KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF COMPUTER SCIENCE <u>Master of Computer Science (M.Sc.(CS))</u>

Programme Outcomes (PO):

Progra	rogramme Outcomes				
PO1	Scientific knowledge: Apply the knowledge of mathematics, science,				
	and computing to the solution of complex scientific problems.				
PO2	Problem analysis: Identify, formulate, research literature, and analyse				
	complex scientific problems reaching substantiated conclusions using				
	the principles of mathematics, and applied sciences.				
PO3	Design/development of solutions: Design solutions for complex				
	problems and design system components or processes that meet the				
	specified needs with appropriate consideration for the public health and				
	safety, and the cultural, societal, and environmental considerations.				
PO4	Conduct investigations of complex problems: Use research-based				
	knowledge and research methods including design of experiments,				
	analysis and interpretation of data, and synthesis of the information to				
	provide valid conclusions.				
PO5	Modern tools usage: Create, select, and apply appropriate techniques,				
	resources, and modern computing and IT tools including prediction and				
	modelling to complex scientific activities with an understanding of the				
DOC	limitations.				
P06	I ne software engineer and society: Apply reasoning informed by the				
	contextual knowledge to assess societal, health, safety, legal and				
	professional practice				
P07	Environment and sustainability . Understand the impact of the				
107	professional software engineering solutions in societal and				
	environmental contexts and demonstrate the knowledge of and need				
	for sustainable development.				
PO8	Ethics: Apply ethical principles and commit to professional ethics and				
	responsibilities and norms of the scientific practice.				
PO9	Individual and team work: Function effectively as an individual, and				
	as a member or leader in diverse teams, and in multidisciplinary				
	settings.				
PO10	Communication: Communicate effectively on complex activities with				
	the scientific community and with the society at large, such as, being				
	able to comprehend and write effective reports and design				
	documentation, make effective presentations, and give and receive clear				
	instructions.				
PO11	Project management: Demonstrate knowledge understanding of the				
	scientific and management principles and apply these to one's own				
	work, as a member and leader in a team, to manage projects and in				
	multidisciplinary environments.				
PO12	Life-long learning: Recognize the need for, and have the preparation				

and	ability	to	engage	in	independent	and	life-long	learning	in	the
broa	dest cor	ntex	t of tech	nol	ogical change	•				

DEPARTMENT OF COMPUTER SCIENCE Programme outcomes, Programme Specific Outcomes and Course Outcomes.

Master of Computer Application (MCA)

Programme Outcomes (PO):

Progra	amme Outcomes							
PO1	Apply knowledge of Computing fundamentals, Computing							
	specialization, Mathematics, and domain knowledge appropriate for the							
	computing specialization to the abstraction and conceptualization of							
	computing models from defined problems and requirements.							
PO2	Identify, formulate, and solve complex Computing problems reaching							
	substantiated conclusions using fundamental principles of Mathematics,							
	Computing sciences, and relevant domain disciplines.							
PO3	Design and evaluate solutions for complex computing problems, and							
	design and evaluate systems, components, or processes that meet							
	specified needs with appropriate consideration to societal, and							
	environmental considerations.							
PO4	Use research-based knowledge and research methods including design							
	of experiments, analysis and interpretation of data, and synthesis of							
	information to provide valid conclusions.							
PO5	Create, select, adapt and apply appropriate techniques, resources, and							
	modern computing tools to complex computing activities, with an							
	understanding of the limitations.							
PO6	Understand and commit to professional ethics and information security,							
	responsibilities, and norms of professional computing practice.							
PO7	Recognize the need, and have the ability, to engage in independent							
	learning for continual development as a Computing professional.							
PO8	Demonstrate knowledge and understanding of computing and							
	management principles and apply these to one's own work, as a member							
	and leader in a team, to manage projects and in multidisciplinary							
	environments.							
PO9	Communicate effectively with the computing community, and with							
	society at large, about complex computing activities by being able to							
	comprehend and write effective reports, design documentation, make							
D 010	effective presentations, and give and understand clear instructions.							
PO10	Understand and assess societal, environmental, health, safety, legal, and							
	cultural issues within local and global contexts, and the consequential							
DOII	responsibilities relevant to professional computing practice.							
PO11	Function effectively as an individual and as a member or leader in							
DOIO	diverse teams and in multidisciplinary environments.							
PO12	Identify a timely opportunity and using innovation to pursue that							
	opportunity to create value and wealth for the betterment of the							

	individual and society at large.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF COMPUTER SCIENCE Programme outcomes, Programme Specific Outcomes and Course Outcomes.

<u>Post Graduate Diploma in Computer Application (PGDCA)</u> Program Outcomes (Po)

PO1 - Students will be able to train graduate students in basic computer technology concepts and information technology applications.

PO2 -The PG Diploma is aimed at graduates with a computing background and provides a detailed coverage of the key concepts and challenges in data and resource protection and computer software security.

PO3 -Students will be able to learn the latest trends in various subjects of computers & information technology.

PO4 -It will equip the students with skills required for designing, developing applications in Information Technology.

PO5 - Students will be able to give hands on experience to students to analyzing the real life IT applications.

PO6 - Students will be able to analyze and solve all computer science related problems.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF ENGLISH

Programme outcomes, Programme Specific Outcomes and Course Outcomes

Program Outcomes

- 1. Students will know that English being the official language of India is the global language and it has become the lingua franca of Indian administration, national communication, higher education, library, technical education, and international relationship.
- 2. Students will know that English education, more so, learning of English language and literature is essential for defining pan-Indians' lives today.
- 3. Enables students to know that MA English, more so, as a language and literature department, has been transforming English education in India.
- 4. Students will know that English language can be taught using not only English literature but also regional literatures in English translation, besides knowing the that fact there is no single English but many English.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF ENGLISH Programme outcomes, Programme Specific Outcomes and Course Outcomes PhD (PH 35)

Program Outcomes:

- 1. PhD research Scholars will be able to think innovatively and scientifically.
- 2. PhD research scholars will acquire more competence in language, literature and specialized domain of knowledge.

3. PhD research scholars will imbibe the spirit of enquiry and systematic study needed to be the competent researchers.

PÌEÁÕI PÀ«±Ìk«zÁð®Ail», zágì^páqà JA.J. eá£ì¥Ìzà¥ÌbÌPÌềlä (¦.f.37) ^{1.©.1}.J_,ï. AifEãd£ÉCrAilå° è 2018-19 j Azà2020-21gàªÌgÉlÉ

Program Outcomes :.

- 1. The Students who study folklore will acquire the Knowledge of Culture, Literature, art of nation.
- 2. After completion of this course student can study research as can opt for teaching.
- 3. With knowledge from this course students can start self employment.
- 4. The will make the society and life beautiful through proper application of traditional folk knowledge.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF FOREIGN LANGUAGES

Program Outcomes

- 1. French is one of the main international languages, spoken widely over the globe, hence it is advantageous for the learners to do post-graduate course in French for their bright future prospects.
- 2. In depth knowledge of French studies would increase the employability of the students in the multi-national corporate world.
- 3. Knowledge of French culture, literature and civilization among the students, results in better understanding of the language and linguistic aspects of its people, thereby enhancing interculturality and plurality of co-existent identities.
- 4. The study of 'Francophonie' and Francophone literature exposes the students to varied cultural identities which share a common communicational medium, viz. French and its varieties.
- 5. The students get academically empowered by the study of Vocational French, Translational studies and French Linguistics which facilitates better employability not only in the domestic scenario but also in international market.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF STUDIES IN FOREIGN LANGUAGES Ph.D. FRENCH (PH 38) [w.e.f. 2020-2021 onwards]

Program Outcomes:

1. The students equip themselves with the most sought after doctorate degree enabling themselves eligible to take up teaching work and other advanced responsibilities in the French embassies all over the world and in international corporate sectors.

- 2. The students would have acquired enough research experience in order to take on various post-doctoral research studies such as comparative studies, inter-disciplinary and multi disciplinary research studies and varies other research work.
- 3. They would have developed scientific temper and research bent of mind excelling in analytical ability in research in their (students') future lives.

KARNATAK UNIVERSITY, DHARWAD MBA EVENING PROGRAMME

Programme Outcomes

On successfully completing the program the student would be able to :

PO1. Apply the knowledge of management science to analyze and solve complex corporate problems more meaningfully.

PO2. Identify and analyze management research problems in their organisations.

PO3. Identify business opportunities, design and implement innovations in work space environment.

PO4. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to management practice.

PO5. Apply ethical principles for making judicious managerial decisions.

PO6. Apply management learning for making data supported decision making.

KARNATAK UNIVERSITY, DHARWAD MBA Programme

Program Outcomes(POs):

On completion of MBA Degree the student would be able to :

PO1: To develop proactive thinking and learn from front in the dynamic socioeconomic and business ecosystem

PO2: Apply knowledge of management theories and practices to solve business problems.

PO3:Apply the knowledge of management studies to critically analyse and to solve complex corporate problems.

PO4:Foster Analytical and critical thinking abilities for decision making.

PO5: Ability to understand and analyze the global, economic, legal, and ethical aspects of business.

PO6: Ability to develop Value based Leadership.

PO7:Appriciate the organizational goals and build team environment.

PO8 : Will have holistic development in all functional areas and act as change agent in Businesses.

PO9 : Develop the skills needed to manage all kinds of resource optimally with the goal of sustainable business development

KARNATAK UNIVERSITY, DHARWAD PG DIPLOMA IN BANK MANAGEMENT (MBA)

Programme Outcomes

By the end of the course, the student should be able to:

PO1: Understand day to day operations and activities of banking and finance institutions.

PO2: Understand financial institutions and their role in the financial markets.

PO3: Be equipped with knowledge of marketing concepts and activities related to the special requirements of financial services.

PO4: Develop skills to take up career opportunities ranging from roles in Finance and Accounting, Banking Industry, Corporate Sector etc.

KARNATAK UNIVERSITY, DHARWAD PG DIPLOMA IN BANK MANAGEMENT PG DIPLOMA IN INSURANCE AND RISK MANAGEMENT

Programme Outcomes

By the end of the course, the student should be able to:

PO1: Understand the basic principles of risk and insurance, the characteristics of the main types of insurance and the role of insurance in the process of risk management.

PO2: Equip the all round knowledge and skills necessary to succeed in the constantly evolving fields of insurance and risk management.

KARNATAK UNIVERSITY, DHARWAD PG DIPLOMA IN RURAL MANAGEMENT

Programme Outcomes

By the end of the course, the student should be able to:

PO1: Apply the knowledge of management/ development theories and practices to solve the problems related to rural development/ business.

PO2: Foster analytical and critical thinking for evidence/data based decision making.

PO3: Develop value based leadership ability.

PO4: Understand, analyse and communicate economic, legal, global, and ethical aspects of business and development.

PO5: Lead themselves and others in achieving organizational goals and contributing effectively to a team environment.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF STUDIES IN MARATHI PHD (PH 46)

Program Outcomes:

- 1. PhD is the much a coveted degree in higher education. The students will learn that PhD is to be original research and solution to many problems.
- 2. PhD scholars will achieve excellence in language, literature, and that particular domain of knowledge.
- 3. PhD scholars will acquire specialization.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF MARATHI

Program Outcomes

- 1. As Marathi is the regional language, Marathi has become the national intigratation, national communication, higher education, library, , and national relationship. The student will learn these things by the end of the programme.
- 2. The student will be aware of the fact that Marathi is the sweet language of India.

3. He will realize that Marathi (Ancient ,Medival and Modern) education, more so, imparting of Marathi language skills and literature is essential for defining pan-Indians' lives today.

- 4. He will learn that MA Marathi as a language and literature has been transforming the education in India. He will have an understanding of such thrust areas like Ancient Marathi literature, Modern Mrathi literature, Criticism, linguistics, and culture studies.
- **5.** He will learn that Marathi language is to be taught using Marathi literature. All that will be oriented towards empowering the students for employbility

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF MATHEMATICS POs, PSOs and COs M. Sc. Mathematics

Programme Outcomes (POs)

PO1. Identify, formulate and analyze the problems using principles of Mathematics.

PO2. Apply the knowledge of Mathematics to the solution of complex problems.

PO3. Enable for critical thinking to carry out scientific and systematic investigation for the solution.

PO4. Design solutions for problems that meet the specified needs.

PO5. Use knowledge and methods for interpretation of data and synthesis of the information to provide valid conclusions.

PO6. Create, select, and apply appropriate techniques, resources, and IT tools.

PO7. Apply reasoning to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional practice.

PO8. Understand the impact of the solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO9. Communicate effectively on activities with the society such as, being able to comprehend and write effective reports and design documentation, give and receive clear instructions.

PO10. Demonstrate for ethical issues in mathematical sciences.

PO11. Able to tackle the real world problem with mathematical techniques

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF MATHEMATICS POs, PSOs and COs Ph. D. Mathematics

Programme Outcomes (POs)

PO1. Identify the relevant research problem.

PO2. Formulate and analyze the problems using principles of Mathematics.

PO3. Undertake original research in a specific topic.

PO4. Communicate effectively the findings of research through publications and presentations.

PO5. Enable for critical thinking to carry out scientific and systematic investigation for the study.

PO6. Use knowledge and methods to draw the conclusion.

PO7. Apply reasoning to assess issues and the consequent responsibilities relevant to the professional practice.

PO8. Apply mathematics to understand the societal problems.

PO9. Able to tackle the real world problems with mathematical approach.

KARNATAK UNIVERSITY, DHARWAD

DEPARTMENT OF SANSKRIT

Program Outcomes

- 1. As Sanskrit is the classical language and Mother of all Indian languages accept Dravidian languages. All Indian languages are included in eighth schedule of the Indian Constitution. There is a Sanskrit language which is in number of 17th.Sanskrit belongs to the Indo-European family of languages. It is one of the three earliest ancient documented languages arose from common root language now referred to as Proto-Indo-European language. Most of the Indian Historical documents are available in Sanskrit language. Indian literature, culture, contribution of spiritual thoughts are documented in Sanskrit language also. The student will learn these things by the end of the programme.
- 2. The student will be aware of the fact that Sanskrit is the classical language of India.
- 3. He will realize that translation work is essential in education, more so, imparting of Sanskrit language skills and literature is essential for defining Indians in ancient days.
- 4. He will learn that Vedic literature, classical literature, and its Relevancy in modern days.
- 5. He will learn that Sanskrit language encourages conducting the Research and translation work. All that will be oriented towards empowering the students for employees.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF SANSKRIT Ph.D. (PH52)

Program Outcomes:

- 1. Ph.D is the much a coveted degree in higher education. The students will learn that Ph.D is to be original research and solution to many problems.
- 2. Ph.D scholars will achieve excellence in language, literature, and that particular domain of knowledge.
- 3. Ph.D scholars will acquire specialization.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF STATISTICS

Programme Outcome:

Post Graduates of Statistics programme will

- 1. Have broad knowledge of theoretical statistics and its applications in various study disciplines.
- 2. Have in depth knowledge about different branches of statistics offered by the department.
- 3. Acquire computational skills.
- 4. Develop the abilities to analyse econometric models, biological data, social statistics, etc.
- 5. be able to conduct field surveys.
- 6. Have professional outlook and attitude as academicians, data analysts, researchers.

KARNATAK UNIVERSITY, DHARWAD **DEPARTMENT OF P.G. STUDIES IN URDU AND PERSIAN**

Program Outcomes

1. As Urdu is spoken all around the world .and accepted as 6th global Language, it is a lingua franca between South Asian countries, SAARC Countries and many other parts of the world. Urdu carries a weightage as it is studied in reputed universities of the world. Technically the phonology of Urdu language is very near to English, Italian, and Arabic and Persian language. So understanding Urdu phonology paves the way to learn many languages of the globe at a time.

The student will learn these things by the end of the programme.

- 2. The student will understand the importance of Urdu Language internationally and will learn it through self motivation.
- 3. The student realizes the roots of the language and literature in many cultures and civilizations, so that S/he can realize the base and the roots of culture which leads towards national integration.
- 4. The student will learn the Higher Study Skills and prepare him/herself for a better learned Indian and global citizen, by learning the history forms and the types of movements which effected the literary trends of them . and try to become a better Writer/Poet/Critic, Journalist, Mass communicator Debater and a Presenter.
- 5. Student will be well versed in Urdu Language Skills and literature which will lead towards employability, as well as an entrepreneur in the field of Journalism and Mass Communication in the era of communication exploration..

He will learn that Urdu language is to be taught using Urdu literature.

KARNATAK UNIVERSITY, DHARWAD **DEPARTMENT OF STUDIES IN URDU Ph.D** (**PH 54**)

Program Outcomes:

- 1. Ph.D is the much coveted degree in higher education. The students will learn that PhD is to be original research and solution to many problems. Ph.D scholars will achieve excellence in language, literature, and that particular domain of knowledge.
- 2. Ph.D scholars will acquire specialization.

