability in understanding the application of scientific principles and students will acquire skills & handling operations of different equipments in seed science laboratory

CO3:Develop an understanding of seed development, germination,vigour,deterioration and the relationship between laboratory tests and field performance

CO4:Understand seed increase systems, seed testing and the laws and regulations related to marketing high quality seed.

**Course No:2.6**

**Course Code:SDC2AG08(P)**

**Course Name:Plantation Crops,Spices and Fruits –Practicals.**

**Course Outcomes**

CO1: Demonstrate preparation and application of plant growth regulators to the crops, etc. Investigate the various problems with the production technology

of fruit and plantation crops such as disorder, diseases and pests, etc.

CO2: Distinguish different fruits and plantation crops, symptoms of disorders, diseases, insects and pests, etc.

CO3: Discuss various concepts of high density planting, new techniques of high density planting, plant propagation, seed propagation, etc.

CO4: Acquaint the knowledge on the method of field preparation for crop production and arrange the resources required in the field.

CO5: Apply the production techniques of crops in the practical crop production field.

CO6: Examine the production of sown crops in the practical crop production field.

**Course No:2.7**

**Course Code:SDC2AG09(P)**

**Course Name:Fundamentals of Seed Technology-Practicals.**

**Course Outcomes**

CO1: Acquaint with scope and importance of seed technology in agriculture and the role of officials and legislation, seed act and seed order in quality seed production

CO2: Able to learn the main steps in seed production and certification.

CO3: To learn about the important chemical components of seeds and their importance as source

of human food and germinating embryo after planting

CO4: Develop an understanding of various seed production techniques for different field crops, the importance of maintenance of purity of crop varieties, and factors causing deterioration of variety.

CO5: Execution of various phases of seed certification, field inspection, and seed purity testing

CO6: Analyze the factors related to genetic and physical purity of seed and its health status of seeds of a variety during seed processing.

**Course No:2.8**

**Course Code:SDC2AG10(Pr)**

**Course Name :Internship/Project  
(Cultivation of Crops).**

**Course Outcomes**

CO1: Acquaint with the knowledge of principles of crop planning and selection of crop.

CO2:Developed the field experience on raising of crops in their field with special emphasis on the agronomic management of the crop.

CO3:familiarized with the calculation of economics of crop cultivation

CO4:Demonstrate the ability to apply the scientific method to problems in crop.

**SEMESTER –III**

**Course No. 3.3**

**Course Code: SDC3AG11**

**Course Title: Plant Tissue Culture and Biotechnology.**

**Course Outcomes**

CO1- Describe the principles and techniques of plant tissue culture .

CO2- Explain the Tissue culture medium.

CO3- Describe the preparation of explants and different methods of micropropagation .

CO4- Explain the different phases of micropropagation  
CO5- Explain the methods and applications of tissue culture .

CO6- Describe the recombinant DNA Technology.

CO7- Explain the cloning vectors and PCR .

CO8- Describe the different methods of gene transfer.

**Course No. 3.4**

**Course Code: SDC3AG12**

**Course Title: Integrated Pest**

**Management in Crops.**

**Course outcomes**

CO1- Describe the concepts, principles and tools of IPM .

CO2- Explain the different types of IPM Methods .

CO3- Describe the important groups of micro organisms used in insect pest control.

CO4- Explain the mass multiplication techniques of important biocontrol agents.

**Course No. 3.5**

**Course Code: SDC3AG13**

**Course Title: Fundamentals of Agricultural Engineering**

**Course outcomes**

CO1- Describe the irrigation with definition and objectives

CO2- Explain the methods of irrigation and their engineering aspects

CO3- Describe the agronomic techniques to improve water use efficiency

CO4- Describe the soil erosion and its relative aspects CO5- Describe the water harvesting techniques - in situ and ex situ methods

CO6- Explain surveying: survey equipment, chain survey, cross staff survey, plotting procedure, calculations of area of regular and irregular fields.

**Course No. 3.7**

**Course Code: SDC3AG15 (P)**

**Course Title: Micropropagation of plants- Practicals**

**Course outcomes**

CO1- Explain the requirements for Plant Tissue Culture laboratory and media components and preparations. CO2- Describe the preparation and sterilization of media and aseptic manipulation and inoculation of various explants

CO3- Explain the micro propagation of important crops CO4- Describe the preparation of synthetic seeds



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#### **SEM IV**

#### **Course No. 4.3**

**Course Code: SDC4AG17**

#### **Course Title: Protected Cultivation of Horticultural Crops.**

##### **Course outcomes**

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ko r qtvcpv'qh'r tqdrgo u'cpf 'r tqur gewu'qh'r tqvgevgf "  
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#### **Course No. 4.4**

**Course Code: SDC4AG18**

#### **Course Title: Weed Management and Fodder Crop Production**

##### **Course outcomes**

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EQ4/"F guetkdg"vj g'kpvgi tcvgf "y ggf "o cpci go gpv'

CO3- Describe the herbicide classification, formulations, methods of application.

CO4- Describe the soil and climatic requirement , varieties, cultural practices , harvesting and postharvest off major oil crops

CO5- Explain the Crop Production in rice

CO6- Describe the mechanised farming in rice

CO7- Describe the cultivation and management of fodder crops.

### **Course No. 4.5**

**Course Code: SDC4AG19**

**Course Title: Livestock Farming.**

#### **Course Outcomes**

CO1- Describe the role of Livestock in National economy CO2- Describe the general management Practices in Dairy farming.

CO3- Describe the cattle and buffalo management .

CO4- Explain the general management practices.

CO5- Explain the dairy development in India.

CO6- Describe the composition of milk, Constituent of Milk, Factors affecting Quality and Quantity of milk, Nutritive value , and Physico-chemical properties of milk.

CO7- Describe the poultry management CO8- Detailed study of major animal diseases.

### **SEM V**

**Course No. 5.1**

**Course Code: SDC5AG23 E1**

**Course**

**Title:Environmental**

**Microbiology and Biotechnology**

**Objectives**

- To understand various aspects of environmental microbiology and biotechnology.

**Course No. 5.1**

**Course Code: SDC5AG23 E2**

**Course Title: Government Policies and Programmes**

**Related to Agriculture**

**Objectives**

- To acquaint with various Government Policies related to Agriculture in Kerala and

India.

- To familiarise with five year plans and Panchayathiraj system in India.

**Course No. 5.2**

**Course Code: SDC5AG24 E3**

**Course Title: Food and Dairy Microbiology**

**Objectives**

- To understand various aspects of food and dairy microbiology.

**Course No. 5.2**

**Course Code: SDC5AG24 E4**

**Course Title: Landscaping and Gardening**

**Objectives**

- To familiarize with landscaping, gardening and commercial floriculture.

**Course No. 5.3**

**Course Code: SDC5AG25**

**Course Title: Commercial Vegetable Production**

**Objectives**

- To understand various principles and practices of commercial vegetable production.

**Course No. 5.4**

**Course Code: SDC5AG26**

**Course Title: Agricultural Enterprises**

**Objectives**

- To understand various commercial enterprises in agricultural sector through observation, field visits and presentation.

**Course No. 5.5**

**Course Code: SDC5AG27**

**Course Title: Fundamentals of Organic Farming**

**Objectives**

- To familiarize with the concept of sustainability and sustainable development.
- To acquaint with the fundamentals of organic farming.
- To have the knowledge about the organic certification procedures.

**Course No. 5.6**

**Course Code: SDC5AG28(P)**

**Course Title: Agricultural Enterprises -Practicals**

**Objectives**

- To develop awareness on bee keeping, sericulture and lac culture through observation,

field visit and reporting

- To develop skill in cultivation of edible mushrooms and to develop skill in dry flower

production and bouquet making

- To familiarize with the production and utilization of biofertilizers and biocontrol agents.

**.Course No. 5.7**

**Course Code: SDC5AG29 (P)**

**Course Title: Commercial Vegetable Production- Practicals**

**Objectives**

- To develop skills in cultivation of vegetable crops.

**Course No. 5.8**

**Course Code: SDC5AG30(P)**

**Course Title: Fundamentals of Organic Farming- Practicals**

**Objectives**

- To familiarize with organic production of various crops.

- To gain skill with different composting techniques.

**SEM VI-Course Outcomes-NIL**

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### **PROGRAMME SPECIFIC OUTCOMES (PSO)**

PSO-1 To acquire knowledge on importance of agriculture and various types of farming.

PSO-2 To acquaint with importance, division and classification of horticultural crops and to understand the basic principles and types of plant propagation.

PSO-3 To familiarize with fundamentals of water management and to acquaint with various soil conservation methods.

PSO-4 To understand the fundamentals of Plant breeding, Basics of Seed technology and cultivation aspects of Plantation crops, spices and fruit crops.

PSO-5 To build theoretical foundation in plant tissue culture and biotechnology and to develop knowledge on the theoretical basis of integrated pest management and also to familiarize with protected cultivation structures and cultivation practices.

PSO-6 To understand the general characters of weeds and their management and to acquaint with cultivation of rice, fibre crops, fodder crops, etc .

PSO -7 To develop practical skill in propagation and cultivation aspects of horticultural crops, Plantation crops, spices and fruit crops .

## DEPARTMENT OF BANKING, FINANCE SERVICE AND INSURANCE

### Programme Specific Outcome (PSO)

PSO1	Provides proficiency in sales, insurance, mutual fund awareness and banking operations.
PSO2	Accumulate knowledge to understand the changing national and global banking and insurance operations, technology and paradigm shift in the sectors.
PSO3	To given an adequate exposure to operational environment in the field of Banking & Insurance
PSO4	Impart knowledge, understanding and key skills to graduates to be effective managers in financial institutions.
PSO5	To inculcate training and practical approach among the students by using modern technologies in the field of Banking & Insurance

## COURSE OUTCOME

### SEMESTER 1

#### SDC1BF01 Business Management

##### Course Outcome

- Wpf gtucpf kpi 'y g'eqpegr vu'qh'O cpci go gpv'cpf 'O cpci go gpv'Ngxgnu
- Wpf gtucpf 'Hwpevkpu'qh' O cpci go gpv
- Wpf gtucpf 'Eqpegr vu'qh'O qvxcvkp'cpf 'Ngcf gtuj kr
- Dkf "g{ g'xkgy "qp'Dwukpguu'Gyj leu
- Wpf gtucpf 'cpf 'Tgo go dgt"go gti kpi "ej cpi gu'kp'O cpci go gpv

#### SDC1BF02 Principles and Practice of Banking

- Xctkqwu'hwpevkpu'cuuqekcvf 'y kj 'dcpnkpi
- Rtcevek'cpf 'r tqegf wtgu'tgrvkpi "q'f gr quk'cpf 'etgf kv'f qewo gpvcvkp."o qpkqt kpi 'cpf eqptqn
- Cp'kuki j v'kpq'o ctngvkpi 'qh'dcpnkpi 'ugt xlegu'cpf 'dcpnkpi 'vgej pqmji {

#### SDC1BF03 Financial Accounting

##### Course outcome

- Ces wkt g'eqpegr wcnhnpqy ngf i g'qh'dcukeu'qh'ceeqwvpkpi
- Kf gpvkh 'gxgpw'y cv'pggf "q'dg'tgeqtf gf 'kp'y g'ceeqwvpkpi 'tgeqtf u
- F gxgnr 'y g'unkm'qh'tgeqtf kpi 'hkpcekn'tcpeucevkpu'cpf 'r tgr ctcvkp'qh'tgr qt w'lp ceeqtf cpeg'y kj 'I CCR
- F guetkdg'y g'tqrg'qh'ceeqwvpkpi 'kphqto cvkq'cpf 'ku'ho kvvkpu
- Gs wkr 'y kj 'y g'npqy ngf i g'qh'ceeqwvpkpi 'r tqeguu'cpf 'r tgr ctcvkp'qh'hkpcn'ceeqwpu'qh'uqrg vcf gt
- Rtgr ct kpi 'hkpcekn'lucvgo gpw'lp'ceeqtf cpeg'y kj 'cr r tqr tkvg'ucpf ctf u0
- Rtgr ct g'ngf i gt'ceeqwpu'wukpi 'f qwdng'gpv { "dqqmnggr kpi 'cpf 'tgeqtf 'lqwtpcn'gpv'kgu ceeqtf kpi n{



## **SDC1BF04 Office Automation Tools-Lab**

### **Course Outcome**

- Application of the MS Word Knowledge in creation of Documents
- Understand Data Managing and application of the same
- Remembering creation of slides and applying it on office environment and project works
- Identify and apply the menus in MS-Word
- Understand the components of Power point
- Acquire practical knowledge of selecting and working with menus of MSPowerpoint

## **SDC1BF05(P) Listening and Speaking Skills in English**

### **Course Outcome**

- To expand their vocabulary so as to enhance their proficiency in reading and listening to academic texts, writing, and speaking.
- To heighten their awareness of correct usage of English grammar in writing and speaking
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening
- To assists a student to become a more competent, efficient, and perceptive academic reader who is able to communicate to others through writing and speaking the contents and main ideas of what is read.

## **SEMESTER II**

### **SDC2BF06 Banking Service Management**

#### **Course Outcome**

- Make aware of basic services concepts of banks
- Understand procedures of various lending services
- Remember about Precautions for banker and customers regarding various operations in banks.
- Analyse procedures of operating various accounts.

## **SDC2BF07 Business Research Methods**

### **Course Outcome**

- Analyse a business problem and apply the research theories in solving the same.
- Remembering and understanding main qualitative and quantitative methods of business research along with their advantages and disadvantages.
- Develop research skills and help in the application of choosing sampling, measurement, questionnaire design, conducting interviews and surveys and creating a Research report

## **SDC2BF08 Organisational Behaviour**

### **Course Outcome**

- Analyze and compare different models used to explain individual behavior related to motivation and rewards
- Identify the process used in developing communication and resolving conflicts
- Assess the Group dynamics and demonstrate skills required for working in groups.

## **SDC2BF09(P) Financial Accounting using Tally**

### **Course Outcome**

- Gain an in depth knowledge in accounting software practices using tally
- Analyse Accounts with and without insurance
- Familiarize with statutory features of tally and Evaluate Financial Positions using ratios

## **SDC2BF10(Pr)- Mini Project work**

### **Course Outcome-Nil**

## **SEMESTER III**

### **SDC3BF11 Life Insurance Operations**

#### **Course Outcome**

- To Impart the knowledge of the principles of Life Insurance and their importance.
- To give exposure to the provisions of fire and Marine Insurance and their increasing importance.
- To provide skill and knowledge to become an insurance Agent.
- To understand various rules and regulations required for insurance business

### **SDC3BF12 Banking and Financial Services**

#### **Course Outcome**

- To enable learners to know basics of Banking and its Functions
- To make them understand about basic terminology in Banking and Finance
- The learners will be able to remember and understand the various financial services
- They will be able to apply financial concepts, theories and tools and will be in a position to evaluate the legal, ethical and economic environment related to financial services.

### **SDC3BF13 Management Accounting**

#### **Course Outcome**

- Preparation of financial statements and its analysis
- Identifying cash and non cash items
- Analyzing cost volume profit techniques to determine optimal managerial decisions
- Outline and apply various management tools and techniques

### **SDC3BF14(P) Advanced Excel Lab**

#### **Course Outcome**

- Gain an in-depth knowledge in accounting using spreadsheets
- Analyse Accounts using Financial Formulas
- Understand usage of Macros

### **SDC3BF15(P) Financial Analysis and Budgetary Control Lab**

#### **Course Outcome**

- Acquiring skills of making various financial statements by making use of software.

### **SDC3BF16(P) Life Insurance Lab**

#### **Course Outcome**

- Familiarize with various types of life insurance policies.
- Procedures involved in operating various types of life insurance policies.

### **SEMESTER IV**

### **BCM4A13 Entrepreneurship Development**

#### **Course Outcome**

- Familiarize the concept of entrepreneurship development programme.
- Assess the institutional support and incentives to the entrepreneurs
- Learn more about MSME
- Acquire the knowledge about how to set up the industrial unit.
- Remembering the preparation of project report.

### **BCM4A14 Banking and Insurance**

#### **Course Outcome**

- Give a basic idea about the banking and its functions.
- An insight into the different types of negotiable instruments.
- Gain an in-depth knowledge in e banking.
- Familiarize the laws relating to insurance and the regulatory body.

## **SDC4BF17 Auditing**

### **Course Outcome**

- Understand the basics of audit
- Able to handle vouching of trading transactions.
- Familiarize the recent trends in auditing
- Able to verify and value assets and liabilities
- Able to identify special areas audit.

## **SDC4BF18 Banking Services and Microfinance**

### **Course Outcome**

- Identifying the role of microfinance
- Identify reasons for intervening or not intervening in microfinance
- An insight into the different models of micro microfinance
- Learn about the financial reporting of micro finance
- Analyse the frauds and code of conduct in micro finance

## **SDC4BF19 Goods and Service Tax**

### **Course Outcome**

- Will able to compute the assessable value of transactions related to goods and services for levy and determination of duty liability
- . Identify and analyze the procedural aspects under different applicable statutes related to indirect taxation.
- Understand the basic principles underlying the Indirect Taxation Statutes with reference to GST
- Know about the levy and collection of tax
- Understand Tax treatment of GST and its classifications.

### **SDC4BF20(P) Microfinance Operations Lab**

#### **Course Outcome**

- Identifying the role of microfinance
- Identify reasons for intervening or not intervening in microfinance

### **SDC4BF21(P) GST Lab**

#### **Course Outcome**

- To acquire practical knowledge regarding GST
- To study voucher entries

### **SDC4BF22(Pr)-Internship/Mini project for one month**

#### **Course outcome-Nil**

### **Semester V**

### **GEC5HR11: (BC3C03) Human Resource Management**

#### **Course Outcome**

- To familiarize the students with the different aspects of managing human resources.
- To equip the students with appropriate knowledge and skills required for acquisition, development and retention of human resources.

### **SDC5BF12 Banking Services and Micro Finance**

#### **Course Outcome**

- Attainment of competence in the profession of banking and finance
- Practical knowledge regarding the legal aspects of banking
- Gain an in-depth knowledge in banking related laws

- Familiarize the commercial laws with reference to banking operations

### **SDC5BF25 Corporate Accounting**

#### **Course Outcome**

- Understand the concepts of accounting standards of asset, Liabilities and Revenue
- Asses the Redemption procedures and get a bird's eye view on Journalizing
- Understand and evaluate problems related to final accounts of Banking Companies
- Asses the Consolidation procedure in Group companies

### **SDC5BF26 Retail Banking**

#### **Course Outcome**

- To enable learners to know basics of Retail Banking
- To make them aware about basic terminology and activities in Retail Banking
- Give an insight into the products and services in retail banking
- Learn about the operations in retail banking
- Understand the issues faced by retail banks

### **SDC5BF27 Cost Accounting**

#### **Course Outcome**

- Able to select the cost according to their impact on business
- Understand the material management
- Able to differentiate methods of schedule costs per unit of production
- Able to identify the specifics of different costing methods.
- Familiarize the cost control techniques





**Semester VI**

**SDC6BF31 Term Paper**

Course Outcome- Nil

**SDC6BF32 Project**

Course Outcome- Nil

**SDC6BF33 Internship**

Course Outcome- Nil

**Name of programme : FASHION TECHNOLOGY**

POs	COs
<p>PO-1 Apply various techniques of fashion designing that impact in our daily life.</p> <p>PO-2 Demonstrate innovative approaches to fashion built on knowledge and awareness of the system.</p> <p>PO-3 Forecast the style and designs that can be implemented in various textile materials and perform analysis on textile material using the different tools and methods learned.</p> <p>PO-4 Undergoing internships making the students industry background strong.</p> <p>PO-5 Entrepreneur the possibility of visual merchandising.</p> <p>PO-6 Understand the various aspects of fashion technically and thus becomes a graduate in fashion.</p> <p>PO-7 Improving the student's knowledge on fashion through practical labs.</p>	<p><b>SDC1FT01 - Basics of Textiles</b></p> <ul style="list-style-type: none"> <li>• Gives detailed introduction on textiles fibers, their properties and structure</li> <li>• Explains about the textile yarn, its classification, manufacturing process and properties</li> <li>• Describes the weaving process and its types, also about Loom and its types.</li> <li>• Explains about the Knitting process, its types and diagrams</li> <li>• Describes about Nonwoven, its types, and manufacturing methods</li> </ul> <p><b>SDC1FT02 – Design Concepts</b></p> <ul style="list-style-type: none"> <li>• Describe and identify different art medias and its application</li> <li>• Describe the concepts related to the various fashion processes</li> <li>• Describe the elements and principles of design</li> <li>• Explain the color theory and dimensions of color</li> <li>• Introduce and describe the Fashion illustration and its importance</li> </ul> <p><b>SDC1FT03 (P) – Pattern Making – I –Lab</b></p> <ul style="list-style-type: none"> <li>• Drafting the basic pattern set</li> <li>• Describe and manipulate the darts using different methods</li> </ul> <p><b>SDC1FT04(P) – Basics of Fashion Illustration – Lab</b></p> <ul style="list-style-type: none"> <li>• Give a basic knowledge about drawing Learn about different mediums used for illustration</li> <li>• Learn to draw fashion croquies</li> </ul> <p><b>SDC1FT05 (P) – Garment Construction – I – Lab</b></p> <ul style="list-style-type: none"> <li>• Develop stitching practice on paper and muslin</li> <li>• Practice the different kinds of seams, seam finishes, hem finishes, tucks and pleats</li> <li>• Practice the application of zippers, plackets and fasteners</li> </ul> <p><b>SDC2FT06 – Apparel Machinery and Equipment</b></p> <ul style="list-style-type: none"> <li>• Gives introduction on apparel industry and details regarding fabric spreading</li> <li>• Descriptions regarding cutting machines</li> <li>• Explains about the sewing machine classification and other important details</li> <li>• Describes about the sewing mechanism in detail</li> <li>• Explains about the stitches and seams in detail.</li> </ul>

	<p><b>SDC2FT07 - History of Indian Costume</b></p> <ul style="list-style-type: none"> <li>• Describe the origin &amp; functions of clothing.</li> <li>• Explain the Costumes of ancient Indian civilizations</li> <li>• Describe the Costumes, hairstyles and headgears and jewellery of various Indian Empires</li> </ul> <p><b>SDC2FT08 (P) – Fashion Illustration – Lab</b></p> <ul style="list-style-type: none"> <li>• Study about different perspective drawings and ornaments and accessories.</li> <li>• Study on different fashion figures</li> <li>• Study on various style features and silhouettes</li> </ul> <p><b>SDC2FT09 (P) – Pattern Making – II – Lab</b></p> <ul style="list-style-type: none"> <li>• Drafting patterns of Basic Bodice</li> <li>• Drafting patterns of various types of Skirts</li> <li>• Drafting pattern of different types of Sleeves and collars</li> </ul> <p><b>SDC2FT10(Pr) – Internship/ Mini project</b></p> <ul style="list-style-type: none"> <li>• Designing the garments by self</li> <li>• Draft patterns according to designs</li> <li>• Construct the garments</li> <li>• Embellish the garments</li> </ul> <p><b>A11 – BASIC MATHEMATICS AND GENERAL AWARENESS</b></p> <ul style="list-style-type: none"> <li>• Apply numerical and reasoning skills in competitive examinations;</li> <li>• Understand some basic concepts of research and its methodologies;</li> <li>• Bridge the fundamental skills of computers with the present level of knowledge of the students;</li> <li>• To train and equip the students with the skills of modern banking and insurance.</li> </ul> <p><b>A12 - PROFESSIONAL BUSINESS SKILLS</b></p> <ul style="list-style-type: none"> <li>• Able to become a professional by acquiring various soft skills needed for business success</li> <li>• Explore the world of e-learning and also the various consequences of cyberspaces and crimes</li> <li>• Application of data analysis and the role of artificial intelligence in e- business.</li> <li>• Apply the skills of digital marketing and E-commerce.</li> </ul> <p><b>SDC3FT11-History of Indian Textiles</b></p> <ul style="list-style-type: none"> <li>• Describe various costumes of different states of India</li> <li>• Explain traditional textiles and design techniques of India</li> </ul>
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	<ul style="list-style-type: none"> <li>• Explain traditional embroideries of India</li> <li>• Describe regional consumes of Indian states</li> </ul> <p><b>SDC3FT12- Fashion Marketing</b></p> <ul style="list-style-type: none"> <li>• Explains fashion marketing in India</li> <li>• Describes the concepts of marketing and types</li> <li>• Explains the different kinds marketing strategies</li> <li>• Describes marketing, marketing mix, marketing research and buying behaviour</li> <li>• Describes Fashion Marketing, marketing concepts, and marketing managements</li> </ul> <p><b>SDC3FT13 -Textile Processing</b></p> <ul style="list-style-type: none"> <li>• Introduction on textile wet processing Different types of dyeing processes</li> <li>• Introduction to textile printing</li> <li>• Study on various textile printing methods</li> <li>• Explains various textile finishing processes</li> </ul> <p><b>SDC3FT14 (P) Fashion Styling and Makeup</b></p> <ul style="list-style-type: none"> <li>• Describe the Fashion styling</li> <li>• Explain the Fundamentals of Makeup, Hair Styling</li> <li>• Explore the beauty and skin care</li> <li>• Doing makeup on the basis of a selective theme</li> <li>• Explore various hair styling and hair dressing</li> </ul> <p><b>SDC3FT15 (P) -Textile Processing</b></p> <ul style="list-style-type: none"> <li>• Block printing and screen printing</li> <li>• Textile dyeing using direct dyes. reactive dyes, vat dyes and sulphur dyes</li> <li>• Learns to bleaching of cotton</li> <li>• Learns to Scouring of cotton</li> <li>• Learns to desize of cotton</li> </ul> <p><b>SDC3FT16 (P) - Garment Construction-II – Lab</b></p> <ul style="list-style-type: none"> <li>• Learns to construct different sleeves</li> <li>• Learns to construct different collars</li> <li>• Learns to construct various skirts</li> </ul> <p><b>A13 - ENTREPRENEURSHIP DEVELOPMENT</b></p> <ul style="list-style-type: none"> <li>• Able to understand the nature of Entrepreneurship and the financial assistance and guidance from government</li> <li>• Confirm and entrepreneurial business data</li> <li>• Explore entrepreneurial leadership and management style</li> <li>• Confidence in setting up of industrial unit</li> </ul> <p><b>A14 - PUBLIC HEALTH, SANITATION &amp; SAFETY</b></p> <ul style="list-style-type: none"> <li>• After learning the course, the students should be able to:</li> <li>• Identify the diseases associated with occupation</li> </ul>
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	<ul style="list-style-type: none"> <li>• Identify the hazard in industrial area and propose preventive measures</li> <li>• Manage safety in industries and propose safety measures and PPE</li> <li>• Demonstrate the hygiene and sanitation procedures</li> <li>• Demonstrate the microorganism responsible for the disease and their control</li> </ul> <p><b>SDC4FT17- Apparel Production and Quality Control</b></p> <ul style="list-style-type: none"> <li>• Gives detailed description on certification in apparel industry</li> <li>• Explain about quality parameters of yarn and fabric and describe the term inspection</li> <li>• Understand the terms of quality control and explain various international standards</li> <li>• Describe the process in fabric department</li> <li>• Gives a detailed description on various departments of apparel industry</li> </ul> <p><b>SDC4FT18-Traditional Western Costumes</b></p> <ul style="list-style-type: none"> <li>• Learns about traditional costumes and accessories of different western countries</li> <li>• Studies about various Asiatic empires</li> </ul> <p><b>SDC4FT19-World Art Appreciation</b></p> <ul style="list-style-type: none"> <li>• Identify and describe the elements and principles of art</li> <li>• Explains about different kinds of Indian and western paintings</li> <li>• Explains about modern art</li> </ul> <p><b>SDC4FT20 (P) – Draping</b></p> <ul style="list-style-type: none"> <li>• Understand basic principles and tools of draping</li> <li>• Interpret the basic dress foundation</li> <li>• Analyze dart manipulations and explore dart equivalents</li> <li>• Drape different kinds of necklines and sleeves</li> <li>• Explore bodice style an skirts</li> </ul>

**PART A**

## **B.VOC MULTIMEDIA-COURSE OUTCOMES**

### **SEM I**

#### **SDC1 MM 01: Introduction to Media Communication**

CO-1: Summarize the various forms of communication.

CO-2: To implement the functions and nature of the various types of communication.

CO-3: To Analyze the global media content and their impact on the developing countries.

CO-4: Apply the communication skills and knowledge with respect to the different types of communication learnt.

#### **SDC1 MM 02 : Multimedia Tools & Techniques Part 1**

CO-1: Students will get the concepts of Principal of Design, Visual Elements of design.

CO-2: To learn an overview of Drawing and Design & its Principles.

CO-3 Illustrate the concepts of introduction of Multimedia and Raster image.

CO-4 : Implement the basics of Software Packages for Design.

#### **SDC1 MM 03 Office Automation & Basic Internet Programming**

CO-1: To learn HTML tags and JavaScript Language programming concepts and techniques.

CO-2: To develop the ability to logically plan and develop web pages.

CO-3 Students will apply their knowledge to create different purpose websites.

CO-4: Students will apply their knowledge to create interactive websites.

CO-5 : Develop applications using hibernate framework and Hypertext Markup Language Protocols.

### **SDC1 MM 04 (P) Multimedia Tools & Techniques Part I – Lab**

CO-1: Seek design principles, design process, theory, history and contemporary design practice.

CO-2: Gain proficiency in identified technical skills, implement the process of creating, analyzing, and evaluating graphic design concept.

CO-3 Justify the choice of appropriate tools according to the type of digital art work

CO-4: Visualize and demonstrate an idea and express it through visual design. Demonstrate the knowledge of design & colors and apply them effectively to various assignments

### **SDC1 MM05 (P) - MS office & Internet Programming Lab**

CO-1: Seek MS word, PowerPoint in Live working practice.

CO-2: Gain proficiency in identified technical skills, understand the process of word, PPT, etc. in Office Automation solutions.

CO-3 Creation of webpage and website in new era of life in an organization.

CO-4: Making HTML5 Responsive Web Sites for Organization.

## **SEM 2**

### **SDC2 MM 06 - Advanced Web designing & PHP Programming**

- CO-1: Live working practice and creation of Website.
- CO-2: Creation of webpage and website in new era of life in an organization.
- CO-3: Making HTML5 Responsive Web Sites for Organization.

### **SDC2 MM 07 Multimedia Tools & Techniques Part II**

- CO-1: To learn the software skills to create vector graphics for print and web projects.
- CO-2: Determine to solve visual problems using vector art, giving them an important additional skill when they become entry-level designers
- CO-3: Additionally, they learn to exchange ideas, approximating a real-world working atmosphere.
- CO-4 : To explore the multi-page design and development tools for digital and print media

### **SDC2 MM 08 (P) Multimedia Tools & Techniques Part II Lab**

- CO-1: Implement the Software tools and Techniques to utilize creative skill for effective Design solutions.
- CO-2: Design and Develop Interactive Digital content for Web and Publishing.
- CO-3 Utilize the Software's for creating excellent Print ready documents and Web Publications.
- CO-4 : Create Design for Digital & Print Media at an expert level.

### **SDC2 MM 09 (P) - Web designing & PHP Programming Lab**

- CO-1: Live working practice and creation of Website.
- CO-2: Creation of webpage and website in new era of life in an organization.
- CO-3: Making HTML5 Responsive Web Sites for Organization.

### **SDC2 MM 10 (Pr.) Mini Project**

- CO-1: To provide students for knowledge of Designing tools
- CO-2 Students will be able to practice acquired knowledge within the chosen area of technology for project development
- CO-3 Reproduce, improve and refine technical aspects for Multimedia projects
- CO-4 : Communicate and report effectively project related activities and findings.



## **SEM 3**

### **SDC3 MM 11 Digital Photography**

- CO-1: To learn the basics of art of Photography.
- CO-2: Describe different intricacies involved in taking a photograph.
- CO-3: Develop self-learning, how to take a good picture.
- CO-4: To develop photographic sense and knowledge.

### **SDC3 MM 12 - Fundamentals of 2d Animation**

- CO-1: Support for SVG, WebGL, HTML5 animation and video for Web sites and Apps.
- CO-2: Designing interactive animations and publishing them on multiple platforms for multiple devices

### **SDC3 MM 13: Audio & Video Production Tools**

- CO-1 : To Understand the digital video production process.
- CO-2. To Apply various concepts and direction style in video production.
- CO-2 : The students will understand the basic editing tools and techniques of sound and video recordings in preparation for the mastering of a television program, motion picture or web application.

### **SDC3 MM 14 (P) - 2d Animation Lab**

- CO-1: Support for SVG, WebGL, HTML5 animation and video for Web sites and Apps.
- CO-2: designing interactive animations and publishing them on multiple platforms for multiple devices

### **SDC3MM 15 (P) Audio &Video Production Tools Lab**

- CO-1: To Analyze the skills on handling professional video camera
- CO-2: Gain proficiency in identified technical skills, understand the process of creating, analyzing, and evaluating graphic design solutions.
- CO-4: To teach how to record, edit, mix and master audio for post-production
- CO-5: To Evaluate creative techniques that can be used in Audio and Video Production.

### **SDC3MM 16 (P) - Photography & Image Editing**

- CO-1: Acquire the lighting in photography.
- CO-2: Build awareness of the subject positioning and Shooting Area identification.
- CO-3: Acquire knowledge about the composition in photography
- CO-4: Exhibit strong familiarity of visual effects using photography

## **SEM 4**

### **SDC4 MM 17 - Fundamentals of 3d**

- CO-1: Demonstrate knowledge of object manipulation. Learn 3D Space, Software and tools
- CO-2: Analyze modeling technique. Be able to obtain 3D Volume and space of an object
- CO-3: Construct 3D models with animation capabilities and use them to compose 3D scenes.

### **SDC4 MM 19 - Character designing in 3D**

- CO-1: To learn 3D Character Designing skills.
- CO-2: To learn 3D Modeling Skills.
- CO-3 Students will apply their knowledge to create different Types of Characters (Biped, Quadruped).

### **SDC4 MM 20 (P) Character designing in 3D Lab**

- CO-1: Become an expert in Character Design in 3D
- CO-2 : Be able to work closely with 3D Departments
- CO-3 : Create a 3D Character for animation.

### **SDC4 MM 21 (P) Fundamentals of 3d Lab**

- CO-1: Adequate knowledge of 3d tools and techniques to utilize for creative skill
- CO-2: Be able to create a Biped Character Design
- CO-3 : Become an expert in creating 3D Visual content
- CO-4 : Be able to create 3D Animation.

### **SDC4 MM 22 (Pr) Mini Project**

- CO-1: To provide students for knowledge of Editing/ Animation tools 50
- CO-2 Students will be able to practice acquired knowledge within the chosen area of technology for project development
- CO-3 Reproduce, improve and refine technical aspects for Multimedia projects
- CO-4 : Communicate and report effectively project related activities and findings.

**SDC4 MM 18 (E1): Multimedia Journalism and E-Content Development.**

CO-1: The scope of the course shall be limited to the study of the fundamental areas of multimedia with emphasis on understanding the basic tools, techniques and issues.

CO-2: Be familiar with the tools and resources used in multimedia production

CO-3: Be familiar with the specifics of narration in a multimedia environment

CO-4 : Students will become acquainted with the ethical and legal implications of online and social media practices.

**SDC4 MM 18 (E2): Acting & Direction for Animation.**

CO-1: To familiarize the students with various approaches, methods and techniques of Animation Technology and direction.

CO-2: To develop competencies and skills needed for becoming an effective Animator

CO-3: To enable students to manage Animation Projects from its Conceptual Stage to the final Product creation.

CO-4 : To apply Audio and Video Production Techniques to an Animation Project

**SDC4 MM 18 (E3): E-Publishing concepts**

CO-1: Know what does the concepts of 'E-Publishing and Network Publishing' mean;

CO-2: Identify the limitations of E-Publishing and Network Publishing.

CO-3: Interpret the basic functions of 'E-Publishing and Network Publishing';.

## **SEM 5**

### **SDC5 MM 23 - Media Laws and Ethics**

CO-1: Students gain an understanding of laws pertaining to media.

CO-2: Students gain an analytical knowledge into ethical issues related to media

CO-3 Students learn to apply media laws to case studies and evaluate the relative merits and demerits of laws and ethical questions pertaining to media

CO-4 : Creating an understanding among students about the importance of responsible Journalism which works within the framework of laws and ethics

### **SDC5 MM 24 - Life Skill & Personality Development**

CO-1: Students gain an understanding of laws pertaining to media.

CO-2: Students gain an analytical knowledge into ethical issues related to media

CO-3 Students learn to apply media laws to case studies and evaluate the relative merits and demerits of laws and ethical questions pertaining to media

CO-4 : Creating an understanding among students about the importance of responsible Journalism which works within the framework of laws and ethics

### **SDC5 MM 26 - Graphics & Animation in Advertising**

CO-1: To helps improve your communication with prospective Audience

CO-2: Able to pre-sell your products using animation, before you actually have a physical product available.

CO-3 Animation allows you to demonstrate a product without actually having it

CO-4: Animated advertisement to give a feeling of reality and aliveness

### **SDC5 MM 27 - 3D Visualisation, VFX and Compositing**

CO-1: To get an Understanding of how 3D animations are made

CO-2 : Learn VFX Tools and Techniques for making a VFX film

CO-3: Acquire 3D Animation & Vfx Knowledge.

### **SDC5 MM 28 (P) - VFX and Compositing Lab**

CO-1: Implement the Visual Effects & Compositing process

CO-2: Become an expert in VFX & Compositing

CO-3 : Be able to work in Rotoscopy, Tracking, Matte painting Departments

CO-4 : Create an excellent Live action VFX Content.

### **SDC5 MM 29 (P) - Graphics & Animation in Advertising Lab**

CO-1: To help improve your communication with prospective Audience

CO-2: Able to pre-sell your products using animation, before you actually have a physical product available.