KARNATAK UNIVERSITY, DHARWAD **DEPARTMENT OF WOMEN'S STUDIES**

Programme Outcomes:-

- 1. To equip the students to became socially responsible with their mastery over current issues of society
- 2. To enhance the social sensitivity, sensibility and responsibility, thereby instilling the life skills among students
- 3. To prepare the students to learn skills and techniques in building their career and to face challenges

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF ECONOMICS

Programme Outcomes

- 1) To impart in depth knowledge to students about economic theories, working of labour and factor markets and how income generated and distributed.
- 2) Students would be able to apply **economic** theories and concepts to contemporary social issues, as well as formulation and analysis of policy and recognize the role of ethical values in **economic** decisions.
- 3) To give students in depth knowledge into special fields of choice like agricultural economics, industrial economics, financial market, development economics, international trade, urban economics, rural economics, economics of social sector, econometrics, mathematics and statistics for economics
- 4) Familiarize the students about the how the economy is influenced by economic policy, technological advances and demographic conditions.
- 5) In addition to the learning of advanced economic theory and its applications, provide a competitive edge in State and Central Civil Services, NET/ SET exams etc

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF GEOLOGY

Programme Outcomes:

Students will be able design, conduct experiments, analyze and interpret data for investigating

- 1. Geology is the science which includes Earth's physical structure and substances, the history of rocks, the processes that act on them and the most economic way to use the world's resources. Unlike, many scientists, geologists work outdoors a lot, geologist need to do extensive field work in outdoors as well as in the laboratories.
- 2. Since Geology is a field and application oriented subject, hence there is a lot of scope for research aspects pursuing Ph.D. degree and also for the major research projects. Problems in Applied geology of different research aspects as Ph.D can be pursued in order to attain research positions.
- 3. Various Examinations such as DMG (Dept. of Mines and Geology) GSI (Geological Survey of India) ONGC (Oil and Natural Gas commission) CGWB (Central Ground water Board), AMD (Atomic Mineral Division), NMDC (National Mineral Development Corporation), Coal India Limited, Steel India Limited and Various Mining Sector in India and abroad Etc. Apart from Govt. Jobs Geologist can be a entrepreneur/consultant in the fields of groundwater mining and environment, water quality analyst. Gemstone business and quarrying and many other open organization for promising their career in research as well as plenty of jobs.
- 4. Geology in everyday life is not restricted to resources. It is also about hazards and risk associated with rock falls, radon, landslides, quick clay, landslides and earthquakes.
- 5. Geology is detective work. Geology helps us understand climate change in the past, which may help us predict future scenarios

- 6. A Geologist studies the composition of the earth, assesses the natural disasters and its effects on the environment, explores areas rich in underwater resources, oil, natural gas and minerals and determines the quality of soil by conducting geochemical and geophysical tests.
- 7. Upon successful completion of the course, students will be able to: describe the scientific method and apply it in a geological context; and. describes Earth's major systems and explains how they interact; and. identifies common rocks and minerals and interprets how they form; and.
- 8. Predicting the behavior of Earth systems and the universe.
- 9. Finding adequate supplies of natural resources, such as ground water, petroleum, and metals.
- 10. Conserving soils and maintaining agricultural productivity.
- 11.Developing natural resources in ways that safeguard the environment.
- 12. Maintaining quality of water supplies etc.,

KARNATAK UNIVERSITY, DHARWAD. DEPARTMENT OF HISTORY AND ARCHAEOLOGY B.A. in History and Archaeology (UG)

Programme Outcomes. (POS)

History, as we all know, is a vital source to obtain knowledge about a nation's soul. History is one of the most respected and most valuable academic subjects our child will learn. There is an essential or need to study history effectively and this is a deep dive into the importance of learning history at higher level. Without archaeology there would not be history-history developed on the archaeological remains. So in every higher education institution, history and archaeology subject is securing more prominence.

Being a subject of social science, history has its own value in society and human life. It helps the students to develop their ethical and social value. They could gather knowledge about the heritage and tradition of their own country and the others. There is huge potentiality in future of a history student. Various options are opened to history students to choose their career. First of all, history is a subject from primary education level to higher study, so they can engage themselves in teaching profession in primary, secondary and post secondary schools. History is also helpful for those who are preparing for competitive examinations. A history student may choose his or her career in journalism or any other editorial board. They may get job in museum, archives and libraries. Beside those, in the field of research and archaeology they may proceed.

KARNATAK UNIVERSITY, DHARWAD International Diploma in Reproductive Health Management (IDIRHEM) Program Code: DP15

Program outcome:

PO1: The candidate will acquire knowledge and skills to provide assistance to society in general and in particular to woman, in pre-natal and post-natal care and their families.

PO2:Helps the society to use health care system with confidence.

PO3:The course helps its graduates to provide reproductive health care in most effective and efficient manner.

PO4: It helps its graduates to support and sustain the quality of Reproductive Health issues and services.

KARNATAK UNIVERSITY, DHARWAD. DEPARTMENT OF POLITICAL SCIENCE M. A. in Political Science

Program out Comes (Po's):

- 1) Competence to enhance innovative approach of the student towards professions in political Science.
- 2) Competence to manage political institutions for humane development with rational choice perspective.
- 3) Ability to develop leadership with public vision.
- 4) Ability to develop inclusive understanding of representation.

KARNATAK UNIVERSITY, DHARWAD. DEPARTMENT OF VISUAL ARTS MVA APPLIED ART SYLLABUS Under CBCS Programme

(2020-21, 2021-22 and 2022-23 for three years)

Program Outcomes:

- 1. Students will explore the exciting and rapidly evolving areas of Graphic Design including the latest development in Design, Publishing, Branding, Advertising, the Internet, Screen-based and moving images and contemporary practices.
- 2. The Post Graduate Study enables the students to be committed from the early stages as a deep thinker, risk taker and an innovative practitioner in visual communication and Graphic Design. Students will study the same modular as under graduates but on a higher level when as they will move on to study at Master Level for four semesters.
- 3. Further, students will explore the exciting and rapidly evolving areas of Graphic Design including the latest development in Design, Publishing, Branding, Advertising, the Internet, Screen-based and moving images and contemporary practices. The ethical impact of practice and individuality as a 'designer', by questioning and challenging what the subject can be; and pushing boundaries is encouraged. Students will produce in-depth original, creative ideas through various design projects.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF ECONOMICS

Program Outcome

The students will be ready for employment in functional areas like accounting, taxation, banking, insurance and corporate law. An attitude for working effectively and efficiently in a business environment. Learners will gain knowledge of various disciplines of commerce, business, accounting, economics, and finance, auditing and marketing.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF MICROBIOLOGY

Program outcome:

- 1. The students get to know about different beneficial and harmful microorganisms, which might be useful /pathogenic to humans, animals and plants.
- 2. Microbiology is concerned with diversified forms of microorganism, classification, structure, reproduction, physiology, metabolism and most significantly their economic importance
- 3. Industrial productions of organic acids, enzymes and in pest control using microbes and improving soil quality and agricultural output and cleaning the environment through sustainable microbiological applications.
- 4. To enable them to employ the acquired theoretical knowledge in the sector of Disease diagnosis, treatment and prevention.
- 5. To enrich the post graduate students with fundamentals of microbiology and advanced technologies, which enables them use this knowledge in industry, hospitals, community and institutes or any other profession they would like to pursue.

KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF BIOTECHNOLOGY

Programme Outcomes:

Students will be able to design, conduct experiments, analyze and interpret data for investigating the following.

- 1. Problems in Biotechnology and allied fields. Higher studies (M.Phil., Ph.D.) can be pursued in order to attain research positions.
- 2. Various Examinations such as CSIR-NET, ARS-NET GATE, ICMR, DBT and many other opens channels for promising career in research. Students can become Junior Production Officer and Technical Assistant in biotechnology Pharmaceutical Companies, bio fertilizer industry, aquaculture industries, environmental units, crop production units, food processing industries, national bio-resource development firms, banking and KPO. Entrepreneurship ventures such as consultancy and training centres can be opened.
- 3. Some of the major pharmaceutical and drug companies' hiring biotechnological
- 4. Professionals include Biocon, Syngene, Shilpa Medicare, CIPLA, Ranbaxy, Hindustan Lever and Dr. Reddy's Labs, food processing industries, chemical industry and textile industry as well. Beside this industries also employ biotechnological professionals in their marketing divisions to boost up business in sectors where their products would be required. Beside industrial sector there are ample opportunities in academics as well.
- 5. Students will be able to understand the potentials, and impact of biotechnological innovations on environment and their implementation for finding sustainable solution to issues pertaining to environment, health sector, agriculture, etc. Several career opportunities are available for students with biotechnology background abroad especially in countries like UK,

Japan, South Korea, Germany, Australia, Canada, USA and many more where biotechnology is a rapidly developing field.

KARNATAK UNIVERSITY, DHARWAD Department of Computer Science Master of Computer Application (MCA)

Programme Specific Outcome (PSO):

Program Specific Outcome (PSOs)				
PSO1	Gain the knowledge of computer programs/computer-based systems in the areas related to algorithms, networking, web design, database systems, data mining, artificial intelligence, IoT, Finite Automata and advanced java and operating system.			
PSO2	Acquire professional skills and knowledge of software design and testing methods which will help to work as software engineer.			
PSO3	Provide effective and efficient real time solutions using acquired knowledge in various domains.			
PSO4	To make graduates understand cross cultural, societal, professional, legal and ethical issues prevailing in industry.			
PSO5	Develop the ability to communicate ideas effectively.			
PSO6	They will possess leadership and managerial skills with best professional ethical practices and social concern and will be able to communicate technical information effectively, both orally and in writing.			
PSO7	Design and develop various application software projects to meet the demands of IT industry using modern software tools like php, java, net beans, .NET framework, mysql and spss.			
PSO8	The subjects in the syllabus help the students to prepare for NET and KSET exams, so that they can join teaching profession or research work.			
PSO9	The students can work on academic projects.			

Dept. of English

Program Specific Outcomes

- 1. English language and literature is taught to provide human resources needed to run English medium schools, colleges, and universities.
- 2. Since it is a skill oriented program, MA English is creating an excellent job market. Students will be equipped with required communicative skills.
- 3. MA English graduates are getting jobs in public and private sectors. They will competence to get into journalism, mass media, information technology and other global markets.
- 4. Students will be acquainted with socio-cultural and literary histories of literatures in English.
- 5. Students will be acquainted with major critical theories, their features, propositions and applications besides getting critical insights from them.

Dept of Studies in English PhD (PH 35)

Program Specific Outcomes

- 1. PhD research scholars will acquire in-depth knowledge in their specialized area.
- 2. PhD research scholars will be able to shape themselves as the active members of knowledge production.
- 3. PhD research scholars will master the skills and mechanics of writing the theses and research articles.
- 4. PhD research scholars will be able to obtain good positions in various colleges, universities and research institutions.

JA.J. e磈¥àzà ¥àààAààà (¦.f.37)

Programs Specific Outcome :

- 1) Students of folkloric subjects will gain the knowledge, significance and benefits of folklore as well as in depth knowledge the subject along with ethics.
- 2) The students enabled to understand the culture of folklore in the country and to get overall knowledge in the field of folk literature, art and culture.
- 3) To understand the cultural wealth of the nation along with the wealth of literature, culture and knowledge of the people of the land.
- 4) Through this local knowledge application we can make life beautiful.

Dept of Foreign Languages: French MA FRENCH SYLLABUS (PG 38)

Program Specific Outcomes

- 1. The knowledge of French and Francophone literature and Teaching skills of French Methodology embedded in the program, enables the students to take up teaching profession in schools, colleges and universities.
- 2. The M.A. program which contains the aspect of Vocational French, prepares the students to take up professions in the business sectors and corporate fields, both at national and international levels.
- **3.** The M.A French graduates having studied Translational theories and practices are well equipped to take up professional translations of various kinds: technical and literary. This post-graduate program also enables the students to procure jobs in the fields of journalism and information technology. They could also take up research studies at higher levels, like comparative and interdisciplinary studies.

Dept of Foreign Languages: French

Ph.D. French Syllabus (PG 38)

Program Specific Outcomes

- 1. The students having studied Teaching Methodology of French (FLT and FLE), would excel in their teaching career.
- 2. Their employability would have increased manifold with the knowledge acquired in French studies, Francophone studies and vocational French and translation.
- 3. The employability of the students would have increased not only as per point 1 and 2 mentioned above but they would be well equipped with the creative writing styles in different genres of literatures to become '*critiques*'.

M.Sc. Geography CBCS System

Programme Specific Outcomes:

- PSO1: Geography as an academic discipline is mainly concerned with Changes in spatial attributes in temporal Perspective. Masters degree Programme in Geography is tailored to meet the Students Specific educational and professional goals in mind.
- PSO2: It focuses on spatial studies, Qualitative as well as Quantitative and emphasises on Man environmental relationships.
- PSO3: The study of branches of physical geography such as Geomorphology, Climatology, Oceanography and environmental geography in the Ist and IIIrd Semesters give the students a strong physical base to understand the various physical environmental systems on which the Socio-economic or cultural life develops.
- PSO4: The study of Human-Geography branches such as population, Settlements, Economic, Resource, Transportation, Marketing, Agriculture, Tourism etc. in IInd and IVth Semester help the students to understand the economic activities and their problems, possibilities and prospects.
- PSO5: The Regional planning and practical papers such as weather Reports, Toposheets interpretation, cartographic methods, Aerial photogrammetry, GIS, Remote Sensing and field work based project work etc make the students to develop a professional skill to tackle the regional Socio – Economic problems.

MBA Evening Programme

Programme Specific Outcomes:

On successfully completing the program the student would be able to :

PSO1: An ability to apply knowledge, skills and right attitude necessary to provide effective leadership in a global environment.

PSO2: An ability to develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy & Society, aligned with the national priorities.

PSO3: Demonstrate knowledge and understanding of data based decision making using their critical-thinking and problem solving skills in multidisciplinary environments.

PSO4: Exhibit effective skills of communication to organize presentations, events, exhibitions, seminars and conferences.

PSO5: An ability to develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem.

PSO6: An ability to communicate effectively

MBA Programme

MBA-Program Specific Outcomes (PSOs):

On successfully completing the program the student would be able to :

PSO1: Apply knowledge, skills and right attitude necessary to provide effective leadership in a global environment.

PSO2: Develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy and Society, aligned with the national priorities.

PSO3: Demonstrate knowledge and understanding of data based decision making using their critical-thinking and problem solving skills in multidisciplinary environments.

PSO4: exhibit effective skills of communication to organize presentations, events, exhibitions, seminars and conferences.

PSO5: An ability to develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem.

PSO6: An ability to communicate effectively

PG DIPLOMA IN BANK MANAGEMENT

Programme Specific Outcomes:

By the end of the course, the student should be able to:

PSO1: Acquire knowledge on Indian Banking system and Banking Regulation Acts pertaining to it.

PSO2: Involve in various co-curricular activities to demonstrate relevancy of foundational and theoretical knowledge of their academic major and to gain practical exposure.

PSO3: Obtain advanced lessons in Business Communication, Business Economics Paper, Environmental Studies, Entrepreneurial Development, Accountancy & Portfolio and Investment Management.

PSO4: Recognize features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.

PG Diploma In Insurance and Risk Management

Programme Specific Outcomes:

By the end of the course, the student should be able to:

PSO1: Recognise and evaluate ethical, legal and regulatory dimensions of Insurance business decisions.

PSO2: Communicate effectively business ideas and analyse in Insurance.

PSO3: Communicate effectively business ideas and analyse in oral presentation.

PSO4: Work effectively in a team.

PSO5: Exhibit risk mitigation and crisis handling skills.

PG Diploma in Rural Management

Programme Specific Outcomes :

By the end of the course, the student should be able to:

PSO1: Act as agent for rural empowerment and affirmative actions by inculcating social concern.

PSO2: Understand and pursue sustainable development both at local and global level.

Programme Specific Outcomes:

The Programme helps students in:

- 1. Getting familiarity With the History of Marathi Literature.
- 2. Developing insights regarding the evolution of Marathi Literature during the Ancient, Medieval and Modern period.
- 3. To examine the place of Marathi language in the galaxy of Indian languages.
- 4. Imbibing the various employable skills that helps them in entering the different branches of administration and bureaucratic machinery.

Dept of Studies in Marathi PhD (PH 46)

Program Specific Outcomes:

- 1. PhD program is the most sought after degree in Karnatak University, for it shapes the student's destiny. The students will learn this.
- 2. The PhD program aims at providing holistic approach to the student's professional requirements. The students will realize that the degree will enable them for academic endevours.
- 3. Karnatak University PhD program is available for students in open competition from anywhere in the country. The students will have an opportunity to obtain PhD from this university.

Department of Mathematics

Programme Specific Outcomes (PSOs):

M. Sc. Mathematics

PSO1. Understand the fundamentals in mathematics

PSO2. Capable to develop ideas based on mathematical axioms.

PSO3. Apply different methods for the solution of problems.

PSO4. Able to develop the research studies in mathematics and related areas.

PSO5. Understand the applications of mathematics with problem solving skills, thinking, creativity and demonstration.

Department of Mathematics

Ph. D. Mathematics

Programme Specific Outcomes (PSOs):

PSO1. Learn new knowledge and techniques.

- PSO2. Develop ideas to understand the technicality of the problems.
- PSO3. Create, select, and apply appropriate techniques, resources, and ICT tools.
- PSO4. Generate scope for collaboration.
- PSO5. Develop writing and communication skills.

Dept. of Sanskrit

Program Specific Outcomes:

- 1. Sanskrit language and literature is taught to run Sanskrit paathashaala, colleges, and universities also which institutions are having a Sanskrit subject as a MIL and optional. The students will be able to acquire proficiency in Sanskrit for employability.
- 2. Understand the Indian (Rishis) spiritual knowledge and worship of Nature.
- 3. MA Sanskrit graduates are getting opportunity to conduct Research regarding linguistic works and its Research in modern days. They are able to conduct research, teaching regarding languages and its importance for other Disciplinary.

Dept. of Sanskrit Ph.D. (PH52)

Program Specific Outcomes:

- 1. PhD program is the most sought after degree in Karnatak University, for it shapes the student's destiny. The students will learn this.
- 2. The PhD program aims at providing holistic approach to the student's professional requirements. The students will realize that the degree will enable them for academic endeavors.
- 3. Karnatak University PhD program is available for students in open competition from anywhere in the country. The students will have an opportunity to obtain PhD from this university.

Program Specific Outcomes:

The Syllabus is framed to meet the academic, social and organizational requirements.

- 1. It inculcates statistical thinking, practical and analytical skills relevant to the different areas.
- 2. The Post Graduates will be able to effectively use various statistical packages and computer languages.
- 3. The Post Graduates will aquire ability to establish themselves as analysts in various sectors, viz pharmaceuticals, banking, insurance, MNCS, industries, etc. can become entrepreneurs.
- 4. Through their analytical and statistical skills these Post Graduates are saught as statistical officers by NSSO, CSO, etc can establish themselves as cademicians through teaching and research.

Department of Urdu and Persian REVISED SYLLABUS FOR MA URDU UNDER(CBCS)

Program Specific Outcomes:

- 1. Urdu language and literature is taught to prepare the student to teach and facilitate Urdu language in society which can pave his way towards his bread earning and employability in global scenario.
- 2. The course of Urdu M.A. is skill based program, which can create a professional specially the Film Industry which is pillared by its music and songs, which needs Urdu language for its base. It not only leads to professionalism but also leads towards self employment of the learner.
- 3. MA Urdu graduates are getting jobs in public and private sectors. Urdu is accepted as the 6th global language, and language of UNO. Many T.V. channels are run in Urdu language. The students will be facilitated for doing research, getting teaching jobs. The M.A Urdu course is skill based professional course which can open many doors of employment, in Mass Media, Drama, Theatre, Film Industry as script writer, and a Journalist in many dailies, weeklies and monthly magazines and editorial ship of specific website or a web words.

Department of Urdu and Persian Ph.D (PH 54)

Program Specific Outcomes:

- 1. Ph.D program is the most sought after degree in Karnatak University, for it shapes the student's destiny. The students will learn this.
- 2. The Ph.D program aims at providing holistic approach to the student's professional requirements. The students will realize that the degree will enable them for academic endeavors.
- 3. Karnatak University Ph.D program is available for students in open competition from anywhere in the country. The students will have an opportunity to obtain Ph.D from this university.

Women's Studies

Programme Specific Outcomes:-

- 1. To generate in students a distinctly gender perspective social cultural, economic, political and health issues
- 2. To upgrade knowledge and comprehension of gender issues for attitudinal and behavioural changes among men, women and transgender etc, to claim the right to life with dignity and equality.
- 3. To bring overall empowerment and gender equality in personal as well as professional life.

Dept. of Commerce

Program Specific Outcome:

Students acquire knowledge through various commerce subjects and gain skills to work as tax consultant, audit assistant and other financial supporting services. Students have choices to work/study under professional offices such as CA, ICWA, CS, etc. Students are able to play roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.

International Diploma in Reproductive Health Management (IDIRHEM) Program Code: DP15

Program Specific outcome:

PSO1: The course helps its graduates to effectively assess and address clients' Reproductive Health problems, assist in decision making. Also helps managers and trainers in their efforts to improve health of mothers and new born babies at all levels of health care system.

PSO2: the graduate of this course will be able to address the basic biological mechanisms that underline male, female reproduction and that pertain to Reproductive Health issues such as contraception, infertility, sexually transmitted diseases, reproductive ageing.

PSO3: Graduates are acquainted with the concepts of Reproductive Health management.

PSO4:Graduates shall acquire counseling skills in maternal health, newborn and family Planning

Department of Political Science

Program Specific Outcomes (PSO's):

On successful completion of the Master in Political Science (MA) programme, the student will be able to :

- 1. Improve theoretical understanding and knowledge base in political sphere.
- 2. Increase participation in local, state, national and international political activities
- 3. Emerge as a successful political practitioner, surveyor and political analyst.
- 4. Become consultant to regional and national political parties and government sectors.
- 5. Educate students to gender and environmental perspectives of politics and political ideas.
- 6. Become a responsible citizen well informed in fundamental rights and obligations as well.

MVA APPLIED ART SYLLABUS

Programme Specific Outcomes:

- 1. This Applied Arts PG Course is a specialization.
- 2. It basically deals in Campaigning, Graphic design, Interior design, Fashion design, Ad. Advertising agencies, Advertising Companies, Publishing Houses, Printmaking, Animation Industry, Digital Media, Art Studios, Media and Public Relations, IT Companies, Manufacturers / Product Design, Fashion Houses, Photography, Government Sector, Schools / Colleges / Universities / Academic Institutes and visual communication.

Dept. of Microbiology

Program Specific Outcomes:

Understand the basic knowledge and concepts of microbiology and other related areas. Hands on skills in Industry and/or Institutes, for better placement in drug manufacturing companies, public health entities, diagnostics, industrial laboratories, cancer research institutes, R&D, educational institutes, environmental pollution control, agriculture and fisheries, food and dairy industry, forensic science, hospitals, public health laboratories, etc. There is requirement for microbiologist in quality control and safety sections of food, pharmaceuticals, health and beauty care, etc

Dept. of Biotechnology

Programme Specific Outcomes:

Demonstrate ability to apply biotechnological research strategies to solve the Global Environmental Problems like climate change, ozone depletion, acid rain, industrial waste etc. Exhibit knowledge on Industrial regulations and Environmental safety principles in biotechnology industries. Work collaboratively on projects involving typical business timeline. Integrate the basic principles of analytical techniques for the implementation of such technique to facilitate the development of bio-pharma products, viz. drugs, antibiotics, hormones, Vaccines. Familiarize with the Principles underlying the relevant therapeutic compounds and their Clinical Importance. 4 Become an expert in using online Database understanding, Creation and Testing of Scientific hypothesis and critical evaluation of Experimental Data.

DEPARTMENT OF COMPUTER SCIENCE Course Outcomes Semester I

Course Code: PG76T101

Course Name: Computer Organizations and Architecture

Upon Completion of the course, the students will be able to

- Explain the concepts of binary numbers, computer instructions and peripheral devices.
- Able to solve number conversions and Boolean expressions.
- Analyze the functions of combinational logic, instruction formats and basics of memory.
- Evaluate the importance of logic gates, flip-flops and addressing modes.
- Capable of design the digital circuits using logic gates.
- Build combinational and sequential logic circuit.
- Identify the components of register, input/output and memory organizations.

Course Code: PG76T102

Course Name: Discrete Mathematical Structures

Upon Completion of the course, the students will be able to

- Write an argument using logical notation and determine if the argument is or is not valid.
- Demonstrate the ability to write and evaluate a proof or outline the basic structure of and give examples of each proof technique described.
- Understand the basic principles of sets and operations in sets.
- Prove basic set equalities.
- Apply counting principles to determine probabilities.
- Demonstrate an understanding of relations and functions and be able to determine their properties.
- Determine when a function is 1-1 and "onto".
- Demonstrate different traversal methods for trees and graphs.
- Model problems in Computer Science using graphs and trees.

Course Code: PG76T103

Course Name: Data Structures using C

- Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms.
- Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.
- Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs.
- Demonstrate different methods for traversing trees.
- Compare alternative implementations of data structures with respect to performance.
- Compare and contrast the benefits of dynamic and static data structures implementations.
- Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.

- Design and implement an appropriate hashing function for an application.
- Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

Course Code: PG76T104

Course Name: Introduction to Algorithms

Upon Completion of the course, the students will be able to

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
- Apply important algorithmic design paradigms and methods of analysis.
- Synthesize efficient algorithms in common engineering design situations.

Course Code: PG76T105

Course Name: Object Oriented Program with C++

Upon Completion of the course, the students will be able to

- Describe the important concepts of object oriented programming like object and class, Encapsulation, inheritance and polymorphism.
- Write the skeleton of C++ program.
- Write the simple C++ programs using the variables, operators, control structures, functions and I/O objects cin and cout.
- Write the simple object oriented programs in C++ using objects and classes.
- Use features of C++ like type conversion, inheritance, polymorphism, I/O streams and files to develop programs for real life problems.
- Use advance features like temples and exception to make programs supporting reusability and sophistication.
- Use standard template library for faster development.
- Develop the applications using object oriented programming with C++.

Course Code: PG76T106

Course Name: System Software

- Design and develop algorithm for limiting scope of assembler (Imperative Statements, Assembler Directives, Declaration Statements, Literal handling) & Macro processor (simple macros, nested macros) features by analyzing and synthesizing system software.
- Analyze system software such as linker, loader and design absolute loader & direct-linking loader.

Course Code: PG76T201

Course Name: Operating System

Upon Completion of the course, the students will be able to

- Describe the important computer system resources and the role of operating system in their management policies and algorithms.
- Understand the process management policies and scheduling of processes by CPU
- Evaluate the requirement for process synchronization and coordination handled by operating system
- Describe and analyze the memory management and its allocation policies.
- Identify use and evaluate the storage management policies with respect to different storage management technologies.
- Identify the need to create the special purpose operating system.

Course Code: PG76T202

Course Name: Theory of Computation

Upon Completion of the course, the students will be able to

- Discuss key notions of computation, such as algorithm, computability, decidability, reducibility, and complexity, through problem solving.
- Explain the models of computation, including formal languages, grammars and automata, and their connections.
- Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars.
- Solve computational problems regarding their computability and complexity and prove the basic results of the theory of computation.

Course Code: PG76T203

Course Name: Database Management System

- Explain the features of database management systems and Relational database.
- Design conceptual models of a database using ER modeling for real life applications and also construct queries in Relational Algebra.
- Create and populate a RDBMS for a real life application, with constraints and keys, using SQL.
- Retrieve any type of information from a data base by formulating complex queries in SQL.
- Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database.
- Build indexing mechanisms for efficient retrieval of information from a database.

Course Code: PG76T204

Course Name: Java Programming

Upon Completion of the course, the students will be able to

- Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, and JDeveloper.
- Write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling.
- Write, compile, and execute Java programs using arrays and recursion.
- Write, compile, and execute Java programs manipulating Strings and text documents.
- Write, compile, execute Java programs that include GUIs and event driven programming.
- Write a final project that may be selected from among the following: applets for inclusion in web pages; applets to access enterprise data bases in robust, enterprise three level applications; secure communications over the internet; or an approved project chosen by the student.

Course Code: PG76T205

Course Name: Data Communication and Computer Networks

Upon Completion of the course, the students will be able to

- Describe the functions of each layer in OSI and TCP/IP model.
- Explain the functions of Application layer and Presentation layer paradigms and Protocols.
- Describe the Session layer design issues and Transport layer services.
- Classify the routing protocols and analyze how to assign the IP addresses for the given network.
- Describe the functions of data link layer and explain the protocols.
- Explain the types of transmission media with real time applications

Course Code: PG76T208

Course Name: Computer Concepts and Office Automation

- Understanding the concepts of computers and the use of MS office packages.
- Identify the role of MS-word and its potential application in real-life context.
- Knowledge in the application of various menus and their uses in MS office packages.
- Having hands-on training on the use of MS-Excel and MS-Power Point
- Learnt to create simple database applications.

Semester III

Course Code: PG76T301

Course Name: Advanced Java

Upon Completion of the course, the students will be able to

- Deepen your Knowledge of Advanced features of the java language. Be familiar with AWT component classes, swing component classes and other swing controls.
- To understand the network concepts (client/server, socket) in java.
- Introducing basic steps in java database connectivity applications and working with metadata.
- Understanding the concepts of servlets and JSP.
- Developing webbased programming using servlets and JSP.

Course Code: PG76T302

Course Name: Computer Graphics

Upon successful completion of this course, the students will be able to

- Explain the core concepts of computer graphics, including viewing, projection, perspective, modelling and transformation in two and three dimensions,
- Apply the concepts of color models, lighting and shading models, textures, hidden surface elimination, anti-aliasing, and rendering,
- Interpret the mathematical foundation of the concepts of computer graphics,
- Describe the fundamentals of animation, parametric curves and surfaces, and spotlighting, identify a typical graphics pipeline and
- Apply graphics programming techniques to design and create computer graphics.

Course Code: PG76T303

Course Name: Design and Analysis of Algorithms

Upon Completion of the course, the students will be able to

- Choose appropriate advanced data structure for given problem.
- Calculate complexity.
- Select appropriate design techniques to solve real world problems.
- Apply the dynamic programming technique to solve the problems.
- Apply the greedy programming technique to solve the problems.
- Select a proper pattern matching algorithm for given problem

Course Code : PG76T304

Course Name: Operation Research

Upon successful completion of this course, the students will be able to

- Formulate a real-world problem as a mathematical programming model
- Understand the theoretical workings of the simplex method for linear programming and perform iterations of it by hand
- Understand the relationship between a linear program and its dual, including strong duality and complementary slackness
- Perform sensitivity analysis to determine the direction and magnitude of change of a model's optimal solution as the data change
- Solve specialized linear programming problems like the transportation and assignment problems
- Solve network models like the shortest path, minimum spanning tree, and maximum flow problems
- Understand the applications of, basic methods for, and challenges in integer programming
- Understand how to model and solve problems using dynamic programming
- Model a dynamic system as a queuing model and compute important performance measures
- Learn optimality conditions for single- and multiple-variable unconstrained and constrained non-linear optimization problems, and corresponding solution methodologies

Course Code: PG76T305A

Course Name: Modeling and Simulation

Upon Completion of the course, the students will be able to

- Students will understand the techniques of modeling in the context of hierarchy of knowledge about a system and develop the capability to apply the same to study systems through available software.
- Students will learn different types of simulation techniques.
- Students will learn to simulate the models for the purpose of optimum control by using software.

Course Code: PG76T305B

Course Name: Mobile Computing

Upon Completion of the course, the students will be able to

- Explain the principles and theories of mobile computing technologies.
- Describe infrastructures and technologies of mobile computing technologies.
- List applications in different domains that mobile computing offers to the public, employees, and businesses.
- Describe the possible future of mobile computing technologies and applications.

Course Code: PG76T305C

Course Name: Artificial Intelligence

Upon Completion of the course, the students will be able to

- Apply artificial intelligence techniques, including search heuristics, knowledge representation, planning and reasoning
- Describe the key components of the artificial intelligence (AI) field
- Explain search strategies and solve problems by applying a suitable search method analyze and apply knowledge representation
- Describe and list the key aspects of planning in artificial intelligence
- Analyze and apply probability theorem and Bayesian networks
- Describe the key aspects of intelligent agents
- Differentiate the key aspects of evolutionary computation, including genetic algorithms and genetic programming
- Describe the key aspects of machine learning
- Analyze problem specifications and derive appropriate solution techniques for them
- Design and implement appropriate solutions for search problems and for planning problems

Course Code: PG76T305D

Course Name: Digital Image Processing

Upon Completion of the course, the students will be able to

- Analyze general terminology of digital image processing.
- Examine various types of images, intensity transformations and spatial filtering.
- Develop Fourier transform for image processing in frequency domain.
- Evaluate the methodologies for image segmentation, restoration etc.
- Implement image process and analysis algorithms.
- Apply image processing algorithms in practical applications.