CO-3 Animation allows you to demonstrate a product without actually having it

CO-4: Animated advertisement to give a feeling of reality and aliveness

### **SDC5 MM30 (P) - 3D Visualisation Lab**

CO-1: Become an expert in 3D Visualization Tools.

CO-2: Be able Produce 3D Walkthroughs and Animations of Products, Architecture etc.

CO-3: Acquire 3D Visualization Skill.

#### **SDC5 MM 25 (E4) - Film Appreciation – Genres**

CO-1: Define, analyze, and explain the concepts of social responsibility and civic knowledge within the framework of the medium of narrative film;

CO-2 Understand works of film as expressions of individual and human values within an historical and social context;

CO-3: demonstrate knowledge of the influence of literature, philosophy, and/or the arts on intercultural filmic experiences.

#### **SDC5 MM 25 (E5) - Film Studies**

CO-1: Observe with knowledge and reflect upon the articulation of a film's content, form and structure.

CO-2 Demonstrate familiarity with diverse forms of the moving image, including, for example, the feature film, experimental and avant-garde cinema, video art and moving image installation, television and digital media.

CO-3: Gain a basic understanding of film theory and global film history, to be able to identify significant movements and articulate key concepts.

#### **SDC5 MM 25 (E6) : Theories of Visual Analysis**

CO-1: Students learn about introduction to communication research.

CO-2 Students acquire knowledge on some research methodologies.

CO-3: Students know about the survey readership, audience, consumers.

CO-4 : Students learn about Sampling. CO-5: Students learn about presenting research.

## **SEM 6**

SDC6 MM31 (Pr) – Term Paper

CO-1: Acquire the knowledge of doing research in specialized areas in different media

CO-2: Develop the skill to write and present the process of presenting work.

Internship & Project

CO-1 : Acquire the knowledge of the concept about Multimedia production and development

CO-2 : Apply attained skill to develop products based on Graphic Design, Audio & Video Production, 2d & 3d Animation

CO-3 : Apply knowledge to make a synopsis of the project work for approval

CO-4 : Apply knowledge and skill in scientific research, critical thinking, reasoning, product development and final documentation.

CO-5 : Acquire skill and knowledge to present their products in the best way possible.

## **B.VOC MULTIMEDIA- PROGRAMME SPECIFIC OUTCOMES (PSOS)**

**POs 1** Students should demonstrate proficiency in using a variety of multimedia software tools and platforms for graphic design, video editing, animation, audio production, and web development.

**POs 2** Students should be able to apply their creativity and artistic skills to develop engaging multimedia content, including graphics, animations, videos, and interactive media.

**POs 3** Students should possess a strong understanding of multimedia technologies, including image editing techniques, video production processes, animation principles, and web development languages.

**POs 4** Students should be capable of planning, designing, and producing multimedia projects from concept to completion, considering factors such as target audience, project objectives, and technical requirements.

**POs 5** Students should demonstrate the ability to work effectively in multidisciplinary teams, communicate ideas clearly, and collaborate with clients, stakeholders, and peers in the development of multimedia projects.



## DEGREE OF BACHELOR OF VOCATION (B.VOC) SOFTWARE DEVELOPMENT

### Program Specific Outcomes(PSO)

RUQ3"	F go qpwtcvg"wpf gtucpf kpi "qh'vj g'r tlpekr ngu'cpf "y qtnkpi "qh' yj g'j ctf y ctg'cpf "uqhy ctg'cur geu'qh'eqo r wgt'u{ uvgu u0'
RUQ4"	Wpf gtucpf "yj g'ko r cev'qh'i gpgtcl'gf wecvkp"kp"yj g'ctgcu'rkng" F kucvgt" O cpci go gpv." I gpf gt" Uwf kgu." Gpxktqpo gpvcl' Uekpeg." Rwdre" J gcnj ." Ucpkcvkp" cpf " Uchgv{." Gpvtgr tpgwtuj kr ."J wo cp"Tkj j u."RT."Eqpuwo gt "Rtqvgevkp" gve0'cpf "pggf "hqt "uwuckpcdrng" f gxgnr o gpv0'
RUQ5"	F gxgnr "eqo r gvpv"vej pkecl'ur gcnkpi "cpf "y tkkpi "unkm"kp" Gpi rkj " uq" cu" vq" gpcdrng" yj g" i tcf wcvg" vq" ghgevkgn{ " eqo o wplecvg"kp"yj g'y qtnr rneg0'
RUQ6"	F gxgnr " eqo r gvpe{ " kp" cf xcpegf " r tqi tco o kpi " rpi wci gu" uwej "cu"O cej kpg"Ngctpkpi ."CK'Dki "F cvc."KV."F DC."R{ yj qp." L4GG."Cpf tqkf ."F qv" P gv' gve0'cpf "ngctp" yj g" f gxgnr o gpv' qh' uqhy ctg'cpf "y gd'cr r rkecvkpu'wulpi "yj gug0'
RUQ7"	Hwpevkp" ghgevkgn{ "cu"cp" kpf kxkf wcn"cpf "cu" c"o go dgt"qt" rcf gt"kp" f kxgtug'vgo u."cpf "kp"o wnk kxkf rcpct{ "ugvkpi u0'

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	SDC1IT01	Discrete Mathematics	<ul style="list-style-type: none"> <li>EQ/3-&lt;Wpf gtucpf o cyj go cvecl' mji ke" cpf Dqqrgep"cnj gdtc0</li> </ul>
			<ul style="list-style-type: none"> <li>EQ/4-&lt;Gxcnvcg" Dqqrgep hwpevkpu" cpf " uko r rkh{ " gzrtguvkp" wulpi " yj g" r tqr gtvku" qh" Dqqrgep" cnj gdtc"</li> </ul>
			<ul style="list-style-type: none"> <li>EQ/5-&lt; Wpf gtucpf " uqo g dcule" r tqr gtvku" qh" i tcr j u cpf " tgrvgf " f kuetgv" utvewtgu.Cpf " dg" cdrng" vq" tgrvg" vq" r tcevecl' gzc o r ngu0'</li> </ul>
			<ul style="list-style-type: none"> <li>EQ6/&lt;Wpf gtucpf " uqo g dcule" r tqr gtvku" qh" vtggu cpf " tgrvgf " f kuetgv" utvewtgu0'</li> </ul>

			<ul style="list-style-type: none"> <li>● CO-5: Demonstrate different traversal methods for trees and graphs.</li> </ul>
<b>I</b>	<b>SDC1IT02</b>	<b>PROGRAMMING IN C</b>	<ul style="list-style-type: none"> <li>● CO-1: Read, understand and trace the execution of programs written in C language.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Write the C code for a given algorithm.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Write programs that perform operations using derived data.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Choose the right data representation formats based on the requirements of the problem.</li> </ul>
<b>I</b>	<b>SDC1IT03 (P)</b>	<b>PROGRAMMING IN C - LAB</b>	<ul style="list-style-type: none"> <li>● CO-1: To impart adequate knowledge on the need of programming languages and problem solving techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: To develop an in-depth understanding of functional and logical concepts of C Programming.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Recollect various programming construct like decision making, branching and looping to develop c programs.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO-4: Implement different Operations on arrays, functions, structures &amp; unions</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Implement different Operations on pointers, and files.</li> </ul>
<b>I</b>	<b>SDC1IT04 (P)</b>	<b>WEB PROGRAMMING - LAB</b>	<ul style="list-style-type: none"> <li>● CO-1: Understand the important HTML tags for designing static pages and separate design from content using Cascading Style sheet.</li> <li>● CO-2: Design and develop web pages using CSS styles, internal and/or external style sheets.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3:-Develop interactive web applications using HTML, CSS, JavaScript and XML.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4:- To develop the ability to build efficient web based applications using PHP.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:- To learn the basic constructs in PHP Programming.</li> </ul>
<b>I</b>	<b>SDC1IT05 (P)</b>	<b>OFFICE AUTOMATION &amp; DESIGN LAB</b>	<ul style="list-style-type: none"> <li>● CO-1:By learning the course, the students will be able to perform documentation Gain proficiency in identified technical skills, understand the process of word,</li> </ul>
			<ul style="list-style-type: none"> <li>● CO -2: To create Social Media Advertisements.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 3: To create informatics video content</li> </ul>

			<p>for presentation. To establish as an Interactive content designer for Digital media.</p> <ul style="list-style-type: none"> <li>● CO- 4: To design Website layout and elements.</li> </ul>
<b>II</b>	<b>SDC2IT06</b>	<b>PROGRAMMING IN JAVA</b>	<ul style="list-style-type: none"> <li>● CO-1: To Familiarize Java programming Constructs</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: To solve the interdisciplinary applications using the Basic Principles of OOPs(Class, Object Inheritance, Polymorphism etc.) and Packages</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: To familiarize the concepts of Threads, Synchronization, Files and facilitate students in handling exceptions.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: To Learn Common abstract user interface components to design GUI in Java using Applet, AWT and Swing</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Apply JDBC to provide a program level interface for communicating with databases using java programming.</li> </ul>
<b>II</b>	<b>SDC2IT07</b>	<b>RELATIONAL DATABASE MANAGEMENT SYSTEM</b>	<ul style="list-style-type: none"> <li>● CO-1: Describe the fundamental concepts of database management systems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Explain the basic concepts of relational data model, entity-relationship model, relational database</li> </ul>

			design, relational algebra and SQL.
			<ul style="list-style-type: none"> <li>• CO-3: Improve the database design by normalization.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO-4: populate relational database and formulate SQL queries on data.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO-5: To learn PL/SQL Programming Constructs (Trigger,Cursor,Stored Procedure)</li> </ul>
<b>II</b>	<b>SDC2IT08 (P)</b>	<b>PROGRAMMING IN JAVA- LAB</b>	<ul style="list-style-type: none"> <li>• CO1: Able to write programs for solving real world problems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Apply the concepts of polymorphism and inheritance for problem solving in Java. Implement the concepts of packages and interfaces</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Develop programs for exception handling, multi-threading and IO application programs</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Design GUI applications using Applet and swing components</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Build database connectivity programs using JDBC</li> </ul>
<b>II</b>	<b>SDC2IT09 (P)</b>	<b>RDBMS –LAB</b>	<ul style="list-style-type: none"> <li>• CO-1:Apply the basic concepts of Database Systems and Applications.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO-2: Use the basics of SQL and Formulate queries using SQL DML/DDI/DCL</li> </ul>

			<p>Commands in database creation and interaction.</p> <ul style="list-style-type: none"> <li>● CO-3: Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.</li> <li>● CO-4: Capable to build and Manage PL/SQL Programs</li> </ul>
<b>II</b>	<b>SDC2IT10 (Pr)</b>	<b>MINI PROJECT</b>	<ul style="list-style-type: none"> <li>● CO-1 Acquire the basic knowledge about handling real world projects</li> <li>● CO-2: Apply academic skills in industrial circumstances</li> <li>● CO-3: Able to gain practical knowledge and implement all learning concepts in the form of an application.</li> </ul>
<b>III</b>	<b>A11</b>	<b>BASIC MATHEMATICS AND GENERAL AWARENESS</b>	<ul style="list-style-type: none"> <li>● CO-1: Apply numerical and reasoning skills in competitive examinations.</li> <li>● CO-2: Understand some basic concepts of research and its methodologies.</li> <li>● CO-3: Bridge the fundamental skills of computers with the present level of knowledge of the students.</li> <li>● CO-4: To train and equip the students with the skills of modern banking and insurance.</li> </ul>
<b>III</b>	<b>A12</b>	<b>PROFESSIONAL BUSINESS SKILLS</b>	<ul style="list-style-type: none"> <li>● CO-1: Able to become a professional by acquiring</li> </ul>

			<p>various soft skills needed for business success.</p> <ul style="list-style-type: none"> <li>● CO-2: Explore the world of e-learning and also the various consequences of Cyber space and crimes.</li> <li>● CO-3: Application of data analysis and the role of artificial intelligence in e-business.</li> <li>● CO-4: Apply the skills of digital marketing and e-commerce.</li> </ul>
<b>III</b>	<b>SDC3IT11</b>	<b>SOFTWARE ENGINEERING</b>	<ul style="list-style-type: none"> <li>● CO-1: Understand the basic concepts of software engineering techniques.</li> <li>● CO-2: Apply Techniques of Test Design.</li> <li>● CO-3: Understand Test Design Management.</li> <li>● CO-4: Analyze the various software testing approaches.</li> </ul>
<b>III</b>	<b>SDC3IT12</b>	<b>PROGRAMMING IN PYTHON</b>	<ul style="list-style-type: none"> <li>● CO-1: Explain basic principles of Python programming language</li> <li>● CO-2: Implement object oriented concepts</li> <li>● CO-3: Implement database and GUI applications.</li> <li>● CO-4: Implementing Server side programming using Python Server side scripting.</li> <li>● CO-5: Explaining the features of displaying data from MYSQL in web page</li> </ul>

<b>III</b>	<b>SDC3IT13</b>	<b>COMPUTER NETWORKING CONCEPTS</b>	<ul style="list-style-type: none"> <li>● CO-1:Recognize the technological trends of ComputerNetworking.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2:Discuss the key technological components of the Network.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Evaluate the challenges in building networks and solutions to those</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:-Have a working knowledge of datagram and Network Security</li> </ul>
<b>III</b>	<b>SDC3IT14(P)</b>	<b>DATA STRUCTURE USING JAVA- LAB</b>	<ul style="list-style-type: none"> <li>● CO-1:Ability to identify the appropriate data structure for a given problem.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Graduate able to design and analyze the time and space complexity of algorithms or programs.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Ability to effectively use compilers includes library functions, debuggers and troubleshooting.</li> <li>● CO-4: Illustrate the programs using DS</li> </ul>
<b>III</b>	<b>SDC3IT15 (P)</b>	<b>PROGRAMMING IN PYTHON - LAB</b>	<ul style="list-style-type: none"> <li>● CO- 1: Write, test, and debug simple Python programs.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 2: Implement Python programs with conditionals and loops.</li> </ul>



			<ul style="list-style-type: none"> <li>● CO- 3: Develop Python programs stepwise by defining functions and calling them.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 4: Use Python lists, tuples, dictionaries for representing compound data.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 5: Read and write data from/to files in Python.</li> </ul>
<b>III</b>	<b>SDC3IT16 (P)</b>	<b>COMPUTER NETWORKING- Lab</b>	<ul style="list-style-type: none"> <li>● CO-1:Recognizethe technological trends of ComputerNetworking.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Discuss the key technological components of theNetwork.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Evaluate The challenges in building networks and solutions to those</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5:Have a working knowledge of datagram and Network Security</li> </ul>
<b>IV</b>	<b>A13</b>	<b>ENTREPRENEURSHIP DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>● CO-1: Able to understand the nature of entrepreneurship and the financial assistance and guidance from the government.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2:Confirm an entrepreneurial business idea</li> </ul>

			<ul style="list-style-type: none"> <li>● CO-3: Explore entrepreneurial leadership and management style.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Confidence in Setting up of Industrial units.</li> </ul>
<b>IV</b>	<b>A14</b>	<b>PUBLIC HEALTH, SANITATION &amp; SAFETY</b>	<ul style="list-style-type: none"> <li>● CO-1: Identify the diseases associated with occupation</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Identify the hazard in industrial area and propose preventive measures</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Manage safety in industries and propose safety measures and PPE</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Demonstrate the hygiene and sanitation procedures</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Demonstrate the microorganism responsible for the disease and their control</li> </ul>
<b>IV</b>	<b>SDC4IT17</b>	<b>OPERATING SYSTEMS</b>	<ul style="list-style-type: none"> <li>● CO-1 Understand the functions of Operating System</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2 Classify the different types of OS</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3 Understand the memory management policies, allocation and scheduling of processes</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4 Evaluate the requirement for process synchronization and coordination handled by operating system</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5 Understand the virtual memory &amp; their policies, I/O management,</li> </ul>

			File management and disk scheduling.
<b>IV</b>	<b>SDC4IT18</b>	<b>COMPUTER SECURITY</b>	<ul style="list-style-type: none"> <li>● CO- 1:Explain some common software vulnerability issues and classifications mechanisms</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Understand different security protocols.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Understand security models for computer systems security</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Explain the various controls available for protection against internet attacks, including authentication, integrity check,firewalls, and intruder detection systems.</li> </ul>
<b>IV</b>	<b>SDC4IT19 E1</b>	<b>J2EE</b>	<ul style="list-style-type: none"> <li>● CO1: - Learn distributed enterprise applications using java.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Learn web development and server side programming using java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3: - Learn database management and spring frameworks.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4: - The students will be able to develop a small project.</li> </ul>

<b>IV</b>	<b>SDC4IT19 E2</b>	<b>.NET PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO-1: Knowledge of the structure or model of the programming language C # (note)</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Use the programming language C # for various programming technologies</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Develop software in C # (application)</li> <li>● CO-4: Evaluate user requirements for software functionality required to decide whether the programming language C# can meet user requirements(analysis)</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:Propose the use of certain technologies by implementing them in the C #programming language to solve the given problem</li> </ul>
<b>IV</b>	<b>SDC4IT20 (P)</b>	<b>OPERATING SYSTEMS AND COMPUTER SECURITY –LAB</b>	<ul style="list-style-type: none"> <li>● CO1: Familiarization with the UNIX system calls for process management and inter process communication. Experiments on process scheduling and other operating system tasks through simulation/implementation .</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2: - Ability to implement inter-process communication, to design and solve synchronization problems , to implement operating system concepts such as scheduling, deadlock management, file management, and memory management.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO3: - Understand the security environment and requirement of cyberspace.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4: - Identify tools to secure organization's IT infrastructure and assets.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5:- Take precautionary measures to ensure protection from attacks, damages and costs.</li> </ul>
<b>IV</b>	<b>SDC4IT21 (P)</b>	<b>E1 – J2EE - Lab</b>	<ul style="list-style-type: none"> <li>● CO-1: Ability to Create Web Applications using Java Servlet</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Graduate able to Manage Web Session using Servlet and JSP</li> <li>● CO-3: Ability to effectively Handle Errors and Exceptions in Web Applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Ability to use NetBeans/ Eclipse IDE for creating J2EE Applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Ability to create applications using Hibernate &amp; Spring Framework</li> </ul>
<b>IV</b>	<b>SDC4IT22 (Pr)</b>	<b>PROJECT WORK/ INTERNSHIP</b>	<ul style="list-style-type: none"> <li>● CO1: Identify the requirements of real world problems.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2: Study and enhance software/ hardware skills.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3: Demonstrate and build the project successfully by hardware requirements, coding, emulating and testing.</li> </ul>

			<ul style="list-style-type: none"> <li>• CO4: To report and present the findings of the study conducted in the preferred domain</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Demonstrate Team work</li> </ul>
<b>V</b>	<b>SDC5IT23</b>	<b>BIG DATA ANALYTICS</b>	<p>CO-1-Design algorithms by employing Map Reduce technique for solving Big Data problems.</p> <p>CO-2: -Identify similarities using appropriate measures.</p> <p>CO-3: -Design solutions for problems in Big Data by suggesting appropriate clustering techniques</p> <p>CO-4: -Discuss algorithms for Analytical Theory and Methods</p> <p>CO-5:- Point out problems associated with streaming data and handle them</p>
<b>V</b>	<b>SDC5IT24</b>	<b>MACHINE LEARNING &amp; ARTIFICIAL INTELLIGENCE</b>	<p>CO-1: Differentiate Various Learning Approaches, and to Interpret the Concepts of Supervised Learning</p> <p>CO-2: Compare The Different Dimensionality Reduction Techniques</p> <p>CO-3: Apply Theoretical Foundations of Decision Trees to Identify Best Split and Bayesian Classifier to Label Data Points</p> <p>CO-4: Illustrate The Working of Classifier Models Like SVM, Neural Networks and Identify Classifier Model for Typical Machine Learning Applications</p>
<b>V</b>	<b>SDC5IT25</b>	<b>CLOUD COMPUTING</b>	<p>CO-1: Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing.</p>

			<p>CO-2:-Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.</p> <p>CO-3: Explain the core issues of cloud computing such as security, privacy, and interoperability.</p> <p>CO-4: Choose the appropriate technologies, algorithms, and approaches for the related issues.</p> <p>CO-5:-Identify problems, and explain, analyze, and evaluate various cloud computing solutions.</p>
<b>V</b>	<b>SDC5IT27 E1</b>	<b>DATABASE ADMINISTRATION</b>	<p>CO-1: Will be able to work in a group on the design, and implementation of a database system project.</p> <p>CO-2: Experiences how to manage data by establishing a database connection over the current programming languages.</p> <p>CO-3: Experiences on how to implement an application using a database management system.</p> <p>CO-4: Will be able to do database administration works.</p>
<b>V</b>	<b>SDC5IT27 E2</b>	<b>QUALITY ASSURANCE AND TESTING</b>	<p>CO-1: Perform functional and nonfunctional tests in the life cycle of the software product.</p> <p>CO-2:Understand system testing and test execution process.</p> <p>CO-3: Identify defect prevention techniques and software quality assurance metrics.</p> <p>CO-4:Apply techniques of quality assurance for typical applications.</p>
<b>V</b>	<b>SDC5IT27 E3</b>	<b>INTERNET OF THINGS (IoT)</b>	<p>CO1: - Explain the concept of IoT.</p> <p>CO2: -Analyze various protocols for IoT.</p> <p>CO3: -Design a PoC of an IoTsystem using Raspberry Pi/Arduino</p> <p>CO4: -Apply data analytics and use cloud offerings related to IoT.</p>

			CO5: -Analyze applications of IoT in real time scenario.
<b>V</b>	<b>SDC5IT27E 4</b>	<b>FINANCIAL &amp; MANAGEMENT ACCOUNTING</b>	CO-1: To get a general introduction on accounting and its general application. CO-2: To get a general understanding on various tools for financial statement analysis CO-3: To get a general understanding on accounting procedures up to the preparation of various financial statements.
<b>V</b>	<b>SDC5IT28 (P)</b>	<b>ANDROID APP DEVELOPMENT - LAB</b>	CO1: -Demonstrate their skills of using Android software development tools CO2: -Demonstrate their ability to develop software with reasonable complexity on mobile platform CO3: -Demonstrate their ability to deploy software to mobile devices CO4:- Demonstrate their ability to debug programs running on mobile devices
<b>V</b>	<b>SDC5IT29 (P)</b>	<b>MACHINE LEARNING AND AI - LAB</b>	CO-1: Have a good understanding of the fundamental issues and challenges of machine learning: data, model selection, model complexity, etc. CO-2: Be able to design and implement various machine learning algorithms in a range of real-world applications. CO-3: Apply various machine learning algorithms in real world entities CO-4: Develop AI Solutions
<b>V</b>	<b>SDC5IT30 (P)</b>	<b>BIG DATA ANALYTICS - LAB</b>	CO-1: Identify Big Data and its Business Implications. CO-2: Access and Process Data on Distributed File System CO-3: Develop Big Data Solutions using Hadoop Eco System CO-4: Apply Machine Learning Techniques using R
<b>V</b>	<b>SDC5IT31 (P)</b>	<b>CLOUD COMPUTING AND ELECTIVES – LAB</b>	CO-1: Apply various cloud services in development process



			<p>CO-2: Database installation and creation and Managing Database instances</p> <p>CO-3: Develop technique of testing in various stages of development</p> <p>CO-4 Able to understand the application areas of IOT</p> <p>CO-5: Apply fundamental principles of financial &amp; management accounting</p>
<b>VI</b>	<b>SDC6IT32</b>	<b>TERM PAPER</b>	<p>CO-1: Demonstrate capacity to improve student achievement, engagement &amp; retention</p> <p>CO-2: Analyze the problem of study and collect necessary data.</p> <p>CO-3: Students work in traditional rhetorical forms and write a research paper.</p> <p>CO-4: Implement, evaluate and generate reports.</p>
<b>VI</b>	<b>SDC6IT33 (Pr)</b>	<b>INTERNSHIP &amp; PROJECT</b>	<p>CO1: Ability to integrate existing and new technical knowledge for industrial application</p> <p>CO2: Acquire interpersonal, communication and other critical skills in the job interview process.</p> <p>CO3 : Develop work habits and attitudes necessary for job success</p> <p>CO4: Real time work experience helps to get placed easily</p>

## DEPARTMENT OF MALAYALAM

### Programme specific Outcomes (PSOs) –common course for BA/B.Sc/Bcom/BBA/Bvoc Programme

	Programme specific outcomes
PSO1	To give an authentic knowledge about the chronological developments of Malayalam language and literature
PSO2	To familiarize the students with the different genres of literature and our variety artforms .
PSO3	To increase the creative and communicative skills of students.
PSO4	To discuss about the recent trends in Malayalam language and literature and its practical aspects in current situations.
PSO5	To enable them to make multidisciplinary approaches towards other disciplines
PSO6	To understand the various
PSO7	To welcome them in the world of Translation works and its wide cultural and linguistic importance.
PSO8	To enable them for analysing the recent social, cultural, environmental issues and response to it.
PSO9	To know the basic grammatical concepts of Malayalam language
PSO10	To know about the vocabulary of administrative language and its use.

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I BA/ BSc	MAL1A07(1)	Malayala sahithyam-1	<ul style="list-style-type: none"> <li>• CO1-To give general awareness about ancient Malayalam poetry and its genres.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-To understand the oral traditions and its variety streams.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To develop a clear concept about Malayalam short-story and its developments.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4- Provide opportunities to them to read different types of fiction.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-Tofamiliarize the students with different perceptive of short-story writers and approach in a critical way.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6-To analyse the idea -Classicism</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7-To introduce different art forms of Kerala and understand basic</li> </ul>
II BA/BSc	MAL2A08(1)	Malayala sahithyam -2	<ul style="list-style-type: none"> <li>• CO1- To understand the aesthetic concept of modern poetry.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2- To know about the eminent poets in modern Malayalam poetry.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To introduce the ideas of romanticism, Realism, modernism and post-modernism</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To give clear views about Malayalam criticism and it's different ways.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To capable a student to approach a creative work in a critical way</li> </ul>
III BA/BSc	MAL3A09	Malayala sahithyam -3	<ul style="list-style-type: none"> <li>• CO1-To know about general concepts about Malayalam drama and it's importance in literature.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-To recognise drama as a literary form and also as a theatre art.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To provide the basic concepts of film making and give information's about it technical sides. To appreciate the beauty of Malayalam films and realize it with its powerful screenplay.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-Toprovide general idea about biography and auto-biography literature in Malayalam.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To know about the cultural and geographical importance of travelogues and its literal value.</li> </ul>

IV BA/BSc	MAL4A10	Malayala Sahithyam-4.	<ul style="list-style-type: none"> <li>• CO1-To give general awareness about the socio-cultural aspects of dialects.</li> <li>• CO2-To analyse the postmodern novel concepts.</li> <li>• CO3-To realize translations as an important tool for cultural and informational changes</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To give directions to understand the theoretical ideas of translation and enable them for simple translations.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To analyse the historical and cultural components which includes in Malayalam prose through the study of the given texts.</li> </ul>
I sem Bcom/ BBA	MAL1A07(2)	Malayala Sahithya padanam-1	<ul style="list-style-type: none"> <li>• CO1-To analyse the application level and its distinctiveness of language in scientific articles.</li> <li>• CO2-To analyse the narrative styles and perspectives of Eminent Novelists and storywriters</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To realise the fictional beauty of Malayalam short stories</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To understand the creative beauty of Malayalam novels.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To make use of travelogues for analyse the difference between many places.</li> </ul>
II sem Bcom/ BBA	MAL2A08(2)	Malayala sahithya Padanam-2	<ul style="list-style-type: none"> <li>• CO1-To provide the knowledge about the evolution of Malayalam poetry in different time.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-To know about the general concepts about</li> </ul>

			Malayalam short story
			<ul style="list-style-type: none"> <li>• CO3-To recognize drama as a literary work and also a performing art.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To give opportunities to students for creative performances.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To read biography and autobiography of famous personalities and get inspired by it's valuable messages</li> </ul>
I sem BCA / Bvoc (Other pattern)	MAL2A07(3)	Malayalam - Bhashayum sahithyavum-1	<ul style="list-style-type: none"> <li>• CO1-To give general awareness about Malayalam short story and its specialties.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-To familiarize different styles of prose and the importance of the views of the Writers.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To enjoy and analyse the modern Malayalam poems and prepare them for creative writing and thinking</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To realize travelogues as an important ways to understand different cultures and languages.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To provide opportunity to familiarize with travelogues and read it is in an interesting way.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6-To find values which direct our life in a good way.</li> </ul>
II sem BCA / Bvoc (other pattern)	MAL202(2)	Malayalam Bhashayum Sahithyavum-2	<ul style="list-style-type: none"> <li>• CO1-To give general awareness about Malayalam short story and its specialties.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2-To give directions to science students how to analyse a autobiography for a better reading and good thinking.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3-To provide opportunity to appreciate Malayalam novels which represents different narrative styles and themes.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4-To understand the factors which accelerate the major changes happened in the history of Malayalam drama.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5-To analyse the art of Malayalam drama and its importance in emerging Kerala culture</li> </ul>

### DEPARTMENT OF HINDI

#### Programme specific Outcomes BA/BSc Programme Common Course in Hindi

HIN1A07	To acquaint the students with different forms, thoughts and styles used in Hindi Drama through the ages; To make them able to critically evaluate the dramas prescribed and use this knowledge while dealing with other dramaticworks in Hindi; to make them get a glimpse of the present scenario in respect of Hindi Theatre; to help them develop their creative thinking and writing.
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HIN2A08	To make the student well versed in Hindi so that he can speak Hindi fluently and use Hindi as a medium of communication in the fields of Commerce, administration and thus to develop communicative and technical skills in Applied Hindi.
HIN3A09	To acquaint students with the thoughts, ideas and ideologies of ancient and modern Hindi Poets. To encourage them to read more Hindi poetry and to help the students to develop their creative capability.
HIN4A10	To acquaint the students with different forms, thoughts and styles used in Hindi Novels; To make them able to critically evaluate the novels prescribed and use this knowledge while dealing with other novels and short stories in Hindi, to help them develop their creative thinking and writing.

### Course Outcomes BA/BSc Programme Common Course in Hindi

Semester	Course code	Course name	Course outcomes
I semester	HIN1A07	Prose & Drama	<ul style="list-style-type: none"> <li>• C01- Approach literary texts in terms of genre, gender and the canon.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02- Understand and use academic conventions: referencing and bibliography.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- Exposed to the origin and development of Hindi drama and its various themes and forms of different ages and stages.</li> </ul>
			<ul style="list-style-type: none"> <li>• C04- Helps students explore how writers use the resources language as a creativity to explore the entire range of human experience through dramas as a literary form.</li> </ul>
II	HIN2A08	Grammar & Translation	<ul style="list-style-type: none"> <li>• C01- Understand the differences between spoken and written Hindi.</li> </ul>

			<ul style="list-style-type: none"> <li>• C02- Understand the factors that influence use of grammar and vocabulary in speech and writing.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- Understand the different ways in which grammar has been described.</li> </ul>
			<ul style="list-style-type: none"> <li>• C04- Define the link between translation theory and translation practice.</li> </ul>
			<ul style="list-style-type: none"> <li>• C05- Define the effects of translation theories on translation practice.</li> </ul>
			<ul style="list-style-type: none"> <li>• C06- Define the contribution of translation practice to translation theory.</li> </ul>
III	HIN3A09	Poetry in Hindi	<ul style="list-style-type: none"> <li>• C01- Understand the common techniques underlying free verse and traditional forms of poetry.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02- Identify personal experiences that can be used when writing poems.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- Understand the basic terminology and practical elements of poetry.</li> </ul>
IV	HIN4A10	Novel & Short Stories	<ul style="list-style-type: none"> <li>• C01- Enables the students to analyze literature and fiction using appropriate theoretical, historical, and cultural apparatus.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02- Students get to know various cultures and construction of gender, nation and race throughout the history.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- The prescribed fiction helps the students to learn human values and the behavioral patterns from great works of art, and develops the ability to understand human race.</li> </ul>

### Programme specific Outcomes B Com/BBA Common Course in Hindi

HINA07(2)	To inculcate an appreciation of literature in students using the best specimens provided as a reading list or anthology and by practicing literary analysis and literary criticism using the best specimens. Thus, understanding Literary works as cultural and communicative events-different periods, genres and movements.
HINA08(2)	A student who successfully completes the course should be able to prepare all kinds of letters independently as required in their personal, professional and social life. Also to make the students familiarize with the correspondence and to enhance the capability of comprehending data and relevance documents.

### Course Outcomes B Com/BBA Common Course in Hindi

Semester	Course Code	Course Name	Course Outcomes
I Semester	HINA07(2)	Prose Forms In Hindi Literature	<ul style="list-style-type: none"> <li>• C01- Approach literary texts in terms of genre, gender and the canon.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02- Understand and use academic conventions: referencing and bibliography.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- The learner will be aware of socio- political and economic conditions of the society from different periods.</li> </ul>
II Semester	HIN08(2)	Poetry , Correspondance And Translations	<ul style="list-style-type: none"> <li>• C01- Understand the common techniques underlying free verse and traditional forms of poetry.</li> </ul>
			<ul style="list-style-type: none"> <li>• C02- Identify personal experiences that can be used when writing poem.</li> </ul>
			<ul style="list-style-type: none"> <li>• C03- Understand the basic terminology and practical elements of poetry.</li> </ul>
			<ul style="list-style-type: none"> <li>• C04- Define the link between translation theory and translation practice.</li> </ul>
			<ul style="list-style-type: none"> <li>• C05- Define the effects of translation theories on translation practice.</li> </ul>
			<ul style="list-style-type: none"> <li>• C06- Define the contribution of translation practice to translation theory.</li> </ul>

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**Programme specific Outcomes Other Pattern Common Course in Hindi**

HINA07(3)	Familiarize the students with some of the eminent writers in rose literature and thereby inculcate Socio-cultural values. And also to develop communicative and technical skills in Applied Hindi.
HINA08(3)	To acquaint the students with different forms, thoughts and styles used in Hindi poetry and drama through the ages; To make them able to critically evaluate the poetic and dramatic works prescribed and use this knowledge while dealing with other works in Hindi; to help them develop their creative thinking and writing

**Course Outcomes Other Pattern Common Course in Hindi**

Semester	Course Code	Course Name	Course Outcomes
I Semester	HINA07(3)	Prose And Oneact Plays	<ul style="list-style-type: none"> <li>• C01- Approach literary texts in terms of genre, gender and the canon. Understand and use academic conventions: referencing and bibliography.</li> <li>• C02- The learner will be aware of socio-political and economic conditions of the society from different periods. Be familiar with the theoretical foundations of the genre.</li> <li>• C03- Be able to compare and contrast the genre with other dramatic forms.</li> </ul>

II Semester	HIN08(3)	Poetry And Short Stories	<ul style="list-style-type: none"><li>• C01- Understand the common techniques underlying free verse and traditional forms of poetry</li><li>• C02- Identify personal experiences that can be used when writing poems.</li><li>• C03- Understand the basic terminology and practical elements of poetry.</li><li>• C04- Students get to know various cultures and construction of gender, nation and race throughout the history. The prescribed fiction helps the students to learn human values and the behavioral patterns from great works of art, and develops the ability to understand human race.</li></ul>
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### M.A. HISTORY PROGRAMME

Programme Outcome	Course Outcome
<ul style="list-style-type: none"> <li>• Enables the student to analyse the process of historical transformation.</li> <li>• Enables the student to locate the cardinal forces of change in the historical development.</li> <li>• Enables the student to evaluate the changing perceptions of Indian society and culture.</li> <li>• Enables the student to design a research proposal in his area of interest.</li> <li>• Enables the student to demonstrate the socio-economic and political dimensions of contemporary society.</li> <li>• Enables the student to appreciate and formulate the values of Indian Nationalism, democracy and secularism.</li> </ul>	<p style="text-align: center;"><b>HIS 1C01 - Method of Historical Research</b></p> <ul style="list-style-type: none"> <li>• Ability to understand major trends in Methods of historical research</li> <li>• Ability to evaluate the initial phases of research</li> <li>• Ability to analyse the various methods of documentation and criticism</li> </ul> <p style="text-align: center;"><b>HIS 1C02: Pre-Modern Kerala: Problems and Perspectives</b></p> <ul style="list-style-type: none"> <li>• Understands the need to examine primary evidence</li> <li>• Realises the importance of critical methodology in writing history</li> <li>• Students make use of the knowledge in other disciplines to understand the history</li> <li>• Learns the importance of re-reading primary sources and evidence</li> <li>• Uses analytical methodology in the study of regional history</li> </ul> <p style="text-align: center;"><b>HIS 1C03 - Problems, Perspectives and Debates in Early Indian History</b></p> <ul style="list-style-type: none"> <li>• It enables the students to explain and critique the major problems and debates in early Indian history.</li> <li>• It helps them to evaluate the perspectives in early Indian history and helps to formulate research problems in their area of interest.</li> <li>• The course enables them to correlate and develop skill in the comparative analysis of situations in their area of interest.</li> <li>• It makes them identify fresh insights in the area of early Indian history.</li> </ul> <p style="text-align: center;"><b>HIS 1C04 : Early Bronze and Iron Age Civilisations</b></p> <ul style="list-style-type: none"> <li>• It will develop a strong foundation and critical understanding of the shifting nature of human civilization.</li> <li>• It will always seek to make the debate on the ancient state.</li> <li>• Students will familiarise with all arch-type</li> </ul>

	<p>tools and their growing pattern.</p> <ul style="list-style-type: none"> <li>• It will provide a strong foundation for thinking mode in human evolution.</li> </ul> <p><b>HIS 2C01- History and Theory</b></p> <ul style="list-style-type: none"> <li>• Ability to locate the post-enlightenment stream of historical thought</li> <li>• Ability to understand classical social theories</li> <li>• Ability to evaluate the methodological innovations of Annales school</li> <li>• Ability to demonstrate Methodological debates and contemporary trends.</li> </ul> <p><b>HIS 2C02 - History of Modern Kerala: Problems and Perspectives</b></p> <ul style="list-style-type: none"> <li>• Understand the modernization of Kerala society and its process</li> <li>• Acquire the ability to examine the transformation of society in a critical manner</li> <li>• Learn the underplay of different forces in the making of changes in the society</li> <li>• Identify newer problems for further study and investigation in modern history</li> </ul> <p><b>HIS 2C03 - State and Society in Medieval India</b></p> <ul style="list-style-type: none"> <li>• Ability to locate Historiographical understanding of medieval India</li> <li>• Ability to understand aspects of state and society of medieval India</li> <li>• Ability analyze the transformation of religion and social stratification in medieval India</li> <li>• Ability to demonstrate the growth of science, technology and culture</li> </ul> <p><b>HIS 2C04 - SELECTED PROBLEMS OF MEDIEVAL AND MODERN WORLD HISTORY</b></p> <ul style="list-style-type: none"> <li>• Enable the students to analyse the medieval and modern periods of world history in a comprehensive manner.</li> <li>• Enable the students to identify major historiographical positions on the transition from the medieval to the modern period.</li> <li>• Enable the students to evaluate the ideologies of the renaissance, enlightenment and French</li> </ul>
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Revolution that shaped the life of people.

**HIS3C01 PERSPECTIVES ON COLONIALISM IN INDIA**

- It enables the student to formulate the various issues on the colonial period about the colonial administration and exploitation of Indian society.
- It attempts to identify the colonial development in India under the British colonial rule.
- It enables the student formulate consolidation of English East India Company.

**HIS 3C 02 DISCOURSES ON INDIAN NATIONALISM**

- The students will do their further works on the insights of discourse analysis.
- The course will be strengthened their analytical capacity in Indian history with the expertise manner of nationalism divergently.
- It will tend to democratic and constitutional values in this practical living world.

**HIS 3E 04 SELECTED THEMES IN ECONOMIC HISTORY OF MEDIEVAL INDIA**

- Ability to understand the economic activities of Medieval India
- Ability to differentiate various forms of taxes and other dues on agricultural and non-agricultural production
- Ability to analyse the cardinal changes in the economy of medieval India
  - Ability to locate the centres of trade, urbanization and trade routes of medieval India

**HIS 3E 06 RECENT PERSPECTIVES ON SOCIAL HISTORY OF MEDIEVAL KERALA**

- The course enables the students to explain and critique the recent developments in the social history of medieval Kerala.
- It helps them to evaluate and critique the trends in social history and helps to formulate research problems in their area of

interest.

- The course enables them to correlate and develop skill in the comparative analysis of situations in their area of interest.
- It makes them identify fresh insights in the area of the social history of medieval Kerala.

**HIS 4C 01: PROBLEMS AND DEBATES IN CONTEMPORARY INDIA**

- To enable the students to contribute substantially to the development of a country through an understanding of the historical events.
- They will be able to communicate past events sequentially and coherently.
- Enable the students to develop problem-solving abilities at different levels locally, regionally and nationally.
- It develops international understanding.
- The learning outcomes are observable and measurable through their social behaviour and involvement in the process of national development.

**HIS 4C 02: Selected Themes in Pre-modern South India**

- The course enables the students to evaluate the socio-cultural life of the people in pre-modern South India.
- It helps them to identify the trends in South Indian history and helps to derive research problems in their area of interest.
- The course enables them to correlate and develop skill in the comparative analysis of situations in various parts of the country.
- It enables them to formulate persuasive arguments in the area of pre-modern South Indian history.

**HIS 4E 01-ARCHAEOLOGY: THEORY AND PRACTICE**

- This course equips the students to get a broad knowledge of the multi-disciplinary field of Archaeology, and a more detailed understanding of several of these disciplines and sub disciplines.
- It enabled the students to understand the archaeological methods and theories used to evaluate artefacts and other data.

	<b>Semester</b>	<b>Course code</b>	<b>Course/topic name related</b>
Employability	I Semester	HIS1CO1	Editing /Topic Name Related
Entrepreneurship	I	HIS1CO1	Editing
Skill Development	I	HIS1CO1	Research in Practice I & II
	IV	HIS4EO1	Writing Research Paper & Projects; Citations Archaeology in the Field; Post-Field Research
			<ul style="list-style-type: none"> <li>• It provides knowledge and skills of archaeology that helps the students to become a field archaeologist or researcher</li> <li>• It gives a chance to understand and appreciate the legacy of ancient cultures of India in general and south India in particular</li> </ul> <p><b>HIS 4E 06: Indian Literature in Historical Perspectives</b></p> <ul style="list-style-type: none"> <li>• Students will be able to view Indian literary tradition from a historical perspective and critically respond to texts.</li> <li>• They will identify that the relationship between history and literature are at multiple levels and how do they supplement each other.</li> <li>• Introduce the students to the trajectory of Indian literature with landmark writings and the historical context in which they have been written.</li> </ul>

Skill Development	I	HIS1CO1	Research in Practice I & II Writing Research Paper & Projects; Citations
	IV	HIS4EO1	Archaeology in the Field; Post-Field Research
Professional Ethics	I	HIS1CO1	Plagiarism & Ghost Writing; Plagiarism check
Gender	II	HIS2CO1	Gender History
	II	HIS2CO2	Women & Gender History in Kerala
	II	HIS2CO3	Positions of Women in Medieval India
	III	HIS3CO1	Women under Colonialism; Colonial Economy and women's work
	III	HIS3EO4	Gender & Labour State in Medieval India
	III	HIS3EO6	Gender Relations in Medieval Kerala; Matriliny & Patriliney; Heroines in <i>Manipravalakavyas</i> : Brahmanical Patriarchy & Gender Positions in Kerala
		HIS4CO1	Gender & Rise of Women's Movement in Contemporary India
		HIS4CO2	Women in Pre-Modern South India
Human Values	III	HIS3CO2	Gandhian Discourse; Ambedkarite Intervention
Environment	II	HIS2CO2	Human Ecology & Settlement
	IV	HIS4CO1	Environmental Movements in India
Sustainability			

## DEPARTMENT OF SOCIOLOGY

### Programme Specific Outcomes (PSOs) –Sociology Programme

- At the end of the two year M.A. course in which students not only take classes in all the important sub-disciplines of the subject but also attend a rigorous tutorial programme, they will not only have a comprehensive knowledge of important concepts and issues in sociology and society at large but will have also developed skills such as critical thinking, and the ability to formulate cogent arguments which will give them an edge in any profession that they wish to pursue.

### Course outcomes

Semester	Course code	Course name	Course Outcomes
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I	SOC1 C01	Foundations Of Sociological Theory	<ul style="list-style-type: none"> <li>• CO1- Traces out the history of sociology</li> <li>• C02- Introduces the ideas of the pioneering sociological thinkers</li> <li>• C03- Recognises the relevance of the classical theory in contemporary societies</li> </ul>
	SOC1 C02	Research Methodology Of Sociology	<ul style="list-style-type: none"> <li>• C01- To familiarize the students with quantitative and qualitative research</li> <li>• C02- To understand the steps and stages of research</li> <li>• C03- To inculcate research aptitude in the students</li> </ul>
	SOC1C03	Sociology Of Indian Society	<ul style="list-style-type: none"> <li>• C01- To introduce the different approaches to the study of Indian Society</li> <li>• C02- To discuss the different issues of Indian society</li> <li>• C03- To analyze the transformations in Indian society</li> </ul>
	SOC1C04	Rural And Tribal Societies In India	<ul style="list-style-type: none"> <li><input type="checkbox"/> C01- To acquaint students with basics of rural and tribal societies in our country</li> <li><input type="checkbox"/> C02- To analyze rural and tribal problems</li> <li><input type="checkbox"/> C03- To provide knowledge of rural and tribal social institutions</li> </ul>

	SOC 1A01	Audit course 1	<ul style="list-style-type: none"> <li>• C01- Ability Enhancement programme</li> </ul>
II	SOC2C05	Schools Of Sociological Theory -I	<ul style="list-style-type: none"> <li>• C01- To familiarize with various schools of sociological theory</li> <li>• C02- To enable a critical examination of the major schools of thought</li> <li>• C03- To help recognize the utility and relevance of the theoretical premises</li> </ul>
	SOC2C06	Research Methodology- II	<ul style="list-style-type: none"> <li>• C01- To familiarize with quantitative and qualitative research methods</li> <li>• C02- To familiarize scaling techniques</li> <li>• C03- To familiarize the various components and format of report</li> </ul>
	SOC2C07	Urban Sociology	<ul style="list-style-type: none"> <li>• C01- To familiarize with the basic ideas of Urban Sociology</li> <li>• C02- To discuss issues of urban development</li> <li>• C03- To initiate a critical discussion on Urban society</li> </ul>
	SOC2C08	Gender Studies	<ul style="list-style-type: none"> <li>• C01- To introduce the basic concepts of Gender Studies</li> <li>• C02- To familiarize the theoretical perspectives on Gender</li> <li>• C03- To discuss the Gender dynamics in Indian society</li> <li>• C04- To discuss Gender relations in the context of Kerala society</li> </ul>
	SOC2A02	Audit Course 2	<ul style="list-style-type: none"> <li>• C01- Skill Development Programme</li> </ul>
III	SOC3C09	Schools Of Sociological Theory-II	<ul style="list-style-type: none"> <li>• C01- To familiarize with various schools of sociological theory</li> <li>• C02- To initiate critical discussion on the major schools of thought</li> <li>• C03- To create an awareness on the relevance of the theoretical premises.</li> </ul>

	SOC3C 10	Sociology Of Development: Themes And Perspectives	<ul style="list-style-type: none"> <li>• C01- To familiarize the student with conceptual discussions on development</li> <li>• C02- To initiate discussions on the theoretical views of development</li> <li>• C03- To evaluate the Indian experience of development</li> </ul>
	SOC3E03	Sociology Of Health	<ul style="list-style-type: none"> <li>• C01- To provide the basic understanding of health in Social context</li> <li>• C02- To create awareness on the sociological perspectives of Health and Medicine</li> <li>• C03- To familiarize with the activities of World Health Organization</li> <li>• C04- To evaluate health planning policies and programmes in India.</li> </ul>
	SOC3E05	Project Planning And Preparation	<ul style="list-style-type: none"> <li>• C01- To familiarize the students with the basic steps involved in project planning and preparation</li> <li>• C02- To understand the relevance of project planning in contemporary research</li> <li>• C03- To equip the student with the skills necessary for project planning and preparation of a proposal</li> </ul>
IV	SOC4 C11	Current Debates In Social Theory	<ul style="list-style-type: none"> <li>• C01- To familiarise the students with the contemporary debates in social theory</li> <li>• C02- To initiate discussions on the recent theoretical concepts and ideas</li> <li>• C03- To help the students to understand the relevance of theoretical discussions in contemporary society</li> </ul>

		48		<b>D E P A R T M E N T O F E N G L I S H</b>  <b>Pro gra mm e Spe cific Out com es (PS Os)</b> –
	SOC4C12	Economic Sociology	<ul style="list-style-type: none"> <li>• C01- To introduce the basic concepts of Economic Sociology</li> <li>• C02- To familiarize the theoretical perspectives of Economic Sociology</li> <li>• C03- To analyse the impact of Globalization on economy</li> <li>• C04- To understand the relationship between economy and society</li> </ul>	
	SOC4 E 06	Guidance And Counseling	<ul style="list-style-type: none"> <li>• C01- To provide a basic understanding about guidance and counseling</li> <li>• C02- To create awareness of the different techniques and the process of counseling</li> <li>• C03- To familiarise with the areas of counseling</li> <li>• C04- To recognize the significance of counseling in contemporary society</li> </ul>	
	SOC4E07	Kerala Society: Structure And Change	<ul style="list-style-type: none"> <li>• C01- To familiarise the student with the social structure of Kerala</li> <li>• C02- To analyse the major transformations that have taken place in Kerala</li> <li>• C03- To study about the major movements that have influenced Kerala society</li> <li>• C04- To understand the contemporary Kerala society and its unique features</li> </ul>	
	SOC4P01	DISSERTATION		

**M.A. English Language and Literature Programme (2019 Onwards)**

	Programme specific outcomes
PSO1	To help learners to improve their proficiency in English by developing their listening, speaking, reading and writing skills for academic and non-academic purposes.
PSO2	To facilitate basic knowledge in English critical tradition from the beginnings to the present and to develop research aptitude by learning literary and cultural theories
PSO3	To get enlightened by reading texts from literatures of English like British Literature, Indian Literature, American Literature and Malayalam Literature in Translation

PSO4	To gain insights into the basic concepts and theoretical frameworks of World Drama, Translation Studies, History of English Language, Linguistics, Postcolonial Writings and Literature and Ecology and to recognize the significance of the cultural, religious, social and historical contexts in which texts are produced and comment on the linguistic diversity they contain.
PSO5	To help learners to improve their proficiency in applying various skills in their personal and professional lives thereby enhancing their employability prospects.

### Core, Elective And Audit Courses: Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	ENG1CO1	Core Course-I: British Literature from Chaucer to Eighteenth Century	<ul style="list-style-type: none"> <li>Learners become familiar with the various movements and the great classics in British Literature from the age of Chaucer to the 18<sup>th</sup> century and get enlightened by the experience of reading and analyzing them.</li> </ul>
	ENG1CO2	Core Course-II: British Literature: Nineteenth Century	<ul style="list-style-type: none"> <li>Learners get acquainted with the great classics and various movements of the 19<sup>th</sup> century British Literature with a critical bent of mind.</li> </ul>
	ENG1CO3	Core Course-III: History of English Language	<ul style="list-style-type: none"> <li>Learners are able to study the origin, evolution, and growth of English language over the ages by understanding its phonetic, syntactic and semantic structures.</li> </ul>
	ENG1CO4	Core Course-IV: Indian Literature in English	<ul style="list-style-type: none"> <li>Learners become familiarized with the English used by the various Indian writers who write in English, get exposed to the constraints and challenges encountered in articulating Indian sensibility in English and acquainted with a wide range of Indian texts from poetry, fiction, drama and prose writings in English.</li> </ul>
	ENG1AO1	Audit Course-I: A01 Writing Skills	<ul style="list-style-type: none"> <li>Learners improve their writing skills which help them in developing the linguistic, cognitive and logical skills required in writing different types of essays, anecdotes, academic papers and reports.</li> </ul>
II	ENG2CO5	Core Course-V: Twentieth Century British Literature up to 1940	<ul style="list-style-type: none"> <li>Learners develop a sound understanding of genres, authors, and ideas by a close reading of the representative texts of the period.</li> </ul>

	ENG2CO6	Core Course-VI: Literary Criticism and Theory – Part I (Up to New Criticism)	<ul style="list-style-type: none"> <li>Learners get introduced to the key texts, figures and ideas in the development of literary theory and criticism from the classical to New Criticism which in turn enhance the research spirit in them.</li> </ul>
	ENG2CO7	Core Course-VII: American Literature	<ul style="list-style-type: none"> <li>Learners are initiated to a critical knowledge of the major literary innovations and cultural issues of America by understanding the character and ethos of the American literature through representative texts.</li> </ul>
	ENG2CO8	Core Course-VIII: Postcolonial Writings	<ul style="list-style-type: none"> <li>Learners get familiar with the issues and themes in Postcolonial writings as well as the literary concepts of Postcolonialism keeping in mind some of the prominent questions that have come to define postcoloniality such as the question of history, modernity, identity and language.</li> </ul>
	ENG2A02	Audit Course-II: Translation Theory and Practice	<ul style="list-style-type: none"> <li>Learners get familiarized with the core of translation theory and some of the current theoretical positions which help them to develop practical skills in the translation of literary and non-literary texts.</li> </ul>
III	ENG3CO9	Core Course-IX: Twentieth Century British Literature: Post 1940	<ul style="list-style-type: none"> <li>Learners get exposed to an experience of Post 1940 British Literature and to critically analyse the latest developments through select texts from different genres.</li> </ul>
	ENG3C10	Core Course-X: Literary Criticism and Theory – Part 2	<ul style="list-style-type: none"> <li>Learners get insights into Structuralism, Post-Structuralism/ Deconstruction, Psychoanalytic Criticism, Feminism, Cultural</li> </ul>

			Materialism/New Historicism, Postcolonialism, Ecocriticism and how to critique theory.
	ENG3EO4	Elective Course– I: Introduction to Linguistics	<ul style="list-style-type: none"> <li>Learners get to know about the various schools of linguistics and levels of linguistic analysis- Phonology, Morphology, Syntax and Semantics which help them to understand the relationship between linguistics and related disciplines.</li> </ul>
	ENG3EO7	Elective Course– II: World Drama	<ul style="list-style-type: none"> <li>Learners are given a bird’s eye-view of the dramatic changes that took place in the World Drama and helped to read the plays as being representative products of their milieu by juxtaposing these against their political and socio-cultural contexts.</li> </ul>
IV	ENG4C11	Core Course-XI: English Literature in the 21 <sup>st</sup> Century	<ul style="list-style-type: none"> <li>Learners get exposed to experience 21<sup>st</sup> British Literature and to critically analyse the latest advances through select texts from various genres.</li> </ul>
	ENG4C12	Core Course XII: Dissertation/ Project	<ul style="list-style-type: none"> <li>Learners get a space to express their creative talent based on the knowledge and skills they have acquired through their dissertations, which in turn equip them for advanced literary research.</li> </ul>
	ENG4C13	Core Course XIII: Comprehensive Viva Voce	<ul style="list-style-type: none"> <li>It enables the learners to demonstrate their ability to participate in academic discussions and defend their Dissertation/ Project and other queries related to their entire PG Programme verbally which give confidence to attend placement interviews later.</li> </ul>
	ENG4E12	Elective Course– III: Literature and Ecology	<ul style="list-style-type: none"> <li>Learners get exposed to the scopes of green poetics and green cultural studies through a variety of ecologically conscious literary works and equipped them with an understanding of current global environmental issues.</li> </ul>
	ENG4E18	Elective Course– IV: Malayalam Literature in English Translation	<ul style="list-style-type: none"> <li>Learners get familiarized with the movements and trends in Malayalam Literature since the 1970s from the select texts of Malayalam Literature in Translation irrespective of poetry, fiction, drama and prose reflecting Kerala culture and aesthetics.</li> </ul>

**Name of programme : M.Sc Mathematics**

<b>POs</b>	<b>Cos</b>
PO1: A solid understanding of graduate level algebra, analysis and topology.	<p align="center"><b>MTH1C01: ALGEBRA – I</b></p> CO1: Learn factor group computation. CO2: Understand the notion of group action on a set. CO3: Learn Sylow theorems and its applications. CO4: Understand the notion of free groups. CO5: Understand the concept rings of polynomials CO6: Learn group presentation <p align="center"><b>MTH1C02: LINEAR ALGEBRA</b></p> CO1: Learn basic properties of vector spaces. CO2: Understand the relation between linear transformations and matrices. CO3: Understand the concept of diagonalizable and triangulable operators and various fundamental results of these operators. CO4: Understand Primary decomposition Theorem. CO5: Learn basic properties inner product spaces. <p align="center"><b>MTH1C03: REAL ANALYSIS I</b></p> CO1: Learn the topology of the real line CO2: Understand the notions of Continuity, Differentiation and Integration of real functions. CO3: Learn Uniform convergence of sequence of functions, equicontinuity of family of functions, and Weierstrass theorems. <p align="center"><b>MTH1C04: DISCRETE MATHEMATICS</b></p> CO1: Understand the fundamentals of Graph Theory. CO2: Learn the structure of graphs and familiarize the basic concepts to analyze different problems in different branches. CO3: Acquire a basic knowledge of formal languages, grammar and automata. CO4: Learn equivalence of deterministic and nondeterministic finite accepters. CO5: Learn the concepts of partial order
PO2: Using their mathematical knowledge to analyze certain problems in day to day life.	
PO3 : Identifying unsolved yet relevant problems in a specific field.	
PO4: Undertaking original research on a particular topic	
PO5: Communicate mathematics accurately and effectively in both written and oral form.	
PO6: Conducting scholarly or professional activities in an ethical manner.	



	<p>relation and total order relation.</p> <p><b>MTH1C05: NUMBER THEORY</b></p> <p>CO1: Be able to effectively express the concepts and results of number theory.</p> <p>CO2: Learn basic theory of arithmetical functions and Dirichlet multiplication, averages of some arithmetical functions .</p> <p>CO3: Understand distribution of prime numbers and prime number theorem.</p> <p>CO4: Learn the concept of quadratic residues and Quadratic reciprocity laws.</p> <p>CO5: Get a basic knowledge in Cryptography</p> <p><b>MTH2C06: ALGEBRA II</b></p> <p>CO1: Learn different types of extensions of fields.</p> <p>CO2: Learn automorphisms of fields.</p> <p>CO3: Get a basic knowledge in Galois Theory.</p> <p>CO4: Learn how to apply Galois Theory in various contexts.</p> <p><b>MTH2C07: REAL ANALYSIS II</b></p> <p>CO1: Learn why and for what the theory of measure was introduced</p> <p>CO2: Learn the concept of measures and measurable functions</p> <p>CO3: Learn Lebesgue integration and its various properties</p> <p>CO4: Learn how to generalize the concept of measure theory.</p> <p>CO5: Learn that a measure may take negative values.</p> <p><b>MTH2C08: TOPOLOGY</b></p> <p>CO1: Be proficient in the abstract notion of a topological space, where continuous function are defined in terms of open set not in the traditional <math>\varepsilon - \delta</math> definition used in analysis.</p> <p>CO2: Realize Intermediate value theorem is a statement about connectedness, Bolzano weierstrass theorem is a theorem about compactness and so on.</p> <p>CO3: Learn the concept of quotient topology.</p> <p>CO4: Learn five properties such as <math>T_0</math>, <math>T_1</math>, <math>T_2</math>, <math>T_3</math> and <math>T_4</math> of a topological space <math>X</math> which express how rich the open sets is.</p>
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More precisely, each of them tells us how tightly a closed subset can be wrapped in an open set.

### **MTH2C09: ODE AND CALCULUS OF VARIATIONS**

CO1: Learn the existence of uniqueness of solutions for a system of first order ODEs.

CO2: Learn many solution techniques such as separation of variables, variation of parameter power series method, Frobenius method etc. CO3: Learn method of solving system of first order differential calculus equations.

CO4: Get an idea of how to analyze the behavior of solutions such as stability, asymptotic stability etc.

CO5: Get a basic knowledge of Calculus of variation.

### **MTH2C10: OPERATIONS RESEARCH**

CO1: Learn graphical method and the simplex algorithm for solving a linear programming problem.

CO2: Learn more optimization techniques for solving the linear programming model transportation problem and integer programming problem.

CO3: Learn optimization techniques for solving some network related problems.

CO4: Learn sensitivity analysis and parametric programming, which describes how various changes in the problem affect its solution.

### **MTH2A02: TECHNICAL WRITING WITH LATEX (PCC)**

CO1: Create and typeset a LaTeX document.

CO2: Typeset a mathematical document using LaTeX.

CO3: Learn about pictures and graphics in LaTeX.

CO4: Create beamer presentations.

### **MTH3C11: MULTIVARIABLE CALCULUS AND GEOMETRY**

CO1: Be proficient in differentiation of functions of several variables.

CO2: Understand curves in plane and in

	<p>space.</p> <p>CO3: Get a deep knowledge of Curvature, torsion, Serret-Frenet formulae</p> <p>CO4: Learn Fundamental theorem of curves in plane and space.</p> <p>CO5: Learn the concept of Surfaces in three dimension, smooth surfaces, surfaces of revolution</p> <p>CO6: Learn explicitly tangent and normal to the surfaces.</p> <p>CO7: Get a thorough understanding of oriented surfaces, first and second fundamental forms surfaces, gaussian curvature and geodesic curvature and so on.</p> <p><b>MTH3C12: COMPLEX ANALYSIS</b></p> <p>CO1: Learn the concept of (complex) differentiation and integration of functions defined on the complex plane and their properties.</p> <p>CO2: Be thorough in power series representation of analytic functions, different versions of Cauchy's Theorem.</p> <p>CO3: Get an idea of singularities of analytic functions and their classifications.</p> <p>CO4: Learn different versions of maximum modulus theorem.</p> <p><b>MTH3C13: FUNCTIONAL ANALYSIS</b></p> <p>CO1: Learn the concept of normed linear spaces and Hilbert spaces.</p> <p>CO2: Learn various properties operators defined on both normed and Hilbert spaces.</p> <p>CO3: Understand the concept dual space.</p> <p>CO4: Learn the completeness of the space bounded linear operators.</p> <p><b>MTH3C14: PDE and Integral Equations</b></p> <p>CO1: Learn a technique to solve first order PDE and analyse the solution to get information about the parameters involved in the model.</p> <p>CO2: Learn explicit representations of solutions of three important classes of PDE Heat equations Laplace equation and wave equation for initial value problems.</p> <p>CO3: Get an idea about Integral equations.</p> <p>CO4: Learn the relation between Integral and differential Equations.</p> <p><b>MTH3E01: CODING THEORY</b></p>
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	<p>CO1: The basics of coding theory.  CO2: Learn to detect and correct the error patterns.  CO3: Learn to implement the fundamental concepts in linear algebra to coding theory.  CO4: Understand about different types of coding and decoding methods and develop the problem solving ability.  CO5: Attain the skills to represent cyclic codes in terms of polynomials.</p> <p><b>MTH4C15 ADVANCED FUNCTIONAL ANALYSIS</b></p> <p>CO1: Understand the notions of Fredholm theory of compact Operators and their properties.  CO2: Apply the theory to understand and solve some problems of integral equations at an appropriate level of difficulty.  CO3: Describe the construction of the spectral integral.  CO4: Recognize the fundamentals of Banach spaces and Banach Algebras.</p> <p><b>MTH4E06: ALGEBRAIC NUMBER THEORY</b></p> <p>CO1: Understand that abstract algebra may be used to solve certain problems in Number Theory.  CO2: Learn about arithmetic of algebraic number fields.  CO3: Understand that the familiar unique factorization property may fail in the case of ring of integers of some quadratic fields while a unique factorization theory holds for ideals of ring of integers of a number field.  CO4: Learn finiteness of class numbers.  CO5: Understand that the notions of algebraic numbers may be applied to prove Kummer's special case of Fermat's Last Theorem.</p> <p><b>MTH4E09: DIFFERENTIAL GEOMETRY</b></p> <p>CO1: Understand how calculus of several variables can be used to develop the geometry of n-dimensional oriented n-surface in <math>\mathbb{R}^{n+1}</math> .  CO2: Understand locally n- surfaces and parametrized n- surfaces are the same.  CO3: Develop a knowledge of the Gauss</p>
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and Weingarten maps and apply them to apply them to describe various properties of surfaces.

**MTH4E11: GRAPH THEORY**

CO1: Learn different types of graphs.

CO2: Learn the concept matching in graphs and related results.

CO3: Understand what is meant by coloring.

CO4: Learn Planar Graphs.

**Department of Botany**

**Programme specific outcomes:-M.Sc. Botany 2020 Admission:**

**Programme specific outcomes**

- After completing the PG course in Botany, the students will be able to acquire competency in the area of plant biology.
- Will be competent in differentiating the diverse groups of plants and microbes
- Will be well versatile in understanding the importance of nature and natural ecosystems along with sustainable
- utilization of natural resources for the betterment of humankind.
- Will have a sound understanding in the cultivation process of crop plants, its diseases and managing the
- diseases.
- Will be trained in acquiring the problem solving skills in environmental monitoring and pollution control
- measures
- Understand the importance of biodiversity conservation
- Gain knowledge in understanding the importance of research, its methodology, use of library & digital
- resources
- The use of sophisticated equipments and to demonstrate analytical ability to tackle the scientific research
- problems and also to maintain a high level of botanical research.
- Acquire the ability to understand life processes at cellular as well as molecular level
- Acquire core competency in distinguishing the internal structure of various groups of plants and knows the
- concept, process, physiology of plant development.

## Course Outcomes

Semester	Course Code	Course Name	Courseoutcomes
I	BOT1C01	Phycology, Bryology, Pteridology and Gymnosperms	<p>1. Provide knowledge on the occurrence and evolution of plant groups like Algae, Bryophytes, Pteridophytes and Gymnosperms.</p> <p>2. Develop understanding on the classification, nomenclature, diversity and distribution in these plant groups with up to date research knowledge.</p> <p>3. Develop understanding on the range of variation in their structural and life cycle patterns, cellular organization and ecological / economic importance as separate plant groups.</p> <p>4. Develop hands-on approaches to study algae, Bryophyte, Pteridophyte and Gymnosperm populations and their growth forms in the surrounding environment</p> <ul style="list-style-type: none"> <li>● Understand and distinguish the diverse group of algae</li> <li>● Infer the economic value of different types of algae</li> <li>● Outline the ecological significance of algae</li> <li>● Build the skills for collection, identification and artificial culture of algae.</li> <li>● Interpret different groups of Bryophytes and Pteridophytes</li> <li>● Analyze the different theories regarding the origin of both Bryophytes and Pteridophytes and develop ideas regarding their evolution.</li> <li>● Compare the structural evolution of gametophytes and sporophytes in both Bryophytes and Pteridophytes.</li> <li>● Clarify organization of different types of steles, sori and sporangial characters in an evolutionary perspective</li> <li>● Validate the ecological and economical roles played by both Bryophytes and Pteridophytes.</li> <li>● Understand the classification of Gymnosperms</li> <li>● Make use of the economic value of</li> </ul>

			<p>Gymnosperms</p> <ul style="list-style-type: none"> <li>● Acquire the skills for field identification of Gymnosperms</li> </ul>
	BOT1C02	<p>Mycology &amp; Lichenology, Microbiology and Plant Pathology</p>	<ol style="list-style-type: none"> <li>1. Develop understanding of the major groups of organisms like fungi, lichens and microorganisms, their occurrence, distribution and systematic classification.</li> <li>2. Acquaint with the basic understanding of plant diseases, causative organisms, mode of action and measures for their control</li> <li>3. Acquire practical knowledge on fungi, lichens, micro-organisms, plant pathogens and mode of their growth in specific habitats.</li> <li>4. Develop understanding on the ecological and economic significance of the above groups of organisms. <ol style="list-style-type: none"> <li>a. Understand the diversity of fungi.</li> <li>b. Classify fungi based on different classification system and recognize recent trends in classification of fungi</li> <li>c. Distinguish fungal group with their characteristic features</li> <li>d. Understands the interaction of fungi with other living organisms.</li> <li>e. Understands economic importance of different fungal groups</li> <li>f. Identify the different types of fungi with reason.</li> <li>g. Develop the understanding of the concept of microbial nutrition</li> <li>h. Classify viruses based on their characteristics and structure</li> <li>i. Examine the general characteristics of bacteria and their reproduction</li> <li>j. Enhance their awareness and appreciation of human friendly viruses, bacteria and their economic value</li> <li>k. Understand the basic principles of plant pathology and plant protection</li> <li>l. Identify the different plant diseases and their quarantine measure.</li> <li>m. Familiarize with the basic skills and techniques related to mycology and plant pathology</li> </ol> </li> </ol>

	BOT1C03	Angiospermatophytes, Angiosperm embryology, Palynology & Lab Techniques	<ol style="list-style-type: none"> <li>1. Develop Understanding Of The Structural Composition And Functional Organization In Major Land Plants</li> <li>2. Acquire Knowledge On The Reproduction And Developmental Processes Associate With Major Land Plants</li> <li>3. Understand The Significance Of Pollen Studies In Developmental Process And The Recent Developments In Palynology</li> <li>4. Practical Knowledge On Cell And Tissue Organization, Developmental Stages And Process Associated With The Reproduction In Major Land Plants. <ol style="list-style-type: none"> <li>A. Retrieve Different Types Of Tissues, Non-Living Inclusions In Plant Cells.</li> <li>B. Interpret Structure, Function And Roles Of Vascular Cambium And Cork Cambium.</li> <li>C. Categorize Different Types Of Anomalous Secondary Growth And Their Anatomical Peculiarities And Adaptational Significance.</li> <li>D. Illustrate Significance And Properties Of Wood &amp; Fibres Used Commercially.</li> <li>E. Analyze Leaf Initiation, Types Of Stomata And Trichomes And Appraise Anatomical Peculiarities In C3, C4 And Cam Plants.</li> <li>F. Compare Nodal Anatomy , Floral Anatomy And Their Evolutionary Significance</li> <li>G. Illustrate The Organogenesis In Plants</li> <li>H. Acquire The Basic Concepts Of Developmental Biology</li> <li>I. Summarize The Embryogenesis In Plants</li> <li>J. Familiarizes With Biological Instrumentation And Plant Micro Technique</li> </ol> </li> </ol>
	BOT1L01	Practicals of Phycology, Bryology, Pteridology, Gymnosperms, Mycology And Lichenology	<ol style="list-style-type: none"> <li>1. provide practical knowledge on the collection and identification of members of Algae, Fungi and Lichens</li> <li>2. Provide practical knowledge on the collection of plant groups like Bryophytes, Pteridophytes, Gymnosperms and assessment of their morphological and anatomical features through laboratory exercises.</li> </ol>
	BOT1L02	Practicals Of Microbiology, Plant Pathology,	1. Provide practical knowledge on the collection, culturing and identification of microorganisms (general and



		Angiosperm Taxonomy, Angiosperm embryology, Palynology and lab techniques.	pathogenic) from specific habitats and evaluation of their growth performances. 2. Acquire hands-on experience on the tissue organization in major land plants. 3. Acquire practical knowledge in the reproductive structures of major land plants and the developmental processes associated with them.
	BOT2C04	Cell biology, Molecular biology and biophysics	1. Develop the understanding on cells, their structural and functional organization and the systematic process of growth and development. 2. Provide insight on various sub cellular materials in the molecular level and the processes associated with them, resulting in various metabolic activities. 3. Develop understanding and skills on various Biophysical methods used in cellular studies and the processes associated with them. <ul style="list-style-type: none"> <li>● Get an idea of intracellular components and cell communication</li> <li>● Understand the life cycle of cell</li> <li>● Infer various aspects of cytoskeleton</li> <li>● Analyze the chromosome organization in eukaryotes</li> <li>● Familiarize the DNA replication, repair and recombination</li> <li>● Understand the basic concepts of mechanism of gene expression</li> <li>● Familiarize the control of gene expression</li> <li>● Familiarizes with biological instrumentation</li> <li>● Understand the better use of microscopes in biology</li> </ul>
	BOT2C05	Cytogenetics, Genetics, Biostatistics, Plant breeding and evolution	1. Acquaint with cells and chromosomes, their structural and functional attributes, diversity and resultant manifestation on organisms. 2. Develop understanding of Mendelian Principles of Genetics. 3. Impart knowledge on human genome. 4. Provide an insight on the nature and type of data collection and its management. 5. Develop skills in data analysis using varied statistical software <ul style="list-style-type: none"> <li>● Understand the history of genetics</li> <li>● Familiarize the concepts of linkage and</li> </ul>

			<p>genetic mapping</p> <ul style="list-style-type: none"> <li>● Outline the basic concepts of quantitative genetics</li> <li>● Understand the genetics behind cancer</li> <li>● Familiarize the basic concepts of population genetics</li> <li>● Understand the basic statistical methods for biological research</li> <li>● Understand the basic concepts of plant breeding</li> <li>● Familiarize the mechanism of hybridization in plants</li> <li>● Outline the methods of breeding resistance in plants</li> <li>● Familiarize the modern plant breeding methods.</li> <li>● Infer the various theories of evolution</li> <li>● Understand the process of evolution of plants</li> </ul>
	BOT2C06	Plant Ecology, Conservation Biology, Phytogeography And Forest botany	<p>1. Familiarity with various types of ecosystems and the ecological principles operating in each ecosystem.</p> <p>2. Evaluate the threats associated with various ecosystems and an understanding of various management strategies for their conservation.</p> <p>3. Understand the nature and pattern of distribution of plant communities and the reasons underlying it.</p> <p>4. Understand the nature and type of forests; their ecological as well as economic contribution and strategies for their management</p> <ul style="list-style-type: none"> <li>● Have an idea about the major ecosystem of the world</li> <li>● Understand the population ecology and community ecology system in the world</li> <li>● Get meticulous knowledge in ecological succession and phytogeography</li> <li>● Get knowledge in environmental pollution, global environmental problems, their mitigation and remedies and to acquire knowledge about the importance of biodiversity conservation</li> <li>● Understand the concept of conservation of nature and natural resources</li> <li>● To understand the importance of plants in</li> </ul>

			<p>environmental quality</p> <ul style="list-style-type: none"> <li>● Understand the importance of forest and forest products</li> </ul>
	BOT2L03	Practicalsofcellbiology,Molecularbiology,Biophysics,Cytogenetics	<ol style="list-style-type: none"> <li>1. Demonstration of practical skills in the isolation of cell organelles and demonstration of cellular processes</li> <li>2. Demonstration of practical skills in the isolation of genetic materials from cellular systems and to familiarize recent methods for their characterization.</li> <li>3. Develop abilities in the conduct of various experiments related to the physical and chemical separation of biochemical components.</li> <li>4. Demonstration of practical skills in the area of Cytogenetics and its logical reasoning.</li> <li>5. Develop skills in analyzing experiments related to the course materials, their interpretation and reporting.</li> </ol>
	BOT2L04	Practicals Of Genetics, Biostatistics, Plant Breeding, Plant Ecology, Conservation Biology, Phytogeography And Forest Botany	<ol style="list-style-type: none"> <li>1. Develop skills in the statistical analysis of data, both manually and using statistical software.</li> <li>2. Demonstration of practical skills in plant breeding and hybridization.</li> <li>3. Develop abilities in the conduct of various experiments related to ecosystems evaluation and characterization.</li> <li>4. Develop skills and abilities in assessing species composition and biotic interactions associated with heterogeneous ecosystems.</li> <li>5. Demonstration of skills in the identification of phytogeographic areas, with special reference to forest biome.</li> <li>6. Develop skills in evaluating the mandate of various organizations and their programmes in the priority areas specified in the course.</li> </ol>
	BOT3C07	Plant Physiology, Metabolism And Biochemistry	<ol style="list-style-type: none"> <li>1. Understand various physiological processes associate with plant systems.</li> <li>2. Understand various metabolic processes linked to biological systems.</li> <li>3. Acquire knowledge on the properties of biomolecules (primary and secondary) and to understand the biochemistry of their action.</li> </ol>