Course Code: PG76T305E

Course Name: Software Architecture

Upon Completion of the course, the students will be able to

- Argue the importance and role of software architecture in large-scale software systems.
- Design and motivate software architecture for large-scale software systems.
- Recognize major software architectural styles, design patterns, and frameworks.
- Describe a software architecture using various documentation approaches and architectural description languages.
- Generate architectural alternatives for a problem and selection among them.
- Use well-understood paradigms for designing new systems.
- Identify and assess the quality attributes of a system at the architectural level.
- Motivate the architectural concerns for designing and evaluating a system's architecture.
- Discuss and evaluate the current trends and technologies such as model-driven and service-oriented architectures.
- Evaluate the coming attractions in software architecture research and practice.

Course Code: PG76T308A

Course Name: SPSS Software

Upon Completion of the course, the students will be able to

- Be comfortable using SPSS as a data analysis tool
- Understand how to work with SPSS
- Understand how to learn to use new features of SPSS on their own
- Understand how to acquire information (samples)
- Understand how to enter and reorganize information within SPSS
- Understand how to effectively summarize research finds using SPSS
- Through the use of appropriate indexes and tables
- Choose charts to successfully highlight their research results
- Understand and interpret charts
- Understand the basic principles behind inferential statistics
- Carry out inferential statistical analysis using SPSS
- Integrate information and build models
- Edit SPSS output
- Use SPSS output to produce scientifically sound research reports

Semester IV

Course Code: PG76T401 Course Name: Software Engineering Upon successful completion of this course, the students will be able to

- Define various software application domains and remember different process model used in software development.
- Explain needs for software specifications also they can classify different types of software requirements and their gathering techniques.
- Convert the requirements model into the design model and demonstrate use of software and user interface design principles.
- Distinguish among SCM and SQA and can classify different testing strategies and tactics and compare them.
- Justify role of SDLC in Software Project Development and they can evaluate importance of Software Engineering in PLC.
- Generate project schedule and can construct, design and develop network diagram for different.

Course Code: PG76T402

Course Name: Web Technologies

Upon successful completion of this course, the students will be able to

- Write PHP scripts to handle HTML forms.
- Write regular expressions including modifiers, operators, and metacharacters.
- Create PHP programs that use various PHP library functions, and that manipulate files and directories.
- Analyze and solve various database tasks using the PHP language.
- Analyze and solve common Web application tasks by writing PHP programs.

Course Code: PG76T403

Course Name: .NET Framework

Upon successful completion of this course, the students will be able to

- Create user interactive web pages using ASP.Net.
- Create simple data binding applications using ADO.Net connectivity.
- Performing Database operations for Windows Form and web applications.

Course Code: PG76T405A

Course Name: Compiler Design

Upon successful completion of this course, the students will be able to

- Specify and analyze the lexical, syntactic and semantic structures of advanced language features
- Separate the lexical, syntactic and semantic analysis into meaningful phases for a compiler to undertake language translation
- Write a scanner, parser, and semantic analyzer without the aid of automatic generators
- Turn fully processed source code for a novel language into machine code for a novel computer
- Describe techniques for intermediate code and machine code optimization
- Design the structures and support required for compiling advanced language features.

Course Code: PG76T405B

Course Name: Data warehouse and Data Mining

Upon successful completion of this course, the students will be able to

- Understand Data Warehouse fundamentals, Data Mining Principles
- Design data warehouse with dimensional modelling and apply OLAP operations.
- Identify appropriate data mining algorithms to solve real world problems
- Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining
- Describe complex data types with respect to spatial and web mining.
- Benefit the user experiences towards research and innovation.

Course Code: PG76T405C

Course Name: Pattern recognition

Upon successful completion of this course, the students will be able to

- Explain and compare a variety of pattern classification, structural pattern recognition, and pattern classifier combination techniques.
- Summarize, analyze, and relate research in the pattern recognition area verbally and in writing.
- Apply performance evaluation methods for pattern recognition, and critique comparisons of techniques made in the research literature.
- Apply pattern recognition techniques to real-world problems such as document analysis and recognition.
- Implement simple pattern classifiers, classifier combinations, and structural pattern recognizers.

Course Code: PG76T405D

Course Name: Information Security

Upon successful completion of this course, the students will be able to

- Understand various Cryptographic Techniques
- Apply various public key cryptography techniques
- Implement Hashing and Digital Signature techniques
- Understand the various Security Applications
- Implement system level security applications

Course Code: PG76T405E

Course Name: UNIX System Programming

Upon successful completion of this course, the students will be able to

- Describe the architecture and features of UNIX Operating System and distinguish it from other Operating System
- Run various UNIX commands on a standard UNIX/LINUX Operating system (We will be using Ubuntu flavor of the Linux operating system).
- Demonstrate UNIX commands for file handling and process control
- Run C / C++ programs on UNIX.
- Do shell programming on UNIX OS.
- Understand and handle UNIX system calls.

DEPARTMENT OF COMPUTER APPLICATIONS Course Outcome <u>Semester I</u>

Course Code: PG77T101 Course Name: Computer organization and architecture Upon Completion of the course, the students will be able to

- Introduce the concept of digital and binary systems.
- To design and analyze combinational logic circuits.
- To design and analyze sequential logic circuits.
- To learn the system design and memory organization

Course Code: PG77T102

Course Name: Programming in C

Upon Completion of the course, the students will be able to

- Learn about the software and its classification.
- Learn the statements of a C Language
- Learn the statements of a C functions
- Design and Develop application program in C Language.

Course Code: PG77T103

Course Name: Discrete Mathematical structures

Upon Completion of the course, the students will be able to

- Comprehend and evaluate mathematical arguments revolving around computation.
- Understand the basics of Combinations and Permutations.
- Understand the basics of Graphs and Trees to real world applications.
- Represent relations matrices and digraphs.

Course Code: PG77T104

Course Name: Microprocessor programming with 8085

Upon Completion of the course, the students will be able to

- Basic concept of digital fundamentals to Microprocessor based personal computer system.
- Identify a detailed software and hardware structure of the Microprocessor.
- Understanding how the different peripherals are interfaced with Microprocessor.
- Distinguish and analyze the properties of Microprocessors.
- Analyze the data transfer information through serial & parallel ports.

Course Code: PG77T105

Course Name: Probability and statistics

Upon Completion of the course, the students will be able to

- Understanding the basic probability axioms and rules.
- Understanding to derive the probability density function of transformations of random variables and use these techniques to generate data from various distributions.
- Understanding to translate real-world problems into probability models.
- Understanding to calculate probabilities of absorption and expected hitting times for discrete time Markov chains.

Course Code: PG77P106

Course Name: C-programming lab (Linux platform)

Upon Completion of the course, the students will be able to

• Understanding the C programming concepts through laboratory experiments

Course Code: PG77P107

Course Name: Microprocessor programming with 8085 lab

Upon Completion of the course, the students will be able to

• Understanding the 8085 microprocessor concepts and programming knowledge through laboratory experiments.

Semester II

Course Code: PG77T201

Course Name: Data Structures

Upon Completion of the course, the students will be able to

- Learn to analyze algorithms and algorithm correctness.
- Learn to summarize searching and sorting techniques.
- Learn to describe stack, queue and linked list operation.
- Learn to have knowledge of tree and graphs concepts.

Course Code: PG77T202

Course Name: Theory of computation

Upon Completion of the course, the students will be able to

- Explain the models of computation, including formal languages, grammars and automata, and their connections.
- State and explain the Church-Turing thesis and its significance.
- Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars.
- Learn the properties of context free grammars

Course Code: PG77T203

Course Name: Object oriented programming with C++

Upon Completion of the course, the students will be able to

- To understand the difference between object oriented programming and procedural oriented language and data types in C++.
- To program using C++ features such as composition of objects, Operator overloading, inheritance, Polymorphism etc.
- To learn various built-in functions of C++

Course Code: PG77T204

Course Name: Introduction to Algorithms

Upon Completion of the course, the students will be able to

- Understand the difference between program and algorithms.
- Learn how to write the algorithms.
- Understand the importance of algorithms.

Course Code: PG77P205

Course Name: Data Structures Lab

- Perform various sorting and searching techniques.
- Implement various types of data structures, operations and algorithms.
- Work with Stacks, Queues, Circular Queues, Linked Lists, and Trees.
- Design and apply appropriate data structures for solving computing problems

Course Code: PG77P206

Course Name: Object oriented programming with C++ lab

Upon Completion of the course, the students will be able to

- Creating simple programs using classes and objects in C++.
- Implement Object Oriented Programming Concepts in C++.
- Implement Object Oriented Programs using templates and exceptional handling concepts.

Course Code: PG77T207

Course Name: Computer Concept & office Automation

Upon Completion of the course, the students will be able to

- Understand different Computer Peripherals.
- Understand and apply different Software components.
- Learn about Microsoft office software and its and applications.

Semester III

Course Code: PG77T301

Course Name: Data Communication and Computer Networks

Upon Completion of the course, the students will be able to

- Understanding the network protocols.
- Understanding the network architecture and its components.
- To learn the different encoding and decoding mechanisms involved in different types of transmission media and to measure the transmission impairments.
- Understand different wireless and mobile networks concepts.

Course Code: PG77T302

Course Name: Design and Analysis of Algorithms

Upon Completion of the course, the students will be able to

- Analyze the asymptotic performance of algorithms.
- Apply important algorithmic design paradigms and methods of analysis.
- Ability to analyze the performance of *algorithms*.
- Ability to choose appropriate *algorithm* design techniques for solving problems.

Course Code: PG77T303

Course Name: Database Management System

Upon Completion of the course, the students will be able to

- Understand the need for Database approach and understand the components and roles of DBMS.
- Write SQL queries for the given problem statement.
- Apply DB system development life cycle to business problems.
- Develop ER diagram for representing conceptual data model.
- Convert ER diagram into a set of relations representing logical data model.

Course Code: PG77T304

Course Name: Java Programming

- To understand the basics of objects and classes in java.
- To learn the technique of inheritance, exception handling, multi-threading.

• To manage input and output files using java.

Course Code: PG77P305

Course Name: Java Programming Lab

Upon Completion of the course, the students will be able to

- Write, compile, and execute Java programs that may include basic data types and control flow constructs.
- Write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling.
- Write, compile, and execute Java programs using arrays and recursion.
- Write, compile, and execute Java programs manipulating Strings and text documents.

Course Code: PG77P306

Course Name: Database Management System lab

Upon Completion of the course, the students will be able to

- Understanding the DDL commands- Table Creation, Altering the table structures, truncating a table and dropping a table.
- DML Commands Insert, Select Commands, update & delete Commands.
- Creating relationship between the databases Nested Queries & Join Queries.
- Creating a database and to set various possible constraints.

Course Code: PG77T307

Course Name: SPSS software

Upon Completion of the course, the students will be able to

- Understand how to start SPSS.
- Define a variety of statistical variables.
- Enter basic data into SPSS and carry out a statistical analysis that can test hypotheses.

Semester IV

Course Code: PG77T401

Course Name: Computer Graphics

Upon Completion of the course, the students will be able to

- Learning the procedure to develop line and circle generation algorithms.
- Apply 2D and 3D transformations.
- Develop clipping algorithms for point, line and polygons.
- Learn the concepts of projections, viewing and graphics pipeline.

Course Code: PG77T402

Course Name: Advance Java

- Understanding J2EE platform.
- Understanding J2EE architecture.
- Learning RMI, JDBC techniques.
- Understanding XML, Servlet, JSP, AJAX

Course Code:PG77T403

Course Name: Operation Research

Upon Completion of the course, the students will be able to

- Formulate and solve problems as networks and graphs.
- Develop linear programming (LP) models for shortest path, maximum flow, minimal spanning tree, critical path, minimum cost flow, and transportation problems.
- Solve the problems using special solution algorithms.

Course Code: PG77T404A

Course Name: Artificial Intelligence

Upon Completion of the course, the students will be able to

- Fundamental understanding of the history of artificial intelligence (AI) and its foundations. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
- Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.

Course Code: PG77T404B

Course Name: Compiler Design

Upon Completion of the course, the students will be able to

- Ability specify and analyze the lexical, syntactic and semantic structures of advanced language features.
- To understand the lexical, syntactic and semantic analysis into meaningful phases for a compiler to undertake language translation.

Course Code: PG77T404C

Course Name: Digital Image processing

Upon Completion of the course, the students will be able to

- Understand image types and color models.
- Describe the concepts regarding the digitization of analog signals.
- Compress images, videos and audios using data compression methods.
- Learning the encode method for videos and audios.

Course Code: PG77T404D

Course Name: Modelling and simulation

Upon Completion of the course, the students will be able to

- Understand the basic concepts in modeling and simulation (M&S)
- Classify various simulation models and give practical examples for each category.
- Construct a model for a given set of data and motivate its validity.
- Generate and test random number variants and apply them to develop simulation models.

Course Code: PG77T404E

Course Name: Object oriented Analysis and Design

- Understand the concept of objects and applications of object oriented design to the real world.
- Create classes, objects and constructors.

Course Code: PG77T404F

Course Name: Pattern Recognition

Upon Completion of the course, the students will be able to

- Understand concepts of pattern recognition.
- Understand and distinguish procedures, methods and algorithms related to pattern recognition.
- Analyze and breakdown problem related to the complex pattern recognition system

Course Code: PG77T405

Course Name: Operating System

Upon Completion of the course, the students will be able to

- Understanding the concepts of Allocate Main Memory based on various memory management techniques
- Compare Memory allocation techniques, page replacement policies for dynamic memory management.
- Schedule CPU time using scheduling algorithm for processors. Compare various scheduling algorithms

Course Code: PG77P406

Course Name: Computer Graphics lab

Upon Completion of the course, the students will be able to

- Using algorithms for scan conversion and filling of basic objects and their comparative analysis.
- Use of geometric transformations on graphics objects and their application in composite form.

Course Code: PG77P407 Course Name: Advance Java programming lab Upon Completion of the course, the students will be able to

• Use of geometric transformations on graphics objects and their application in composite form.

Semester V

Course Code: PG77T501

Course Name: Web Technologies

Upon Completion of the course, the students will be able to

- Understanding building block of PHP.
- Learning the flow control and functions of PHP.
- To learn the working of strings, forms, cookies and user sessions.

Course Code: PG77T502

Course Name: Dot Net frame work

Upon Completion of the course, the students will be able to

- To understand the fundamentals of C# .NET and ASP.NET.
- Construct classes, methods, and assessors, and instantiate objects.
- Understand and implement string manipulation, events and exception handling within.

Course Code: PG77T503

Course Name: Software Engineering

Upon Completion of the course, the students will be able to

- Learn the phases of software development.
- Develop process models and process system models.
- Gather, understand, analyze and specify requirements.
- Develop architectural diagram, and implement by following coding principles.
- Apply testing strategies and handle software product maintenance issues.

Course Code: PG77T504

Course Name: Data warehouse and Data Mining

Upon Completion of the course, the students will be able to

- Understand Data Warehouse architecture and OLAP operation.
- Understand conceptual model for Data Warehouse.
- Understand the relations of data warehouse and data mining.
- Understand predictive models and its applications.

Course Code: PG77T505A

Course Name: Neural Networks

Upon Completion of the course, the students will be able to

- Understand the types of neural networks.
- Learn and apply the methods of training neural networks.
- Understand the application of artificial neural networks.
- To be able to formalize the problem, to solve it by using a neural network.

Course Code: PG77T505B

Course Name: Software Architecture

Upon Completion of the course, the students will be able to

- Understanding software architecture for software systems.
- Learn the major software architectural styles, design patterns, and frameworks.
- Describe a software architecture using various documentation approaches and architectural description languages.
- Identify and assess the quality attributes of a system at the architectural level.

Course Code: PG77T505C

Course Name: Unix System programming

Upon Completion of the course, the students will be able to

- To understand the UNIX architecture.
- To learn the shell commands to work on UNIX platform.
- Understand the file formats of UNIX
- Understand the different scripting program like shell, awk, perl.

Course Code: PG77T505D

Course Name: Algorithmic graph theory

Upon Completion of the course, the students will be able to

- Understanding the fundamental concepts in graph theory.
- Understanding the algorithms applied to graph theory concepts.
- Learn the importance of Eulerian graph and Hamiltonian graph

Course Code: PG77T505E

Course Name: Network and Information security

Upon Completion of the course, the students will be able to

- Identify and classify various types of attacks.
- Encrypt and decrypt messages using block chippers and sign.
- Create digital signature using various algorithms.
- Describe web security, intruders, viruses and fire walls.

Course Code: PG77T505F

Course Name: Mobile Computing

Upon Completion of the course, the students will be able to

- To get familiar with various generations of mobile communications.
- To understand the concept of cellular communication.
- To understand the basics of wireless communication.
- Knowledge of GSM mobile communication standard, its architecture, logical channels, advantages and limitations.