			<ul style="list-style-type: none"> <li>● Get an idea about the plant water relations</li> <li>● Understand the transport of ions, solutes and other macromolecules</li> <li>● Infer various aspects of photosynthesis.</li> <li>● Understand respiratory metabolism in plants</li> <li>● Analyze the nitrogen metabolism in plants.</li> <li>● Familiarize the affects different types of stresses in plants</li> <li>● Outline the basic knowledge in sensory photobiology</li> <li>● Examine the various plant growth regulators</li> <li>● Understand the structure and function of biomolecules</li> <li>● Familiarize different types of secondary metabolites</li> </ul>
	BOT3C08	Angiosperm Morphology, Angiosperm Taxonomy And Plant Resources	<ol style="list-style-type: none"> <li>1. Acquaint with the structure and organization of various plant organs and a detailed analysis on their origin and evolution.</li> <li>2. Understand various principles and practices of Plant Systematics.</li> <li>3. Acquire knowledge on the recent development in plant systematics and the institutions involved in it.</li> <li>4. develop understanding on the history, occurrence, and botanical characteristics of various plant resources of commercial importance.</li> </ol> <ul style="list-style-type: none"> <li>● Recognize concepts of taxonomic hierarchy and phylogeny of angiosperms.</li> </ul>

			<ul style="list-style-type: none"> <li>● Illustrate sources of taxonomic characters in solving taxonomic disputes.</li> <li>● Recall the principles, rules and recommendations of ICN in plant taxonomy</li> <li>● Conceptualize the plant classification system proposed by different taxonomists</li> <li>● Develop critical understanding of the different tools in taxonomy</li> <li>● Develop critical evaluation of taxonomic keys</li> <li>● Recognize the importance of digital resources of taxonomy and virtual herbarium</li> <li>● Enhance their observation capacity by dissecting different floral structures and to improve their taxonomic illustrations and floral imaging</li> <li>● Critically evaluate the interrelationships and evolutionary trends of angiosperm families</li> <li>● Understand the economic importance of plants and its commercial applications</li> </ul>
	BOT3C09	Biotechnology And Bioinformatics	<ol style="list-style-type: none"> <li>1. Understand the basic principles and practices and develop skills in the advanced areas of plant tissue culture.</li> <li>2. Acquire knowledge on the recent techniques and developments in Genetic Engineering and the legal procedures underlying genetic manipulation.</li> <li>3. Acquaint with the principles and applications of Bioinformatics and to acquire</li> </ol>

			<p>skills in the use of computer aided Bioinformatics tools.</p> <ul style="list-style-type: none"> <li>● Get a thorough knowledge in plant tissue culture</li> <li>● Familiar with genetic engineering and advanced tools Page 30 of 47</li> </ul> <ul style="list-style-type: none"> <li>● Get knowledge in genomic and proteomics</li> <li>● Get basic knowledge in bioinformatics</li> <li>● The students will be able to familiarize with social issues in biotechnology</li> </ul>
	BOT3L05	Practicals Of Plant Physiology, Metabolism, Biochemistry, Angiosperm Morphology, And Angiosperm Taxonomy	<ol style="list-style-type: none"> <li>1. Develop skills in conducting / demonstrating experiments related to various physiological processes in plants.</li> <li>2. Demonstration of practical skills in the area of separation of biomolecules and their assays.</li> <li>3. Develop abilities to test various biochemical components in plants using standard protocols.</li> <li>4. Develop skills and abilities in assessing plant organs and to comment on their developmental processes.</li> <li>5. Demonstration of skills in the collection, preservation and systematic elucidation of plant specimens to their respective families using conventional and modern methods.</li> </ol>
	BOT3L06	Practicals Of Plant Resources, Biotechnology And Bioinformatics	<ol style="list-style-type: none"> <li>1. Develop skills in the identification of plant specimens having commercial / economic value.</li> <li>2. Develop skills and abilities in undertaking tissue culture protocols.</li> <li>3. Develop skills and abilities in the separation of genetic materials from plant specimens.</li> <li>4. Acquire skills in the use of computers for conventional applications and also for computational purposes using statistical software.</li> <li>5. Demonstration of skills in using computer software relating to Bioinformatics purposes.</li> </ol>
	BOT4E01	Genetics and Crop Improvement	<ol style="list-style-type: none"> <li>1. Develop advanced understanding of various crops of commercial importance and their genetic characteristics.</li> <li>2. Develop understanding of the genetic</li> </ol>

			<p>configuration of important crops and methods for its hybridization for the production of better varieties.</p> <p>3. Provide insights on various farming systems and methods adopted for bringing sustainability.</p> <p>4. Develop hands-on skills in the study of floral characteristics of major crops.</p> <p>5. Develop skills for the identification of weeds, pests and diseases and the development of agents for their Control.</p>
	BOT4E02	Pathology of Plantation Crops and Spices.	<p>1. Develop advanced understanding of various concepts in Plant Pathology.</p> <p>2. Provide insights on various crops plants, pests and methods used for the control of pests from various farming systems.</p> <p>3. Understand various diseases associated with major plantation crops and analyze various methods adopted for their control.</p> <p>4. Develop hands-on skills for the isolation of pathogens, analysis of disease cycles and measures for their control.</p>

## DEPARTMENT OF SOCIOLOGY

### Programme specific outcome: MA Integrated Sociology

<ul style="list-style-type: none"><li>• <b>Getting an exposure to the fundamental concepts and theories in acquiring skills for sociological imagination</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Achieve critical sensibility towards social, economic and political situation and to develop critical thinking ability</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Exhibit oral and written communication skills in disseminating sociological knowledge</b></li></ul>
<ul style="list-style-type: none"><li>• <b>Improve proficiency in applying sociology and enhance employability</b> Broadly, three orientations can be delineated with reference to the teaching of sociology<ul style="list-style-type: none"><li>➤ <b>Social orientation (as in responsible citizenship education)</b></li><li>➤ <b>Knowledge orientation (as in personality and skill development),</b></li><li>➤ <b>Job orientation (as in vocational courses)</b></li></ul></li></ul>
<ul style="list-style-type: none"><li>• <b>Keeping these orientations in mind, the Board of Studies emphasizes the following as objectives of sociology education:</b><ul style="list-style-type: none"><li>➤ <b>[a] to equip the students to critically understand and interpret social reality</b></li><li>➤ <b>[b] to generate in students a distinct sociological perspective on socioeconomic and cultural reality</b></li><li>➤ <b>[c] to enhance the social sensitivity and sensibility of the students</b></li><li>➤ <b>[d] to help students acquire skills that will be useful to them in their personal and professional life.</b></li></ul></li></ul>
<ul style="list-style-type: none"><li>• <b>It is of the view that assessment should support and encourage broad instructional goals such as basic knowledge of the discipline of sociology including phenomenology, theories, techniques, concepts and general principles, encouragement of students' attributes including curiosity, creativity and reasoned skepticism and understanding the link of sociology to other disciplines. With this in mind it aims to provide a firm foundation in every aspect of sociology and to explain the modern trends in sociology.</b></li></ul>



## Course outcome

Semester	Course code	Course Name	Course outcomes
I	SOC1IB01	FUNDAMENTALS OF SOCIOLOGY	<ul style="list-style-type: none"> <li>• Comprehending the uniqueness of the sociological imagination</li> <li>• Recognizing the difference between sociology and commonsense</li> <li>• Understanding the relation between the individual and society</li> <li>• Understanding the parts and processes within society</li> </ul>
	ECO1/IC01	INTRODUCTORY ECONOMICS 1 (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Students explain what Economics is and explain why it is important</li> <li>• Explain how economists use economic models</li> <li>• Understand the scarcity and choice in the economy and the basic problems of an economy.</li> <li>• Explain and illustrate the basics of market demand and supply and the concept of market equilibrium and disequilibrium.</li> <li>• Students illustrate the concepts of elasticity of demand and cost functions.</li> </ul>
II	SOC2IB02	STRUCTURE AND TRANSFORMATION OF INDIAN SOCIETY	<ul style="list-style-type: none"> <li>• To develop a sociological perspective for understanding the dynamics of Indian Society</li> <li>• To sensitise the changes occurred in the various institutions in Indian Society</li> <li>• To create awareness on the issues and challenges of contemporary society</li> </ul>
	PSY2IC05	PSYCHOLOGICAL PROCESSES (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Understand the meaning, historical background and research methods of Psychology</li> <li>• Explain the basic processes in attention, perception, memory, Thought and motivation</li> <li>• Understand the theoretical perspectives of learning, emotion, and forgetting</li> </ul>

			<ul style="list-style-type: none"> <li>Evaluate the nature, determinants and theories of intelligence and personality</li> </ul>
III	SOC3IB03	CLASSICAL SOCIOLOGICAL THINKERS	<ul style="list-style-type: none"> <li>Understands the historical condition in which sociology originated and developed as an independent academic discipline.</li> <li>Analyses the intellectual and philosophical foundations of Sociological theories and contributions of Classical theorists to Sociology.</li> <li>Explores the possibilities of an approach that allows sociologists to make connections between social worlds.</li> </ul>
	A11	INDIAN CONSTITUTION AND POLITICS (GENERAL)	<ul style="list-style-type: none"> <li>To understand the Indian constitution</li> <li>To recognize the separation of powers in the Indian constitution-Relationship between executive, legislature and judiciary</li> <li>To analyse important constitutional values and major challenges to the Indian constitution</li> </ul>
	A12	SCIENCE AND SOCIETY (GENERAL)	<ul style="list-style-type: none"> <li>To understand the progress of scientific knowledge</li> <li>To analyse science and scientific temperament from various perspectives cutting across all cultures</li> <li>To create idea about techno science and development in relation with future</li> </ul>
	PSY3IC05	PSYCHOLOGY OF ABNORMAL BEHAVIOR AND SOCIAL BEHAVIOR (ALLIED CORE)	<ul style="list-style-type: none"> <li>Understand the meaning and historical background of Abnormal Behaviour</li> <li>Describe the clinical features and types of stress and its related disorders, Anxiety</li> <li>disorders, somatic and dissociative disorders</li> <li>Understand the definition, nature and scope of Social Psychology</li> <li>Describe and discuss major concepts in the field of social psychology</li> </ul>

			<ul style="list-style-type: none"> <li>• Able to examine aggression and recommend the preventive measures for aggression.</li> </ul>
	JOU3IC01	FUNDAMENTALS OF MASS COMMUNICATION (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Gain an understanding of the basic concepts of communication.</li> <li>• Attain the capacity to assess the working of different media</li> <li>• Obtain a critical understanding of the evolution and growth of Indian and Malayalam journalism.</li> </ul>
IV	SOC4IB04	BASICS OF SOCIAL RESEARCH	<ul style="list-style-type: none"> <li>• Familiarizes with the nature and scope of social research.</li> <li>• Understands steps and methods of social research.</li> <li>• Distinguishes the characteristics of qualitative and quantitative research.</li> </ul>
	SOC4IB05	RURAL AND URBAN SOCIOLOGY	<ul style="list-style-type: none"> <li>• Understanding major concepts and theoretical perspectives in urban sociology.</li> <li>• Familiarizing the views on urban social life.</li> <li>• Understanding the nature of urbanization process in Indian context.</li> <li>• Perceiving the urbanization process as a spatial transformation with a focus on Kerala scenario.</li> </ul>
	A13	CULTURE AND SOCIETY OF KERALAM (GENERAL)	<ul style="list-style-type: none"> <li>• Develops an understanding about the Socio-Cultural features of Keralam</li> <li>• Evaluates the emergence of modernity in Keralam</li> <li>• Analyses the socio-cultural aspects of Contemporary Keralam</li> <li>• Critically evaluates the transformations of Keralam</li> </ul>
	A14	LANGUAGE & CULTURE (GENERAL)	<ul style="list-style-type: none"> <li>• Analyze the relationship between language (Bhasha) and culture (Shumska) and their interconnectedness.</li> <li>• Identify and explain the various linguistic and cultural concepts, such as language change, language contact, and language policy.</li> <li>• Apply critical thinking skills to evaluate the impact of language on culture and society.</li> </ul>

			<ul style="list-style-type: none"> <li>• Recognize and appreciate the diversity of languages and cultures, and their contributions to human society Identify and explain the various language families and their characteristics.</li> <li>• Apply critical thinking skills to evaluate the impact of language on culture and society in the digital age.</li> </ul>
JOU4IC02	MASS MEDIA PRACTICES (ALLIED CORE)		<ul style="list-style-type: none"> <li>• Demonstrate practical knowledge in reporting and editing</li> <li>• Illustrate their expertise in other journalistic practices like P.R. and advertising.</li> </ul>
ECO 4/4 ICO2	INTRODUCTORY ECONOMICS – II (ALLIED CORE)		<ul style="list-style-type: none"> <li>• Students define the concept of money and explain different concepts and theories of money.</li> <li>• Students understand the basics elements of public finance and explain the theory of maximum social advantage</li> <li>• Students understand the principle of federal finance and explain the role of finance commission</li> <li>• Students explain and illustrate the basics of international trade and analyse various concepts associated with trade.</li> <li>• Students understand the basic characteristics of Indian economy and analyse various economic issues of Indian economy.</li> </ul>

V	SOC5IB06	INTRODUCTION TO SOCIAL ANTHROPOLOGY	<ul style="list-style-type: none"> <li>• Understands the basic concepts of Anthropology.</li> <li>• Analyses academic and societal debates about human diversity and human society.</li> <li>• Familiarises with Anthropological studies in India by focusing on Tribal Communities.</li> <li>• Comprehends anthropological knowledge and approaches.</li> </ul>
	SOC5IB07	WOMEN AND SOCIETY	<ul style="list-style-type: none"> <li>• Understanding some major themes in gender knowledge and its conceptual clarity regarding women's studies and feminism.</li> <li>• Recognize the intersections between gender and other social and cultural identities.</li> <li>• Grasp on structural issues faced by women and knowledge about factors affecting the status of women in Kerala over time.</li> <li>• Critical awareness regarding women empowerment in Kerala.</li> </ul>
	SOC5IB08	BASICS OF SOCIAL PSYCHOLOGY	<ul style="list-style-type: none"> <li>• Understands the basic concepts in social psychology and the basic psychological processes.</li> <li>• Creates awareness on the significance of attitude in developing social behavior</li> <li>• Develops understanding on personality and its relation with social system.</li> <li>• Analyses the major concepts and methods of the field to understand interpersonal and group relationships.</li> </ul>
	SOC5IB09	SOCIAL STRATIFICATION AND INEQUALITY: AN INTRODUCTION	<ul style="list-style-type: none"> <li>• Explains the approaches, theories and dimensions of social stratification.</li> <li>• Examines social stratification as a cause of marginalisation.</li> <li>• Contextualises social stratification in a caste-class framework.</li> <li>• Critically analyses the dimensions of gender, race and ethnicity in social stratification.</li> </ul>

	SOC5ID01	LIFE SKILL DEVELOPMENT (OPEN COURSE)	<ul style="list-style-type: none"> <li>• Attains knowledge of necessary life skills for application in everyday life.</li> <li>• Equips with the quality of addressing issues relevant to life situations.</li> <li>• Enables to establish productive interpersonal relationships with others.</li> </ul>
	SOC5ID02	KERALA SOCIETY: STRUCTURE AND TRANSFORMATION (OPEN COURSE)	<ul style="list-style-type: none"> <li>• Familiarizing the social history and transformation of Kerala Society.</li> <li>• Understanding the significant factors that contributed to changes in the social structure.</li> <li>• Recognizing the distinct features of Kerala Economy and Social institutions.</li> </ul>
	SOC6IF01	PROJECT (MINOR)	
VI	SOC6IB10	SCHOOLS OF SOCIOLOGICAL THEORIES I	<ul style="list-style-type: none"> <li>• Identifies various schools of sociological theory.</li> <li>• Explains the major schools of thought.</li> <li>• Critically examines the major schools of thought.</li> <li>• Recognizes the utility and relevance of the theoretical premises.</li> </ul>
	SOC6IB11	POPULATION AND SOCIETY	<ul style="list-style-type: none"> <li>• To provide a basic theoretical explanation of population studies and related concepts.</li> <li>• To provide critical analysis of the population theories</li> <li>• To analyse the changes in population in society</li> <li>• To Interpret global, national, and local events within an appropriate demographic context.</li> </ul>
	SOC6IB12	MEDIA, CULTURE, AND SOCIETY	<ul style="list-style-type: none"> <li>• Understands different types of media and forms of communication.</li> <li>• Evaluates the relationship between Media and Society.</li> <li>• Analyzes the changes in Media, Society, and Culture.</li> <li>• Understands the fundamental relations between society, culture, and communication.</li> </ul>

	SOC6IB13	CRIME AND SOCIETY	<ul style="list-style-type: none"> <li>• Familiarizes students with the impact of problems resulting from criminal acts in society.</li> <li>• Familiarizes learners with different types of crimes and their prevention.</li> <li>• Provides an understanding of various approaches to the study of crime.</li> <li>• Understands criminology in the context of sociological knowledge.</li> </ul>
	SOC6IF01	PROJECT (MINOR)	
VII	SOC7IB14	PRELIMINARIES OF SOCIOLOGICAL THEORY	<ul style="list-style-type: none"> <li>• Traces the transformation from social thought to Sociological theory</li> <li>• Identifies the basic components of theory.</li> <li>• Develops sociological thinking.</li> <li>• Recognizes the paradigmatic orientations in Sociology.</li> <li>• Evaluates Sociology as a humanistic discipline.</li> </ul>
	SOC7IB15	SOCIAL RESEARCH METHODOLOGY I	<ul style="list-style-type: none"> <li>• Recognizes the philosophical foundations of social research.</li> <li>• Identifies quantitative and qualitative research.</li> <li>• Applies the steps and stages of research.</li> <li>• Develops skills for social research.</li> </ul>
	SOC7IB16	INDIAN SOCIETY: A SOCIOLOGICAL ANALYSIS	<ul style="list-style-type: none"> <li>• Traces out the historical emergence of Indian Society</li> <li>• Examines the different approaches to the study of Indian Society.</li> <li>• Discusses the different issues of Indian society.</li> <li>• Analyzes the transformations in Indian society.</li> </ul>
	SOC7IB17	GENDER AND SOCIETY	<ul style="list-style-type: none"> <li>• Explains the basic concepts of Gender Studies.</li> <li>• Elaborates on the theoretical perspectives on Gender.</li> <li>• Discusses the Gender dynamics in Indian society.</li> <li>• Evaluates Gender relations in the context of Kerala society.</li> </ul>
VIII	SOC8IB18	SCHOOLS OF SOCIOLOGICAL THEORIES II	<ul style="list-style-type: none"> <li>• Explains various schools of sociological theory</li> <li>• Elaborates the contributions in the various schools of thought</li> </ul>

			<ul style="list-style-type: none"> <li>• Initiate critical discussion on the major schools of thought</li> <li>• Identifies the relevance of the theoretical premises</li> </ul>
	SOC8IB19	SOCIAL RESEARCH METHODOLOGY II	<ul style="list-style-type: none"> <li>• Acquaints with quantitative and qualitative research methods</li> <li>• Identifies and applies scaling techniques</li> <li>• Applies statistics in social research</li> <li>• Distinguishes the various components and format of report</li> </ul>
	SOC8IB20	ENVIRONMENT AND SOCIETY	<ul style="list-style-type: none"> <li>• Explain the reciprocal relationships between environment and society.</li> <li>• Discuss the different ideologies and perspectives of environmental sociology.</li> <li>• Appraise the relationship between gender and environment.</li> <li>• Analyse the interplay between environment, development, capitalism and social justice.</li> </ul>
	SOC8IB21	SOCIOLOGY OF KERALAM	<ul style="list-style-type: none"> <li>• Explains the social structure of Keralam</li> <li>• Analyses the major transformations that have taken place in Keralam</li> <li>• Examines the major movements that have influenced Keralam</li> <li>• Appraises the contemporary Keralam and its unique features</li> </ul>
IX	SOC9IB22	SCHOOLS OF SOCIOLOGICAL THEORIES III	<ul style="list-style-type: none"> <li>• Explains various schools of sociological theory</li> <li>• Elaborates the contributions in the various schools of thought</li> <li>• Initiate critical discussion on the major schools of thought</li> <li>• Identifies the relevance of the theoretical premises</li> </ul>
	SOC9IB23	SOCIOLOGY OF DEVELOPMENT	<ul style="list-style-type: none"> <li>• Explains the conceptual discussions on development</li> <li>• Discuss the theoretical views of development</li> <li>• Evaluate the Indian experience of development</li> <li>• Evaluate the Kerala model of development</li> </ul>
	SOC9IE01	PROJECT PLANNING AND IMPLEMENTATION	<ul style="list-style-type: none"> <li>• Understands the steps involved while preparing research projects.</li> </ul>



		(ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• Studies the ways in preparing effective project proposals and managing research works independently.</li> <li>• Increased employability in the field of research and project management.</li> </ul>
	SOC9IE02	SOCIOLOGY AND SOCIAL WORK (ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• Understanding the role of individual in the society and importance of various social</li> <li>• institutions and their impact</li> <li>• Understand the basic concepts relevant to Social Work practice</li> <li>• Understanding the socio-economic and political factors and their impact on society</li> <li>• Developing Sociological perspective and importance of sociology for social work practice.</li> </ul>
	SOC9IE03	COUNSELLING: THEORY AND PRACTICE (ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• To provide a basic understanding about guidance and counseling</li> <li>• To create awareness of the different techniques and the process of counseling</li> <li>• To familiarize with the areas of counseling</li> <li>• To recognize the significance of counseling in contemporary society</li> </ul>
X	SOC10IB24	CURRENT DEBATES IN SOCIAL THEORY	<ul style="list-style-type: none"> <li>• Outlines the contemporary debates in social theory</li> <li>• Discusses the recent theoretical concepts and ideas</li> <li>• Evaluates the relevance of theoretical discussions in contemporary society</li> <li>• Critically appraises the recent theoretical discussions on society</li> </ul>
	SOC10IB25	ECONOMY AND SOCIETY	<ul style="list-style-type: none"> <li>• Familiarising the origin and development of Economic Sociology</li> <li>• Understanding the basic concepts of Economic Sociology</li> <li>• Analysing modern societies in the perspective of Economic Sociology</li> <li>• Understand Modern market economies and varieties of capitalistic regimes.</li> </ul>
	SOC10IE04	SOCIETY, SCIENCE AND TECHNOLOGY (ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• Identifies Technology as a form of knowledge.</li> </ul>

			<ul style="list-style-type: none"> <li>• Explains sociological perspectives towards Science &amp; Technology Studies.</li> <li>• Examines the relationship between science, technology, and society.</li> <li>• Critically evaluates the various impacts of technology.</li> </ul>
	SOC10IE05	SOCIOLOGY OF FOOD (ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• Apply a broad, sociological perspective to understand how food and eating practices are defined as social problems and culturally produced</li> <li>• Use food as a lens to study the reproduction of social inequality, the production of gender, race, and privilege</li> <li>• Examine how expert authority and scientific knowledge help to define how food is produced and consumed</li> </ul>
	SOC10IE06	COMMUNITY HEALTH AND HEALTH ADMINISTRATION (ELECTIVE COURSE)	<ul style="list-style-type: none"> <li>• Understand a holistic and integrated approach to health and health care</li> <li>• Understand the various dynamics operating in the functioning of health care system and various issues in the changing global socio-political scenario</li> <li>• Appreciate the Health care system in India, and its administration</li> <li>• Understand the various health-related legislations</li> </ul>
	SOC10IF02	DISSERTATION PROJECT(MAJOR)	
	SOC10IG01	VIVA VOCE (GENERAL COMPREHENSIVE)	

**Name of Programme: M.Com. Finance**

<b>POs</b>		<b>COs</b>
PO-1	The candidate can acquire the qualification of NET/JRF and do M. Phil /Ph.D. and can become Assistant Professor in Govt. College/ Govt. Aided Colleges/Self Financing Colleges or Universities.	<b>MCM1C01: BUSINESS ENVIRONMENT AND POLICY</b> <b>Course Outcome:</b> <ul style="list-style-type: none"> <li>• Analyse the environment of a business from the various internal and external perspectives</li> <li>• Evaluate how the economic environment and its configurations influence in business decision making.</li> <li>• Apply the role of New Economic Policy and the Economic reforms in the perspective of Business.</li> <li>• To make understand the various policies related to FDI &amp; Multi-National Corporations.</li> <li>• To give an in-depth knowledge about the recent Government policies regarding Environment management.</li> </ul> <b>MCM1C02 CORPORATE GOVERNANCE AND BUSINESS ETHICS</b> <b>Course outcome:</b> <ul style="list-style-type: none"> <li>• To make an understanding about the concept of Corporate</li> </ul>
PO-2	Can commence Business Incubation centres and can develop new platforms to connect the entrepreneurs and the general public.	

Governance and the communication mechanism

- To Apply the various Theories and Models of Corporate Governance and the recent initiatives in India and abroad
- To make an understanding about the various committees on Corporate Governance and the Legal framework
- Evaluate the role of various stakeholders, whistle blowing and the recent developments in India.
- To create Important ethical principles in Business in the cultural diversity

**MCM1C03: QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS**

**Course outcome:**

- To remember and understand properties of probability distribution and to solve the problems
- To apply hypothesis testing for validation and interpretation of the results
- To evaluate the application of non-parametric tests for validation.
- To understand the tool for finding the relationship between variables and its magnitude
- To create soft skill knowledge for data analysis

**MCM1C04: MANAGEMENT THEORY AND ORGANISATIONAL BEHAVIOR**

**Course Outcome:**

- To impart a thorough understanding about various concepts and theories in management and organisational behaviour.
- Understand the various psychological process and different motivation theories which will influence the performance.
- To evaluate the personality traits of human beings and various ethical issues in Organisational Behaviour.
- To understand importance of group dynamics, need for work

life balance and managing change.

- To apply the various terms related to organisational culture and Techniques for managing organisational relationships.

#### **MCM1C05: ADVANCED MANAGEMENT ACCOUNTING**

##### **Course Outcome:**

- To remember and understand the knowledge to use different methods of measuring financial and non-financial performance.
- To measure and solve financial and non-financial performance-based business problems.
- To understand and apply comprehensive performance management initiatives for organizations
- Understand and apply the significance of risk and uncertainty in decision making.
- To apply various techniques of interpreting Variances.

#### **MCM2C06: ADVANCED CORPORATE ACCOUNTING**

##### **Course Outcome:**

- To understand the theory and practice of Corporate Financial Accounting
- To create problem solving capacity in Corporate restructuring and liquidation
- To understand skill in recognition, measurement and presentation of deferred tax
- To understand insight into Accounting standards of IFRS, Ind AS, and Lease accounting
- To evaluate different types of accounting

#### **MCM2C07: ADVANCED STRATEGIC MANAGEMENT**

##### **Course Outcome:**

- To understand the Strategic Management Process and to provide basic idea about the Social and ethical issues
- To understand and evaluate the Environment analysis and SWOC.
- Evaluate the strategic options at Corporate level and the different growth strategies
- To understand the Strategy implementation and different approaches in planning and allocating resources
- To apply and evaluate the Strategy evaluation, tools and techniques used and processes with case studies

#### **MCM 2C08: STRATEGIC COST ACCOUNTING**

##### **Course Outcome:**

- To understand the conceptual knowledge of Cost Accounting, comparison of cost accounting with other branches of accounting.
- Provide students with a basic understanding of the different terminologies used in Cost Accounting and different types of cost
- Understand the treatment regarding the application of process costing and treatment of Joint products and By products.
- To understand and evaluate the practical application of Absorption Costing, Throughput Accounting, ABC Analysis and Transfer Pricing.
- To evaluate the application of Productivity Management

#### **MCM2C09: INTERNATIONAL BUSINESS**

##### **Course Outcome:**

- To study about the Theories of International Trade and

reasons for internationalisation

- Evaluate the International Business Environment opportunities and threats of Indian Companies
- To understand the Strategy development in IB and the different business entry strategies.
- To evaluate the role International economic situations in the development of Business.
- To analyse the different strategies of internationalization and the contribution to Indian Course outcome economy.

### **MCM2C10: MANAGEMENT SCIENCE**

#### **Course Outcome:**

- To understand students with concepts of management science
- To evaluate the application of various tools which support decision making process
- To apply inventory management and managing the queue system in service sector
- To evaluate and create the technique of project planning scheduling and controlling
- To understand knowledge in share analysis and different strategies in game theory

### **MCM3C11: FINANCIAL MANAGEMENT**

#### **Course Outcome:**

- To understand the role of finance and finance manager in an organisation
- To Evaluate and apply sources of financing and corresponding cost of capital
- To Understand and evaluate working capital decisions
- To understand and apply Capital structure and leverage

analysis

- To understand and apply dividend theory and dividend decisions

### **MCM3C12: INCOME TAX: LAW, PRACTICE AND TAX PLANNING I**

#### **Course Outcome:**

- To understand tax planning tips to individuals on the basis of residential status.
- To understand and evaluate the computation of income under five heads and to apply tax planning tips for these five heads of income.
- To understand and apply tax planning tips for Hindu Undivided family, set off and carry forward provisions and tax planning tips for individuals.
- To remember and understand the powers of income tax authorities and should be able to calculate advanced tax liability and TDS of an individual.
- To create ability to file the return of income of individuals and should be aware of different types of assessment.

### **MCM3C13: RESEARCH METHODOLOGY**

#### **Course Outcome:**

- To understand and apply different research approaches and methodologies
- To evaluate and apply Population survey and sample survey – theories and techniques
- To understand and apply the Data collection methods and enable them to conduct a comprehensive research.
- To Evaluate the Measurement and scaling and the validation and reliability testing
- To understand and evaluate Data processing, analysing,



interpretation and report writing a create awareness about plagiarism

### **MCM3EF01: INVESTMENT MANAGEMENT**

#### **Course Outcome:**

- To understand the concept of risk, return, diversification and hedging
- To understand and apply the different types of bonds and bond valuation
- Provide thorough understanding and evaluation of fundamental analysis and technical analysis
- To understand the measurement of portfolio risk, optimal portfolio, portfolio selection models
- To understand and create portfolio management, portfolio evaluation and revision

### **MCM3EF 02: FINANCIAL MARKETS AND INSTITUTIONS**

#### **Course Outcomes:**

- To provide the students a sound information and knowledge of broad framework of financial markets and institutions.
- To acquire knowledge in national and international commodity market
- To understand various types financial instruments and their sale and buy back
- To gain knowledge about the working of major financial institutions
- To familiarize with different forms of foreign capital inflows and its role in Indian financial system

### **MCM4C14: FINANCIAL DERIVATIVES AND RISK MANAGEMENT**

		<p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• To understand and apply the terms and concepts of underlying risk management</li> <li>• To understand and evaluate growth and development of future.</li> <li>• To understand and apply the option trading and various strategies involved in it.</li> <li>• To understand about the pricing of options- call and put option</li> <li>• To evaluate and apply SWAP contract and pricing of different instruments under SWAP</li> </ul> <p><b>MCM4C15: INCOME TAX: LAW, PRACTICE AND TAX PLANNING II</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• To understand and apply tax planning tips for partnership firm, AOP and BOI in India.</li> <li>• To understand and apply tax liabilities of cooperative society and trust and should also be able to advocate tax planning tips to them.</li> <li>• To understand and evaluate the tax liability of Companies including shipping companies.</li> <li>• To understand and evaluate the implications of tax on various managerial decisions</li> <li>• To understand and evaluate the tax liability of business units.</li> </ul> <p><b>MCM4EF03: INTERNATIONAL FINANCE</b></p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• Students should familiarize with the concept and significance of International Finance, IDA, IFC and ADB</li> </ul>
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- Students should understand international financial markets , foreign exchange rate , its measurement and movements.
- Students should acquire knowledge in exchange rate theories and models of exchange rate, risk management in foreign exchange
- Students should develop knowledge in international capital budgeting ,asset liability management and foreign portfolio management
- Students should acquaint knowledge in Working capital management, international cash and inventory management and international monetary investment.

**MCM4 EF04: ADVANCED STRATEGIC FINANCIAL MANAGEMENT**

**Course Outcome:**

- To build an understanding among students about the concepts, vital tools and techniques used for financial decision making.
- To understand the concept of capital structure planning and policies, and to find the value of firm.
- To familiarise with the concept of lease financing and various methods of lease financing
- To gain knowledge in theories of merger, different types of merger and the financial impact of merger
- To understand take over strategy and procedure and regulations.

	<b>Semester</b>	<b>Course code</b>	<b>Course/topic name related</b> 31
	<b>Semester</b>	<b>Course Code</b>	<b>Course Name</b>
<b>Employability</b>	<b>I</b>	<b>MCM1C03</b>	<b>QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS</b>
	<b>I</b>	<b>MCM1C05</b>	<b>ADVANCED MANAGEMENT ACCOUNTING</b>
	<b>II</b>	<b>MCM2C06</b>	<b>ADVANCED CORPORATE</b>

	II	MCM2C07	ACCOUNTING ADVANCED STRATEGIC MANAGEMENT
	II	MCM 2C08	STRATEGIC COST ACCOUNTING
	II	MCM2C10	MANAGEMENT SCIENCE
	II	MCM3C11	FINANCIAL MANAGEMENT
	III	MCM3C12	INCOME TAX: LAW, PRACTICE AND TAX PLANNING I
	III	MCM3EF01	INVESTMENT MANAGEMENT
	III	MCM3EF02	FINANCIAL MARKETS AND INSTITUTIONS
	IV	MCM4C14	FINANCIAL DERIVATIVES AND RISK MANAGEMENT
	IV	MCM4C15	INCOME TAX: LAW, PRACTICE AND TAX PLANNING II
	IV	MCM4EF04	ADVANCED STRATEGIC FINANCIAL MANAGEMENT
Entrepreneurship	II	MCM2C09	INTERNATIONAL BUSINESS
	IV	MCM4EF03	INTERNATIONAL FINANCE
Skill Development			
Professional Ethics	III	MCM1C02	CORPORATE GOVERNANCE AND BUSINESS ETHICS
	III	MCM3C13	RESEARCH METHODOLOGY

<b>Gender</b>	-	-	-
<b>Human Values</b>	<b>I</b>	<b>MCM1C04</b>	<b>MANAGEMENT THEORY AND ORGANISATIONAL BEHAVIOR</b>
<b>Environment</b>	<b>III</b>	<b>MCM1C01:</b>	<b>BUSINESS ENVIRONMENT AND POLICY</b>
<b>Sustainability</b>	-	-	-

### DEPARTMENT OF CHEMISTRY

#### Programme Specific Outcomes (PSOs) – M. Sc Chemistry Programme

	Programme specific outcomes
PSO1	Provide theoretical background and develop practical skills for analysing materials using modern analytical methods and instruments.
PSO2	Inculcate a problem solving approach by coordinating the different branches of chemistry.
PSO3	Becomes professionally skilled for higher studies in research institutions and to work in Chemical industries
PSO4	In-depth knowledge helps to qualify in competitive exams

#### Programme Specific Outcomes (PSOs) – M. Sc Chemistry Programme

	Programme specific outcomes
PSO1	Development of skills on using softwares like Gaussian, Gamessetc which is useful in molecular modeling, drug designing, etc.
PSO2	Development of skills on using softwares like Chemdraw, Chemwindow, ISIS draw, etc which is useful in drawing purposes, structural predictions, etc.
PSO3	Training on computational chemistry
PSO4	Case study and analysis on any relevant issues in the nearby society(for example water analysis, soil analysis, acid/alkali content analysis, sugar content analysis, etc)
PSO5	Community linking programme relevant to the area of study(For example Training for society on soap/perfume making, waste disposal, plastic recycling, etc)

#### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
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I	CHE1C01	Quantum Mechanic sand Computational Chemistry	<ul style="list-style-type: none"><li>• CO1: Explain atomic structure based on quantum mechanics and explain periodic properties of the atoms</li></ul>
			<ul style="list-style-type: none"><li>• CO2: Understand the concept of quantum mechanics</li></ul>
			<ul style="list-style-type: none"><li>• CO3: Solve the problems related to 1D box</li></ul>
			<ul style="list-style-type: none"><li>• CO4: Explain role of operators in quantum</li></ul>
			<ul style="list-style-type: none"><li>• CO5: Understand the concept of Computational Chemistry</li></ul>
			<ul style="list-style-type: none"><li>• CO6: Detailed discussion of postulates of quantum mechanics– State function or wave function postulate, Born interpretation of the</li></ul>

			<p>wave function, well behaved functions, or the normality of wave functions</p> <ul style="list-style-type: none"> <li>• CO7: Understand Quantum Mechanics of Translational &amp; Vibrational Motions</li> <li>• CO8: Explain the Approximation Methods in Quantum Mechanics</li> <li>• CO9: Simple calculations using Gaussian programme</li> <li>• CO10: Classification of Computational Chemistry methods</li> </ul>
I	CHE1C02	Elementary inorganic chemistry	<ul style="list-style-type: none"> <li>• CO1: Explain different acid base theories</li> <li>• CO2: Classification of acids and bases as hard and soft.</li> <li>• CO3: Chemistry of non-aqueous solvents</li> <li>• CO4: Understand Nuclear and Radiation Chemistry</li> <li>• CO5: Study of Chemistry of Nanomaterials</li> <li>• CO6: Chemistry of Transition and Inner Transition Elements</li> <li>• CO7: Structure of Zeolites and use of Zeolites as molecular sieves</li> </ul>
I	CHE1C03	Structure and reactivity of organic compounds	<ul style="list-style-type: none"> <li>• CO1: Understand the Structure and Bonding in Organic Molecules</li> <li>• CO2: Preparation of aromatic and anti-aromatic compounds</li> <li>• CO3: Describe reaction mechanism of organic reactions and various reaction intermediates</li> <li>• CO4: Conformational Analysis</li> <li>• CO5: Asymmetric Synthesis</li> <li>• CO6: Explain optical isomerism of compounds that do not contain an asymmetric carbon atom.</li> </ul>
I	CHE1C04	Thermodynamics, kinetics, and catalysis	<ul style="list-style-type: none"> <li>• CO1: To understand the concepts of thermodynamics and its relation to statistical thermodynamics.</li> <li>• CO2: Understand Thermodynamics of Solutions</li> <li>• CO3: Understand Thermodynamics of Irreversible Processes</li> <li>• CO4: Study the Kinetics of reactions involving reactive atom and free radicals</li> <li>• CO5: Explain Rice-Herzfeld mechanism and steady state approximation</li> <li>• CO6: Explain Principle of crossed molecular beams</li> </ul>



I	CHE1L01 & CHE2L04	Inorganic chemistry practical I & II	• CO1 : An ability to analyse the cation mixture
			• CO2: Ability to estimate the ions by complexometric titrations
			• CO3 Ability to estimation of compounds by intensity of colour using colorimetric methods
I	CHE1L02 & CHE2L05	Organic chemistry Practical I & II	• CO1- Familiarize the methods for the Separation and Purification of Organic Compounds
			• CO2- Ability to Separate and identify the components of organic binary mixtures
I	CHE1L03 & CHE2L06	Physical chemistry practical I & II	• CO1: To enable the students to develop analytical skills in determining the physical properties (physical constants).
			• CO2: To develop skill in setting up an experimental method to determine the physical properties
			• CO3: To understand the principles of Refractometry, Potentiometry and Conductometry.
II	CHE2C05	Group Theory and Chemical Bonding	• CO1: To understand the foundations of Group Theory & Molecular Symmetry
			• CO2: Familiarise the Representations of Point Groups & Corresponding Theorems
			• CO3: Enable the students to apply Group Theory to Molecular Spectroscopy and Chemical Bonding
			• CO4: Study of Chemical Bonding in diatomic and polyatomic molecules.
II	CHE2C06	Coordination chemistry	• CO1: To predict the stability of Coordination Compounds by various effects.
			• CO2: Explain various theories of Bonding in Coordination Compounds
			• CO3: Demonstrate the Electronic Spectra and Magnetic Properties of Complexes
			• CO4: Characterization of Coordination Complexes
			• CO5: To elucidate Reaction Mechanism of Metal Complexes
II	CHE2C07	Reaction mechanism in Organic Chemistry	• CO1: To understand aliphatic and aromatic, nucleophilic and electrophilic substitution with mechanism and kinetics
			• CO2: To develop an ability to understand addition and elimination reactions with mechanism and stereo chemical aspect

			<ul style="list-style-type: none"> <li>• CO3: To understand the competition between substitution and elimination reactions according to the conditions of reagents and substrate</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4 : Students will be able to understand all the nucleophilic condensations reactions of carbonyl compounds</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5 : To impart the students in depth knowledge about the basic concepts and theory of pericyclic reactions and to get an idea about the orbital overlap in chemical reaction</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6 : To enable the students to acquire proper knowledge about photochemical reactions with mechanism</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: The students will be able to understand acyl-oxygen and alkyl-oxygen bond fission in ester hydrolysis according to the conditions.</li> </ul>
II	CHE2C08	Electrochemistry, solid state chemistry, and Statistical Thermodynamics	<ul style="list-style-type: none"> <li>• CO1: Describe Debye –Huckel equation , limiting and extended forms</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Calculate effect of ionic strength on ion reaction rates</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Compare the efficiency of electro chemical cells with heat engines</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Explain the advantages and limitations of lead-acid, Ni-Cd and Ni-MH cells.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: State the different theories of Hydrogen over voltage</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Explain Polarography and dropping mercury electrode</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Explain symmetry elements, symmetry operations and crystal systems.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: Derive Braggs equation and explain the applications</li> </ul>
			<ul style="list-style-type: none"> <li>• CO9 : Explain the stoichiometric and non stoichiometric defects in crystals</li> </ul>
			<ul style="list-style-type: none"> <li>• CO10 : Explain Maxwell Boltzman statistics</li> </ul>
			<ul style="list-style-type: none"> <li>• CO11 : Explain classical and quantum theories of heat capacities of solids and Einstein's theory of atomic crystals</li> </ul>
			<ul style="list-style-type: none"> <li>• CO12 : Explain the relationship between Maxwell-Boltzman, Bose-Einstein and Fermi Dirac statistics</li> </ul>

III	CHE3C09	Molecular spectroscopy	<ul style="list-style-type: none"> <li>• CO1: To understand the theory and application of rotational spectra of diatomic and polyatomic molecules</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To study the principle and major theories of vibrational, electronic and raman spectroscopy.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To study chemical shift, coupling, shielding and deshielding in NMR spectroscopy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To understand the basic principles of ESR and Mossbauer spectroscopy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To study CD and ORD. Also basic ideas of vibrational spectroscopy</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: To study interpretation of NMR spectra of organic molecules</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: To understand the advanced NMR techniques</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: To study the principle behind Mass spectroscopy as well as Structural determination of organic compounds using spectroscopic techniques</li> </ul>
III	CHE3C10	Organometallic & Bio-inorganic chemistry	<ul style="list-style-type: none"> <li>• CO1: To illustrate the use of 18 and 16 electron rule. Also to study the properties and synthesis of metal carbonyls</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To study the structure and synthesis of Organometallic Compounds of Linear and Cyclic <math>\pi</math>-Systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To study major Organometallic Reactions and Catalysis</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To account the structure of carbonyl clusters using electron count rules</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To understand electron transport in biological systems</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: To study Metallo enzymes and electron carrier metallo proteins.</li> </ul>
III	CHE3C11	Reagents and Transformations in Organic Chemistry	<ul style="list-style-type: none"> <li>• CO1: To study different types of reagents used for oxidation and mechanism of oxidations</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To study different types of reagents used for reduction and mechanism of reductions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To study the applications of some specific reagents</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To study the structure and synthesis of protein, DNA and RNA</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To understand the basics of Hetero cyclic chemistry and supramolecular chemistry</li> </ul>

			<ul style="list-style-type: none"> <li>• CO6: To study different types of rearrangement reactions</li> </ul>
III	CHE3E01	Synthetic organic chemistry (Elective)	<ul style="list-style-type: none"> <li>• CO1: To understand the use of Reagents for Oxidation and Reduction</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To study Synthetic applications of organometallic and organo-nonmetallic reagents including Reagents based on chromium, nickel, palladium, silicon, and boron</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To understand and study the named Reactions of carbonyl groups in aldehydes, ketones, carboxylic acids, esters, acyl halides, amides.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To study different Coupling Reactions</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To understand how to carry out a multi-step synthesis</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: General principles of retrosynthetic analysis. Synthons and reagents, donor and acceptor synthons, umpolung, protecting group chemistry and functional group interconversions</li> </ul>
IV	CHE4C12	Instrumental Methods of Analysis	<ul style="list-style-type: none"> <li>• CO1: To treat Statistical data by f-test, t-test and q test</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To understand different analytical techniques</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To understand potentiometry, ion selective electrodes &amp; polarography</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: To study the principle behind amperometry, coulometry and anodic stripping voltammetry</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: To study the instrumentation of spectrophotometry, nephelometry and turbidometry, fluorimetry, UV-visible, IR spectrophotometry AES and AAS</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: To study the Theory, instrumentation and applications of: Atomic fluorescence spectrometry, X-ray methods- X-ray absorption and X-ray diffraction, photoelectron spectroscopy, Auger, ESCA. SEM, TEM, and AFM</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: To study the Theory, instrumentation and applications of TG, DTA, DSC, and thermometric titrations</li> </ul>
			<ul style="list-style-type: none"> <li>• CO8: To understand the principle and applications of different chromatographic techniques</li> </ul>

IV	CHE3L7 & CHE4L10	Inorganic Chemistry Practical III & IV	<ul style="list-style-type: none"> <li>• CO1: To familiarize the Estimation involving quantitative separation of suitable binary mixtures of ions in solution by volume tricolorimetric or gravimetric methods.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To understand Colorimetric estimations of Ni, Cu, Fe and Mo, after separation from other ions in solution by solvent extraction</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: To understand how to determine the Hardness of water</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Preparation of inorganic complexes</li> </ul>
IV	CHE3L8 & CHE4L11	Organic Chemistry Practical III & IV	<ul style="list-style-type: none"> <li>• CO1: To study the Determination of Acid value, iodine value and saponification value of oils</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: To study how to Extract chlorophyll by TLC</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Practical application of PC and TLC, preparation of TLC plates, activation, identification of the following classes of compounds using one- and two-dimensional techniques. Identification by using spray reagents</li> </ul>
IV	CHE3L9 & CHE4L12	Physical Chemistry Practical III & IV	<ul style="list-style-type: none"> <li>• CO1: Determination of specific reaction rate and Arrhenius parameter of acid hydrolysis of an ester (methylacetate or ethyl acetate) and concentration of the given acids.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2: Verification of Langmuir adsorption isotherm</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3: Determination of phase diagram of a ternary liquid system</li> </ul>
			<ul style="list-style-type: none"> <li>• CO4: Determination of molecular mass of absolute (urea, glucose, cane sugar, mannitol) by studying the depression in freezing point of a liquid solvent (water, benzene)</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Determination of specific rate of inversion of cane sugar in presence of HCL.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO6: Investigation of complex formation between Fe(III) and thiocyanate.</li> </ul>
			<ul style="list-style-type: none"> <li>• CO7: Single point energy calculations of simple molecules like H<sub>2</sub>O and NH<sub>3</sub> at the HF/3-21G level of theory.</li> </ul>

IV	CHE4E06	Natural products & Polymer Chemistry (Elective)	<ul style="list-style-type: none"> <li>• CO1: To understand the Classification and isolation of Natural Products &amp; essential oils</li> <li>• CO2: To study the the Classification and structure elucidation of some terpenoids and steroids</li> <li>• CO3: To study the Classification and structure elucidation of alkaloids and flavanones</li> <li>• CO4: To understand different types of dyes and pigments</li> </ul>
IV	CHE4E08	Organometallic Chemistry	<ul style="list-style-type: none"> <li>• CO1: To understand main group and transition metal organometallics</li> <li>• CO2: To study Bonding and reactions of metal carbonyls</li> <li>• CO3: To study the synthesis, Structure, reactivity and applications of main group or organometallic compounds. Metal complexes of NO, H<sub>2</sub>, CS, RNC and Phosphines Metalcarbenes and carbynes</li> <li>• CO4: To study the structure &amp; bonding of organometallic pi complexes</li> <li>• CO5: To understand the Applications of organometallic compounds inorganic synthesis and homogeneous catalysis</li> <li>• CO6: To study different organometallic reactions</li> <li>• CO7: To understand the application of organometallic compounds in heterogeneous catalysis</li> <li>• CO8: To study about organometallic polymers</li> </ul>
IV	CHE4P01	Research Project	<ul style="list-style-type: none"> <li>• CO1: To understand the scientific methods of research project.</li> <li>• CO2: To apply the scientific method in life situations.</li> <li>• CO3: To analyse scientific problems systematically.</li> </ul>

## DEGREE OF MASTER OF VOCATION (M. Voc) IN SOFTWARE

### M. voc Software Development (2021 Admissions) Programme

#### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
I	GEC1SD01	Communication Skills Development	<ul style="list-style-type: none"> <li>• CO1-Apply business communication theory to solve workplace</li> </ul>

## **M.VOC MULTIMEDIA-COURSE OUTCOMES**

### **SEM I**

#### **GEC1MM01-COMMUNICATION THEORIES**

COURSE OUTCOME: • Students will learn about different communication models, their role and importance in media

#### **GEC1MM02 - AUDIO VISUAL NARRATIVES**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Apply strategies to teach the skills of listening, speaking, reading and writing
- Speak independently on a given topic.
- Enact a dialogue on a specific situation with proper contextual language markers and turn taking.

#### **SDC1MM01 - INTRODUCTION TO VISUAL CULTURE**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Become aware of the principles and elements of visual design and an understanding of the grammar of visual narratives.
- Gain the ability to compose visuals and visual narratives
- Develop creative problem solving skills used in communicating visually as an artist.

#### **SDC1MM02 – PHOTOGRAPHY**

COURSE OURCOME: At the end of the 1 and 2 modules, the learner should be able to shoot in manual controls to manipulate the exposure creatively. Shoot and submit high- and low-key light images of still life and portraits. At the end of the 3rd and 4th module, the learner should be able to do the basic editing of images using industry standard software and the learner should be able to plan and shoot landscape and natural images that require the least amount of post-production work.

#### **SDC1MML1 – CREATIVITY AND DRAWING TECHNIQUES (P)**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Draw the necessary items required for film and animation.
- Understand and draw in various drawing techniques.
- Have a general idea about Perspective drawing and Figure drawing.

#### **SDC1MML2– MEDIA DESIGN LAB (P)**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Design the necessary items such as posters, brochures, flyers etc.
- Understand the principles of various designs

#### **SDC1MML3– SCREEN WRITING LAB(P)**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Write an international standard script for film.
- Understand the how to break down script

## **SEM 2**

### **GEC2MM03 MEDIA BUSINESS AND PRACTICE**

COURSE OUTCOME: Students are enabled to have a systematic and strategic approach to media industry by exploring and analyzing the basic concepts of media management and media business. Students are introduced to various spheres of media management such as film & television production, print & electronic journalism production, animation, gaming and vfx production etc.

### **SDC2MM03 TECHNIQUES OF VIDEO EDITING**

COURSE OUTCOME: Upon successful completion of this course, students will be able to:

- Handle professional editing software's effectively
- Gain the ability to edit a film

### **SDC2MME1 - DOCUMENTARIES AND LITERAL FILMS**

COURSE OUTCOME: • Students will get an insight in different genres of non-fiction film making.

- They will learn to practice film making in a different perspective as an aid for showcasing actualities and those beneficial for the betterment of society.

### **SDC2MME2 - FILM ANALYSIS**

COURSE OUTCOME: Students are given an introduction to the present scenario of global cinema. They are also enabled to critically analyze films and write appreciations in a journalistic manner.

### **SDC2MME3- MEDIA ETHICS AND EDUCATION**

COURSE OUTCOME: Successful completion of this course will enable the students to: Understand the media laws and ethics essential to serve the society.

### **SDC2MML4 - SHOOTING PRACTICES (P)**

CAREER OUTCOME: Upon successful completion of this course, students will be able to:

- Handle professional still and video cameras effectively
- Gain the ability to compose a frame aesthetically.
- Conduct video shooting and do live coverages.

### **SDC2MML5 - BASICS OF SOUND AND SOUND RECORDING LAB(P)**

COURSE OUTCOME: After completion of this course Students shall be able to record and edit using the advanced software like pro Tools.

### **SDC2MML6 - DESIGN FOR ADVERTISING(P)**

COURSE OUTCOME: • Students will learn about different promotional aids, their role and importance in promoting a brand.

- This course will help the students to identify the aesthetical and ethical perspectives of promotional designs.



## **SEM 3**

### **GEC3MM04 - RESEARCH METHODOLOGY FOR COMMUNICATION AND MEDIA STUDIES**

COURSE OUTCOME: Upon the successful completion of this course the student will be able to • Understand about Research Methodology

### **SDC3MM04 – ART DIRECTION AND PRODUCTION DESIGN**

COURSE OUTCOME: Upon the successful completion of this course the student will be able to

- Understand the roles and responsibilities of a director
- Implement the elements of cinematic grammar in their story telling
- Plan and execute a visual program in any desired format

### **SDC3MM05 – INTRODUCTION TO 3D ANIMATION**

COURSE OUTCOME: • Students will get an insight in animation production, especially in digital 3D animation.

- Students will learn to practice animation film making in a different perspective as an aid for showcasing creativity as well as a story telling method.

### **SDC3MME4 - RADIO PROGRAM PRODUCTION**

COURSE OUTCOME: • Students will get an insight in different types radio programme production, editing and sound recording.

- They will learn to use Radio in a different perspective as an effective communication tool and an aid beneficial for the betterment of society.

### **SDC3MME5- ADVERTISING AND PROMOTIONAL FILM MAKING**

COURSE OUTCOME: • Students will learn about different promotional aids, their role and importance in promoting a brand.

- They also learn how to approach the art of advertising for various industrial requirements.

### **SDC3MME6- NEW MEDIA AND CONTENTS**

COURSE OUTCOME: • Students will learn about different new media platforms, their role and importance.

- They also learn how to approach the new media platforms with various technical requirements.

### **SDC3MML7 – 2D GRAPHICS ANIMATION (P)**

COURSE OUTCOME: • Students will get an insight in animation production, especially in digital 2D animation.

- Students will learn to practice animation film making in a different perspective as an aid for showcasing creativity as well as a story telling method.

### **SDC3MML8 – INTERACTIVE MEDIA DESIGNING (P)**

COURSE OUTCOME: Students are enabled to create a websites and upload it to a web server. They also become familiar with E-Publishing Technologies

**SDC3MML9 – BASICS OF VFX AND COMPOSITING LAB (P)**

COURSE OUTCOME: After completion of this subject provide students with expertise in directing a complete short animated film, designing and building 3D characters, and fully integrating visual effects shots from concept to post production.

**SEM 4**

Course Outcome

To enable the student to the techniques of literature survey •

To acquire the skill of presentation

## **M.VOC MULTIMEDIA- PROGRAMME SPECIFIC OUTCOMES (PSOS)**

**POs 1** Students should demonstrate proficiency in using a variety of multimedia software tools and platforms for graphic design, video editing, animation, audio production, and web development.

**POs 2** Students should be able to apply their creativity and artistic skills to develop engaging multimedia content, including graphics, animations, videos, and interactive media.

**POs 3** Students should possess a strong understanding of multimedia technologies, including image editing techniques, video production processes, animation principles, and web development languages.

**POs 4** Students should be capable of planning, designing, and producing multimedia projects from concept to completion, considering factors such as target audience, project objectives, and technical requirements.

**POs 5** Students should demonstrate the ability to work effectively in multidisciplinary teams, communicate ideas clearly, and collaborate with clients, stakeholders, and peers in the development of multimedia projects.

## M. voc Software Development (2021 Admissions) Programme

### Program Specific Outcomes(PSO)

PSO1	Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.
PSO2	Develop competent technical speaking and writing skills in English so as to enable the graduate to effectively communicate in the workplace.
PSO3	Develop competency in advanced programming languages such as Java, PHP, Python, J2EE etc. and learn the development of software and web applications using these.
PSO4	Develop app development skills using Android, ios, swift
PSO5	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
<b>I</b>	<b>GEC1SD01</b>	<b>Communication Skills Development</b>	<ul style="list-style-type: none"> <li>● CO1-Apply business communication theory to solve workplace communication issues.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2- Display competence in oral, written, and visual communication.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3- Communicate effectively with colleagues in meetings, prepare agenda, minutes, and memos, and write different types of business letters, tenders, and quotations</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Prepare resumes, job application cover letters, and effective PowerPoint presentations</li> </ul>
<b>I</b>	<b>SDC1SD01</b>	<b>OBJECT ORIENTED PROGRAMMING WITH JAVA AND SQL</b>	<ul style="list-style-type: none"> <li>● CO1-Understand the basics of programming to write simple programs in java and</li> </ul>

			<p>understand the syntax and semantics of database programming using SQL.</p>
			<ul style="list-style-type: none"> <li>● CO2- Apply the programming structures to write simple/intermediate programs and debug it using exception handling.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3- Design and create intermediate/complex solutions using advanced java concepts</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4-Analyze and create database programming aspects to design and manage robust databases and synthesize efficient queries.</li> </ul>
<b>I</b>	<b>SDC1SD02</b>	<b>PHP PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO1- Learn how to make dynamic web applications using PHP</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Write PHP scripts to handle HTML forms and regular expressions including modifiers, operators, and meta characters.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Create PHP programs that use various PHP library functions, and that manipulate files and directories.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Analyse and solve various database tasks using the PHP language.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Learn how to Test and debug a PHP application</li> </ul>
<b>I</b>	<b>SDC1SD03</b>	<b>INTRODUCTION TO MOBILE APPLICATION DEVELOPMENT AND WEB TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>● CO1 - Student knows mobile devices and mobile platforms</li> </ul>

			<ul style="list-style-type: none"> <li>● CO2 - Understand the basic concepts for mobile platforms and their supporting technology, and classify the different architectures used in server/client/cloud systems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Evaluate the architecture used for web-based development and deployment</li> </ul>
<b>I</b>	<b>SDC1SD04</b>	<b>ANDROID APP DEVELOPMENT FOR BEGINNERS</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand Java and Android development framework components and Java/Android Development Tools</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Evaluate the core building blocks of android and android lifecycle architecture</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Design and implement Database Application and Content providers</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Evaluate different messaging constructs and themes in android.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Discuss various security issues in Android platform</li> </ul>
<b>I</b>	<b>SDC1SDL1 – LAB 1</b>	<b>PHP PROGRAMMING - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Develop simple application using server side PHP programming and database connectivity</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Learn to do validation using JavaScript objects by</li> </ul>

			<p>applying different event handling mechanism.</p> <ul style="list-style-type: none"> <li>● CO3 - Use AJAX programming technique to develop RI</li> </ul>
<b>I</b>	<b>SDC1SDL2-LAB 2</b>	<b>SOFTWARE LAB I (ANDROID I, JAVA&amp;SQL)</b>	<ul style="list-style-type: none"> <li>● CO1 - Create advanced applications based on Java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Create advanced databases based on SQL and SQLite</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Design and Create advanced projects based on Android</li> </ul>
	<b>GEC2SD02</b>	<b>PROFESSIONAL SKILLS DEVELOPMENT (TRAINING PROGRAMME)</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand and apply skills in interpersonal relationships in the workplace</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Apply productivity improvement techniques at work.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand and demonstrate knowledge of problem- solving and creativity techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Understand demonstrate skills in public speaking, oral presentations, and teamwork.</li> </ul>
<b>II</b>	<b>SDC2SD05</b>	<b>DATABASE AND BACKEND TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>● CO1 - Analyze different types of DBMS and Employ it in real- life problems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Evaluate different means of advanced DBMS functions and implement them in the production environment.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO3 - Design and create databases based on MongoDB tool.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Understand the concepts of Big Data and its application.</li> </ul>
			<ul style="list-style-type: none"> <li>● C05 - Design and create queries based on triggers, aggregate functions, stored procedures, SQL joins, DDL, DML, and views (Create).</li> </ul>
<b>II</b>	<b>SDC2SD06</b>	<b>ADVANCED JAVA PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO1 - Get knowledge about JVM architecture</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Be able to write advanced Java Programs using Hibernate, Spring technologies</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Be able to develop Spring based applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Get knowledge about J2ME applications</li> </ul>
<b>II</b>	<b>SDC2SD07</b>	<b>ANDROID APP DEVELOPMENT-ADVANCED</b>	<ul style="list-style-type: none"> <li>● CO1 - Describe Android platform, Architecture and features</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Design MVC architecture.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Solve problems using SQLite and Content Providers</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Design and implement Database Application and Content providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Use multimedia, camera and Location</li> </ul>



			<p>based services in Android App.</p> <ul style="list-style-type: none"> <li>● CO7 - Discuss various security issues in Android platform</li> <li>● CO8 - Create solutions based on the REALM framework.</li> </ul>
<b>II</b>	<b>SDC2SDL3 LAB3</b>	<b>ADVANCED JAVA - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Able to do advanced level programming in Java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Able to do a small website using Java</li> </ul>
<b>II</b>	<b>SDC2SDL4 LAB 4</b>	<b>SOFTWARE LAB II (ANDROID II AND DATABASE)</b>	<ul style="list-style-type: none"> <li>● CO1 - To have a review on concept of Android programming.</li> <li>● CO2 - To learn Android Programming Environments.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - To practice Design Solution based on advanced android concepts.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - To learn GUI Application development in Android platform with XML</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - To apply fundamentals of database concept and entity relationship model in database applications.</li> </ul>
<b>II</b>	<b>SDC2SDL5</b>	<b>MINI PROJECT / INTERNSHIP [Android App Development)</b>	<ul style="list-style-type: none"> <li>● CO1 - Identify the requirements for the real world problems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Study and enhance software/ hardware skills.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Demonstrate and build the project successfully by hardware</li> </ul>

			requirements, coding, emulating and testing
			<ul style="list-style-type: none"> <li>● CO4 - To report and present the findings of the study conducted in the preferred domain</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Demonstrate an ability to work in teams and manage the conduct of the research study</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Evaluate client requirements efficiently</li> </ul>
			<ul style="list-style-type: none"> <li>● CO7 - Design software requirement specifications accurately</li> </ul>
			<ul style="list-style-type: none"> <li>● CO8 - Design solutions based on SRS, and design principles</li> </ul>
<b>III</b>	<b>GEC3RM04</b>	<b>RESEARCH METHODOLOGY</b>	<ul style="list-style-type: none"> <li>● CO1 - To enable the students to roll in to research level areas</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Develop to make use of online software tools</li> </ul>
<b>III</b>	<b>SDC3SD08</b>	<b>PROGRAMMING WITH SWIFT</b>	<ul style="list-style-type: none"> <li>● CO1 - Define key programming terms relevant to Swift and IOS programming.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Understand the operators, data structures, inheritance, and error handling in Swift</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - State the purpose of the Apple developer tools, such as Xcode, Instruments, debugger, analyser, and iOS Simulator.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Create programs based using class, methods, protocols,</li> </ul>

			<p>generics, flow control, operators, and functions.</p> <ul style="list-style-type: none"> <li>● CO5 - Analyze access control and enumeration.</li> <li>● CO6 - Demonstrate programming best practices in Swift</li> <li>● CO7 - Examine and subdivide app functionality into properly designed components</li> </ul>
<b>III</b>	<b>GEC3SD03E1</b>	<b>MOBILE AND WIRELESS SECURITY</b>	<ul style="list-style-type: none"> <li>● CO1 - Acquire experience and capability to team work</li> <li>● CO2 - Acquire solid knowledge on mobile networks and mobile security</li> <li>● CO3 - Become familiar with wireless systems and standards</li> <li>● CO4 - Able to get an idea about the framework of mobile handset hardware design</li> </ul>
<b>III</b>	<b>SDC3SD10</b>	<b>MACHINE LEARNING</b>	<ul style="list-style-type: none"> <li>● CO1 - Develop an appreciation for what is involved in Learning models from data</li> <li>● CO2 - Understand a wide variety of learning algorithms</li> <li>● CO3 - Understand how to evaluate models generated from data</li> <li>● CO4 - Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy</li> </ul>

			that can be achieved by applying the models
<b>III</b>	<b>SDC3SD11</b>	<b>IOS APP DEVELOPMENT-FUNDAMENTALS</b>	<ul style="list-style-type: none"> <li>● CO1 - Describe Android platform, Architecture and features</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Apply the Cocoa framework for iOS development</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand the fundamentals of iOS.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Design and implement Database Application and Content providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Evaluate and create Story Board, MVC, Protocols and Delegates, View System, Controllers, and devise solution based on it</li> </ul>
			<ul style="list-style-type: none"> <li>● CO7 - Design and create projects based on multi-scene storyboards, toolbars, and pickers.</li> </ul>
<b>III</b>	<b>GEC3SD04E8</b>	<b>PROGRAMMING WITH PYTHON</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand the fundamentals of Python and its environment</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Understand syntax and semantics and advanced python integration</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand advanced Class and Object-Oriented features and its implementation</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Develop application using</li> </ul>

			<p>statistical and analytical features</p> <ul style="list-style-type: none"> <li>● CO5 - Design solutions based on visualization</li> </ul>
<b>III</b>	<b>SDC3SDL6 : LAB 6</b>	<b>ANDROID APP DEVELOPMENT - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Experiment on Integrated Development Environment for advanced Android Application Development.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Design and Implement User Interfaces and Layouts of Android App in advanced level.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Use Intents for activity and broadcasting data in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Design and Implement Database Application and Content Providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Experiment with email, Camera and Location Based service and animations.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Develop Android App with Security features</li> </ul>
<b>III</b>	<b>SDC3SDL7 – LAB 7</b>	<b>SOFTWARE LAB III (IOS AND SWIFT)</b>	<ul style="list-style-type: none"> <li>● CO1 - Develop projects using the iOS framework</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Develop solutions based on advanced iOS frameworks</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Deploy Swift based projects</li> </ul>
<b>IV</b>	<b>SDC4SDTP</b>	<b>TERM PAPER</b>	<ul style="list-style-type: none"> <li>● CO1 - To enable the student to the techniques of literature survey</li> </ul>

			<ul style="list-style-type: none"> <li>● CO2 - To acquire the skill of presentation</li> </ul>
<b>IV</b>	<b>SDC4SDL8</b>	<b>INTERNSHIP &amp; PROJECT</b>	<ul style="list-style-type: none"> <li>● CO1 - An industry ready software professional at the exit point</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Able to become a part of the industry through the whole semester internship in the industries</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Experience in handling Live projects</li> </ul>

## DEPARTMENT OF SOCIOLOGY

2023- 24

### Programme specific outcome: MA Integrated Sociology

<ul style="list-style-type: none"><li>• Getting an exposure to the fundamental concepts and theories in acquiring skills for sociological imagination</li></ul>
<ul style="list-style-type: none"><li>• Achieve critical sensibility towards social, economic and political situation and to develop critical thinking ability</li></ul>
<ul style="list-style-type: none"><li>• Exhibit oral and written communication skills in disseminating sociological knowledge</li></ul>
<ul style="list-style-type: none"><li>• Improve proficiency in applying sociology and enhance employability Broadly, three orientations can be delineated with reference to the teaching of sociology<ul style="list-style-type: none"><li>➤ Social orientation (as in responsible citizenship education)</li><li>➤ Knowledge orientation (as in personality and skill development),</li><li>➤ Job orientation (as in vocational courses)</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Keeping these orientations in mind, the Board of Studies emphasizes the following as objectives of sociology education:<ul style="list-style-type: none"><li>➤ [a] to equip the students to critically understand and interpret social reality</li><li>➤ [b] to generate in students a distinct sociological perspective on socioeconomic and cultural reality</li><li>➤ [c] to enhance the social sensitivity and sensibility of the students</li><li>➤ [d] to help students acquire skills that will be useful to them in their personal and professional life.</li></ul></li></ul>
<ul style="list-style-type: none"><li>• It is of the view that assessment should support and encourage broad instructional goals such as basic knowledge of the discipline of sociology including phenomenology, theories, techniques, concepts and general principles, encouragement of students' attributes including curiosity, creativity and reasoned skepticism and understanding the link of sociology to other disciplines. With this in mind it aims to provide a firm foundation in every aspect of sociology and to explain the modern trends in sociology.</li></ul>

## Course outcome

Semester	Course code	Course Name	Course outcomes
I	SOC1IB01	FUNDAMENTALS OF SOCIOLOGY	<ul style="list-style-type: none"> <li>• Comprehending the uniqueness of the sociological imagination</li> <li>• Recognizing the difference between sociology and commonsense</li> <li>• Understanding the relation between the individual and society</li> <li>• Understanding the parts and processes within society</li> </ul>
	ECO1/IC01	INTRODUCTORY ECONOMICS 1 (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Students explain what Economics is and explain why it is important</li> <li>• Explain how economists use economic models</li> <li>• Understand the scarcity and choice in the economy and the basic problems of an economy.</li> <li>• Explain and illustrate the basics of market demand and supply and the concept of market equilibrium and disequilibrium.</li> <li>• Students illustrate the concepts of elasticity of demand and cost functions.</li> </ul>
II	SOC2IB02	STRUCTURE AND TRANSFORMATION OF INDIAN SOCIETY	<ul style="list-style-type: none"> <li>• To develop a sociological perspective for understanding the dynamics of Indian Society</li> <li>• To sensitise the changes occurred in the various institutions in Indian Society</li> <li>• To create awareness on the issues and challenges of contemporary society</li> </ul>
	PSY2IC05	PSYCHOLOGICAL PROCESSES (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Understand the meaning, historical background and research methods of Psychology</li> <li>• Explain the basic processes in attention, perception, memory, Thought and motivation</li> <li>• Understand the theoretical perspectives of learning, emotion, and forgetting</li> </ul>



			<ul style="list-style-type: none"> <li>Evaluate the nature, determinants and theories of intelligence and personality</li> </ul>
III	SOC3IB03	CLASSICAL SOCIOLOGICAL THINKERS	<ul style="list-style-type: none"> <li>Understands the historical condition in which sociology originated and developed as an independent academic discipline.</li> <li>Analyses the intellectual and philosophical foundations of Sociological theories and contributions of Classical theorists to Sociology.</li> <li>Explores the possibilities of an approach that allows sociologists to make connections between social worlds.</li> </ul>
	A11	INDIAN CONSTITUTION AND POLITICS (GENERAL)	<ul style="list-style-type: none"> <li>To understand the Indian constitution</li> <li>To recognize the separation of powers in the Indian constitution-Relationship between executive, legislature and judiciary</li> <li>To analyse important constitutional values and major challenges to the Indian constitution</li> </ul>
	A12	SCIENCE AND SOCIETY (GENERAL)	<ul style="list-style-type: none"> <li>To understand the progress of scientific knowledge</li> <li>To analyse science and scientific temperament from various perspectives cutting across all cultures</li> <li>To create idea about techno science and development in relation with future</li> </ul>
	PSY3IC05	PSYCHOLOGY OF ABNORMAL BEHAVIOR AND SOCIAL BEHAVIOR (ALLIED CORE)	<ul style="list-style-type: none"> <li>Understand the meaning and historical background of Abnormal Behaviour</li> <li>Describe the clinical features and types of stress and its related disorders, Anxiety</li> <li>disorders, somatic and dissociative disorders</li> <li>Understand the definition, nature and scope of Social Psychology</li> <li>Describe and discuss major concepts in the field of social psychology</li> </ul>

			<ul style="list-style-type: none"> <li>• Able to examine aggression and recommend the preventive measures for aggression.</li> </ul>
	JOU3IC01	FUNDAMENTALS OF MASS COMMUNICATION (ALLIED CORE)	<ul style="list-style-type: none"> <li>• Gain an understanding of the basic concepts of communication.</li> <li>• Attain the capacity to assess the working of different media</li> <li>• Obtain a critical understanding of the evolution and growth of Indian and Malayalam journalism.</li> </ul>
IV	SOC4IB04	BASICS OF SOCIAL RESEARCH	<ul style="list-style-type: none"> <li>• Familiarizes with the nature and scope of social research.</li> <li>• Understands steps and methods of social research.</li> <li>• Distinguishes the characteristics of qualitative and quantitative research.</li> </ul>
	SOC4IB05	RURAL AND URBAN SOCIOLOGY	<ul style="list-style-type: none"> <li>• Understanding major concepts and theoretical perspectives in urban sociology.</li> <li>• Familiarizing the views on urban social life.</li> <li>• Understanding the nature of urbanization process in Indian context.</li> <li>• Perceiving the urbanization process as a spatial transformation with a focus on Kerala scenario.</li> </ul>
	A13	CULTURE AND SOCIETY OF KERALAM (GENERAL)	<ul style="list-style-type: none"> <li>• Develops an understanding about the Socio-Cultural features of Keralam</li> <li>• Evaluates the emergence of modernity in Keralam</li> <li>• Analyses the socio-cultural aspects of Contemporary Keralam</li> <li>• Critically evaluates the transformations of Keralam</li> </ul>
	A14	LANGUAGE & CULTURE (GENERAL)	<ul style="list-style-type: none"> <li>• Analyze the relationship between language (Bhasha) and culture (Shumska) and their interconnectedness.</li> <li>• Identify and explain the various linguistic and cultural concepts, such as language change, language contact, and language policy.</li> <li>• Apply critical thinking skills to evaluate the impact of language on culture and society.</li> </ul>

			<ul style="list-style-type: none"> <li>• Recognize and appreciate the diversity of languages and cultures, and their contributions to human society Identify and explain the various language families and their characteristics.</li> <li>• Apply critical thinking skills to evaluate the impact of language on culture and society in the digital age.</li> </ul>
JOU4IC02	MASS MEDIA PRACTICES (ALLIED CORE)		<ul style="list-style-type: none"> <li>• Demonstrate practical knowledge in reporting and editing</li> <li>• Illustrate their expertise in other journalistic practices like P.R. and advertising.</li> </ul>
ECO 4/4 ICO2	INTRODUCTORY ECONOMICS – II (ALLIED CORE)		<ul style="list-style-type: none"> <li>• Students define the concept of money and explain different concepts and theories of money.</li> <li>• Students understand the basics elements of public finance and explain the theory of maximum social advantage</li> <li>• Students understand the principle of federal finance and explain the role of finance commission</li> <li>• Students explain and illustrate the basics of international trade and analyse various concepts associated with trade.</li> <li>• Students understand the basic characteristics of Indian economy and analyse various economic issues of Indian economy.</li> </ul>