Course Code: PG77P506

Course Name: Dot NET frame work lab

Upon Completion of the course, the students will be able to

- Demonstrate knowledge of object-oriented concepts.
- To create web pages using ASP.NET

Course Code: PG77P507

Course Name: PHP lab

Upon Completion of the course, the students will be able to

- Write PHP scripts to handle HTML forms.
- Write regular expressions including modifiers, operators, and meta-characters.
- Create PHP programs that use various PHP library functions, and that manipulate files and directories.

<u>Semester VI</u>

Course Code: PG77P601

Course Name: Project work

- Identify and define the problem statement.
- Define and analyze system requirements.
- Practice software analysis and design techniques.
- Develop a functional application based on the software design.
- Apply coding, debugging and testing tools to enhance the quality of the software.
- Construct new software system based on the theory and practice gained through this exercise.
- Prepare the proper documentation of software projects following the standard guidelines.
- Learn technical report and oral presentation skills.

POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS (PGDCA) Course Outcomes Semester-I

<u>PGDCA 1.1 - Introduction to office automation (Subject code as per NAAC :</u> <u>DP21T101)</u>

- Course would able the students to acquaint the knowledge about the operating system and Office programs for effective representation and analysis of data.
- Students will get familiarize with the elements of Computer Organization and Architecture and will gain basic knowledge necessary to understand the hardware operations of digital computers.
- Students will get the knowledge of Introduction to computers, MS-word, Formatting A Document, MS-Excel, Formatting a Worksheet, Managing your workbooks, Formulas, Creating & Working with Charts, PowerPoint, Inserting and Editing Text, Formatting Text, Working with Objects, and Working with Tables.

PGDCA 1.2 - C programming (Subject code as per NAAC : DP21T102)

- Course would able the students to acquaint the reasonably good knowledge at problem solving and algorithm development.
- They would become capable of solving problems using computers through C programming language.
- Students will get the knowledge of Introduction to Programming Paradigms, Fundamentals, Data types, Operators and Expressions, Control Statements, Functions, Arrays and strings.

<u>PGDCA 1.3 - Windows operating system (Subject code as per NAAC :</u> <u>DP21T103)</u>

- Course would able the students to acquaint the basic components of a computer operating system, and the interactions among the various components.
- Students will get the knowledge of Windows Overview, Installing Windows, Program management, Folder and file management, Managing the Desktop, Control panel, working with fonts, Management tools, Device Management, Managing Applications, Controlling Malware, Backup and Recovery, and Windows Update.

PGDCA 1.4 - Office automation Lab (Subject code as per NAAC : DP21P104)

- Course would able the students in managing professional word documents; excel spread sheets, power point presentations using the Microsoft office tools.
- Familiarize the students in preparation of documents and presentations with office automation tools.

PGDCA 1.5 -C programming Lab (Subject code as per NAAC : DP21P105)

- Course would able the students in acquire practical knowledge about implement
- The algorithms and drawing flowcharts for solving real life problems. Demonstrate an understanding of computer programming language concepts using C programming.

PGDCA 1.6 - Operating System Lab (Subject code as per NAAC : DP21P106)

• The Operating System Laboratory, OS Lab is a course that will teach students about principles of operating systems using a constructivist approach and problem-oriented learning.

Semester-II

<u>PGDCA 2.1 - Page Maker & Adobe Photoshop (Subject code as per NAAC : DP21T201)</u>

- Course would able the students in acquire knowledge about concepts and skills to use Adobe Photoshop and Page Maker effectively.
- Students will get the knowledge of Introduction to Page Maker, Master Pages & customization, Introduction to Adobe Photoshop, Layers & Filters, Printing and Customization.

PGDCA 2.2 - Corel Draw (Subject code as per NAAC : DP21T202)

- On the completion of course, the student will have knowledge about the entire Corel Draw software.
- Students will get the knowledge of Introduction to CorelDraw, Introduction to Tools of CorelDraw, CorelDraw Files, Page Layout and Layers, Printing and Customization.

PGDCA 2.3 - Tally & SPSS (Subject code as per NAAC : DP21T203)

- To help the students gain a comprehensive view of the usage and importance of *SPSS* and *Tally*.
- Students will get the knowledge of Manual Accounting, Computerized Accounting, Ledgers, Cost categories & Cost centers, Introduction to PASW, Data Management, Data Transformation, Describing Data Graphically, One Sample t-Test, and Nonparametric statistics.

PGDCA 2.4 - Page Maker & Adobe Photoshop Lab (Subject code as per NAAC : DP21P204)

- The *course* provides the practical understanding of Page Maker & Adobe Photoshop Software.
- Students will be able to create and manage DTP work.

PGDCA 2.5 - Corel Draw Lab (Subject code as per NAAC : DP21P205)

- The *course* provides the practical understanding of Corel Draw software.
- Students will be able to create and manage pictures graphical objects.

PGDCA 2.6 - Tally & SPSS Lab (Subject code as per NAAC : DP21P206)

- The *course* provides the practical understanding of Tally & SPSS software.
- Students will be able to create and manage accounting related documents.

Sl. No.	Subject Code	TITLE OF THE PAPERS	Credits	Theory: No. of Hours per week	Duration of Exam	Internal Assessment including attendance (22+03)	Marks at the exam	Total
1.	SEMESTER	-I						
	PG32T101	Basics of Anthropology	4	4	3 Hours	25	75	100
	PG32T102	Biological	4	4	3 Hours	25	75	100

DEPARTMENT OF ANTHROPOLOGY

		Anthropology						
	PG32T103	Linguistic Anthropology	4	4	3 Hours	25	75	100
	PG32T104	Comparative Ethnography	4	4	3 Hours	25	75	100
	PG32P105	Practicals in Biological & Archaeological Anthropology	4	4	3 Hours	_	100	100
	PG32P106	Practicals in Social Cultural Anthropology	4	4	3 Hours	25	75	100
2.	SEMESTER	-II						
	PG32T201	Comparative Institutions	4	4	3 Hours	25	75	100
	PG32T202	Techniques and Methods in Anthropology	4	4	3 Hours	25	75	100
	PG32T203	Archaeological Anthropology	4	4	3 Hours	25	75	100
	PG32T204	Anthropology of Indian Society	4	4	3 Hours	25	75	100
	PG32P205	Practicals in Biological & Archaeological Anthropology	4	4	3 Hours	-	100	100
	PG32T206	OPEN ELECTIVE COURSE : Foundations of Anthropology	4	4	3 Hours	25	75	100
3.	SEMESTER	-III						
	Specializatio	n Course – Group A: So	cial Cult	tural Antl	nropology			
	Compulsory	Course		1			1	1
	PG32T301	Anthropological Theories	4	4	3 Hours	25	75	100
	PG32T302	Anthropology of Complex Societies	4	4	3 Hours	25	75	100
	PG32T303	Anthropology of Development and Planning	4	4	3 Hours	25	75	100
	PG32T304	Medical Anthropology	4	4	3 Hours	25	75	100
	PG32T305	Social Cultural Change	4	4	3 Hours	25	75	100
	PG32T306	OPEN ELECTIVE COURSE : Population Anthropology	4	4	3 Hours	25	75	100
	Specializatio	n Course – Group B: Bio	ological A	Anthropo	logy			
	Compulsory	Course						
	PG32T301	Anthropological Theories	4	4	3 Hours	25	75	100
	PG32T302	Paleoanthropology	4	4	3 Hours	25	75	100
	PG32T303	Advanced Biological Anthropology	4	4	3 Hours	25	75	100
	PG32T304	Anthropological Demography	4	4	3 Hours	25	75	100
	PG32P305	Practicals in Advanced Biological Anthropology	4	4	3 Hours	-	100	100
	PG32T306	OPEN ELECTIVE COURSE : Forensic	4	4	3 Hours	25	75	100

		Anthropology						
4.	4. SEMESTER-IV							
	Specializatio	n Course – Group A: So	cial Cult	ural Ant	hropology			
	Compulsory	Course						
	PG32T401	Anthropological Methodology	4	4	3 Hours	25	75	100
	PG32T402	Applied Anthropology	4	4	3 Hours	25	75	100
	PG32T403	Ecological Anthropology	4	4	3 Hours	25	75	100
	PG32T404	Gender Anthropology	4	4	3 Hours	25	75	100
	PG32T405	Field Work and Dissertation	4	4	3 Hours	-	100	100
	PG32T406	Visual Anthropology	4	4	3 Hours	25	75	100
	Specialization Course – Group B: Biological Anthropology							
	Compulsory	Course						
	PG32T401	Anthropological Methodology	4	4	3 Hours	25	75	100
	PG32T402	Human Genetics	4	4	3 Hours	25	75	100
	PG32T403	Forensic Anthropology	4	4	3 Hours	25	75	100
	PG32P404	Practicals in Human Genetics	4	4	3 Hours	-	100	100
	PG32T405	Field Work and Dissertation	4	4	3 Hours	-	100	100
	PG32T406	Sports Anthropology	4	4	3 Hours	25	75	100

DEPARTMENT OF ENGLISH

Course Outcomes:

At the end of the course, Students will be able to-

- Understand the socio-cultural history of England mainly of Elizabethan Age.
- Get acquainted with major literary developments and movements like Renaissance and Reformation of this period.
- Get acquainted with major forms, writers and texts of this period with focus on their distinctiveness.

The Syllabus for PhD Course Work 2020-21 PH3501- Research Methodology

Course Outcomes

- PhD research scholars will acquire language skills and mastery over the research methodology.
- PhD research scholars will acquire the skill of sorting out the sources and knowledge of documentation.

M.A. I Semester				
PG37T101	eA£A¥IZA ¥J PIPIEEª AVAU eA£A¥IZA ¹ ZAIAVIUMA-1			
PG37T102	eA£#£A Cz ł Ai ł £ŁA Ew°A_i			
PG37T103	JAJW CZŁAIAŁ			
PG37T104	d£#£AU£A A»Vł			
PG37T105	déréza ^a a ^o apa ^a ajiaa			
	M.A. II Semester			
PG37T201	eaenfiza ¹ zanavnuka-2			
PG37T202	denfez apa «eale			
PG37T203	denfiza pa uma			
PG37T204	d£fæaVava _ A»va			
PG37T205	eA£#12a¥1j P1®EU14a (N.E.¹.)			
M.A. III Semester				
PG37T301	eAEAFEA ª AVAU Aª P EI			
PG37T302	d£æba baza, ni ª avau paª a «AAª naa j			
PG37T303	d£#£agAUA`Æ«A			
PG37T304 A	SAQPA AD EAEHE			
PG37T304 B	¥j jga ea£#iz			
PG37T305	eA£#£zA ^a AvAU eAU1wAPtgAt (N.E. ¹)			
M.A. IV Semester				
PG37T401	eA£A¥IZA Ewlaa£A ¥& Awllaa			
PG37T402	eaenfiza prvizaa ind "a avnu ja ±leaze			
PG37T403	PERQA JA»VA ¥IQA¥IQ ¤AVAU CAERFICAAIA CA±INKA			
PG37T404 A	° A®QI MPIP UIGA			
PG37T404 B	defez alzi			
PG37T405	PAVIZAAIAÕ ^a avau Qga¥i§Aza gizie			

DEPARTMENT OF FOLKLORE

DEPARTMENT OF FOREIGN LANGUAGES M.A. FRENCH:CBCS-2021-22 Semester-I

Course Outcomes

Course Code PG38T101-

Course Name : HISTOIRE ET GEOGRAPHIE DE France/ HISTORY & GEOGRAPHY OF FRANCE

Course Outcomes

- The students would have understood the history and civilisation of France.
- They would know the significant contributions of historical and civilisational aspects of France.
- They would be able to assess the conditions and situations the French lived historically.

The main historical events & aspects of France & French Civilization from *Moyen Age* to date

The Syllabus for PhD Course Work in FRENCH: 2020-21 onwards (5 years) Course Outcomes

Course Code: PH3801

Course Name: Research Methodology

- The PhD scholars would have been equipped the skills in technical aspects of research paper writing, viz., articles, dissertations and eventually '*redaction de*' thesis.
- The students would have developed critical evaluation of facts, justification and building up of research work based on hypothesis.

DEPARTMENT OF GEOGRAPHY M.Sc. Geography Course outcomes <u>Semester-1</u>

PG80T101: GEOMORPHOLOGY

C01:Develops an idea about geomorphic processes of erosion, transportation and deposition, weathering, drainage pattern, slope, cycles in different landforms.C02:Helps to understand the structural aspects of landforms.

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PG80T102: CLIMATOLOGY

C01:Students learn the interaction between the atmosphere and the earth's surface.

C02:Student understand atmospheric pressure, winds, cyclones, humidity and climatic disturbances and their significance in the mode of human life.

PG80T103: OCEANOGRAPHY

C01:Students learn the importance of oceans, their relief features, physical and chemical properties such as temperature, salinity, waves, tides, currents, mineral and food resources and deposits etc.

C02:Students will correlate this knowledge with other branches of geography.

PG80T104: DEVELOPMENT OF GEOGRAPHICAL THOUGHT

- **C01:**Students gain the knowledge about geographical thoughts during 18th, 19th, 20th centuries and the methodological approaches, dichotomies and their development.
- C02:Builds an idea about determinism, possibilism and trends in geography.

PG80P105: INTERPRETATION OF TOPOGRAPHICAL MAP

- **C01:**Develops a skill to analyse the physical and cultural features depicted on the Indian and Foreign (UK, USA) Topographical sheets with the help of signs and symbols.
- **C02:**Enables the students to write a geographical account of different regions.

PG80P106: INTERPRETATIONS OF WEATHER MAPS

- **C01:**Students gain the knowledge about weather signs and symbols and develop a skill of interpreting the weather conditions of Indian and USA weather maps.
- **C02:**This practical course emabels the students to forecast the weather conditions on the basis of experience in interpretations.

Semester-II

PG80T201: GEOGRAPHY OF AGRICULTURE

- **C01:** Students learn the agricultural systems of the world, theories, agricultural Regionalization, Green Revolution implications, problems of agriculture, crop concentration, efficiency, productivity and crop combination etc.
- **C02:** This Course develops a skill of land capability and suitability classification for planning.

PG80T202: GEOGRAPHY OF MARKETING

- **C01:** Students learn the locational aspects of marketing activities, hierarchy of market centres, classification, consumer trader behaviour, travel pattern in spatio temporal context.
- **C02:** This course develops a skill to make a proper planning for marketing functions.

PG80T203: GEOGRAPHY OF TRANSPORT

- **C01:** Students learn the various modes of transportation operating at local, national / regional and international levels along with theoretical models, flow analysis and their role in economic development.
- **C02:** This course enables the students to make a proper transport planning.

PG80T204A: REGIONAL GEOGRAPHY OF INDIA AND KARNATAKA

- **C01:** Students gain both physical and economic regional geographical knowledge about Indian subcontinent with special reference to this course is important in view of competitive examinations.
- **C02:** This course introduces the physical and economic Resources of India, its policies and plans.

PG80P205: CARTOGRAPHIC INSTRUMENTS AND METHODS

- **C01:** Students gain the knowledge of handling the various cartographic instruments such as pantograph, planimeter, opisometer and maps techniques.
- C02: This course develops a skill of preparing maps and measurements.

PG80P206: BASIC STATISTICS

- **C01:** Students learn about data collection, tabulation, analyse, interpret and present the data in an easy to understand format through statistical methods.
- **C02:** Students gain the basic Quantitative skill needed to ensure proper understanding of various phenomenon.

Semester-III

PG80T301: THEORETICAL AND QUANTITATIVE GEOGRAPHY

- **C01:** Students learn about the emergence of modern Geography through Quantitative Revolution, applications, models, theories etc.
- **C02:** This course motivates the students to employ more and more Quantitative techniques to derive precise results.

PG80T302: GEOGRAPHY OF SETTLEMENT

- **C01:** This course builds ideas about the evolution of settlements i.e. Rural and Urban settlements, their morphological aspects, hierarchy, issues and policies etc.
- **C02:** Study of settlements enables the students to play an important role in settlements planning process.

PG80T303: POPULATION GEOGRAPHY

- **C01:** Students learn about the population dynamics such as spatial pattern of distribution, density, growth trends, age, sex ratio and migration patterns etc.
- **C02:** This course enables the students to understand the distribution and redistribution of population in spatial context and helps to make policy decision for population resource development.

PG80T304A: ENVIRONMENTAL GEOGRAPHY

- **C01:** Students learn about the environmental life supporting systems and their significance in societal and environmental contexts.
- **C02:** Students will be able to demonstrate the environmental knowledge for the practice of sustainable development.

PG80P305: QUANTITATIVE METHODS

- **C01:** Students learn about the specific quantitative techniques used for measurement of various geographical phenomenon such as settlement pattern rank, hierarcy, crop concentration / combination, goods flow, direction, influence, settlements functions etc.
- **C02:** This course enables the students to be capable of measuring the Geographical phenomenon mathematically and more precisely.