V	SOC5IB06	INTRODUCTION TO SOCIAL ANTHROPOLOGY	<ul style="list-style-type: none"> <li>• Understands the basic concepts of Anthropology.</li> <li>• Analyses academic and societal debates about human diversity and human society.</li> <li>• Familiarises with Anthropological studies in India by focusing on Tribal Communities.</li> <li>• Comprehends anthropological knowledge and approaches.</li> </ul>
	SOC5IB07	WOMEN AND SOCIETY	<ul style="list-style-type: none"> <li>• Understanding some major themes in gender knowledge and its conceptual clarity regarding women's studies and feminism.</li> <li>• Recognize the intersections between gender and other social and cultural identities.</li> <li>• Grasp on structural issues faced by women and knowledge about factors affecting the status of women in Kerala over time.</li> <li>• Critical awareness regarding women empowerment in Kerala.</li> </ul>
	SOC5IB08	BASICS OF SOCIAL PSYCHOLOGY	<ul style="list-style-type: none"> <li>• Understands the basic concepts in social psychology and the basic psychological processes.</li> <li>• Creates awareness on the significance of attitude in developing social behavior</li> <li>• Develops understanding on personality and its relation with social system.</li> <li>• Analyses the major concepts and methods of the field to understand interpersonal and group relationships.</li> </ul>
	SOC5IB09	SOCIAL STRATIFICATION AND INEQUALITY: AN INTRODUCTION	<ul style="list-style-type: none"> <li>• Explains the approaches, theories and dimensions of social stratification.</li> <li>• Examines social stratification as a cause of marginalisation.</li> <li>• Contextualises social stratification in a caste-class framework.</li> <li>• Critically analyses the dimensions of gender, race and ethnicity in social stratification.</li> </ul>

	SOC5ID01	LIFE SKILL DEVELOPMENT (OPEN COURSE)	<ul style="list-style-type: none"> <li>• Attains knowledge of necessary life skills for application in everyday life.</li> <li>• Equips with the quality of addressing issues relevant to life situations.</li> <li>• Enables to establish productive interpersonal relationships with others.</li> </ul>
	SOC5ID02	KERALA SOCIETY: STRUCTURE AND TRANSFORMATION (OPEN COURSE)	<ul style="list-style-type: none"> <li>• Familiarizing the social history and transformation of Kerala Society.</li> <li>• Understanding the significant factors that contributed to changes in the social structure.</li> <li>• Recognizing the distinct features of Kerala Economy and Social institutions.</li> </ul>
	SOC6IF01	PROJECT (MINOR)	
VI	SOC6IB10	SCHOOLS OF SOCIOLOGICAL THEORIES I	<ul style="list-style-type: none"> <li>• Identifies various schools of sociological theory.</li> <li>• Explains the major schools of thought.</li> <li>• Critically examines the major schools of thought.</li> <li>• Recognizes the utility and relevance of the theoretical premises.</li> </ul>
	SOC6IB11	POPULATION AND SOCIETY	<ul style="list-style-type: none"> <li>• To provide a basic theoretical explanation of population studies and related concepts.</li> <li>• To provide critical analysis of the population theories</li> <li>• To analyse the changes in population in society</li> <li>• To Interpret global, national, and local events within an appropriate demographic context.</li> </ul>
	SOC6IB12	MEDIA, CULTURE, AND SOCIETY	<ul style="list-style-type: none"> <li>• Understands different types of media and forms of communication.</li> <li>• Evaluates the relationship between Media and Society.</li> <li>• Analyzes the changes in Media, Society, and Culture.</li> <li>• Understands the fundamental relations between society, culture, and communication.</li> </ul>

	SOC6IB13	CRIME AND SOCIETY	<ul style="list-style-type: none"> <li>• Familiarizes students with the impact of problems resulting from criminal acts in society.</li> <li>• Familiarizes learners with different types of crimes and their prevention.</li> <li>• Provides an understanding of various approaches to the study of crime.</li> <li>• Understands criminology in the context of sociological knowledge.</li> </ul>
	SOC6IF01	PROJECT (MINOR)	
VII	SOC7IB14	PRELIMINARIES OF SOCIOLOGICAL THEORY	<ul style="list-style-type: none"> <li>• Traces the transformation from social thought to Sociological theory</li> <li>• Identifies the basic components of theory.</li> <li>• Develops sociological thinking.</li> <li>• Recognizes the paradigmatic orientations in Sociology.</li> <li>• Evaluates Sociology as a humanistic discipline.</li> </ul>
	SOC7IB15	SOCIAL RESEARCH METHODOLOGY I	<ul style="list-style-type: none"> <li>• Recognizes the philosophical foundations of social research.</li> <li>• Identifies quantitative and qualitative research.</li> <li>• Applies the steps and stages of research.</li> <li>• Develops skills for social research.</li> </ul>
	SOC7IB16	INDIAN SOCIETY: A SOCIOLOGICAL ANALYSIS	<ul style="list-style-type: none"> <li>• Traces out the historical emergence of Indian Society</li> <li>• Examines the different approaches to the study of Indian Society.</li> <li>• Discusses the different issues of Indian society.</li> <li>• Analyzes the transformations in Indian society.</li> </ul>
	SOC7IB17	GENDER AND SOCIETY	<ul style="list-style-type: none"> <li>• Explains the basic concepts of Gender Studies.</li> <li>• Elaborates on the theoretical perspectives on Gender.</li> <li>• Discusses the Gender dynamics in Indian society.</li> <li>• Evaluates Gender relations in the context of Kerala society.</li> </ul>
VIII	SOC8IB18	SCHOOLS OF SOCIOLOGICAL THEORIES II	<ul style="list-style-type: none"> <li>• Explains various schools of sociological theory</li> <li>• Elaborates the contributions in the various schools of thought</li> </ul>

			<ul style="list-style-type: none"> <li>• Initiate critical discussion on the major schools of thought</li> <li>• Identifies the relevance of the theoretical premises</li> </ul>
SOC8IB19	SOCIAL RESEARCH METHODOLOGY II		<ul style="list-style-type: none"> <li>• Acquaints with quantitative and qualitative research methods</li> <li>• Identifies and applies scaling techniques</li> <li>• Applies statistics in social research</li> <li>• Distinguishes the various components and format of report</li> </ul>
SOC8IB20	ENVIRONMENT AND SOCIETY		<ul style="list-style-type: none"> <li>• Explain the reciprocal relationships between environment and society.</li> <li>• Discuss the different ideologies and perspectives of environmental sociology.</li> <li>• Appraise the relationship between gender and environment.</li> <li>• Analyse the interplay between environment, development, capitalism and social justice.</li> </ul>
SOC8IB21	SOCIOLOGY OF KERALAM		<ul style="list-style-type: none"> <li>• Explains the social structure of Keralam</li> <li>• Analyses the major transformations that have taken place in Keralam</li> <li>• Examines the major movements that have influenced Keralam</li> <li>• Appraises the contemporary Keralam and its unique features</li> </ul>

## M. voc Software Development (2021 Admissions) Programme

### Program Specific Outcomes(PSO)

PSO1	Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.
PSO2	Develop competent technical speaking and writing skills in English so as to enable the graduate to effectively communicate in the workplace.
PSO3	Develop competency in advanced programming languages such as Java, PHP, Python, J2EE etc. and learn the development of software and web applications using these.
PSO4	Develop app development skills using Android, ios, swift
PSO5	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
<b>I</b>	<b>GEC1SD01</b>	<b>Communication Skills Development</b>	<ul style="list-style-type: none"> <li>● CO1-Apply business communication theory to solve workplace communication issues.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2- Display competence in oral, written, and visual communication.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3- Communicate effectively with colleagues in meetings, prepare agenda, minutes, and memos, and write different types of business letters, tenders, and quotations</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Prepare resumes, job application cover letters, and effective PowerPoint presentations</li> </ul>
<b>I</b>	<b>SDC1SD01</b>	<b>OBJECT ORIENTED PROGRAMMING WITH JAVA AND SQL</b>	<ul style="list-style-type: none"> <li>● CO1-Understand the basics of programming to write simple</li> </ul>



			<p>programs in java and understand the syntax and semantics of database programming using SQL.</p> <ul style="list-style-type: none"> <li>● CO2- Apply the programming structures to write simple/intermediate programs and debug it using exception handling.</li> <li>● CO3- Design and create intermediate/complex solutions using advanced java concepts</li> <li>● CO4-Analyze and create database programming aspects to design and manage robust databases and synthesize efficient queries.</li> </ul>
<b>I</b>	<b>SDC1SD02</b>	<b>PHP PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO1- Learn how to make dynamic web applications using PHP</li> <li>● CO2 - Write PHP scripts to handle HTML forms and regular expressions including modifiers, operators, and meta characters.</li> <li>● CO3 - Create PHP programs that use various PHP library functions, and that manipulate files and directories.</li> <li>● CO4 - Analyse and solve various database tasks using the PHP language.</li> <li>● CO5 - Learn how to Test and debug a PHP application</li> </ul>
<b>I</b>	<b>SDC1SD03</b>	<b>INTRODUCTION TO MOBILE APPLICATION DEVELOPMENT AND</b>	<ul style="list-style-type: none"> <li>● CO1 - Student knows mobile devices and mobile platforms</li> </ul>

		<b>WEB TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>● CO2 - Understand the basic concepts for mobile platforms and their supporting technology, and classify the different architectures used in server/client/cloud systems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Evaluate the architecture used for web-based development and deployment</li> </ul>
<b>I</b>	<b>SDC1SD04</b>	<b>ANDROID APP DEVELOPMENT FOR BEGINNERS</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand Java and Android development framework components and Java/Android Development Tools</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Evaluate the core building blocks of android and android lifecycle architecture</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Design and implement Database Application and Content providers</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Evaluate different messaging constructs and themes in android.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Discuss various security issues in Android platform</li> </ul>
<b>I</b>	<b>SDC1SDL1 – LAB 1</b>	<b>PHP PROGRAMMING - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Develop simple application using server side PHP programming and database connectivity</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Learn to do validation using JavaScript objects by</li> </ul>

			<p>applying different event handling mechanism.</p> <ul style="list-style-type: none"> <li>● CO3 - Use AJAX programming technique to develop RI</li> </ul>
<b>I</b>	<b>SDC1SDL2-LAB 2</b>	<b>SOFTWARE LAB I (ANDROID I, JAVA&amp;SQL)</b>	<ul style="list-style-type: none"> <li>● CO1 - Create advanced applications based on Java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Create advanced databases based on SQL and SQLite</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Design and Create advanced projects based on Android</li> </ul>
	<b>GEC2SD02</b>	<b>PROFESSIONAL SKILLS DEVELOPMENT (TRAINING PROGRAMME)</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand and apply skills in interpersonal relationships in the workplace</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Apply productivity improvement techniques at work.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand and demonstrate knowledge of problem- solving and creativity techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Understand demonstrate skills in public speaking, oral presentations, and teamwork.</li> </ul>
<b>II</b>	<b>SDC2SD05</b>	<b>DATABASE AND BACKEND TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>● CO1 - Analyze different types of DBMS and Employ it in real- life problems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Evaluate different means of advanced DBMS functions and implement them in the production environment.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO3 - Design and create databases based on MongoDB tool.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Understand the concepts of Big Data and its application.</li> </ul>
			<ul style="list-style-type: none"> <li>● C05 - Design and create queries based on triggers, aggregate functions, stored procedures, SQL joins, DDL, DML, and views (Create).</li> </ul>
<b>II</b>	<b>SDC2SD06</b>	<b>ADVANCED JAVA PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO1 - Get knowledge about JVM architecture</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Be able to write advanced Java Programs using Hibernate, Spring technologies</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Be able to develop Spring based applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Get knowledge about J2ME applications</li> </ul>
<b>II</b>	<b>SDC2SD07</b>	<b>ANDROID APP DEVELOPMENT-ADVANCED</b>	<ul style="list-style-type: none"> <li>● CO1 - Describe Android platform, Architecture and features</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Design MVC architecture.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Solve problems using SQLite and Content Providers</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Design and implement Database Application and Content providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Use multimedia, camera and Location</li> </ul>

			<p>based services in Android App.</p> <ul style="list-style-type: none"> <li>● CO7 - Discuss various security issues in Android platform</li> <li>● CO8 - Create solutions based on the REALM framework.</li> </ul>
<b>II</b>	<b>SDC2SDL3 LAB3</b>	<b>ADVANCED JAVA - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Able to do advanced level programming in Java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Able to do a small website using Java</li> </ul>
<b>II</b>	<b>SDC2SDL4 LAB 4</b>	<b>SOFTWARE LAB II (ANDROID II AND DATABASE)</b>	<ul style="list-style-type: none"> <li>● CO1 - To have a review on concept of Android programming.</li> <li>● CO2 - To learn Android Programming Environments.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - To practice Design Solution based on advanced android concepts.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - To learn GUI Application development in Android platform with XML</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - To apply fundamentals of database concept and entity relationship model in database applications.</li> </ul>
<b>II</b>	<b>SDC2SDL5</b>	<b>MINI PROJECT / INTERNSHIP [Android App Development)</b>	<ul style="list-style-type: none"> <li>● CO1 - Identify the requirements for the real world problems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Study and enhance software/ hardware skills.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Demonstrate and build the project successfully by hardware</li> </ul>

			<p>requirements, coding, emulating and testing</p> <ul style="list-style-type: none"> <li>● CO4 - To report and present the findings of the study conducted in the preferred domain</li> <li>● CO5 - Demonstrate an ability to work in teams and manage the conduct of the research study</li> <li>● CO6 - Evaluate client requirements efficiently</li> <li>● CO7 - Design software requirement specifications accurately</li> <li>● CO8 - Design solutions based on SRS, and design principles</li> </ul>
<b>III</b>	<b>GEC3RM04</b>	<b>RESEARCH METHODOLOGY</b>	<ul style="list-style-type: none"> <li>● CO1 - To enable the students to roll in to research level areas</li> <li>● CO2 - Develop to make use of online software tools</li> </ul>
<b>III</b>	<b>SDC3SD08</b>	<b>PROGRAMMING WITH SWIFT</b>	<ul style="list-style-type: none"> <li>● CO1 - Define key programming terms relevant to Swift and IOS programming.</li> <li>● CO2 - Understand the operators, data structures, inheritance, and error handling in Swift</li> <li>● CO3 - State the purpose of the Apple developer tools, such as Xcode, Instruments, debugger, analyser, and iOS Simulator.</li> <li>● CO4 - Create programs based using class, methods, protocols,</li> </ul>

			<p>generics, flow control, operators, and functions.</p> <ul style="list-style-type: none"> <li>• CO5 - Analyze access control and enumeration.</li> <li>• CO6 - Demonstrate programming best practices in Swift</li> <li>• CO7 - Examine and subdivide app functionality into properly designed components</li> </ul>
<b>III</b>	<b>GEC3SD03E 1</b>	<b>MOBILE AND WIRELESS SECURITY</b>	<ul style="list-style-type: none"> <li>• CO1 - Acquire experience and capability to team work</li> <li>• CO2 - Acquire solid knowledge on mobile networks and mobile security</li> <li>• CO3 - Become familiar with wireless systems and standards</li> <li>• CO4 - Able to get an idea about the framework of mobile handset hardware design</li> </ul>
<b>III</b>	<b>SDC3SD10</b>	<b>MACHINE LEARNING</b>	<ul style="list-style-type: none"> <li>• CO1 - Develop an appreciation for what is involved in Learning models from data</li> <li>• CO2 - Understand a wide variety of learning algorithms</li> <li>• CO3 - Understand how to evaluate models generated from data</li> <li>• CO4 - Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy</li> </ul>

			that can be achieved by applying the models
<b>III</b>	<b>SDC3SD11</b>	<b>IOS APP DEVELOPMENT-FUNDAMENTALS</b>	<ul style="list-style-type: none"> <li>● CO1 - Describe Android platform, Architecture and features</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Apply the Cocoa framework for iOS development</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand the fundamentals of iOS.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Use Intent, Broadcast receivers and Internet services in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Design and implement Database Application and Content providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Evaluate and create Story Board, MVC, Protocols and Delegates, View System, Controllers, and devise solution based on it</li> </ul>
			<ul style="list-style-type: none"> <li>● CO7 - Design and create projects based on multi-scene storyboards, toolbars, and pickers.</li> </ul>
<b>III</b>	<b>GEC3SD04E8</b>	<b>PROGRAMMING WITH PYTHON</b>	<ul style="list-style-type: none"> <li>● CO1 - Understand the fundamentals of Python and its environment</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Understand syntax and semantics and advanced python integration</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Understand advanced Class and Object-Oriented features and its implementation</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Develop application using</li> </ul>



			<p>statistical and analytical features</p> <ul style="list-style-type: none"> <li>● CO5 - Design solutions based on visualization</li> </ul>
<b>III</b>	<b>SDC3SDL6 : LAB 6</b>	<b>ANDROID APP DEVELOPMENT - LAB</b>	<ul style="list-style-type: none"> <li>● CO1 - Experiment on Integrated Development Environment for advanced Android Application Development.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Design and Implement User Interfaces and Layouts of Android App in advanced level.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Use Intents for activity and broadcasting data in Android App.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4 - Design and Implement Database Application and Content Providers.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5 - Experiment with email, Camera and Location Based service and animations.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO6 - Develop Android App with Security features</li> </ul>
<b>III</b>	<b>SDC3SDL7 – LAB 7</b>	<b>SOFTWARE LAB III (IOS AND SWIFT)</b>	<ul style="list-style-type: none"> <li>● CO1 - Develop projects using the iOS framework</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Develop solutions based on advanced iOS frameworks</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3 - Deploy Swift based projects</li> </ul>
<b>IV</b>	<b>SDC4SDTP</b>	<b>TERM PAPER</b>	<ul style="list-style-type: none"> <li>● CO1 - To enable the student to the techniques of literature survey</li> </ul>

			<ul style="list-style-type: none"> <li>• CO2 - To acquire the skill of presentation</li> </ul>
<b>IV</b>	<b>SDC4SDL8</b>	<b>INTERNSHIP &amp; PROJECT</b>	<ul style="list-style-type: none"> <li>• CO1 - An industry ready software professional at the exit point</li> </ul>
			<ul style="list-style-type: none"> <li>• CO2 - Able to become a part of the industry through the whole semester internship in the industries</li> </ul>
			<ul style="list-style-type: none"> <li>• CO3 - Experience in handling Live projects</li> </ul>

### **M. Voc MULTIMEDIA**

<b>Semester</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Course Outcome</b>
I	GEC1MM01	COMMUNICATION THEORIES	<ul style="list-style-type: none"> <li>• Students will learn about different communication models, their role and importance in media.</li> </ul>
I	GEC1MM02	AUDIO VISUAL NARRATIVES	<ul style="list-style-type: none"> <li>• Apply strategies to teach the skills of listening, speaking, reading and writing</li> <li>• Speak independently on a given topic.</li> <li>• Enact a dialogue on a specific situation with proper contextual language markers and turn taking.</li> </ul>
I	SDC1MM01	INTRODUCTION TO VISUAL CULTURE	<ul style="list-style-type: none"> <li>• Become aware of the principles and elements of visual design and an understanding of the grammar of visual narratives.</li> <li>• Gain the ability to compose visuals and visual narratives •</li> </ul>

			Develop creative problem solving skills used in communicating visually as an artist
I	SDC1MM02	PHOTOGRAPHY	<ul style="list-style-type: none"> <li>● At the end of the 1 and 2 modules, the learner should be able to shoot in manual controls to manipulate the exposure creatively. Shoot and submit high- and low-key light images of still life and portraits.</li> <li>● At the end of the 3rd and 4th module, the learner should be able to do the basic editing of images using industry standard software and the learner should be able to plan and shoot landscape and natural images that require the least amount of post-production work.</li> </ul>
I	SDC1MML1	CREATIVITY AND DRAWING TECHNIQUES (P)	<ul style="list-style-type: none"> <li>● Draw the necessary items required for film and animation.</li> <li>● Understand and draw in various drawing techniques.</li> <li>● Have a general idea about Perspective drawing and Figure drawing.</li> </ul>
I	SDC1MML2	MEDIA DESIGN LAB (P)	<ul style="list-style-type: none"> <li>● Design the necessary items such as posters, brochures, flyers etc.</li> <li>● Understand the principles of various designs.</li> </ul>
I	SDC1MML3	SCREEN WRITING LAB(P)	<ul style="list-style-type: none"> <li>● Write an international standard script for film.</li> <li>● Understand the how to break down scrip</li> </ul>
I	AEC1MM01	AUDIT COURSE I - TECHNICAL ENGLISH AND COPY EDITING	<ul style="list-style-type: none"> <li>● Write description of gadgets and prepare technical reports.</li> <li>● Prepare a content, proof</li> </ul>

			read and edit it appropriately.
II	GEC2MM03	MEDIA BUSINESS AND PRACTICE	<ul style="list-style-type: none"> <li>• Students are enabled to have a systematic and strategic approach to media industry by exploring and analyzing the basic concepts of media management and media business. Students are introduced to various spheres of media management such as film &amp; television production, print &amp; electronic journalism production, animation, gaming and vfx production etc.</li> </ul>
II	SDC2MM03	TECHNIQUES OF VIDEO EDITING	<ul style="list-style-type: none"> <li>• Handle professional editing software's effectively</li> <li>• Gain the ability to edit a film</li> </ul>
II	SDC2MME1	DOCUMENTARIES AND LITERAL FILMS	<ul style="list-style-type: none"> <li>• Students will get an insight in different genres of non-fiction film making.</li> <li>• They will learn to practice film making in a different perspective as an aid for showcasing actualities and those beneficial for the betterment of society.</li> </ul>
II	SDC2MME2	FILM ANALYSIS	<ul style="list-style-type: none"> <li>• Students are given an introduction to the present scenario of global cinema. They are also enabled to critically analyze films and write appreciations in a journalistic manner.</li> </ul>
II	SDC2MME3	MEDIA ETHICS AND EDUCATION	<ul style="list-style-type: none"> <li>• Understand the media laws and ethics essential to serve the society.</li> </ul>
II	SDC2MML4	SHOOTING	<ul style="list-style-type: none"> <li>• Handle professional still</li> </ul>

		PRACTICES (P)	<p>and video cameras effectively</p> <ul style="list-style-type: none"> <li>● Gain the ability to compose a frame aesthetically.</li> <li>● Conduct video shooting and do live coverages.</li> </ul>
II	SDC2MML5	BASICS OF SOUND AND SOUND RECORDING LAB(P)	<ul style="list-style-type: none"> <li>● Able to record and edit using the advanced software like pro Tools</li> </ul>
II	SDC2MML6	DESIGN FOR ADVERTISING(P)	<ul style="list-style-type: none"> <li>● Students will learn about different promotional aids, their role and importance in promoting a brand.</li> <li>● This course will help the students to identify the aesthetical and ethical perspectives of promotional designs.</li> </ul>
II	SDC2MMP1	MINI PROJECT	
II	PCC2MM01	AUDIT COURSE II- INTRODUCTION TO STOP MOTION	<ul style="list-style-type: none"> <li>● Understand the creative field of Stop motion animation.</li> <li>● Will have an idea about the various types of animation that uses Stop motion technique.</li> <li>● Create stunning animation movies using special effects.</li> </ul>
III	GEC3MM04	RESEARCH METHODOLOGY FOR COMMUNICATION AND MEDIA STUDIES	<ul style="list-style-type: none"> <li>● Understand about Research Methodology</li> </ul>
III	SDC3MM04	ART DIRECTION AND PRODUCTION DESIGN	<ul style="list-style-type: none"> <li>● Understand the roles and responsibilities of a director</li> <li>● Implement the elements of cinematic grammar in their story telling</li> <li>● Plan and execute a visual program in any desired format</li> </ul>

III	SDC3MM05	INTRODUCTION TO 3D ANIMATION	<ul style="list-style-type: none"> <li>● Students will get an insight in animation production, especially in digital 3D animation.</li> <li>● Students will learn to practice animation film making in a different perspective as an aid for showcasing creativity as well as a story telling method.</li> </ul>
III	SDC3MME4	RADIO PROGRAM PRODUCTION	<ul style="list-style-type: none"> <li>● Students will get an insight in different types radio programme production, editing and sound recording.</li> <li>● They will learn to use Radio in a different perspective as an effective communication tool and an aid beneficial for the betterment of society.</li> </ul>
III	SDC3MME5	ADVERTISING AND PROMOTIONAL FILM MAKING	<ul style="list-style-type: none"> <li>● Students will learn about different promotional aids, their role and importance in promoting a brand.</li> <li>● They also learn how to approach the art of advertising for various industrial requirements.</li> </ul>
III	SDC3MME6	NEW MEDIA AND CONTENTS	<ul style="list-style-type: none"> <li>● Students will learn about different new media platforms, their role and importance.</li> <li>● They also learn how to approach the new media platforms with various technical requirements.</li> </ul>
III	SDC3MML7	2D GRAPHICS ANIMATION (P)	<ul style="list-style-type: none"> <li>● Students will get an insight in animation production, especially in digital 2D animation.</li> <li>● Students will learn to practice animation film making in a different perspective as an aid for showcasing creativity as</li> </ul>

			well as a story telling method.
III	SDC3MML8	INTERACTIVE MEDIA DESIGNING (P)	<ul style="list-style-type: none"> <li>• Students are enabled to create a websites and upload it to a web server. They also become familiar with E-Publishing Technologies</li> </ul>
III	SDC3MML9	BASICS OF VFX AND COMPOSITING LAB (P)	<ul style="list-style-type: none"> <li>• After completion of this subject provide students with expertise in directing a complete short animated film, designing and building 3D characters, and fully integrating visual effects shots from concept to post production.</li> </ul>
IV	SDC4MMTP	TERM PAPER	<ul style="list-style-type: none"> <li>• To enable the student to the techniques of literature survey</li> <li>• To acquire the skill of presentation</li> </ul>
IV	SDC4MMP2	INTERNSHIP & PROJECT	

**Carmel College (Autonomous), Mala**

**Accounting & Taxation**

**2023- 24**

**Programme Specific Outcome (PSO)**

PSO-1 To develop analytical skills and offer a solid grounding and professional competence in all aspects of accounting and taxation

PSO-2 To develop knowledge and understanding of concepts, principles, practices, and procedures of accounting and taxation

PSO-3 To familiarize with the latest trends in the accounting field

PSO-4 To understand the basics regarding banking practices relevant for maintaining a book of accounts and various other records, documents, and vouchers basic to accounting activities

PSO-5 To analyze data, calculate and basic understanding of GST and the latest taxation laws

PSO-6 To understand the application of business Knowledge in both theoretical and practical aspects.

PSO-7 to enable learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management, Economics, Environment etc.

PSO-8 To understand of the basic concept of Direct Tax and basic definition related to Direct Tax and assesse.

PSO-9 To provide learners an idea of the process and techniques of calculation of taxability and tax liability

POs		COs
PO-1	Develops communication skills and build confidence to face the challenges of the corporate world.	<b>FIRST SEMESTER</b> <b>SDC1AT01- BUSINESS</b> <b>MANAGEMENT</b> <b>Course Outcome:</b> <ul style="list-style-type: none"><li>● Describe and identify interrelationships of managerial functions.</li><li>● Identify potential barriers to effective planning and suggest strategies.</li><li>● Assess the leadership style and suggest mitigation strategies</li></ul>
PO-2	To enable the learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management, Economics, Environment etc..	
PO-3	To enhances the capability of decision making at personal and professional levels.	
PO-4	To make students industry ready and develop	



	various managerial and accounting skills for better professional opportunities	<ul style="list-style-type: none"> <li>● Identify the challenges and opportunities associated with CSR</li> <li>● Evaluate the effectiveness of stress management techniques</li> </ul> <p><b>SDC1AT02- INCOME TAX – 1</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>● Analyze and differentiate between various income components and tax liabilities by applying fundamental concepts of direct taxation.</li> <li>● Analyze and determine the residential status of various entities and solve practical problems related to residential status.</li> <li>● Evaluate the scope of total income and income exempt from tax under different heads of income.</li> <li>● Analyze and apply the tax rules related to salary income and compute taxable income from salary</li> <li>● Analyze and apply the tax rules related to income from house property, and computation of taxable income from house property.</li> </ul> <p><b>SDC1AT03-FINANCIAL ACCOUNTING</b></p> <p><b>Course outcome:</b></p> <ul style="list-style-type: none"> <li>● Understand the basic concepts of single-entry system, process of converting it to double entry system for preparing financial statements.</li> </ul>
PO-5	To strengthen their capacities in varied areas of commerce and industry aiming towards development of learners.	
PO-6	To empower students for pursuing professional courses like Chartered Accountancy, Cost and Management Accountancy, Company Secretary etc.	
PO-7	To enhance the students talent in the field of professional accountant, direct and indirect taxation, managerial skills and communication skills.	
PO-8	To integrate knowledge, skill and attitude that will sustain an environment of learning and creativity among the students.	

- Understand and apply concept of share capital into practical exercises
- Understand the concept of debentures, and apply the concepts through practical exercises.
- Understand the importance of accounting standards, the role of IASB, and the preparation of financial statements under Ind AS.
- Prepare the final accounts of life insurance companies.

#### **SDC1AT04- OFFICE AUTOMATION TOOLS – LAB**

##### **Course Outcome:**

- Application of MS Word Knowledge in the creation of Documents
- Understand Data Management and application of the same
- Remembering the creation of slides and applying them in an office environment and project works
- Identify and apply the menus in MS Word
- Understand the components of Power Point
- Acquire practical knowledge of selecting and working with menus of MS Power Point

#### **SDC1AT05(P)- LISTENING AND SPEAKING SKILLS IN ENGLISH**

##### **Course Outcome:**

- To expand their vocabulary so as to enhance their proficiency in

reading and listening to academic texts, writing, and speaking.

- To heighten their awareness of correct usage of English grammar in writing and speaking
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening
- To assists a student to become a more competent, efficient, and perceptive academic reader who is able to communicate to others through writing and speaking the contents and main ideas of what is read.
- The students will use the correct form of the words in their oral and written language production.

## **SECOND SEMESTER**

### **SDC2AT06 -INCOME TAX – II**

#### **Course Outcome:**

- Identify and comply with the relevant provisions of the Income Tax Act as it relates to the income tax of individuals
- Compute income from salaries, house property, business/profession, capital gains and income from other sources
- Understand the various benefits/ deductions under Chap VI-A of the Income tax act, 1961 which are to be reduced from the gross total income of the assessee.
- Determine the net total taxable income of an assessee after reducing the deductions from the gross total income

- Compute the net total income and the total tax liability of an individual assessee considering the income from all heads of income and the deduction under Chap VI-A of the Income tax act,1961

**SDC2AT07-**

**BUSINESS RESEARCH METHODS**

**Course Outcome:**

- Understand the fundamentals of business research and its application.
- Design and conduct research studies effectively.
- Collect, process, and analyze data accurately.
- Communicate research findings clearly and effectively through written reports.
- Demonstrate ethical conduct in research.

**SDC2AT08 – BUSINESS**

**COMMUNICATION**

**Course Outcome:**

- Understand the importance of communication in the business.
- Develop and understand writing skills and presentations.
- Create business proposals and letters.
- Understand the application of business communication in the self-development process

**SDC2AT09(P)- FINANCIAL ACCOUNTING USING TALLY**

**Course Outcome:**

- Gain in-depth knowledge in accounting software practices using tally.
- Understanding the basic accounting vouchers in tally
- Analyze Accounts with and without insurance.
- Familiarize with statutory features of tally and Evaluate Financial Positions using ratios.

**SDC2AT10(Pr)- MINI PROJECT**

**Course Outcome:**

- Apply the theoretical knowledge to practical business situations
- Understand how to prepare a project report relevant to their topic or problem
- Analyze the same methodologically making intelligent observations and offering practical suggestions.

**THIRD SEMESTER**

**AT11- BASIC NUMERICAL METHODS**

**Course Outcome:**

- Demonstrate proficiency in algebraic manipulation and problem-solving techniques.
- Calculate determinants, adjoints, and inverses of matrices.
- Determine the nth term and sum of n terms for arithmetic and geometric progressions

- Comprehend the concepts of interest its types, and their applications
- Interpret statistical measures to draw meaningful conclusions from data.

**A12 – PROFESSIONAL BUSINESS SKILLS**

**Course Outcome:**

- Develop strong professional and communication skills.
- Understand the principles and practices of e-learning.
- Acquire data analysis skills and knowledge of business intelligence.
- Develop awareness of ethical and legal issues in the digital world.
- Gain expertise in digital marketing strategies and tactics.

**SDC3AT11- INCOME TAX ASSESSMENT**

**Course Outcome:**

- Analyze and compute the total income and tax liability of a Hindu Undivided Family (HUF)
- Analyze and compute the total income and tax liability of both firms and their partners
- Analyze different types of companies and compute the total income and tax liability of a company, including the application of Minimum Alternate Tax (MAT) provisions.
- Evaluate the income of co-operative societies, apply deductions under Section 80P, and

compute the total income and tax liability for co-operative societies.

- Understand and explain the powers and functions of income tax authorities, and differentiate between tax planning, tax evasion, tax avoidance, and tax management.

**SDC3AT12- MARKETING  
MANAGEMENT**

**Course Outcome:**

- Analyze core marketing concepts, evaluate factors influencing consumer behavior and the buying decision process, and apply strategies for market segmentation, targeting, and rural marketing in India.
- Classify products, manage brands and brand equity, differentiate products and services, and develop pricing strategies to capture value, including pricing for rural markets.
- Classify products, manage brands and brand equity, differentiate products and services, and develop pricing strategies to capture value, including pricing for rural markets.
- Analyze the growth and practices of e-marketing and e-commerce, evaluate different e-commerce business models and marketing strategies, and address security issues in electronic payment systems.

**SDC3AT13 - MANAGEMENT  
ACCOUNTING**

**Course Outcome:**

- Understand the concept and scope of management accounting.

- Prepare and analyze comparative, trend, and common size statements.
- Calculate and interpret various financial ratios
- Understand the significance of fund flow and cash flow analysis for managerial decision-making.
- Apply marginal costing concepts to managerial decision-making.

**SDC3AT14(P) - ADVANCE EXCEL – LAB**

**Course Outcomes:**

- Gain an in-depth knowledge in accounting using spreadsheets
- Analyze Accounts using Financial Formulas
- To familiarize the students with adding graphs in the spreadsheet
- Understand usage of Macros

**SDC3AT15 (P)-MARKETING MANAGEMENT –CASE STUDY**

**Course Outcome:**

- Improve Individual Problem Solving Skills
- Describe Strategic Planning.
- Understand and Explain the Market Environment.
- Understanding Segmentation, Targeting market and Positioning concept and roles
- Apprise theories and models of marketing management (Knowledge)
- Implement different tools of marketing mix in different business situations (Skill)



- Conduct preliminary market studies for assessing market conditions (Role in context)
- Prepare and critically analyze professional marketing reports and communicate them efficiently (Self development).
- Utilize knowledge learned in all previous marketing courses to develop a case analysis, market research study and marketing plan

**SDC3AT16(P) DIRECT TAXATION AND TDS – LAB**

**Course Outcome:**

- To Compute the total income and tax liability of firms and Association of Persons
- To carry out an assessment of companies and determine their tax liability
- To assess cooperative societies and trusts.
- To understanding about the assessment procedures, TDS, and advance payment of tax and application in various situations.
- To learn tax planning concepts and apply the same

**FOURTH SEMESTER**

**AT – 13 Entrepreneurship Development**

**Course Outcome:**

- Understand the concept of entrepreneurship, its significance in economic development, and the role of various entrepreneurial support institutions.
- .Identify the characteristics and functions of entrepreneurs, and analyze the factors affecting entrepreneurial growth

		<ul style="list-style-type: none"> <li>● Analyze the different types of entrepreneurs and the challenges faced by women entrepreneurs.</li> <li>● Evaluate the role of government policies and programs in promoting entrepreneurship.</li> <li>● Develop a comprehensive understanding of Micro, Small, and Medium Enterprises (MSMEs) and their contribution to the economy.</li> <li>● Assess the feasibility of entrepreneurial ventures through market analysis, financial evaluation, and project report preparation.</li> <li>● Apply the knowledge gained to identify business opportunities, develop project proposals, and navigate the regulatory environment for setting up a business.</li> </ul> <p><b>AT – 14 BANKING AND INSURANCE</b>  <b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>● Analyze the different types of entrepreneurs and the challenges faced by women entrepreneurs.</li> <li>● Evaluate the role of government policies and programs in promoting entrepreneurship.</li> <li>● Develop a comprehensive understanding of Micro, Small, and Medium Enterprises (MSMEs) and their contribution to the economy.</li> <li>● Assess the feasibility of entrepreneurial ventures through market analysis, financial evaluation, and project report preparation.</li> </ul>
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- Apply the knowledge gained to identify business opportunities, develop project proposals, and navigate the regulatory environment for setting up a business.

**SDC4AT17 – AUDITING**

**Course Outcome:**

- Define auditing, its objectives, principles and techniques.
- Evaluate the valuation and verification of assets and liabilities.
- Describe the concept of internal control, internal check, and internal audit, and differentiate between them.
- Evaluate the impact of emerging trends and technologies on the auditing profession

**SDC4AT18 COST ACCOUNTING**

**Course Outcome:**

- Classify costs and identify the elements of cost, cost units, and cost centers.
- Apply FIFO, LIFO, and average methods for material issue
- Use different methods for overhead absorption, including direct distribution, step ladder, reciprocal service methods, repeated distribution, and simultaneous equation methods.
- Explain various methods of costing including job costing, contract costing, unit costing, process costing, and service costing
- Assess the effectiveness of different budgeting techniques in cost management.

**SDC4AT19- GOODS AND SERVICES TAX**

**Course outcome:**

- Understand the fundamental concepts of taxation, differentiating between direct and indirect taxes.
- Grasp the dual structure of GST in India, including the concepts of SGST, CGST, IGST, and UTGST.
- Comprehend the concept of GST, such as goods, services, supplier, business, manufacture, casual taxable person, aggregate turnover, input tax, and output tax.
- Define key terms related to IGST, such as integrated tax, intermediary, location of the recipient and supplier of services, and output tax.
- Differentiate between inter-state and intra-state supply

**SDC4AT20(P) COST ACCOUNTING – LAB**

**Course outcome:**

- Analyze and evaluate information for cost ascertainment ,planning, control and decision making

**SDC4AT21(P) GST LAB**

**Course outcome:**

- To acquire practical knowledge regarding GST
- To study voucher entries

**FIFTH SEMESTER**

**SDC5AT23- E3: ORGANISATIONAL BEHAVIOR**

**Course Outcome:**

- Analyze and compare different models used to explain individual

behavior related to motivation and rewards

- Identify the process used in developing communication and resolving conflicts
- Assess the Group dynamics and demonstrate skills required for working in groups
- Analyze the complexities associated with management of the group behavior in the organization.
- Apply different motivational theories and methods to increase the productivity and job satisfaction of employees.

#### **SDC5AT24-BUSINESS REGULATION**

##### **Course Outcome:**

- Understand the fundamental principles of Indian Contract Act, including its essentials, classifications, and remedies for breach.
- Apply the knowledge of special contracts like indemnity, guarantee, bailment, and pledge to real-world business scenarios.
- Analyze the concept of agency and its implications for business organizations.
- Explain the provisions of the Sale of Goods Act and its significance in commercial transactions.
- Comprehend the regulatory framework of business operations through an understanding of the Competition Act, Consumer Protection Act, Information Technology Act, and Limited Liability Partnership Act

**SDC5AT25-CORPORATE  
ACCOUNTING**

**Course Outcome:**

- Apply IFRS and Ind AS standards to various accounting transactions.
- Prepare financial statements in accordance with IFRS and Ind AS.
- Analyze financial statements and understand the impact of accounting policies on financial performance.
- Understand the specific accounting requirements for banking companies and groups.
- Evaluate the financial position and performance of companies based on their financial statements.

**SDC5AT26 BANKING & FINANCIAL  
SERVICES**

**Course outcome:**

- To familiarize the students with the basic concepts and practice of banking and financial services.
- To familiarize the students with the nature and scope of various types of financial services and to understand the regulatory environment in which they are undertaken

**SDC5AT27- ACCOUNTING  
STANDARDS**

**Course Outcome:**

- Understand the concepts of accounting standards
- Understand the concepts of accounting bodies
- Explain the significance of disclosure of accounting policies and its impact on financial reporting.

- Apply the principles of lease accounting to differentiate between finance and operating leases, and calculate relevant lease-related values.
- Identify reportable segments and prepare segment reports by accounting standards.
- Calculate deferred tax provisions and understand its impact on the financial statements.
- Analyze the interrelationship between accounting standards, financial reporting, and corporate decision-making.

**SDC5AT28-E4- HUMAN RESOURCE MANAGEMENT**  
**Course Outcome:**

- Understand the HRM fundamentals.
- Contribute to the development, implementation, and evaluation of employee recruitment selection, and retention plans and processes
- Develop the knowledge about the placement in an organization
- Develop implement and evaluate employee orientation, training, and development programs.
- Analyze the process of compensation and grievance redressal in the organization.

**SDC5AT29(P) PEACHTREE- LAB**  
**Course Outcome:**

- Gain an in-depth knowledge in accounting software practices using Peachtree.
- Able to process payments
- Able to produce purchase orders and financial reports.

**SDC5AT30(P) PAYROLL  
MANAGEMENT**

**Course Outcome:**

- The student will develop personnel and payroll records that provide the information required under current laws and process payroll data and tax data and prepare reports.
- Able to Understand payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment.
- Prepare payroll reports containing gross taxable compensations, common withholdings, net pay amounts, and do the related accounting in a non-automated system.
- Prepare payroll reports and form filings in compliance with government regulations.
- Use a basic payroll system to determine employer's and employees' taxes to be paid.
- Identify the methods of submission of payments in a non-automated system

**SIXTH SEMESTER**

**SDC6AT31 TERM PAPER**

**SDC6AT32 (Pr) – Project & Internship**



# **CARMEL COLLEGE AUTONOMOUS MALA**

## **Name of the Programme –B.Voc Agriculture**

### **PROGRAMME SPECIFIC OUTCOMES (PSO)**

PSO-1 To acquire knowledge on importance of agriculture and various types of farming.

PSO-2 To acquaint with importance, division and classification of horticultural crops and to understand the basic principles and types of plant propagation.

PSO-3 To familiarize with fundamentals of water management and to acquaint with various soil conservation methods.

PSO-4 To understand the fundamentals of Plant breeding, Basics of Seed technology and cultivation aspects of Plantation crops, spices and fruit crops.

PSO-5 To build theoretical foundation in plant tissue culture and biotechnology and to develop knowledge on the theoretical basis of integrated pest management and also to familiarize with protected cultivation structures and cultivation practices.

PSO-6 To understand the general characters of weeds and their management and to acquaint with cultivation of rice, fibre crops, fodder crops, etc .

PSO -7 To develop practical skill in propagation and cultivation aspects of horticultural crops, Plantation crops, spices and fruit crops .

Programme Outcomes	Course Outcomes
<p>PO-1 To impart first hand knowledge on agriculture and allied sciences</p> <p>PO-2 Understand the impact of the professional agricultural solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</p> <p>PO-3 To demonstrate research based knowledge of the legal and ethical environment impacting agriculture organizations and exhibit an understanding and appreciation of the ethical implications of decisions.</p> <p>PO-4 To demonstrate an understanding of and appreciation for the importance of the impact of globalization and diversity in modern agriculture organizations. Understanding of globalization, and NGO working.</p> <p>PO-5 To understand and analyze the current events and issues that are occurring in agriculture and how they affect futuristic agriculture.</p> <p>PO-6 To understand and analyze the current events and issues that are occurring in agriculture and how they affect futuristic agriculture.</p> <p>PO-7 Able to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions. To understand mechanics of a agripreneurship</p>	<p style="text-align: center;"><b>SEMESTER –I</b></p> <p><b>Course No:1.4</b>  <b>Course Code: SDC1AG01</b>  <b>Course Name: Fundamentals of Agronomy</b>  <b>Course Outcomes</b>  CO1: Describe the importance of agriculture in India and Kerala.  CO2: To understand the agricultural classification of crops  CO3: Explain the Soil productivity and fertility  CO4: Describe the crop nutrition and nutrient cycling through manures and fertilizers.  CO5: Explain the Integrated Nutrient Management.  CO6: Explain the irrigation and irrigation methods.</p> <p><b>Course No:1.5</b>  <b>Course Code: SDC1AG02</b>  <b>Course Name: Fundamentals of Horticulture</b>  <b>Course Outcomes</b>  CO1: Describe the definition, importance, division and classification of horticultural crops  CO2: Explain the layout, planting systems and management practices in an orchard  CO3: Describe the training and pruning in horticultural crops  CO4: Describe the fruit drop and seedlessness in horticultural crops.  CO5: Describe the different types of plant propagation methods  CO6: Describe the components of nursery and its various aspects.</p>

**Course No:1.6**

**Course Code: SDC1AG03**

**Course Name : Fundamentals of Soil Science**

**Course Outcomes**

CO1:Understand the fundamentals and principles of Soil Science

CO2:Explain how different soils are formed and how does soils act as a medium for plant growth.

CO3:Explain soils of India and Land use capability, soil pollution and its effect on crop and mitigation of soil pollution

CO4: Analyze the soils for basic physical, physico- chemical & chemical properties

**Course No:1.7**

**Course Code: SDC1AG04(P)**

**Course Name: Fundamentals of Agronomy and Horticulture –Practicals.**

**Course Outcomes:**

CO1- Identification of cereals and millets, pulses, and tuber crops.

CO2. Explain the different methods of sowing; direct seeding: broadcasting, dibbling and drilling-transplantation.

CO3. Describe the seed treatment - Rhizobium inoculation of leguminous crops

CO4. Identification of manures and fertilizers and their preparation

CO5 Explain the fertilizer recommendation and calculation for major cereals and pulses

CO6. Fertilizer recommendation and calculation for major cereals and pulses

CO7-Familiarization with green manure crops and cover crops, Different planting systems and layout and the propagation methods.

**Course No:1.8**

**Course Code: SDC1AG05(P)**

**Course Name- Fundamentals of Soil Science – Practicals.**

**Course Outcomes**

CO1- Identification of soil properties for crop production

CO2- How to collect and prepare soil sample

CO3. Describing the methods of determination of different nutrient contents in soil.

**SEMESTER-II**

**Course No:2.4**

**Course Code: SDC2AG06**

**Course Name: Plantation Crops, Spices and Fruits.**

**Course Outcomes**

CO1- Explain the importance - area, production, origin, distribution of plantation crops.

CO2:Students will get knowledge on technical cultivation techniques of different fruits and plantation crops.

CO3:Students will able to identify different practical issues related to fruits and plantation crops

CO4: Analyze the propagation, planting, irrigation ,and manuring of Coconut and Rubber.

**Course No:2.5**

**Course Code: SDC2AG07**

**Course Name: Fundamentals of Seed Technology.**

**Course Outcomes**

CO1:Core competency in the subject & comparative evidence on development of seed.

CO2:High analytical ability in understanding the application of scientific principles and students will acquire skills & handling operations of different equipments in seed science laboratory

CO3:Develop an understanding of seed development, germination, vigor, deterioration

and the relationship between laboratory tests and field performance

CO4: Understand seed increase systems, seed testing and the laws and regulations related to marketing high-quality seed.

**Course No:2.6**

**Course Code: SDC2AG08(P)**

**Course Name: Plantation Crops, Spices and Fruits –Practicals.**

**Course Outcomes**

CO1: Demonstrate preparation and application of plant growth regulators to the crops, etc. Investigate the various problems with the production technology

of fruit and plantation crops such as disorder, diseases and pests, etc.

CO2: Distinguish different fruits and plantation crops, symptoms of disorders, diseases, insects and pests, etc.

CO3: Discuss various concepts of high density planting, new techniques of high density planting, plant propagation, seed propagation, etc.

CO4: Acquaint the knowledge on the method of field preparation for crop production and arrange the resources required in the field.

CO5: Apply the production techniques of crops in the practical crop production field.

CO6: Examine the production of sown crops in the practical crop production field.

**Course No:2.7**

**Course Code: SDC2AG09(P)**

**Course Name: Fundamentals of Seed Technology-Practicals.**

**Course Outcomes**

CO1: Acquaint with scope and importance of seed technology in agriculture and the role of officials and legislation, seed act and seed order in quality seed production

CO2: Able to learn the main steps in seed production and certification.

CO3: To learn about the important chemical

components of seeds and their importance as source of human food and germinating embryo after planting

CO4: Develop an understanding of various seed production techniques for different field crops, the importance of maintenance of purity of crop varieties, and factors causing deterioration of variety.

CO5: Execution of various phases of seed certification, field inspection, and seed purity testing

CO6: Analyze the factors related to genetic and physical purity of seed and its health status of seeds of a variety during seed processing.

#### **Course No:2.8**

**Course Code: SDC2AG10(Pr) Course Name : Internship/Project (Cultivation of Crops).**

#### **Course Outcomes**

CO1: Acquaint with the knowledge of principles of crop planning and selection of crop.

CO2:Developed the field experience on raising of crops in their field with special emphasis on the agronomic management of the crop.

CO3:familiarized with the calculation of economics of crop cultivation

CO4:Demonstrate the ability to apply the scientific method to problems in crop.

#### **SEMESTER –III**

#### **Course No. 3.3**

**Course Code: SDC3AG11**

**Course Title: Plant Tissue Culture and Biotechnology.**

#### **Course Outcomes**

CO1- Describe the principles and techniques of plant tissue culture .

CO2- Explain the Tissue culture medium.

CO3- Describe the preparation of explants and different methods of micropropagation .

CO4- Explain the different phases of micropropagation  
CO5- Explain the methods and applications of tissue culture .  
CO6- Describe the recombinant DNA Technology.  
CO7- Explain the cloning vectors and PCR .  
CO8- Describe the different methods of gene transfer.

**Course No. 3.4**

**Course Code: SDC3AG12 Course Title: Integrated Pest Management in Crops.**

**Course outcomes**

CO1- Describe the concepts, principles and tools of IPM .  
CO2- Explain the different types of IPM Methods .  
CO3- Describe the important groups of micro organisms used in insect pest control.  
CO4- Explain the mass multiplication techniques of important biocontrol agents.

**Course No. 3.5**

**Course Code: SDC3AG13**

**Course Title: Fundamentals of Agricultural Engineering**

**Course outcomes**

CO1- Describe the irrigation with definition and objectives  
CO2- Explain the methods of irrigation and their engineering aspects  
CO3- Describe the agronomic techniques to improve water use efficiency  
CO4- Describe the soil erosion and its relative aspects  
CO5- Describe the water harvesting techniques - in situ and ex situ methods  
CO6- Explain surveying: survey equipment, chain survey, cross staff survey, plotting

procedure, calculations of area of regular and irregular fields.

**Course No. 3.7**

**Course Code: SDC3AG15 (P)**

**Course Title: Micropropagation of plants-Practicals**

**Course outcomes**

CO1-Explain the requirements for Plant Tissue Culture laboratory and media components and preparations.

CO2- Describe the preparation and sterilization of media and aseptic manipulation and inoculation of various explants

CO3- Explain the micro propagation of important crops

CO4- Describe the preparation of synthetic seeds

CO5- Explain the demonstration of anther culture and embryo culture.

**SEMESTER IV**

**Course No. 4.3**

**Course Code: SDC4AG17**

**Course Title: Protected Cultivation of Horticultural Crops.**

**Course outcomes**

CO1- Describe the introduction, scope and important of problems and prospects of protected culture in India

CO2- Explain the basic considerations in establishment and operation of greenhouses

CO3- Explain the environmental control systems in green house.

CO4- Describe the type of containers used in protected culture .

CO5- Explain the use of substrate and preparation of substrate for protected cultivation.

CO6- Describe the Crop regulation. CO7- Explain the harvesting methods.



**Course No. 4.4**

**Course Code: SDC4AG18**

**Course Title: Weed Management and Fodder Crop Production**

**Course outcomes**

CO1- Explain the classification, propagation and dissemination of weeds

CO2- Describe the Integrated weed management

CO3- Describe the herbicide classification, formulations, methods of application.

CO4- Describe the soil and climatic requirement , varieties, cultural practices , harvesting and postharvest off major oil crops

CO5- Explain the Crop Production in rice CO6- Describe the mechanised farming in rice

CO7- Describe the cultivation and management of fodder crops.

**Course No. 4.5**

**Course Code: SDC4AG19**

**Course Title: Livestock Farming.**

**Course Outcomes**

CO1- Describe the role of Livestock in National economy

CO2- Describe the general management Practices in Dairy farming.

CO3- Describe the cattle and buffalo management

CO4- Explain the general management practices.

CO5- Explain the dairy development in India.

CO6- Describe the composition of milk, Constituent of Milk, Factors affecting Quality and Quantity of milk, Nutritive value , and Physico-chemical properties of milk.

CO7- Describe the poultry management CO8- Detailed study of major animal diseases.

**SEMESTER V**

**Course No. 5.1**

**Course Code: SDC5AG23 E1**

**Course Title: Environmental Microbiology and Biotechnology**

**Course Outcomes**

**CO1:** They will understand the basic classification of microorganisms

**CO2:** They will learn to prepare samples

**CO3:** They will understand the basics techniques of preservation of microbes

**CO4:** The students will learn nutrient cycles by microbes

**CO5:** They will understand the industrial applications of microbes

**Course No. 5.1**

**Course Code: SDC5AG23 E2**

**Course Title: Government Policies and Programmes Related to Agriculture**

**Course Outcomes:**

**CO1:** The students will know about the current plans and projects of government for farmers

**CO2:** They can run a consultancy service for farmers

**CO3:** They can run an NGO

**Course No. 5.2**

**Course Code: SDC5AG24 E3**

**Course Title: Food and Dairy Microbiology**

**Course Outcomes:**

**CO1:** The students will learn the food spoiling microbes

**CO2:** They will know the techniques of microbial analysis of food

**CO3:** They will be able to make fermentation products

**CO4:** They can know the techniques of food preservation

**Course No. 5.2**

**Course Code: SDC5AG24 E4**

**Course Title: Landscaping and Gardening**

**Course Outcomes:**

**CO1:** The students will learn the basic principles of gardening

**CO2:** They will understand the basic components of a garden

**CO3:** They will learn the colour schemes of garden

**CO4:** They will learn the techniques of indoor gardening and indoor plants

**Course No. 5.3**

**Course Code: SDC5AG25**

**Course Title: Commercial Vegetable Production**

**Course Outcomes:**

**CO1:** The students will be able to identify the economic part of the plant as vegetable

**CO2:** They will understand various factors that influence the growth and yield of vegetables

**CO3:** They will learn different types gardens

**CO4:** The students will acquire knowledge in scientific production various vegetables

**Course No. 5.4**

**Course Code: SDC5AG26**

**Course Title: Agricultural Enterprises**

**Course Outcomes:**

**CO1:** The students will be able to run and supervise an apiary

**CO2:** The students will be able to run and supervise a sericulture unit

**CO3:** The students will be able to run and supervise a mushroom production unit

**CO4:** The students are well equipped to undertake protected cultivation flower crops.

**Course No. 5.5**

**Course Code: SDC5AG27**

**Course Title: Fundamentals of Organic Farming**

**Course Outcomes:**

CO1: The students are well equipped to run and supervise an organic farm

CO2: They can run an organic farm consultancy

CO3: The students can manufacture and market organic product and farm input

**Course No. 5.6**

**Course Code: SDC5AG28(P)**

**Course Title: Agricultural Enterprises -Practicals**

**Course Outcomes:**

CO1: They can run and supervise an apiary

CO2: They can run and supervise a sericulture unit

CO3: They can run and supervise a mushroom unit

CO4: They can do lac cultivation

CO5: They can make and sell flower bouquets

CO6: They can make dry flowers.

**Course No. 5.7**

**Course Code: SDC5AG29 (P)**

**Course Title: Commercial Vegetable Production-Practicals**

**Course Outcomes:**

CO1: The students will be well equipped for the scientific cultivation of vegetables

CO2: They can supervise harvesting of vegetable farms

**Course No. 5.8**

**Course Code: SDC5AG30(P)**

**Course Title: Fundamentals of Organic Farming-Practicals**

**Course Outcomes:**

CO1: The students will learn scientific methods of composting

CO2: They will understand the application of biofertilizers

CO3: The students will learn the scientific waste management

**SEMESTER VI**

**Course No. 6.1**

**Course Code: SDC6AG31**

**Course Title: Term Paper**

**Course outcomes**

CO1: The students will learn scientific methods of article writing

CO2: They will understand the procedures for academic publications

CO3: The students will understand the importance of academic publications

**Course No. 6.1**

**Course Code: SDC6AG32(Pr)**

**Course Title: Project & Internship**

**Course outcomes:**

CO1: The students will be acquainted with the basic work culture

CO2: They will learn the actual challenges that industry face and its practical solutions

CO3: The students will understand the importance of basic research in the field

## DEPARTMENT OF BANKING, FINANCE SERVICE AND INSURANCE

### Programme Specific Outcome (PSO)

PSO1	Provides proficiency in sales, insurance, mutual fund awareness and banking operations.
PSO2	Accumulate knowledge to understand the changing national and global banking and insurance operations, technology and paradigm shift in the sectors.
PSO3	To given an adequate exposure to operational environment in the field of Banking & Insurance
PSO4	Impart knowledge, understanding and key skills to graduates to be effective managers in financial institutions.
PSO5	To inculcate training and practical approach among the students by using modern technologies in the field of Banking & Insurance

Programme Outcome	COURSE OUTCOME
<p><b>PO 1</b> To ensure that graduates of the B.Voc. program in BFSI are well-prepared with the knowledge, skills, and attitudes necessary for successful careers in the industry, meeting both academic and vocational standards.</p> <p><b>PO 2</b> To develop strong analytical and quantitative skills to interpret financial data, conduct financial modeling, and make informed decisions regarding investment, lending, and insurance underwriting</p> <p><b>PO 3</b> To provide judicious mix of skills relating to a profession and appropriate content of General Education.</p> <p><b>PO 4</b> To ensure that the students have adequate knowledge and skills, so that they are work ready at each exit point of the programme.</p> <p><b>PO 5</b> To provide flexibility to the students by means of pre-defined entry and multiple exit points</p>	<p><b>SEMESTER 1</b></p> <p><b>SDC1BF01 Business Management</b></p> <p><b>Course Outcome</b></p> <ul style="list-style-type: none"> <li>• Understanding the concepts of Management and Management Levels</li> <li>• Understand Functions of Management</li> <li>• Understand Concepts of Motivation and Leadership</li> <li>• Bird eye view on Business Ethics</li> <li>• Understand and Remember emerging changes in Management</li> </ul> <p><b>SDC1BF02 Principles and Practice of Banking</b></p> <ul style="list-style-type: none"> <li>• Various functions associated with banking</li> <li>• Practice and procedures relating to deposit and credit, documentation, monitoring and control</li> <li>• An insight into marketing of banking services and banking technology</li> </ul> <p><b>SDC1BF03 Financial Accounting</b></p> <p><b>Course outcome</b></p> <ul style="list-style-type: none"> <li>• Acquire conceptual knowledge of basics of accounting</li> <li>• Identify events that need to be recorded in the accounting records</li> <li>• Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP</li> <li>• Describe the role of accounting information and its limitations</li> <li>• Equip with the knowledge of accounting process and preparation of final accounts of</li> </ul>

sole trader

- Preparing financial statements in accordance with appropriate standards.
- Prepare ledger accounts using double entry bookkeeping and record journal entries accordingly

**SDC1BF04 (P) Office Automation Tools-Lab  
Course Outcome**

- Application of the MS Word Knowledge in creation of Documents
- Understand Data Managing and application of the same
- Remembering creation of slides and applying it on office environment and project works
- Identify and apply the menus in MS-Word
- Understand the components of Power point
- Acquire practical knowledge of selecting and working with menus of MS Powerpoint

**SDC1BF05(P) Listening and Speaking Skills in English**

**Course Outcome**

- To expand their vocabulary so as to enhance their proficiency in reading and listening to academic texts, writing, and speaking.
- To heighten their awareness of correct usage of English grammar in writing and speaking
- To attain and enhance competence in the four modes of literacy: writing, speaking, reading and listening
- To assists a student to become a more competent, efficient, and perceptive academic reader who is able to communicate to others through writing and speaking the contents and main ideas of what is read.



**SEMESTER II**

**SDC2BF06 Banking Service Management**

**Course Outcome**

- Make aware of basic services concepts of banks
- Understand procedures of various lending services
- Remember about Precautions for banker and customers regarding various operations in banks.
- Analyse procedures of operating various accounts.
- To assists a student to become a more competent, efficient, and perceptive academic reader who is able to communicate to others through writing and speaking the contents and main ideas of what is read.

**SEMESTER II**

**SDC2BF06 Banking Service Management**

**Course Outcome**

- Make aware of basic services concepts of banks
- Understand procedures of various lending services
- Remember about Precautions for banker and customers regarding various operations in banks.
- Analyse procedures of operating various accounts.

**SDC2BF07 Business Research Methods**

**Course Outcome**

- Analyse a business problem and apply the research theories in solving the same.
- Remembering and understanding main qualitative and quantitative methods of business research along with their advantages and disadvantages.
- Develop research skills and help in the application of choosing sampling, measurement, questionnaire design, conducting interviews and surveys and creating a Research report

### **SDC2BF08 Organisational Behaviour**

#### **Course Outcome**

- Analyze and compare different models used to explain individual behavior related to motivation and rewards
- Identify the process used in developing communication and resolving conflicts
- Assess the Group dynamics and demonstrate skills required for working in groups.

### **SDC2BF09(P) Financial Accounting using Tally**

#### **Course Outcome**

- Gain an in depth knowledge in accounting software practices using tally
- Analyse Accounts with and without insurance
- Familiarize with statutory features of tally and Evaluate Financial Positions using ratios

### **SDC2BF10(Pr)- Mini Project work**

#### **Course Outcome- Nil**

### **SEMESTER III**

### **SDC3BF11 Life Insurance Operations**

#### **Course Outcome**

- To Impart the knowledge of the

principles of Life Insurance and their importance.

- To give exposure to the provisions of fire and Marine Insurance and their increasing importance.
- To provide skill and knowledge to become an insurance Agent.
- To understand various rules and regulations required for insurance business

### **SDC3BF12 Banking and Financial Services**

#### **Course Outcome**

- To enable learners to know basics of Banking and its Functions
- To make them understand about basic terminology in Banking and Finance
- The learners will be able to remember and understand the various financial services
- They will be able to apply financial concepts, theories and tools and will be in a position to evaluate the legal, ethical and economic environment related to financial services.

### **SDC3BF13 Management Accounting**

#### **Course Outcome**

- Preparation of financial statements and its analysis
- Identifying cash and non cash items
- Analyzing cost volume profit techniques to determine optimal managerial decisions
- Outline and apply various management tools and techniques

### **SDC3BF14(P) Advanced Excel Lab**

#### **Course Outcome**

- Gain an in-depth knowledge in

accounting using spreadsheets

- Analyse Accounts using Financial Formulas
- Understand usage of Macros

**SDC3BF15(P) Financial Analysis and Budgetary Control Lab**

**Course Outcome**

- Acquiring skills of making various financial statements by making use of software.

**SDC3BF16(P) Life Insurance Lab**

**Course Outcome**

- Familiarize with various types of life insurance policies.
- Procedures involved in operating various types of life insurance policies.

**SEMESTER IV**

**BCM4A13 Entrepreneurship Development**

**Course Outcome**

- Familiarize the concept of entrepreneurship development programme.
- Assess the institutional support and incentives to the entrepreneurs
- Learn more about MSME
- Acquire the knowledge about how to set up the industrial unit.
- Remembering the preparation of project report.

**BCM4A14 Banking and Insurance**

**Course Outcome**

- Give a basic idea about the banking and its functions.

- An insight into the different types of negotiable instruments.
- Gain an in-depth knowledge in e banking.
- Familiarize the laws relating to insurance and the regulatory body.

#### **SDC4BF17 Auditing**

##### **Course Outcome**

- Understand the basics of audit
- Able to handle vouching of trading transactions.
- Familiarize the recent trends in auditing
- Able to verify and value assets and liabilities
- Able to identify special areas audit.

#### **SDC4BF18 Banking Services and Microfinance**

##### **Course Outcome**

- Identifying the role of microfinance
- Identify reasons for intervening or not intervening in microfinance
- An insight into the different models of micro finance
- Learn about the financial reporting of micro finance
- Analyse the frauds and code of conduct in micro finance

#### **SDC4BF19 Goods and Service Tax**

##### **Course Outcome**

- Will able to compute the assessable value of transactions related to goods and services for levy and determination of duty liability
- . Identify and analyze the procedural aspects under different applicable statutes

related to indirect taxation.

- Understand the basic principles underlying the Indirect Taxation Statutes with reference to GST
- Know about the levy and collection of tax
- Understand Tax treatment of GST and its classifications.

#### **SDC4BF20(P) Microfinance Operations Lab**

##### **Course Outcome**

- Identifying the role of microfinance
- Identify reasons for intervening or not intervening in microfinance

#### **SDC4BF21(P) GST Lab**

##### **Course Outcome**

- To acquire practical knowledge regarding GST
- To study voucher entries

#### **SDC4BF22(Pr) Internship/Mini project for one month**

**Course outcome- Nil**

### **SEMESTER V**

#### **SDC5BF23 E1: MARKETING MANAGEMENT**

- Understand and assess fundamental marketing concepts, consumer behavior : product, price, place, distribution
- Develop a comprehensive understanding of product management, including product levels and the customer value hierarchy.
- Evaluate the impact of direct and online marketing channels on customer experience.
- Develop integrated marketing communication plans to effectively reach target audiences.

- Evaluate the potential of m-commerce and its impact on marketing.

#### **SDC5BF24 LEGAL AND REGULATORY ASPECTS OF BANKING**

- Understand the regulatory framework governing the establishment, operation, and supervision of banks in India.
- Acquire knowledge of the legal and operational aspects of banking including the banker- customer relationship, secured transactions, and various banking products and services.
- Develop a comprehensive understanding of banking-related laws such as the Recovery of Debts Act, Securitization Act, Consumer Protection Act, and their implications for banking operations. Gain an in-depth knowledge in banking related laws
- Demonstrate a strong foundation in banking practices including credit appraisal, risk management, and compliance with regulatory requirements.
- Analyze and address legal and operational challenges faced by banks and financial institutions.

#### **SDC5BF25 Corporate Accounting**

##### **Course Outcome**

- Understand the concepts of accounting standards of asset, Liabilities and Revenue
- Asses the Redemption procedures and get a bird's eye view on Journalizing
- Understand and evaluate problems related to final accounts of Banking Companies
- Asses the Consolidation procedure in Group companies

#### **SDC5BF26 Retail Banking**

##### **Course Outcome**

- To enable learners to know basics of Retail Banking
- To make them aware about basic terminology and activities in Retail Banking
- Give an insight into the products and services in retail banking
- Learn about the operations in retail banking
- Understand the issues faced by retail banks

### **SDC5BF27 Cost Accounting**

#### **Course Outcome**

- Able to select the cost according to their impact on business
- Understand the material management
- Able to differentiate methods of schedule costs per unit of production
- Able to identify the specifics of different costing methods.
- Familiarize the cost control techniques

### **SDC5BF28 E4: Human Resource Management**

#### **Course Outcome**

- An insight into the basics of Human resource management
- Contribute to the development, implementation and evaluation of employee, recruitment, selection, and retention plans and processes
- Develop the knowledge about the placement in an organization
- Develop implement and evaluate employee orientation , training and development programs.
- Analyze the process of compensation and grievance redressal in organization

### **SDC5BF28E5: Risk Management and Insurance**

#### **Course Outcome**

- Demonstrate knowledge of the range of financial and financial related risks facing organizations



- Understanding various risks and how to manage it
- Analyze the risk management applications
- Able to know the risk management environment
- Remembering the risk management applications in life

#### **SDC5BF29(P) Peachtree**

##### **Course Outcome**

- Gain an in-depth knowledge in accounting software practices using Peachtree.
- Able to process payments
- Able to produce purchase orders and financial reports.

#### **SDC5BF30(P) Cost Accounting-Lab**

##### **Course Outcome**

- Analyze and evaluate information for cost ascertainment, planning, control and decision making

#### **SEMESTER VI**

##### **SDC6BF31 Term Paper**

##### **SDC6BF32(Pr) Project & Internship**

**B. Voc FASHION TECHNOLOGY**  
**2023-24**

**Programme Specific Outcomes (PSOs)**

PSO-1 Bachelor of Vocational (B.Voc.) Degree in Fashion Technology will acquaint students the relevant technical expertise to step into a professional world, in skills like drawing, draping, pattern making, sewing, haute couture along with training in production.

PSO-2 Convert their designs into a garment using appropriate construction techniques.

PSO-3 Able to know about the tools that works specific functions on textile material

PSO-4 The programme establishes strong technical skills required to work as an innovative practicing fashion designer.

PSO-5 Students also develop the required technical skills in custom and commercial quality garment construction as well as pattern making both manually and using computer- based design.

POs	COs
<p>PO-1 Apply various techniques of fashion designing that impact in our daily life.</p> <p>PO-2 Demonstrate innovative approaches to fashion built on knowledge and awareness of the system.</p> <p>PO-3 Forecast the style and designs that can be implemented in various textile materials and perform analysis on textile material using the different tools and methods learned.</p> <p>PO-4 Undergoing internships making the students industry background strong.</p> <p>PO-5 Entrepreneur the possibility of visual merchandising.</p> <p>PO-6 Understand the various aspects of fashion technically and thus becomes a graduate in fashion.</p> <p>PO-7 Improving the student's knowledge on fashion through practical labs.</p>	<p><b>SEMESTER I</b></p> <p><b>SDC1FT01 - Basics of Textiles</b></p> <ul style="list-style-type: none"> <li>• Gives detailed introduction on textiles fibers, their properties and structure</li> <li>• Explains about the textile yarn, its classification, manufacturing process and properties</li> <li>• Describes the weaving process and its types, also about Loom and its types.</li> <li>• Explains about the Knitting process, its types and diagrams</li> <li>• Describes about Nonwoven, its types, and manufacturing methods</li> </ul> <p><b>SDC1FT02 – Design Concepts</b></p> <ul style="list-style-type: none"> <li>• Describe and identify different art medias and its application</li> <li>• Describe the concepts related to the various fashion processes</li> <li>• Describe the elements and principles of design</li> <li>• Explain the color theory and dimensions of color</li> <li>• Introduce and describe the Fashion illustration and its importance</li> </ul> <p><b>SDC1FT03 (P) – Pattern Making – I –Lab</b></p> <ul style="list-style-type: none"> <li>• Drafting the basic pattern set</li> <li>• Describe and manipulate the darts using different methods</li> </ul> <p><b>SDC1FT04(P) – Basics of Fashion Illustration – Lab</b></p> <ul style="list-style-type: none"> <li>• Give a basic knowledge about drawing Learn about different mediums used for illustration</li> <li>• Learn to draw fashion croquis</li> <li>•</li> </ul> <p><b>SDC1FT05 (P) – Garment Construction – I – Lab</b></p> <ul style="list-style-type: none"> <li>• Develop stitching practice on paper and muslin</li> <li>• Practice the different kinds of seams, seam finishes, hem finishes, tucks and pleats</li> <li>• Practice the application of zippers, plackets and fasteners</li> </ul>

## **SEMESTER II**

### **SDC2FT06 – Apparel Machinery and Equipment**

- Gives introduction on apparel industry and details regarding fabric spreading
- Descriptions regarding cutting machines
- Explains about the sewing machine classification and other important details
- Describes about the sewing mechanism in detail
- Explains about the stitches and seams in detail

### **SDC2FT07 - History of Indian Costume**

- Describe the origin & functions of clothing.
- Explain the Costumes of ancient Indian civilizations
- Describe the Costumes, hairstyles and headgears and jewellery of various Indian Empires

### **SDC2FT08 (P) – Fashion Illustration – Lab**

- Study about different perspective drawings and ornaments and accessories.
- Study on different fashion figures
- Study on various style features and silhouettes

### **SDC2FT09 (P) – Pattern Making – II – Lab**

- Drafting patterns of Basic Bodice
- Drafting patterns of various types of Skirts
- Drafting pattern of different types of Sleeves and collars

### **SDC2FT10(Pr) – Internship/ Mini project**

- Designing the garments by self
- Draft patterns according to designs
- Construct the garments
- Embellish the garments

## **SEMESTER III**

### **A11 – BASIC MATHEMATICS AND GENERAL AWARENESS**

- Apply numerical and reasoning skills in competitive examinations;
- Understand some basic concepts of research and its methodologies;
- Bridge the fundamental skills of computers with the present level of knowledge of the students;
- To train and equip the students with the skills of modern banking and insurance.

#### **A12 - PROFESSIONAL BUSINESS SKILLS**

- Able to become a professional by acquiring various soft skills needed for business success
- Explore the world of e -learning and also the various consequences of cyberspaces and crimes
- Application of data analysis and the role of artificial intelligence in e-business.
- Apply the skills of digital marketing and E- commerce.

#### **SDC3FT11-History of Indian Textiles**

- Describe various costumes of different states of India
- Explain traditional textiles and design techniques of India.
- Explain traditional embroideries of India
- Describe regional consumes of Indian states

#### **SDC3FT12- Fashion Marketing**

- Explains fashion marketing in India
- Describes the concepts of marketing and types
- Explains the different kinds marketing strategies
- Describes marketing, marketing mix, marketing research and buying behaviour
- Describes Fashion Marketing, marketing concepts, and marketing managements

#### **SDC3FT13 -Textile Processing**

- Introduction on textile wet

processing Different types of dyeing processes

- Introduction to textile printing
- Study on various textile printing methods
- Explains various textile finishing processes

#### **SDC3FT14 (P) Fashion Styling and Makeup**

- Describe the Fashion styling
- Explain the Fundamentals of Makeup, Hair Styling
  
- Explore the beauty and skin care
- Doing makeup on the basis of a selective theme
- Explore various hair styling and hair dressing

#### **SDC3FT15 (P) -Textile Processing**

- Block printing and screen printing
- Textile dyeing using direct dyes. reactive dyes, vat dyes and sulphur dyes
- Learns to bleaching of cotton
- Learns to Scouring of cotton
- Learns to desize of cotton

#### **SDC3FT16 (P) - Garment Construction-II – Lab**

- Learns to construct different sleeves
- Learns to construct different collars
- Learns to construct various skirts

### **SEMESTER IV**

#### **A13 - ENTREPRENEURSHIP DEVELOPMENT**

- Able to understand the nature of Entrepreneurship and the financial assistance and guidance from government
- Confirm and entrepreneurial business data
- Explore entrepreneurial leadership and management

style

- Confidence in setting up of industrial unit

#### **A14 - PUBLIC HEALTH, SANITATION & SAFETY**

- After learning the course, the students should be able to:
- Identify the diseases associated with occupation
- Identify the hazard in industrial area and propose preventive measures
- Manage safety in industries and propose safety measures and PPE
- Demonstrate the hygiene and sanitation procedures
  
- Demonstrate the microorganism responsible for the disease and their control

#### **SDC4FT17- Apparel Production and Quality Control**

- Gives detailed description on certification in apparel industry
- Explain about quality parameters of yarn and fabric and describe the term inspection
- Understand the terms of quality control and explain various international standards
- Describe the process in fabric department
- Gives a detailed description on various departments of apparel industry

#### **SDC4FT18-Traditional Western Costumes**

- Learns about traditional costumes and accessories of different western countries
- Studies about various Asiatic empires

#### **SDC4FT19-World Art Appreciation**

- Identify and describe the elements and principles of art
- Explains about different kinds of Indian

and western paintings

- Explains about modern art

#### **SDC4FT20 (P) – Draping**

- Understand basic principles and tools of draping
- Interpret the basic dress foundation
- Analyze dart manipulations and explore dart equivalents
- Drape different kinds of necklines and sleeves
- Explore bodice style and skirts

#### **SDC4FT22 (Pr) - Project/Internship**

##### **Course Outcomes:**

- Gives them idea about the processes involved in designing a garment
- Learns about different boards used for designing
- Gives students an idea on actual internship
- Gaining industrial knowledge

#### **SEMESTER V**

##### **SDC5FT23 (E1)- Home Textile**

##### **Course Outcomes**

- Gives detailed introduction to home furnishing textiles
- Explains about different floor coverings and its uses
- Explains about different bedroom linens
- Gives a brief idea about different type of window treatments used
- Explain about kitchen and bathroom linens

##### **SDC5FT23 (E2) - Fashion Forecast for Indian Retail**

##### **Course Outcomes**

- To study the growing Indian retail market in the context of fashion business
- Analyze the fashion trend with help of fashion forecasting tools
- Survey and predict the right color



and material for any season

- Articulate the concepts, mood and develop color palettes

### **SDC5FT23 (E3)- Corporate Designs and Fashion Industry**

#### **Course Outcomes**

- Learns to design and develop logo
- Learns to develop plan and run own business
- Learns innovative modes of advertising and communication

### **SDC5FT24 - Fashion Retail Management**

#### **Course Outcomes**

- Explain about fashion retailing
- Give an explanation to Retailing
- Describe various steps in Store Management and its types, objectives
- Explain Store Design and Display
- Describe retail market strategy

### **SDC5FT25 - Garment Finishing and Clothing Care**

#### **Course Outcomes**

- Study on the hardness & softness of water and regarding the soaps & detergents
- Explains about the various stiffening agents
- Study on various laundry & ironing equipment
- Describes about the washing process and washing equipment
- Study on special laundry items and stains

### **SDC5FT26 (E4) - Fabric Manufacturing Techniques**

#### **Course Outcomes**

- Gives knowledge about different types of weave structure
- Learns to set sample looms and weave

**SDC5FT26 (E5) - Advanced Pattern Making & Grading**

**Course Outcomes**

- Learns to develop advanced pattern and grading techniques
- Understand the basic principles of grading
- Explains about different types of manual grading
- Explains about fitting and alterations

**SDC5FT26 (E6) – Business of Fashion Luxury**

**Course Outcomes**

- Understanding the creation and positioning of brands.
- Understanding the marketing and promotion policies of brands.
- An understanding of the phenomenon of luxury and the socio, economic and cultural aspects associated with it.
- Understanding the psyche and motivations of the luxury consumer.
- Interrelationship of different facets of the luxury Industry.