PG80P306: AERIAL PHOTO INTERPRETATION

- **C01:** Students learn about the photogrammetry techniques such as determination of scale, height, focal length, making maps, mosaics and interpretation of imageries.
- **C02:** This practical course develops a skill in the students to handle the instruments such as pocket stereoscope, mirror stereoscope sketch master, parallax Bar etc. efficiently.

Semester-IV

PG80T401: NATURAL HAZARDS AND MANAGEMENT

- **C01:** Students learn about the factors, consequences and management of Natural Hazards as well as human induced hazards.
- **C02:** Students gain the knowledge about disaster risk management, mitigation methods, Rescue operations, survival skills and Rehabilation planning.

PG80T402: GEOGRAPHY OF TOURISM

- **C01:** Students learn about the major tourist distinations in the local areas and national / international level destinations.
- **C02:** This course enables the students to undertake tourism activities and planning for tourism and allied activities.

PG80T403: PRINCIPLES OF REMOTE SENSING

- **C01:** Students learn about the aerial and satellite remote sensing Techniques, principles and interpretation of imageries.
- **C02:** This course enables the students to undertake the surveying of areas and demarkation of different regions for planning purpose.

PG80T404: REGIONAL PLANNING

- **C01:** Students learn about the principles and practice of regional planning, its issues, types, strategy. Policies for backward and tribal area development etc.
- **C02:** This course develops a skill in the students for decision making, preparing a suitable regional plan for grass root level, national / regional levels developments.

PG80P405: COMPUTER APPLICATIONS & GIS

- **C01:** Students learn about the basic computer applications and basics of GIS, components, data types and applications.
- **C02:** This practical course builds a capacity in the students to prepare maps and provides ability to capture manipulate, analyse and manage all types of geographical data.

G80P406: PROJECT WORK

- **C01:** Students learn about the identification of regional problems and how to observe the fields, collect the data and its analysis presentation in the form of dissertation.
- **C02:** This practical course gives an experience or exposure to the students to prepare project reports on various problems in a systematic scientific manner.

DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION COURSE OUTCOMES OF MBA PROGRAMME Semester-1

Course Outcome

PG62T101

Principles of Management

Students will able to:

CO1: Recognize the features, concepts and toolsof Management

- CO2: Apply planning concepts and decisionmaking
- CO3: Demonstrate the knowledge of Organization structure and design.
- CO4: Demonstrate knowledge of Leadershipstyles and Motivational theories

CO5: Evaluate the various tools of Controlling.

PG62T102

ManagerialEconomics

Students will able to:

CO1: Explain the fundamental concepts of Managerial Economics.

CO2: Recognize the Market Structure and PricingStrategy.

CO3: Explain the fundamental concepts of MacroEconomics.

CO4: Explain the concepts of National Income. CO5: Illustrate the Consumption function.

PG62T103

QuantitativeMethods-I

Students will able to:

CO1: Apply appropriate Statistical Tools forbusiness functional areas.

CO2: Apply central tendency and dispersiontechniques for managerial decision making.

CO3: Apply Co relation and Regressiontechniques for managerial decision making.

CO4: Demonstrate Index Numbers for businessfunctional areas

CO5: Demonstrate the concepts of probability inbusiness

PG62T104

Managementaccounting

Student will able to:

CO1: Describe the elements of financial accounting

CO2: Apply concepts related to Financial Accounting

CO3: Illustrate the measure for RevenueRecognition.

CO4: Analyse the Financial Statement formaking Business Decisions

PG62T105

Marketing Management

Student will able to:

CO1: Recognize the features, concepts and scope of Marketing Management

CO2: Analysing the Marketing environment variables and its impact on marketing strategies.

CO3: Demonstrate the knowledge of marketingmix strategies.

CO4: Design marketing plan for anorganization.

Semester-2

Course Outcome

PG62T201

Introduction toComputers

Students will be able to:

CO1: Create a business report using WordProcessor.

CO2: Analyze data using spreadsheets and illustrate through presentation

CO3: Design web pages for given business.

CO4: Develop small business solution using

PG62T202

Written, Oral & SpokenCommunication Skills

Students will be able to:

CO1: Recognize the basics of interpersonal and corporate communication skills.

CO2: Apply ICT Tools for improvising communication.

CO3: Demonstrate the employability skills

CO4: Support the overall development of the Personality

PG62T203

OrganizationalBehavior

Students will be able to:

CO1: Interpret the basic concepts of Human and Organizational Behaviour.

CO2: Examine the Behaviour at Individual, Group and Organizational level.

CO3: Demonstrate value based leadership to increase the effectiveness of the Organization.

CO4: Illustrate the impact of OrganizationalCulture on Employee Productivity.

PG62T204

Quantitative Methods-II

Students will be able to:

CO1: Illustrate the meaning and scope of OR toutilize resources optimally.

CO2: Solve the transportation and assignmentillustrations using OR techniques

CO3: Solve business functions using LinearProgramming Technique

CO4: Design an optimal solution for a project byusing PERT/CPM techniques

CO5: Apply OR Techniques for businessdecision making.

PG62T205

Financial Management

Students will be able to:

CO1: Explain the fundamental functions of Finance

CO2: Demonstrate the significance of FinancialPlanning and cost of Capital.

CO3: Demonstrate the significance of CapitalStructuring Decisions.

CO4: Analyse the various methods of Capital Budgeting for making Investment decisions

CO5: Demonstrate the importance of estimation of WCR and Dividend Policy.

Semester-3

Course Outcome

PG62T301

Marketing Research & Consumer Behaviour

Students will be able to:

CO1: Students will demonstrate applications of Consumer Behaviour models

CO2: Students will illustrate Internal and External factors influencing consumer behaviour.

CO3: Students will illustrate the factors influencing consumer decision making process.

CO4: Students will demonstrate B to B buying behaviour.

CO5: Students will apply the CBB and BBBtowards given product or business.

PG62T302

Production & Operations Management

Students will be able to

CO1: Describe the basic concepts of POM.

CO2: Describe the functions of PPC and variables of Capacity Planning.

CO3: Illustrate the Facility Location models.

CO4: Demonstrate various Facility Layout and layout planning tools and techniques.

CO5: Describe Work Study to enhanceproductivity.

PG62T303

Personnel Managementand Industrial Relations

Students will be able to

CO1.Describe the significance of HRM, SHRM and human resources planning in attaining organizational goals

CO2.Illustrate the importance of job analysis, recruitment and selection.

CO3.Explain the various training and development processes, tools and techniques.

CO4.Describe the laws governing the Industrial relations and labour welfare.

CO5.Explain the Industrial relations, grievances management systems and

PG62T101

Principles of Management

Students will able to:

CO1: Recognize the features, concepts and toolsof Management

CO2: Apply planning concepts and decisionmaking

CO3: Demonstrate the knowledge of Organization structure and design.

CO4: Demonstrate knowledge of Leadershipstyles and Motivational theories

CO5: Evaluate the various tools of Controlling.

PG62T102

ManagerialEconomics

Students will able to:

CO1: Explain the fundamental concepts of Managerial Economics.

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CO3: Explain the fundamental concepts of MacroEconomics.

CO4: Explain the concepts of National Income. CO5: Illustrate the Consumption function.

PG62T103

QuantitativeMethods-I

Students will able to:

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CO1: Describe the elements of financial accounting

CO2: Apply concepts related to Financial Accounting

CO3: Illustrate the measure for RevenueRecognition.

CO4: Analyse the Financial Statement formaking Business Decisions

PG62T105

Marketing Management

Student will able to:

CO1: Recognize the features, concepts and scopeof Marketing Management

CO2: Analysing the Marketing environmentvariables and its

impact on marketing strategies.

CO3: Demonstrate the knowledge of marketingmix strategies.

CO4: Design marketing plan for anorganization.

MBA FOURTH SEMESTER

Course Outcome

PG62T401

Strategic Management

Students will be able to:

CO1: APPLY the features, concepts and tools of Strategic Management

CO2: ANALYSE the different levels of strategies followed in an organization and illustrate the importance of Corporate Governance and CSR.

CO3: ANALYSE the tools and techniques for strategic decision making

CO4: EVALUATE the strategic factors that impact the organization.

CO5: RECOMMEND appropriate strategy for agiven business situation.

PG62T402

Company And BusinessLaws

Students will be able to:

CO1: Recognize the overall legal framework within which business activities are carried out.

CO2: Recognize the laws governing theInformation Technology.

CO3: Analyze the rules and regulations affecting various business practices

CO4: Apply the legal framework for thebusiness activities.

PG62T403

Management ControlSystems

Students will be able to:

CO1: APPLY the features, concepts and tools of Management Control System.

CO2: Recognize the role and importance of the Responsibility Centers.

CO3: Apply the concept of Budget preparation and Reporting system.

CO4: EVALUATE the control mechanismspracticed in various sectors.

PG62T404M

Industrial Marketing

Students will be able to:

CO1: Recognize the features, concepts and scopeof Industrial Marketing

CO2: Demonstrate the Industrial BuyingProcess.

CO3: Demonstrate the knowledge of marketingchannels.

CO4: Design Industrial marketing plan for anorganization.

PG62T405M

Sales, Distribution and Logistics Management

Students will be able to:

CO1: Demonstrate selling skills, problem solvingskills and apply forecasting methods to know market demands.

CO2: Design sales territory and allocate salesquota.

CO3: Will be able to formulate recruitment, training and motivation strategy for sales organization.

CO4: illustrate the role distribution

CO5: demonstrate importance and role of logistics management

PG62T406M

Services Marketing

Students will be able to:

CO1: Students will demonstrate services marketing mix and apply GAP model of a given service business.

CO2: Students will analyze customer service needs (Expectations and Perceptions) of a given service business.

CO3: Students will prepare Service blue-print, involving service design and standards for given service business.

CO4: Students will illustrate role of employee, customer, and service channel members in service delivery of a given service business.

CO5: Students will analyse pricing strategies of given service business

PG62T407F

Financial Decisions, Mergers And Acquisitions

Students will be able to

CO1: Explain the value of the firm and capitalstructure of Indian companies

CO2: Understand the importance of Dividendpolicies and behavious

CO3: Critically examine the failure of mergers and design a post-merger integration plan

CO4: Acquaint with all the strategic, legal, accounting, funding and other issues relating to M&A in the Indian and Global context.

PG62T408F

International Financial Management

Students will be able to:

CO1: Analyse the reasons for difference in balance of payment and its implication on exchange rate between India and other countries

CO2: Evaluate and Analyse the factors responsible for over valuation and under valuation of currencies using law of oneprice concept

CO3: Apply the derivative instruments and strategies used by multinational corporations to hedge financial risks

CO4: Apply critical thinking skills in identifying and evaluating international financial issues and information for solvingbusiness problems

CO5: Examine the risk and return involved inforex trading

PG62T409F

Financial Institutions, Markets, Options, Futures And Derivatives

Students will be able to

CO1: Suggest investment avenues based oninvestment objectives

CO2: Analyse and evaluate the stocks based on economic, Industry and company analysis

CO3: Demonstrate an understanding of efficientmarkets

CO4: Evaluate the mutual funds using sharpe, Jensen, Treynor's Index

CO5: Estimate the risk and return of the portfolio and develop optimal portfolio

PG62T410S Introduction to C And

Introduction to C AndC++

Students will be able to

CO1. Describe the object oriented programming approach in connection with C++

CO2. Apply the concept of object oriented programming.

CO3. Describe the procedural and object oriented paradigm with concept of streams, classes, functions, data and objects.

CO4. Describe the concept of function overloading, operator overloading, virtual functions and polymorphism.

CO5. Able to develop application in C and C++.

PG62T411S

Data Base ManagementSystems

Students will be able to

CO1: Identify the basic concepts and various data model used in database design ER modelling concepts and architecture use and design queries using SQL

CO2: Apply the relational database theory and be able to describe relational algebra expression and domain relational expression fro queries.

CO3: Recognise and identify the purpose of query processing and optimization and also demonstrate the basic of query evaluation.

CO4: apply and relate the concepts of transaction, concurrency control and recovery in database.

PG62T412S

E-Commerce

Students will be able to:

CO1: The student should be able to explain the basic concepts of Ecommerce

CO2: The students should be able to illustrate business models on internet, Integrated value chain, E-marketplace, obstaclesand challenges for

adopting internet marketing.

CO3: The students should be able to analyze online CBB and E-payment Systems, ECRM, ESCM.

CO4: The students should be able to illustrate online marketing communication strategies.

CO5: The student should be able to illustrate theonline marketing strategies.

PG62T413H

Organization Development and Institution Building

student should be able to:

CO1: Describe the founding principles & concepts of OD

CO2: – Explain the various models/types of planned changes, major phases, factors and concerns duringchange process.

CO3: Illustrate the diagnosis during the OD processes during the OD processes

CO4:Differentiate the individual level, group level and organization level interventions of OD.

CO5: Illustrate the features of institutions, institution building process, factors affecting institution buildingprocess and role of leaders in institutions

PG62T414H

Performance Appraisal and Counselling

student should be able to:

CO1–Describe basics of performance appraisalCO2- Design Performance Appraisal

CO3- Identify the importance of Counselling CO4-Compare and Contrast the different PMtools

PG62T415H

Legal Environment AndIndustrial Relations

student should be able to

CO1– Demonstrate an understanding of the LegalEnvironment of Business.

CO2- Ability to recognize and manage legalrisks in business decision making

CO3- Familiarize with the role of managementand unions in the promotions of industrial relations.

CO4- Examine the labour relation issues and its management.

CO5- Acquire theoretical, practical and ethical perspective on many aspects of industrial relations

Semester-5

Course Outcome PG62T501

Small EnterpriseManagement

Students will be able to

CO1: Recognize the basics of SEM

CO2: Explain about human resources in SEM

CO3: Determine financial requirement for SEM

CO4: Explain the aspects of production for SEM

CO5: Describe the need for marketing in SEM

PG62T502

Human ResourceDevelopment

Students will be able to

CO1: Describe the basic concepts of HRD

CO2: Classify the various parameters for HumanResource Placement

CO3: Recall transaction Analysis

CO4: Design a structure for PerformanceAppraisal.

CO5: Outline Employee counselling.

PG62P503

Major ConcurrentProject (MCP)

Students will be able to

CO1. Develop a report of project work done by choosing an actual issues, problems in any Business Organisation, NGO, Government, & Non-government organisation.

CO2. Develop a Dissertation describing the project work done.

CO3. Demonstrate the result of the project work undertaken

PG62T504M

Rural Marketing

Students will be able to

CO1. Recognize the features, concepts and scope of rural Marketing Management

CO2. Analysing the Marketing environment variables and its impact on rural marketing strategies.

CO3. Demonstrate the knowledge of marketing mix strategies with respect rural Marketing.

CO4. Design rural marketing plan for an organization.

CO5. Demonstrate rural promotion and communication strategy

PG62T505M

International Marketing

Students will be able to

CO1: Demonstrate the scope and benefits of International Marketing.

CO2: Illustrate dynamic environment of international market.

CO3: Analyze global marketing mix strategies of a given business.

CO4: Demonstrate the Export Procedure and documentation involved in

selling products in overseas markets.

PG62T506F

Security Analysis AndPortfolio Management

Students will be able to

CO1. Suggest investment avenues based on investment objectives

CO2. Analyse and evaluate the stocks based on economic, Industry and company analysis

CO3. Demonstrate an understanding of efficientmarkets

CO4. Evaluate the mutual funds using sharpe, Jensen, Treynor's Index

CO5. Estimate the risk and return of the portfolio and develop optimal portfolio

PG62T507F

Merchant Banking and Financial Services

Students will be able to

CO1. Examine Financial Services managementas an important and

CO2. Contemporary area of financialmanagement.

CO3. Understand the various financial services and their future

CO4. Making a deep understanding on creditrating and its regulatory.

CO5. Explain about Lease Finance

CO6. Understand about Consumer Finance

PG62T508H

Group Dynamics and Leadership

Students will be able to

CO1. Understand the various concepts of GroupDynamics

CO2. Recall study cohesiveness, Resistance to Change, Norms, Role Conflicts

CO3. Explain the role of Decision SupportSystems in-Group Dynamics,

CO4. Demonstrate leadership skills

PG62T509H

Corporate Restructuring -Human Dimensions

To Students will be able to

CO1: Identify the salient feature of corporate estructuring.

CO2: Describe the major types of structures and restructuring processes.

CO3: Examine the various HR related strategies and preparations needed during major restructuring activities.

CO4: Illustrate the salient aspects of mergers and acquisitions and human dimensions.

CO5: Identify the basic features of corporate turnarounds.

CO6: Explain the various types of organizational changes and major issues in change

management.

PG62T510S

Computer Network and Internet

Students will be able to

CO1. Identify the salient feature of computernetworking.

CO2. Describe the Networks and Internet.