**SDC5FT27– Environmental Textiles**

**Course Outcomes**

- Study on Indian textile industry
- Study of environmental impacts on various sectors of textile industry
- Detailed study on ecofriendly textile fibers
- Explains about role of bio technology in textile sector
- Study on eco labeling

**SDC5FT28 (E4) (P) – Fabric Manufacturing Techniques**

**Course Outcomes**

- Gives knowledge about elements of woven design and loom and its steps
- Describe weave structure
- Explain about elementary weaves

- Explain about development of different types of weaves from elementary weaves
- Describe various types of weaves

**SDC5FT28 (E5) (P) - Pattern Making and Garment Construction - IV (Adult wear)**

**Course Outcomes**

- Learn to drafting and Construction of Skirt variations
- Learn to drafting and Construction of Basic Kameez, Salwar, Churidar, Choli
- Learn to drafting and Construction of a dress variation

**SDC5FT28 (E6) (P) – Business of Fashion Luxury**

**Course Outcomes**

- Understanding the creation and positioning of brands.
- Understanding the marketing and promotion policies of brands.

**SDC5FT29 (P) – Computer Aided Designing (CAD)**

**Course Outcomes**

- Practice to Create mood board and color board
- Enable to create Flat sketch a Specification sheet
- Practice to create various textile print
- Enable to create Draping garments on croquis
- Practice to create Accessory designing

**SDC5FT30 (P) – Portfolio Presentation**

**Course Outcomes**

- Thematic collection of 5 garments including Theme board, mood board etc.
- Best presentable works done throughout the course

**SEMESTER VI**

**SDC6FT31 – Term Paper**

**Course Outcomes**

- Acquire the knowledge of doing research in specialized areas in fashion
- Develop the skill to write and present the process of presenting work

**SDC6FT32 – Internship & Project**

**Course Outcomes**

- To familiarize the students with the different concepts and process of the apparel industry
- To make students understand the relevance, specifications and importance of quality in apparel industries
- Introduce the basic concepts related to processing and production techniques
- To expose students to experience and gain knowledge about the work atmosphere on textile industry.

## B.VOC MULTIMEDIA-COURSE OUTCOMES

2023- 24

### B.VOC MULTIMEDIA- PROGRAMME SPECIFIC OUTCOMES (PSOS)

**POs 1** Students should demonstrate proficiency in using a variety of multimedia software tools and platforms for graphic design, video editing, animation, audio production, and web development.

**POs 2** Students should be able to apply their creativity and artistic skills to develop engaging multimedia content, including graphics, animations, videos, and interactive media.

**POs 3** Students should possess a strong understanding of multimedia technologies, including image editing techniques, video production processes, animation principles, and web development languages.

**POs 4** Students should be capable of planning, designing, and producing multimedia projects from concept to completion, considering factors such as target audience, project objectives, and technical requirements.

**POs 5** Students should demonstrate the ability to work effectively in multidisciplinary teams, communicate ideas clearly, and collaborate with clients, stakeholders, and peers in the development of multimedia projects.

<b>Programme Outcomes</b>	<b>Course Outcomes</b>
<p><b>PO 1</b> Apply knowledge of media communication, different multimedia authoring tools its role and importance in society.</p> <p><b>PO 2</b> Generate solutions by conducting workshops and applying techniques to impart the knowledge of multimedia covering a wide area of studies.</p> <p><b>PO 3</b> Design component, or processes to meet the needs within realistic constraints</p> <p><b>PO 4</b> To impart skills related to InformationCommunication Technologies (ICTs), including digital and media literacy and competencies</p> <p><b>PO 5</b> To apply the objectivity and critical thinking for communicating to masses through a variety of mediums such as Film, Short Films, Documentary and Television, Advertising and PR Campaign, Event Management, News Paper Production for Print.</p>	<p><b>SEMESTER I</b></p> <p><b>SDC1 MM 01: Introduction to Media Communication</b></p> <p>CO-1: Summarize the various forms of communication.</p> <p>CO-2: To implement the functions and nature of the various types of communication.</p> <p>CO-3: To Analyze the global media content and their impact on the developing countries.</p> <p>CO-4: Apply the communication skills and knowledge with respect to the different types of communication learnt.</p>

## **SDC1 MM 02 : Multimedia Tools & Techniques**

### **Part 1**

CO-1: Students will get the concepts of Principal of Design, Visual Elements of design.

CO-2: To learn an overview of Drawing and Design & its Principles.

CO-3 Illustrate the concepts of introduction of Multimedia and Raster image.

CO-4 : Implement the basics of Software Packages for Design.

## **SDC1 MM 03 Office Automation & Basic Internet Programming**

CO-1: To learn HTML tags and JavaScript Language programming concepts and techniques.

CO-2: To develop the ability to logically plan and develop web pages.

CO-3 Students will apply their knowledge to create different purpose websites.

CO-4: Students will apply their knowledge to create interactive websites.

CO-5 : Develop applications using hibernate framework and Hypertext Markup Language Protocols.

## **SDC1 MM 04 (P) Multimedia Tools & Techniques Part I – Lab**

CO-1: Seek design principles, design process, theory, history and contemporary design practice.

CO-2: Gain proficiency in identified technical skills,

implement the process of creating, analyzing, and evaluating graphic design concept.

CO-3 Justify the choice of appropriate tools according to the type of digital art work

CO-4: Visualize and demonstrate an idea and express it through visual design. Demonstrate

the knowledge of design & colors and apply them effectively to various assignments

**SDC1 MM05 (P) - MS office & Internet  
Programming Lab**

CO-1: Seek MS word, PowerPoint in Live working practice.

CO-2: Gain proficiency in identified technical skills, understand the process of word, PPT, etc. in Office Automation solutions.

CO-3 Creation of webpage and website in new era of life in an organization.

CO-4: Making HTML5 Responsive Web Sites for Organization.

**SEMESTER II**

**SDC2 MM 06 - Advanced Web designing & PHP  
Programming**

CO-1: Live working practice and creation of Website.

CO-2: Creation of webpage and website in new era of life in an organization.

CO-3: Making HTML5 Responsive Web Sites for Organization.

**SDC2 MM 07 Multimedia Tools & Techniques Part II**

CO-1: To learn the software skills to create vector graphics for print and web projects.

CO-2: Determine to solve visual problems using vector art, giving them an important additional skill when they become entry-level designers

CO-3: Additionally, they learn to exchange ideas, approximating a real-world working atmosphere.

CO-4 : To explore the multi-page design and development tools for digital and print media

**SDC2 MM 08 (P) Multimedia Tools & Techniques Part II Lab**

CO-1: Implement the Software tools and Techniques to utilize creative skill for effective Design solutions.

CO-2: Design and Develop Interactive Digital content for Web and Publishing.

CO-3 Utilize the Software's for creating excellent Print ready documents and Web Publications.

CO-4 : Create Design for Digital & Print Media at an expert level.

**SDC2 MM 09 (P) - Web designing & PHP Programming Lab**

CO-1: Live working practice and creation of Website.

CO-2: Creation of webpage and website in new era of life in an organization.

CO-3: Making HTML5 Responsive Web Sites for Organization.

**SDC2 MM 10 (Pr.) Mini Project**

CO-1: To provide students for knowledge of Designing tools



CO-2 Students will be able to practice acquired knowledge within the chosen area of technology for project development

CO-3 Reproduce, improve and refine technical aspects for Multimedia projects

CO-4 : Communicate and report effectively project related activities and findings.

### **SEMESTER 3**

#### **SDC3 MM 11 Digital Photography**

CO-1: To learn the basics of art of Photography.

CO-2: Describe different intricacies involved in taking a photograph.

CO-3: Develop self-learning, how to take a good picture.

CO-4: To develop photographic sense and knowledge.

#### **SDC3 MM 12 - Fundamentals of 2d Animation**

CO-1: Support for SVG, WebGL, HTML5 animation and video for Web sites and Apps.

CO-2: Designing interactive animations and publishing them on multiple platforms for multiple devices

#### **SDC3 MM 13: Audio & Video Production Tools**

CO-1 : To Understand the digital video production process.

CO-2. To Apply various concepts and direction style in video production.

CO-3 : The students will understand the basic editing tools and techniques of sound and video recordings in preparation for the mastering of a television program, motion picture or web application.

#### **SDC3 MM 14 (P) - 2d Animation Lab**

CO-1: Support for SVG, WebGL, HTML5 animation and video for Web sites and Apps.

CO-2: designing interactive animations and publishing them on multiple platforms for multiple devices

**SDC3MM 15 (P) Audio & Video Production Tools Lab**

CO-1: To Analyze the skills on handling professional video camera

CO-2: Gain proficiency in identified technical skills, understand the process of creating, analyzing, and evaluating graphic design solutions.

CO-4: To teach how to record, edit, mix and master audio for post-production

CO-5: To Evaluate creative techniques that can be used in Audio and Video Production.

**SDC3MM 16 (P) - Photography & Image Editing**

CO-1: Acquire the lighting in photography.

CO-2: Build awareness of the subject positioning and Shooting Area identification.

CO-3: Acquire knowledge about the composition in photography

CO-4: Exhibit strong familiarity of visual effects using photography

**SEMESTER 4**

**SDC4 MM 17 - Fundamentals of 3d**

CO-1: Demonstrate knowledge of object manipulation. Learn 3D Space, Software and tools

CO-2: Analyze modeling technique. Be able to obtain 3D Volume and space of an object

CO-3: Construct 3D models with animation capabilities and use them to compose 3D scenes.

**SDC4 MM 19 - Character designing in 3D**

CO-1: To learn 3D Character Designing skills.

CO-2: To learn 3D Modeling Skills.

CO-3 Students will apply their knowledge to create different Types of Characters (Biped, Quadruped).

**SDC4 MM 20 (P) Character designing in 3D Lab**

CO-1: Become an expert in Character Design in 3D

CO-2 : Be able to work closely with 3D Departments

CO-3 : Create a 3D Character for animation.

**SDC4 MM 21 (P) Fundamentals of 3d Lab**

CO-1: Adequate knowledge of 3d tools and techniques to utilize for creative skill

CO-2: Be able to create a Biped Character Design

CO-3 : Become an expert in creating 3D Visual content

CO-4 : Be able to create 3D Animation.

**SDC4 MM 22 (Pr) Mini Project**

CO-1: To provide students for knowledge of Editing/ Animation tools 50

CO-2 Students will be able to practice acquired knowledge within the chosen area of technology for project development

CO-3 Reproduce, improve and refine technical aspects for Multimedia projects

CO-4 : Communicate and report effectively project related activities and findings.

**SDC4 MM 18 (E1): Multimedia Journalism and E-Content Development.**

CO-1: The scope of the course shall be limited to the study of the fundamental areas of multimedia with emphasis on understanding the basic tools, techniques and issues.

CO-2: Be familiar with the tools and resources used in multimedia production CO-3: Be familiar with the specifics of narration in a multimedia environment

CO-4 : Students will become acquainted with the ethical and legal implications of online and social media practices.

**SDC4 MM 18 (E2): Acting & Direction for Animation.**

CO-1: To familiarize the students with various approaches, methods and techniques of Animation Technology and direction.

CO-2: To develop competencies and skills needed for becoming an effective Animator

CO-3: To enable students to manage Animation Projects from its Conceptual Stage to the final Product creation.

CO-4 : To apply Audio and Video Production Techniques to an Animation Project

**SDC4 MM 18 (E3): E-Publishing concepts**

CO-1: Know what does the concepts of ‘E-Publishing and Network Publishing’ mean;

CO-2: Identify the limitations of E-Publishing and Network Publishing.

CO-3: Interpret the basic functions of ‘E-Publishing and Network Publishing’;.

**SEMESTER V**

**SDC5 MM 23 - Media Laws and Ethics**

CO-1: Students gain an understanding of laws pertaining to media.

CO-2: Students gain an analytical knowledge into ethical issues related to media

CO-3 Students learn to apply media laws to case studies and evaluate the relative merits and demerits of laws and ethical questions pertaining to media

CO-4 : Creating an understanding among students about the importance of responsible Journalism which works within the framework of laws and ethics

**SDC5 MM 24 - Life Skill & Personality Development**

CO-1: Students gain an understanding of laws pertaining to media

CO-2: Students gain an analytical knowledge into ethical issues related to media

CO-3 Students learn to apply media laws to case studies and evaluate the relative merits and demerits of laws and ethical questions pertaining to media

CO-4 : Creating an understanding among students about the importance of responsible Journalism which works within the framework of laws and ethics

**SDC5 MM 26 - Graphics & Animation in Advertising**

CO-1: To help improve your communication with prospective Audience

CO-2: Able to pre-sell your products using animation, before you actually have a physical product available.

CO-3 Animation allows you to demonstrate a product without actually having it CO-4: Animated advertisement to give a feeling of reality and aliveness

**SDC5 MM 27 - 3D Visualisation, VFX and Compositing**

CO-1: To get an Understanding of how 3D animations are made

CO-2 : Learn VFX Tools and Techniques for making a VFX film

CO-3: Acquire 3D Animation & Vfx Knowledge.

**SDC5 MM 28 (P) - VFX and Compositing Lab**

CO-1: Implement the Visual Effects & Compositing process

CO-2: Become an expert in VFX & Compositing

CO-3 : Be able to work in Rotoscopy, Tracking, Matte painting Departments

CO-4 : Create an excellent Live action VFX Content.

**SDC5 MM 29 (P) - Graphics & Animation in Advertising Lab**

CO-1: To help improve your communication with prospective Audience

CO-2: Able to pre-sell your products using animation, before you actually have a physical product available.

CO-3 Animation allows you to demonstrate a product without actually having it

CO-4: Animated advertisement to give a feeling of reality and aliveness

#### **SDC5 MM30 (P) - 3D Visualisation Lab**

CO-1: Become an expert in 3D Visualization Tools.

CO-2: Be able Produce 3D Walkthroughs and Animations of Products, Architecture etc.

CO-3: Acquire 3D Visualization Skill.

#### **SDC5 MM 25 (E4) - Film Appreciation – Genres**

CO-1: Define, analyze, and explain the concepts of social responsibility and civic knowledge within the framework of the medium of narrative film;

CO-2 Understand works of film as expressions of individual and human values within an historical and social context;

CO-3: demonstrate knowledge of the influence of literature, philosophy, and/or the arts on intercultural filmic experiences.

#### **SDC5 MM 25 (E5) - Film Studies**

CO-1: Observe with knowledge and reflect upon the articulation of a film's content, form and structure.

CO-2 Demonstrate familiarity with diverse forms of the moving image, including, for example, the feature film, experimental and avant-garde cinema, video art and moving image installation, television and digital media.

CO-3: Gain a basic understanding of film theory and global film history, to be able to identify significant movements and articulate key concepts.

**SDC5 MM 25 (E6) : Theories of Visual Analysis**

CO-1: Students learn about introduction to communication research.

CO-2 Students acquire knowledge on some research methodologies.

CO-3: Students know about the survey readership, audience, consumers.

CO-4 : Students learn about Sampling.

CO-5: Students learn about presenting research.

**SEMESTER VI**

**SDC6 MM31 (Pr) – Term Paper**

CO-1: Acquire the knowledge of doing research in specialized areas in different media

CO-2: Develop the skill to write and present the process of presenting work.

**SDC6MM32 (Pr) Internship & Project**

CO-1 : Acquire the knowledge of the concept about Multimedia production and development

CO-2 : Apply attained skill to develop products based on Graphic Design, Audio & Video Production, 2d & 3d Animation

CO-3 : Apply knowledge to make a synopsis of the project work for approval

CO-4 : Apply knowledge and skill in scientific research, critical thinking, reasoning, product development and final documentation.

CO-5 : Acquire skill and knowledge to present their products in the best way possible.

## DEGREE OF BACHELOR OF VOCATION (B.VOC) SOFTWARE DEVELOPMENT

### Program Specific Outcomes(PSO)

PSO1	Demonstrate understanding of the principles and working of the hardware and software aspects of computer systems.
PSO2	Understand the impact of general education in the areas like Disaster Management, Gender Studies, Environmental Science, Public Health, Sanitation and Safety, Entrepreneurship, Human Rights, IPR, Consumer Protection etc. and need for sustainable development.
PSO3	Develop competent technical speaking and writing skills in English so as to enable the graduate to effectively communicate in the workplace.
PSO4	Develop competency in advanced programming languages such as Machine Learning, AI, Big Data, IOT, DBA, Python, J2EE, Android, Dot Net etc. and learn the development of software and web applications using these.
PSO5	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

### Course Outcomes

Semester	Course Code	Course Name	Course outcomes
<b>I</b>	<b>SDC1IT01</b>	<b>Discrete Mathematics</b>	<ul style="list-style-type: none"> <li>● CO-1:Understand mathematical logic and Boolean algebra.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2:Evaluate Boolean functions and simplify expression using the properties of Boolean algebra</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Understand some basic properties of graphs and related discrete structures,And be able to relate to practical examples.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4-:Understand some basic properties of trees and related discrete structures.</li> </ul>



			<ul style="list-style-type: none"> <li>● CO-5: Demonstrate different traversal methods for trees and graphs.</li> </ul>
<b>I</b>	<b>SDC1IT02</b>	<b>PROGRAMMING IN C</b>	<ul style="list-style-type: none"> <li>● CO-1: Read, understand and trace the execution of programs written in C language.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Write the C code for a given algorithm.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Implement Programs with pointers and arrays, perform pointer arithmetic, and use the pre-processor.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Write programs that perform operations using derived data.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Choose the right data representation formats based on the requirements of the problem.</li> </ul>
<b>I</b>	<b>SDC1IT03 (P)</b>	<b>PROGRAMMING IN C - LAB</b>	<ul style="list-style-type: none"> <li>● CO-1: To impart adequate knowledge on the need of programming languages and problem solving techniques.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: To develop an in-depth understanding of functional and logical concepts of C Programming.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Recollect various programming construct like decision making, branching and looping to develop c programs.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO-4: Implement different Operations on arrays, functions, structures &amp; unions</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Implement different Operations on pointers, and files.</li> </ul>
<b>I</b>	<b>SDC1IT04 (P)</b>	<b>WEB PROGRAMMING - LAB</b>	<ul style="list-style-type: none"> <li>● CO-1: Understand the important HTML tags for designing static pages and separate design from content using Cascading Style sheet.</li> <li>● CO-2: Design and develop web pages using CSS styles, internal and/or external style sheets.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3:-Develop interactive web applications using HTML, CSS, JavaScript and XML.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4:- To develop the ability to build efficient web based applications using PHP.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:- To learn the basic constructs in PHP Programming.</li> </ul>
<b>I</b>	<b>SDC1IT05 (P)</b>	<b>OFFICE AUTOMATION &amp; DESIGN LAB</b>	<ul style="list-style-type: none"> <li>● CO-1:By learning the course, the students will be able to perform documentation Gain proficiency in identified technical skills, understand the process of word,</li> </ul>
			<ul style="list-style-type: none"> <li>● CO -2: To create Social Media Advertisements.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 3: To create informatics video content</li> </ul>

			<p>for presentation. To establish as an Interactive content designer for Digital media.</p> <ul style="list-style-type: none"> <li>● CO- 4: To design Website layout and elements.</li> </ul>
<b>II</b>	<b>SDC2IT06</b>	<b>PROGRAMMING IN JAVA</b>	<ul style="list-style-type: none"> <li>● CO-1: To Familiarize Java programming Constructs</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: To solve the interdisciplinary applications using the Basic Principles of OOPs(Class, Object Inheritance, Polymorphism etc.) and Packages</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: To familiarize the concepts of Threads, Synchronization, Files and facilitate students in handling exceptions.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: To Learn Common abstract user interface components to design GUI in Java using Applet, AWT and Swing</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Apply JDBC to provide a program level interface for communicating with databases using java programming.</li> </ul>
<b>II</b>	<b>SDC2IT07</b>	<b>RELATIONAL DATABASE MANAGEMENT SYSTEM</b>	<ul style="list-style-type: none"> <li>● CO-1: Describe the fundamental concepts of database management systems</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Explain the basic concepts of relational data model, entity-relationship model, relational database</li> </ul>

			<p>design, relational algebra and SQL.</p> <ul style="list-style-type: none"> <li>• CO-3: Improve the database design by normalization.</li> <li>• CO-4: populate relational database and formulate SQL queries on data.</li> <li>• CO-5: To learn PL/SQL Programming Constructs (Trigger,Cursor,Stored Procedure)</li> </ul>
<b>II</b>	<b>SDC2IT08 (P)</b>	<b>PROGRAMMING IN JAVA- LAB</b>	<ul style="list-style-type: none"> <li>• CO1: Able to write programs for solving real world problems</li> <li>• CO2: Apply the concepts of polymorphism and inheritance for problem solving in Java. Implement the concepts of packages and interfaces</li> <li>• CO3: Develop programs for exception handling, multi-threading and IO application programs</li> <li>• CO4: Design GUI applications using Applet and swing components</li> <li>• CO5: Build database connectivity programs using JDBC</li> </ul>
<b>II</b>	<b>SDC2IT09 (P)</b>	<b>RDBMS –LAB</b>	<ul style="list-style-type: none"> <li>• CO-1:Apply the basic concepts of Database Systems and Applications.</li> <li>• CO-2: Use the basics of SQL and Formulate queries using SQL DML/DDL/DCL</li> </ul>

			<p>Commands in database creation and interaction.</p> <ul style="list-style-type: none"> <li>● CO-3: Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.</li> <li>● CO-4: Capable to build and Manage PL/SQL Programs</li> </ul>
<b>II</b>	<b>SDC2IT10 (Pr)</b>	<b>MINI PROJECT</b>	<ul style="list-style-type: none"> <li>● CO-1 Acquire the basic knowledge about handling real world projects</li> <li>● CO-2: Apply academic skills in industrial circumstances</li> <li>● CO-3: Able to gain practical knowledge and implement all learning concepts in the form of an application.</li> </ul>
<b>III</b>	<b>A11</b>	<b>BASIC MATHEMATICS AND GENERAL AWARENESS</b>	<ul style="list-style-type: none"> <li>● CO-1: Apply numerical and reasoning skills in competitive examinations.</li> <li>● CO-2: Understand some basic concepts of research and its methodologies.</li> <li>● CO-3: Bridge the fundamental skills of computers with the present level of knowledge of the students.</li> <li>● CO-4: To train and equip the students with the skills of modern banking and insurance.</li> </ul>
<b>III</b>	<b>A12</b>	<b>PROFESSIONAL BUSINESS SKILLS</b>	<ul style="list-style-type: none"> <li>● CO-1: Able to become a professional by acquiring</li> </ul>

			<p>various soft skills needed for business success.</p> <ul style="list-style-type: none"> <li>● CO-2: Explore the world of e-learning and also the various consequences of Cyber space and crimes.</li> <li>● CO-3: Application of data analysis and the role of artificial intelligence in e-business.</li> <li>● CO-4: Apply the skills of digital marketing and e-commerce.</li> </ul>
<b>III</b>	<b>SDC3IT11</b>	<b>SOFTWARE ENGINEERING</b>	<ul style="list-style-type: none"> <li>● CO-1: Understand the basic concepts of software engineering techniques.</li> <li>● CO-2: Apply Techniques of Test Design.</li> <li>● CO-3: Understand Test Design Management.</li> <li>● CO-4: Analyze the various software testing approaches.</li> </ul>
<b>III</b>	<b>SDC3IT12</b>	<b>PROGRAMMING IN PYTHON</b>	<ul style="list-style-type: none"> <li>● CO-1: Explain basic principles of Python programming language</li> <li>● CO-2: Implement object oriented concepts</li> <li>● CO-3: Implement database and GUI applications.</li> <li>● CO-4: Implementing Server side programming using Python Server side scripting.</li> <li>● CO-5: Explaining the features of displaying data from MYSQL in web page</li> </ul>

<b>III</b>	<b>SDC3IT13</b>	<b>COMPUTER NETWORKING CONCEPTS</b>	<ul style="list-style-type: none"> <li>● CO-1:Recognize the technological trends of ComputerNetworking.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2:Discuss the key technological components of the Network.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Evaluate the challenges in building networks and solutions to those</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:-Have a working knowledge of datagram and Network Security</li> </ul>
<b>III</b>	<b>SDC3IT14(P)</b>	<b>DATA STRUCTURE USING JAVA- LAB</b>	<ul style="list-style-type: none"> <li>● CO-1:Ability to identify the appropriate data structure for a given problem.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Graduate able to design and analyze the time and space complexity of algorithms or programs.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Ability to effectively use compilers includes library functions, debuggers and troubleshooting.</li> <li>● CO-4: Illustrate the programs using DS</li> </ul>
<b>III</b>	<b>SDC3IT15 (P)</b>	<b>PROGRAMMING IN PYTHON - LAB</b>	<ul style="list-style-type: none"> <li>● CO- 1: Write, test, and debug simple Python programs.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 2: Implement Python programs with conditionals and loops.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO- 3: Develop Python programs stepwise by defining functions and calling them.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 4: Use Python lists, tuples, dictionaries for representing compound data.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO- 5: Read and write data from/to files in Python.</li> </ul>
<b>III</b>	<b>SDC3IT16 (P)</b>	<b>COMPUTER NETWORKING- Lab</b>	<ul style="list-style-type: none"> <li>● CO-1:Recognizethe technological trends of ComputerNetworking.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Discuss the key technological components of theNetwork.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Evaluate The challenges in building networks and solutions to those</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Analyze, specify and design the topological and routing strategies for an IP based networking infrastructure</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5:Have a working knowledge of datagram and Network Security</li> </ul>
<b>IV</b>	<b>A13</b>	<b>ENTREPRENEURSHIP DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>● CO-1: Able to understand the nature of entrepreneurship and the financial assistance and guidance from the government.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2:Confirm an entrepreneurial business idea</li> </ul>



			<ul style="list-style-type: none"> <li>● CO-3: Explore entrepreneurial leadership and management style.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Confidence in Setting up of Industrial units.</li> </ul>
<b>IV</b>	<b>A14</b>	<b>PUBLIC HEALTH, SANITATION &amp; SAFETY</b>	<ul style="list-style-type: none"> <li>● CO-1: Identify the diseases associated with occupation</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Identify the hazard in industrial area and propose preventive measures</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Manage safety in industries and propose safety measures and PPE</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Demonstrate the hygiene and sanitation procedures</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Demonstrate the microorganism responsible for the disease and their control</li> </ul>
<b>IV</b>	<b>SDC4IT17</b>	<b>OPERATING SYSTEMS</b>	<ul style="list-style-type: none"> <li>● CO-1 Understand the functions of Operating System</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2 Classify the different types of OS</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3 Understand the memory management policies, allocation and scheduling of processes</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4 Evaluate the requirement for process synchronization and coordination handled by operating system</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5 Understand the virtual memory &amp; their policies, I/O management,</li> </ul>

			File management and disk scheduling.
<b>IV</b>	<b>SDC4IT18</b>	<b>COMPUTER SECURITY</b>	<ul style="list-style-type: none"> <li>● CO- 1:Explain some common software vulnerability issues and classifications mechanisms</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Understand different security protocols.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Understand security models for computer systems security</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Explain the various controls available for protection against internet attacks, including authentication, integrity check,firewalls, and intruder detection systems.</li> </ul>
<b>IV</b>	<b>SDC4IT19 E1</b>	<b>J2EE</b>	<ul style="list-style-type: none"> <li>● CO1: - Learn distributed enterprise applications using java.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2 - Learn web development and server side programming using java</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3: - Learn database management and spring frameworks.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4: - The students will be able to develop a small project.</li> </ul>

<b>IV</b>	<b>SDC4IT19 E2</b>	<b>.NET PROGRAMMING</b>	<ul style="list-style-type: none"> <li>● CO-1: Knowledge of the structure or model of the programming language C # (note)</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Use the programming language C # for various programming technologies</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-3: Develop software in C # (application)</li> <li>● CO-4: Evaluate user requirements for software functionality required to decide whether the programming language C# can meet user requirements(analysis)</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5:Propose the use of certain technologies by implementing them in the C #programming language to solve the given problem</li> </ul>
<b>IV</b>	<b>SDC4IT20 (P)</b>	<b>OPERATING SYSTEMS AND COMPUTER SECURITY –LAB</b>	<ul style="list-style-type: none"> <li>● CO1: Familiarization with the UNIX system calls for process management and inter process communication. Experiments on process scheduling and other operating system tasks through simulation/implementation</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2: - Ability to implement inter-process communication, to design and solve synchronization problems , to implement operating system concepts such as scheduling, deadlock management, file management, and memory management.</li> </ul>

			<ul style="list-style-type: none"> <li>● CO3: - Understand the security environment and requirement of cyberspace.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO4: - Identify tools to secure organization's IT infrastructure and assets.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO5:- Take precautionary measures to ensure protection from attacks, damages and costs.</li> </ul>
<b>IV</b>	<b>SDC4IT21 (P)</b>	<b>E1 – J2EE - Lab</b>	<ul style="list-style-type: none"> <li>● CO-1: Ability to Create Web Applications using Java Servlet</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-2: Graduate able to Manage Web Session using Servlet and JSP</li> <li>● CO-3: Ability to effectively Handle Errors and Exceptions in Web Applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-4: Ability to use NetBeans/ Eclipse IDE for creating J2EE Applications</li> </ul>
			<ul style="list-style-type: none"> <li>● CO-5: Ability to create applications using Hibernate &amp; Spring Framework</li> </ul>
<b>IV</b>	<b>SDC4IT22 (Pr)</b>	<b>PROJECT WORK/ INTERNSHIP</b>	<ul style="list-style-type: none"> <li>● CO1: Identify the requirements of real world problems.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO2: Study and enhance software/ hardware skills.</li> </ul>
			<ul style="list-style-type: none"> <li>● CO3: Demonstrate and build the project successfully by hardware requirements, coding, emulating and testing.</li> </ul>

			<ul style="list-style-type: none"> <li>• CO4: To report and present the findings of the study conducted in the preferred domain</li> </ul>
			<ul style="list-style-type: none"> <li>• CO5: Demonstrate Team work</li> </ul>
<b>V</b>	<b>SDC5IT23</b>	<b>BIG DATA ANALYTICS</b>	<p>CO-1-Design algorithms by employing Map Reduce technique for solving Big Data problems.</p> <p>CO-2: -Identify similarities using appropriate measures.</p> <p>CO-3: -Design solutions for problems in Big Data by suggesting appropriate clustering techniques</p> <p>CO-4: -Discuss algorithms for Analytical Theory and Methods</p> <p>CO-5:- Point out problems associated with streaming data and handle them</p>
<b>V</b>	<b>SDC5IT24</b>	<b>MACHINE LEARNING &amp; ARTIFICIAL INTELLIGENCE</b>	<p>CO-1: Differentiate Various Learning Approaches, and to Interpret the Concepts of Supervised Learning</p> <p>CO-2: Compare The Different Dimensionality Reduction Techniques</p> <p>CO-3: Apply Theoretical Foundations of Decision Trees to Identify Best Split and Bayesian Classifier to Label Data Points</p> <p>CO-4: Illustrate The Working of Classifier Models Like SVM, Neural Networks and Identify Classifier Model for Typical Machine Learning Applications</p>
<b>V</b>	<b>SDC5IT25</b>	<b>CLOUD COMPUTING</b>	<p>CO-1: Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the possible applications for state-of-the-art cloud computing.</p>

			<p>CO-2:-Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.</p> <p>CO-3: Explain the core issues of cloud computing such as security, privacy, and interoperability.</p> <p>CO-4: Choose the appropriate technologies, algorithms, and approaches for the related issues.</p> <p>CO-5:-Identify problems, and explain, analyze, and evaluate various cloud computing solutions.</p>
<b>V</b>	<b>SDC5IT27 E1</b>	<b>DATABASE ADMINISTRATION</b>	<p>CO-1: Will be able to work in a group on the design, and implementation of a database system project.</p> <p>CO-2: Experiences how to manage data by establishing a database connection over the current programming languages.</p> <p>CO-3: Experiences on how to implement an application using a database management system.</p> <p>CO-4: Will be able to do database administration works.</p>
<b>V</b>	<b>SDC5IT27 E2</b>	<b>QUALITY ASSURANCE AND TESTING</b>	<p>CO-1: Perform functional and nonfunctional tests in the life cycle of the software product.</p> <p>CO-2:Understand system testing and test execution process.</p> <p>CO-3: Identify defect prevention techniques and software quality assurance metrics.</p> <p>CO-4:Apply techniques of quality assurance for typical applications.</p>
<b>V</b>	<b>SDC5IT27 E3</b>	<b>INTERNET OF THINGS (IoT)</b>	<p>CO1: - Explain the concept of IoT.</p> <p>CO2: -Analyze various protocols for IoT.</p> <p>CO3: -Design a PoC of an IoTsystem using Raspberry Pi/Arduino</p> <p>CO4: -Apply data analytics and use cloud offerings related to IoT.</p>

			CO5: -Analyze applications of IoT in real time scenario.
V	SDC5IT27E 4	FINANCIAL & MANAGEMENT ACCOUNTING	CO-1: To get a general introduction on accounting and its general application. CO-2: To get a general understanding on various tools for financial statement analysis CO-3: To get a general understanding on accounting procedures up to the preparation of various financial statements.
V	SDC5IT28 (P)	ANDROID APP DEVELOPMENT - LAB	CO1: -Demonstrate their skills of using Android software development tools CO2: -Demonstrate their ability to develop software with reasonable complexity on mobile platform CO3: -Demonstrate their ability to deploy software to mobile devices CO4:- Demonstrate their ability to debug programs running on mobile devices
V	SDC5IT29 (P)	MACHINE LEARNING AND AI - LAB	CO-1: Have a good understanding of the fundamental issues and challenges of machine learning: data, model selection, model complexity, etc. CO-2: Be able to design and implement various machine learning algorithms in a range of real-world applications. CO-3: Apply various machine learning algorithms in real world entities CO-4: Develop AI Solutions
V	SDC5IT30 (P)	BIG DATA ANALYTICS - LAB	CO-1: Identify Big Data and its Business Implications. CO-2: Access and Process Data on Distributed File System CO-3: Develop Big Data Solutions using Hadoop Eco System CO-4: Apply Machine Learning Techniques using R
V	SDC5IT31 (P)	CLOUD COMPUTING AND ELECTIVES – LAB	CO-1: Apply various cloud services in development process

			<p>CO-2: Database installation and creation and Managing Database instances</p> <p>CO-3: Develop technique of testing in various stages of development</p> <p>CO-4 Able to understand the application areas of IOT</p> <p>CO-5: Apply fundamental principles of financial &amp; management accounting</p>
<b>VI</b>	<b>SDC6IT32</b>	<b>TERM PAPER</b>	<p>CO-1: Demonstrate capacity to improve student achievement, engagement &amp; retention</p> <p>CO-2: Analyze the problem of study and collect necessary data.</p> <p>CO-3: Students work in traditional rhetorical forms and write a research paper.</p> <p>CO-4: Implement, evaluate and generate reports.</p>
<b>VI</b>	<b>SDC6IT33 (Pr)</b>	<b>INTERNSHIP &amp; PROJECT</b>	<p>CO1: Ability to integrate existing and new technical knowledge for industrial application</p> <p>CO2: Acquire interpersonal, communication and other critical skills in the job interview process.</p> <p>CO3 : Develop work habits and attitudes necessary for job success</p> <p>CO4: Real time work experience helps to get placed easily</p>