CO3. Illustrate the salient aspects of mergers and acquisitions and human dimensions.

CO4. Identify the basic Hardware and software requirements.

Explain the concept of www and related technologies

PG62T511S

Software ProjectManagement

To Students will be able to

CO1. Recall the concepts of softwareengineering. CO2. Explain the software planning. CO3. Explain the software configuration. CO4. Illustrate the software design processCO5. Explain software testing process.

Semester-6

Course Outcome

PG62T601M

Product Management, Policy and Brand Management

Students will be able to

CO1: Illustrate product mix and product linedecisions with example

CO2: Demonstrate new product development with example

CO3: Demonstrate test marketing and launchingthe new product.

CO4: Demonstrate product elimination decision with example.

Explain branding and packaging decisions.

PG62T602M

Advertising and Sales Promotion Management

Students will be able to

CO1: Illustrate the selling concepts through different theories of selling.

CO2: Demonstrate selling skills, problem solvingskills and apply forecasting methods to know market demands.

CO3: Design sales organizations for managing sales activities.

CO4: Design sales territory and allocate salesquota.

CO1: Recognise the concepts of Computer graphics

CO2: demonstrate features of computer graphics CO3: Recall the features of three dimension graphics

CO4: Illustrate descreter techniques such as buffers, bitbit

CO5: formulate promotion strategy for sales organization.

PG62T603F

Corporate Tax Planning

Students will be able to

CO1:Understand the structure and scope ofIndian Income Tax

CO2:Recall the Impact of taxation of Financial policies

CO3:Explain the chargeability of certainpayments and income/profits

CO4:Recognize set off and carry forwardbusiness losses and allowances

CO5: Develop skills of computation of total income and tax liability for filing of self return.

PG62T604F

Customs And ExciseManagement

Students will be able to

CO1: Recall customs and Excise duty legislativefeatures

CO2: Explain the provisions of governing manufacture and removal of excisable goods

CO3: Recall the licencing procedure

CO4: Narrate Customs Act and Tariffic Act. CO5: Explain the provisions governing Imports and Exports

PG62T605H

Project Management

Students will be able to

CO1: Recall the basics of project management.

CO2: Outline project planning and its process.

CO3: Explain different project monitoringtechniques.

CO4: Assess projects based on evaluation guidelines.

CO5: Associate in building project teamseffectively.

CO6: Explain the procedure for closing theproject.

PG62T606H

Modern ManufacturingManagement

Students will be able to

CO1: Explain product development process

CO2: Recall the features of MaterialsRequirement Planning

CO3: Explain the features of JIT

CO4: Explain various production technologieslike Robotics

CO5: identify various innovations in Manufacturing

PG62T607S

Computer Modeling And Simulation

Students will be able to

CO1: Recognise the concepts of ComputerModeling

CO2: demonstrate simulation models e.g MonteCarlo model

CO3: Illustrate random number generation

CO4: Illustrate validation of simulation models

PG62T608S

Computer Graphics

Students will be able to:

CO1: Recognise the concepts of Computer graphics

CO2: demonstrate features of computer graphics

CO3: Recall the features of three dimension graphics

CO4: Illustrate descreter techniques such as buffers, bitbit

SYLLABUS OF FIRST SEMESTER MBA (Evening)

PG62T101	PRINCIPLES OF MANAGEMENT
	Students will be able to
	CO1: Recognize the features, concepts and tools of Management
Outcomes :	CO2: Apply planning concepts and decision making
	CO3: Demonstrate the knowledge of Organization structure and design.
	CO4: Demonstrate knowledge of Leadership styles and Motivational
	theories
	CO5: Evaluate the various tools of Controlling.
PG62T102	MANAGERIAL ECONOMICS
	Students will be able to
	CO1: Explain the fundamental concepts of Managerial Economics.
Outcomes :	CO2: Recognize the Market Structure and Pricing Strategy.
	CO3: Explain the fundamental concepts of Macro Economics.
	CO4: Explain the concepts of National Income.
	CO5: Illustrate the Consumption function.
PG62T103	QUANTITATIVE METHODS - I
	Students will be able to
	CO1: Apply appropriate Statistical Tools for business functional areas.
	CO2: Apply central tendency and dispersion techniques for managerial
Outcomes :	decision making.
	CO3: Apply Co relation and Regression techniques for managerial decision
	making.
	CO4: Demonstrate Index Numbers for business functional areas
	CO5: Demonstrate the concepts of probability in business
PG62T104	MANAGEMENT ACCOUNTING
Credits : 06	Max External Marks : 100Max Internal Marks : 50
Hours: 60	
	Students will be able to
	CO1: Describe the elements of financial accounting
Outcomes :	CO2: Apply concepts related to Financial Accounting
o utcomes .	CO3: Illustrate the measure for Revenue Recognition
	CO4: Analyse the Financial Statement for making Business Decisions
PG62T105	MARKETING MANAGEMENT
	Students will be able to
	CO1: Recognize the features, concepts and scope of Marketing
Outcomes :	Management
	CO2: Analysing the Marketing environment variables and its impact on
	marketing strategies.
	CO3: Demonstrate the knowledge of marketing mix strategies.
	CO4: D esign marketing plan for an organization.

COURSE OUTCOMES OF PGDBM PROGRAMME PGDBM FIRST SEMESTER

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CourseCode	Course Name	Course Outcome		

1

		At the end of this course, students should be able
		to:
		1 Recognize the features concepts and tools of
		1. Recognize the features, concepts and tools of
		Bank Management
	General Management in	2. Apply planning concepts and decision making
DP03101	Bank	in Banking
		3 Demonstrate the knowledge of Organization
		structure and design in Donks
		structure and design in Danks.
		4. Demonstrate knowledge of Leadership styles
		and Motivational theories in Bank
		Management.
		5 Evaluate the various tools of Controlling in
		bonking operations
		At the end of this course, students should be able
		to:
	Written and spoken	1. Recognize the basics of interpersonal and
DP03102	communication skills	corporate communication skills.
		2 Determine the impact of Cross cultural
		2. Determine the impact of Cross cultural
		3. Apply ICT Tools for preparing presentations.
		4. Demonstrate the employability skills
		At the end of this course, students should be able
		to:
		1. To recognise the role of Banks in India
	Banking Acts and	2 To illustrate Banking acts and RBI act
DD03103	regulations	2. To must the implications of Banking
DI 03103	regulations	5. To recall the implications of balking
		committee reports
		4. To recall the factors influencing Bank
		performances.
		5. To apply the implications of LPG policy to
		Banking sector
		At the end of this course, students should be ableto:
		1 Illustrate the principles and processes of
		CRM
	Deplean and Crestamon	2. Evaluate the different strategies for sustamor
5500101	Banker and Customer	2. Evaluate the different strategies for customer
DP03104	relationship	loyalty and retention.
		3. Demonstrate database management in
		customer relationship management
		4. Demonstrate the significance of technology in
		CRM.
		5. To apply laws relating to Negotiable
		instruments
		At the end of this course, students should be able
		to:
		1 To illustrate type f D 1
DDAA1AE		1. To mustrate types of Banks
DP03105	Banking Products and	2. 10 Demonstrate Modern Banking services
	Services	3. To recall Retail banking concepts
		4. To demonstrate Islamic Banking concepts and
		recent developments
		5. To recall International Banking services

		norms.
		At the end of this course, students should be able
		to:
		1. To demonstrate the role of Banks in capital
DD03106	Banking Industry and	markets 2 To illustrate Merchant Banking functions
DI 03100	Capital Markets	3. To recall the meaning and features of
		Depository
		4. To recall the functions and obligations of
		Underwriter
		5. To demonstrate Margin and credit facility.
	PGDBM SI	ECUND SEMESTER
		1. To demonstrate the role of personal lending
	Personal Lending	2. To illustrate Merchant Banking functions
DP03201	Management	3. To recall the meaning lending policy and its
		regulations
		4. To recall the concepts of credit
		5. To demonstrate tools of lending.
		At the end of this course, students should be ableto:
		1. To demonstrate the role of credit risk in Banking sector
DP03202	Credit Risk Management	2. To illustrate Credit rating system
	Ci cuit high munugement	3. To recall the evaluation methods of credit risk
		4. To recall the credit policy implications
		5. To demonstrate credit risk disclosure.
		At the end of this course, students should be ableto:
		1. To demonstrate the concept of liquidity
DP03203	Liquidity Management	management
		2. To industrate inquidity fisk policy 3. To recall the guidelines of liquidity
		4. To recall the sources of liquidity
		5. To demonstrate tools used in liquidity
		At the end of this course, students should be able
		to:
DD03704	Traggury Managamant	1. 10 demonstrate the concept of Treasury 2. To demonstrate tools used in Treasury
DI VJ2V4	11casury management	management
		3. To recall the principles of treasury
		4. To recall the Role of Treasury
		5. To illustrate Treasury managementregulations

		At the end of this course, students should be able
		to:
		1. To demonstrate the concept of Expenditure
DP03205	Expenditure	Management
	Management	2. To illustrate the concept of cost centres
	_	3. To recall the concept of expenses control
		4. To recall the tools of expense analysis
		5. To illustrate reporting expenses.
		At the end of this course, students should be able
		to:
		1. To demonstrate the concept of Productivity in
		Banks
DP03206	Bank Productivity &	2. To illustrate the concept of Profitability in
	Profitability Management	Banks
		3. To recall the trend in priority sector lending
		4. To recall the tools of Bank branch
		management
		5. To illustrate Modernisation and up gradation
		in Banking.

COURSE OUTCOMES OF PGDIRM PROGRAMME

PGDIRM FIRST SEMESTER			
Course	Course Name	Course Outcome	
Code			
DP14T101	Principles of Management	 At the end of this course, students should be able tounderstand: 1. CO1. Recognise the role of manager &how it relatesto the organisation's mission. 2. CO2. Define management, its basics functions &skills 3. CO3. Apply planning concepts and decision making CO4. Demonstrate the knowledge of Organizationstructure and design. 4. CO5. Demonstrate knowledge of Leadership stylesand Motivational theories 5. CO6. Evaluate the various tools of Controlling CO7. Paccognise the modern 	
		trends in management	
DP14T102	Managerial Economics	 At the end of this course, students should be able tounderstand: 1. CO1. Students will demonstrate strong conceptualknowledge managerial economics. 2. CO2. Understand the concept of cost, nature of product and its relationship to business operations. 3. CO3. Analyse the causes and consequences ofdifferent market conditions. 4. CO4. Integrate the concept of price and output decisions of firms under various markets. 5. CO5. Understand the nature and objective of firm. 	
DP14T103	Statistics for Management	 At the end of this course, students should be able to: 1. CO1. Understand the statistical application ininsurance & risk management. 2. CO2. Apply probability rules & concepts. 3. CO3. Understand & critically discuss the issuessurrounding sampling & significance. 4. CO4. Conduct interpret a variety of insurance andrisk management. 	
		At the end of this course, students should be able	
----------	----------------	--	
		to:	
		1. CO1. Develop an awareness and understanding	
		of the accounting process and fundamental	
	Accounting for	accounting principles.	
DP14T104	Managers	2. CO2. Understand the nature and role of the	
	0	four principal financial statements and also	
		ability to recall, interpret and analyse financial	
		statements.	
		3. CO3. Understand the various basic concepts of	
		costing.	
		4. CO4. Understand the role of budget in	
		organisations.	
		5. CO5. Summarise the concept of different	
		costs analysed for different purpose	
		At the end of this course, students should be able	
		to:	
		1. CO1. Demonstrate strong conceptual	
	Marketing	knowledge in the functional area of marketing	
DP14T105	Management	management.	
		2. CO2. Demonstrate effective understanding of	
		relevant functional areas of marketing	
		managementand its applications.	
		3. CO3. Design marketing plan for an	
		organisations. CO4. Understand the consumer	
		buying behaviourprocess and their decisions.	
		4. CO5. Understand the nature of service	
		Marketing.	
		At the end of this course, students should be able	
		1 CO1 Apply the basic principle and practice	
	Insurance	ofinsurance	
DP14T106	Management	2 CO2 Discuss the Laws Governing	
	munugement	InsuranceAccounting and Management.	
		3. CO3. Distinguish amongst the various	
		Technical Aspects of Insurance	
		4. CO4. Categorise Life insurance products.	
		5. CO5. Explain the challenges of Product	
		development in the life and non-life insurance	
		sectors in India	
		At the end of this course, students should be able	
		to:	
		1. CO1. Identify, research and analyse	
DP14P107	Project Work	complete issues and problems in business or	
		management and purpose appropriate and well	
		justified solutions.	
		2. CO2. Use statistical skills to present data	
		relevant toproblems in risk and insurance.	
		3. CO3. Construct written work which is	
		logically and professionally presented.	

PGDIRM SECOND		
	C N	SEMESTER
CourseCode	Course Name	Course Outcome
DP14T201	Personal Management and	 At the end of this course, students should be able to: 1. CO1. Describe the significance of HRM, SHRM and human resources planning in attaining organizational goals 2. CO2 Illustrate the importance of ich
	Industrial Relations	 analysis, recruitment and selection. CO3. Explain the various training and developmentprocesses, tools and techniques. CO4. Describe the laws governing the Industrial relations and labour welfare. CO5. Explain the Industrial relations, grievances management systems and disciplinary mechanisms in Indian industrial scenarios.
DP14T202	Written, Oral and Spoken Communication	 At the end of this course, students should be able to: 1. CO1.Recognize the basics of interpersonal and corporate communication skills. 2. CO2. Determine the impact of Cross cultural communication. 3. CO3. Apply ICT Tools for preparing presentations. 4. CO4.Demonstrate the employability skills
DP14T203	Introduction to Computers	 At the end of this course, students should be able to: 1. CO1. Create a business report using Word Processor. 2. CO2. Analyze data using spreadsheets and illustratethrough presentation 3. CO3. Design web pages for given business. 4. CO4. Develop small business solution using C
DP14T204	Essentials of Financial Management	 The student should be able to : 1. CO1. Understand the essential elements of financialmanagement 2. CO2. Understand the essential elements of financialenvironment in which the business firms operate. 3. CO3. Examine and understand the objectives of shareholders wealth maximization 4. CO4. Enhance the skill to familiar with the basicprinciples of financial management 5. CO5. Understand the modern corporate financial and its implication in decision media.

		At the end of the course student should be
		able to
DP14T205	Risk Management	1. CO1.Describe the concept of risk
		2. CO2. Illustrate the importance of risk
		measurement.CO3. Explain the liability
		management.
		3. CO4. Describe the risk hedging.
		4. CO5. Explain the role of mid office in risk
		management.
		At the end of the course student should be able to
		1. CO1. Describe the Annuities
DP14T206	ActuarialStatistics	2 CO2.Illustrate the importance of job Reserves.
		3. CO3. Explain the multiple life functions.
		4. CO4. Apply multiple decrement theory.
		CO5. Recall the collective risk models.

COURSE OUTCOMES OF PGDRM PROGRAMME

PGDRM FIRST SEMESTER		
Course Code	Course Name	Course Outcome
		At the end of this course, students should be
		able to:
	Principles and Practices of	1. Recognize the features, concepts and
DP24T101	RuralManagement	tools of RuralManagement
		2. Apply planning concepts and decision making
		3. Demonstrate the knowledge of
		Organization structure and design.
		4. Demonstrate knowledge of Corporate
		Governance
		5. Demonstrate knowledge of Business
		Ethics
		At the end of this course, students should be
		able to:
DP24T102	Farm Manageement	1. Explain the fundamental concepts of farm
	Economics	Economics.
		2. Recognize the factors of farm production.
		3. Relate cost and production functions to
		farm
		4. Recall the technology in agriculture
		5. Recall the farm resource.
		At the end of this course, students should be
		able to:
DP24T103	Agri Business Environment	1. Explain the role of agriculture in Indian
	and Policy	Economy.
		2. Recognize the structure of agriculture.
		3. Explain Emerging trends in farm
		4 Recall the Agri business policies
		5 Recall the Agriculture pricing and
		marketing policies
		At the end of this course students should be
		able to:
DP24T104	Rural Marketing	1. Recognize the features concepts and
	Management	scope of rural MarketingManagement
	0	2. Analysing the Marketing environment
		variables and its impact on rural
		marketing strategies.
		3. Demonstrate the knowledge of
		marketing mix strategies with respect
		rural Marketing
		4. Design rural marketing plan for an
		organization.
		5. Demonstrate rural promotion and
		communication strategy

		At the end of this course, students should be
		able to:
DP24T105	Rural Finance and	1. Recognize the features, concepts and scope
	Banking	of rural Finance
		2. Recall the Financial inclusion and
		Exclusion
		3. Demonstrate the knowledge of Agriculture
		A Deseil the covernment policies on mural
		4. Recall the government policies on fural credit and finance
		5 Demonstrate Micro finance models
		At the end of this course students should be
		able to:
		1. Recognize the features, concepts and
DP24T106	Management of	scope of CooperativeAdministration
	Agribusiness Cooperatives	2. Recall the state and cooperative
		movement
		3. Demonstrate the knowledge of Human
		resource management
		4. Recall the effects of cooperative laws.
		5. Demonstrate cooperative credit in Agri
		business.
	PGDRM SECO	JND SEMESTER
		At the end of this course, students should be
		able to:
DP241201	International Agri	1. Recall the features, concepts and scope of
	Buisiness	Agri Buisiness.
		1/ Exhibit the features of WIU TRIPN and
		TPIMS
		TRIMS. 3 Recall the importance of foreign trade
		 TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of
		 Explain the relatives of WTO, TREES and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy.
		 Explain the relatives of WTO, TREES and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and
		 Explain the relatives of WTO, TREES and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation.
	Logistics, Suply Chain and	 Explain the relatives of WTO, TREES and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be
	Logistics, Suply Chain and Infrastructure	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to:
DP24T202	Logistics, Suply Chain and Infrastructure Management for	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain.
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain. Explain the features of Demand
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain. Explain the features of Demand Management.
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain. Explain the features of Demand Management. Recall the importance of Procurement
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain. Explain the features of Demand Management. Recall the importance of Procurement Management.
DP24T202	Logistics, Suply Chain and Infrastructure Management for Agribusiness	 Explain the relatives of WTO, TREPS and TRIMS. Recall the importance of foreign trade. Recall the effects of Composition Of India's Foreign TradePolicy. Demonstrate export procedures and documentation. At the end of this course, students should be able to: Recall the features, concepts and scope of Supply chain. Explain the features of Demand Management. Recall the importance of Procurement Management. Recall the effects of logistics management. Explain the application of Information

		At the end of this course students should be
		able to:
DP2/T203	Food Potail Management	1 Recall the features concents and scope of
DI 241203	roou Actan Management	International FoodMarket
		2 Explain the features of Value Chain in
		Explain the readers of value chain in Food Retailing
		3 Recall /n's in Food Retail Management
		Λ Recall the effects of Promotion mix for
		food retailing
		5 Demonstrate Retail Sales Management
		At the end of this course students should be
		able to:
		1 Recall the features concepts and scope of
DP24T204	Rural Marketing Strategy	Agricultural Marketing
21211201		2. Explain the features of Marketing co-
		operatives.
		3. Recall the importance of Role of
		Information technology in Marketing of
		agro products and services.
		4. Explain the pricing policy and price
		forecasting.
		5. Explain the features of commodity
		marketing.
		At the end of this course, students should be
	Agro Processing Industries	able to:
DP24T205	Management	1. Recall the features and scope of Agri
		Processing Industries.
		2. Explain the principles of and methods of
		food processing.
		3. Explain the Analysis of costs in Food
		Organization.
		4. Recall the effects of Agro-Processing and
		Co-operatives.
		5. Recall the export procedures and
		documentation.
	Discortation	At the end of this course, students should be
DF241200	Dissertation	able 10:
		aboosing an actualization project work done by
		government. Non government supports
		2 Demonstrate the result of the project work
		undertaken
		UIUCITAKCII

DEPARTMENT OF MARATHI

M. A. I to IV Semester from the year 2020-21

Semester –I

PG46T101- The study of Old Marathi Prose and Poetry

Course Outcomes

At the end of the course, the students will be able to-

1. Understand the socio-cultural history of Marathi mainly of ancient Age.

2. Get acquainted with major forms of literature of the period.

PG46T102- The study of Literary Form (Pre Independence Period) Course Outcomes:

At the end of the course, Students will be able to-

- 1. Develop attitude of literary forms Marathi Poetry.
- 2. Understand to learn the origin of drama and dramatics art.

PG46T103- History of Marathi Literature (Form 1818 to 1920) Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the socio-cultural history of Marathi literature.
- 2. Get acquainted with major writers and forms of literature of the period with their uniqueness.

PG46T104-The Study of Folk Literature (Loksahitya)

Course Outcomes

At the end of the course, Students will be able to-

- 1. It helps Folk literature i.e. Lokasahitya the students to discover the roots of distinctive communities which was expressed through folk literature.
- 2. The Folk literature assists the students to know there cultural history.

PG46T105-Comic Literature

Course Outcomes

At the end of the course, Students will be able to-

- 1. Developing reading skills needed to comprehent texts with higher levels of difficulty.
- 2. Read between lines draw interpretations and synthesize the information.

Semester –II

PG46T201-The study of Environmental Literature (Paryavarneeya Sahitya) Course Outcomes

At the end of the course, Students will be able to-

- 1. To create awareness regarding environmental issues and crises
- 2. To Generate Love affection among the younger generation abo eco system and environment.

PG46T202-The study of Literary From (Post Independence Period) Course Outcomes

At the end of the course, Students will be able to-

- 1. Know the concept of Drama.
- 2. acquainted with the language, style, dialogue structure of the age to which it belongs.

PG46T203– History of Marathi Literature (form 1921 to 1990).

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the socio-cultural history of Marathi literature.
- 2. Get acquainted with major writers and forms of literature of the period with their uniqueness.

PG46T204-(Optional) The study of comparative Literature (A) Theory Course Outcomes:

At the end of the course, Students will be able to-

- 1. Compare Marathi With Other Language.
- 2. Its assist students to understanding the historical background of compare to Literature and Examine the relationship of Marathi with other Languages.

PG46T205-OEC – Marathi Wangamaya Prakarancha Abhyas (Drama) Course Outcomes:

At the end of the course, Students will be able to-

- 1. Know the concept of Drama.
- 2. The students learn the origin of drama as dramatics art.

Semester –III

PG46T301-The study of Modern Marathi Prose and Poetry Course Outcomes:

At the end of the course, Students will be able to-

- 1. Develop attitude of literary forms Marathi Poetry.
- 2. Understand the basic forms of fiction and Poetry.

PG46T302-The study of Literary Criticism.

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Enrich the students understanding of the literary works
- 2. Develop the sprit of enquiry regarding literary works in Marathi literature.

Topics:

- 1. Ashaya ani Abhivyakti
- 2. Tikeche Prakara
- 3. Sahitya ani Itar Lalitakala
- 4. Kalavanta Charitra ani Charitrya
- 5. Samiksha: Sankalpana ani Swaroop
- 6. Samiksha ani itar Shastra sambhandha
- 7. Samikshecha vividha Paddhati
- 8. Marathitili pramookha Samikshakancha Parichaya

PG46T303 -(Optional) The study of comparative Literature : A Dissertation Paper

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Its Helps Students to compare Marathi With Other Language.
- 2. Its assist students to understand the historical background of compare to Literature and Examine the relationship of Marathi with other Languages.

Topics:

- 1. Aims And objectives
- 2. Historical background
- 3. Marathi and other languages literary relationship.

PG46T304 - The study of Special Author (M) P. L. Deshapande

Course Outcomes

At the end of the course, Students will be able to-

- 1. Get the knowledge of the theatre of the times.
- 2. Get information about the P L Deshapandes Drama.

PG46T305-OEC- Marathi Wangamaya Prakarancha Abhyas – (Goodha Katha) Course Outcomes

At the end of the course, Students will be able to-

- 1. Develop literary tendencies.
- 2. Understand the types of Marathi Short Story Writing.

Semester –IV

PG46T401- (Optional) The study of Dalit Sahitya. (G) Course Outcomes:

At the end of the course, Students will be able to-

1. Know the deferent dimensions of dalit sahitya.

2. Examine the texts with sub-altern perspective.

PG46T402-The Study of Literary Isms.

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Know the concept and process of Marathi Literature.
- 2. Develop attitude of literary forms.

Topics:

- 1. Soundryawad
- 2. Wastavawad
- 3. Astitwawad
- 4. Markswad
- 5. Nisagawad

PG46T403-The Study of philology

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Know the importance of language in human life.
- 2. Know the various methods to the study of language.

Topics:

- 1. Bhashashastrache Swaroop Ani Vyapti
- 2. Bhasha nirmiti vishayak Utapatti
- 3. Ucchar Prakriya Ani Aratha Prakriya
- 4. Marathicha Utapattikaal Ani Marathichi Ghatana

PG46T404-Upayojit Marathi

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Make there carriers in publication and advertisement industry.
- 2. Equip the younger generation with the employable skill in accordance with job market.

Topics:-

No Text Prescribed

- 1. Essay Writing
- 2. Skills of Interview
- 3. Advertisement
- 4. Creative writing
- 5. Proof reading
- 6. Chalking of Programme
- 7. Art of Anchoring

PG46T405-The study of Special Author(L) P.L. Deshapande Course Outcomes

At the end of the course, Students will be able to-

- 1. Know the concept of travelogue and profile of P L Deshpande.
- 2. Get information about the P L Deshpande.

DEPARTMENT OF MATHEMATICS

Course Outcomes (COs)

Semester I		
Course Code	Course Title	Course Outcomes (COs)
PG83T101	Algebra-I	Students will be able to
		CO1. To simplify algebraic expression, using
		commutative, associative and distributive
		properties.
		CO2. Identify the types of group.
		CO3. Understand the concepts of Sylow's
		theorem.
		CO4. Explain and demonstrate accurate and
		efficient use of advanced techniques.
		CO5. Prove and explain the concepts from
		advance algebra
PG83T102	Real Analysis	Students will be able to
		CO1. Describe the real line as a complete
		ordered field and prove the properties of real
		numbers.
		CO2. Understand interior point, limit point,
		closed set, open set, compact set and prove their
		properties.
		CO3. Explain the basic theory of metric space
		and its related concepts such as continuity,
		completeness, compactness and connectedness
		and prove their results in the metric space.
		CO4. Apply the Mean Value Theorem and the
		Fundamental Theorem of Calculus to problems
		in the context of real analysis.
		CO5. Determine the Riemann integrability of a
		bounded function and prove theorems
		concerning integration.
PG83T103	Topology-I	Students will be able to
		CO1. Understand to construct topological spaces
		using general properties of open sets, closed
		sets, neighborhoods, basis and sub-basis and
		from metric spaces.
		CO2. Apply the properties of open sets, closed
		sets, interior points, accumulation points and
		derived sets in deriving the proofs of various
		characterizations of topological spaces.
		CO3. Use continuous functions and
		homeomorphisms to understand structure of
		topological spaces
		CO4. Understand the concepts and properties of

1	1	
		the compact, locally compact and connected
		topological spaces.
PG83T104	Differential	Students will be able to
	Equations-I	CO1. Solve ODE with constant coefficients.
		CO2. Apply Method of variation of parameters.
		CO3. Apply Strum comparison theorem.
		CO4. Apply Picard's method for solution of
		IVP.
		CO5. Apply Laplace Transforms to solve ODE.
PG83T105	Discrete	Students will be able to
	Mathematics	CO1. Understand Boolean algebra
		CO2. Apply Coding theory
		CO3. Understand the Basic Graph theory
		CO4. Check traversability of a network.
PG83T106	Computer	Students will be able to
	Programming	CO1. Develop the algorithm.
		CO2. Understand the computer programming
		language.
		CO3. Develop the skill for C-Programming.
		CO4. Understand the data structure in the
		programme.
PG83T107	Operations	Students will be able to
	Research	CO1. Formulate Linear Programming problems.
		CO2. Apply methods to solve LPP
		CO3. Understand Transportation Problems and
		Assignment Problems.
		CO4. Compute Game Theory Problems.
		CO5. Use Oueuing Theory for Stochastic
		Process and Markov Chain.
		Semester II
Course Code	Course Title	Course Outcomes (COs)
PG83T201	Algebra-II	Students will be able to
		CO1. Understand rings, ideals, field and
		Euclidean domain.
		CO2. Find the roots of polynomials
		CO3. Understand the characteristic of rings and
		fields.
		CO4 Understand the fundamental concepts of
		homomorphism and their role in mathematics
		CO5 Apply uniqueness theorem
PG83T202	Complex	Students will be able to
10031202	Analysis-I	CO1 Discuss the convergence of nower series
	1 marysis 1	expansions
		CO2 Use Cauchy's Theorem and Cauchy's
		Integral Formulae to solve contour integration
		CO3 Express an analytic function in terms of
		nower series in the domain of analyticity
		COA Understand the characteristic of a complex
		function in the neighbourhood
	1	Tunedon in the neighbournood.

		CO5. Acquire the skill of contour integration to
		evaluate complicated real integrals via residue
		calculus
		CO6 Apply Rouches theorem to determine the
		number of zeros and poles of a meromorphic
		function in the given domain
PG83T203	Linear Algebra	Students will be able to
10031203	Emear Mgeora	CO1 Understand Vector spaces
		CO2 Apply Linear Transformations
		CO3 Compute eigenvalues and eigenvectors
		CO4. Formulate the diagonalization of matrices
PC83T204	Functions of	Students will be able to
F0651204	Functions of Several Variables	CO1 Understand inner product space
	Several variables	CO2. Apply matrix space
		CO2. Apply metric space
		CO3. Discuss convergence of sequences in R
		CO4. Apply Inverse and Implicit Function
	5100 11	Theorem in R ²
PG83T205	Differential	Students will be able to
	Equations-II	CO1. Understand series solution about ordinary
		and regular singular points.
		CO2. Apply Power and Frobenius methods.
		CO3. Understand variable coefficient ODE.
		CO4. Understand orthogonality of special
		functions.
PG83P206	Programming	Students will be able to
	Lab-I	CO1. Develop C-language codes.
		CO2. Develop Programme to solve
		mathematical problems.
		CO3. Compute scientific problems with C-
		Programming.
		CO4. Analyze obtained data.
PG83T207A	OEC-Fuzzy Sets	Students will be able to
	and Fuzzy Logic	CO1. Understand Fuzzy sets and fuzzy logic.
		CO2. Apply operations on fuzzy sets.
		CO3. Understand fundamentals of computers.
		CO4. Apply ability logically and arithmetically
		for quantitative aptitude
		Semester III
Course Code	Course Title	Course Outcomes (COs)
PG83T301	Measure Theory	Students will be able to
	-	CO1. Understand measure of a set and
		measurable sets
		CO2. Understand measurable functions.
		CO3. Approximating measurable functions by
		specific functions.
		CO4. Compute Lebesgue integrals.
PG83T302	Complex	Students will be able to
	Analysis-II	CO1. Understand the characteristic of analytic
	·	functions
		renewond.

		CO2. Understand conformal mapping to
		compute geometric mappings.
		CO3. Extend analyticity continuation to analytic
		function and its natural boundary.
		CO4. Discuss convergence of a sequence of
		complex functions.
		CO5. Understand the effect of uniform
		convergence.
PG83T303	Topology-II	Students will be able to
		CO1. Understand to construct the separation
		axioms using open and closed sets.
		CO2. Know the concepts of convergence and
		compactification.
		CO3. Demonstrate knowledge and
		understanding of metric spaces.
		CO4. Apply theoretical concepts in topology to
		understand the real world applications.
PG83T304	Differential	Students will be able to
	Geometry-I	CO1. Understand Euclidean space, Tangent
		vectors, Vector fields.
		CO2. Find directional derivatives.
		CO3. Obtain dot product in E^3 and dot product
		of tangent vectors.
		CO4. Understand curvature and torsion of a unit
		speed curve.
PG83T305	Numerical	Students will be able to
	Methods	CO1. Understand error analysis.
		CO2. Apply Numerical methods for solving
		nonlinear equations.
		Numerical differentiation and Integration
		Numerical differentiation and integration.
		Lipitial Value Problems (IVP)
PG83P306	Programming	Students will be able to
1 0051 500	I ab-II	CO1 Understand for loop to solve matrix
		related problems
		CO2 Solve the diversified solutions such as
		arithmetic operations on matrices and finding
		the norm of a matrix
		CO3. Solve system of equations by
		implementing C-Programming.
		CO4. Handle runtime error during execution.
PG83T307A	OEC-Discrete	Students will be able to
	Mathematical	CO1. Understand concept of Mathematical
	Structures	induction
		CO2. Perform operations on sets and Relations
		CO3. Apply counting principle.
		CO4. Understand tree network.

Semester IV		
Course Code	Course Title	Course Outcomes (COs)
PG83T401	Functional	Students will be able to
	Analysis	CO1. Understand concept of Normed linear
		spaces, Banach spaces and Hilbert spaces.
		CO2. Compute the dual spaces of certain
		Banach space and Hilbert space
		CO3. Find the orthonormal vectors
		CO4. Obtain self-adjoint and normal operators.
PG83T402A	Fuzzy Topology	Students will be able to
		CO1. Construct the appropriate fuzzy sets using
		membership function of uncertain problems.
		CO2. Understand the differences in crisp sets
		and fuzzy sets.
		CO3. Construct the fuzzy numbers
		corresponding to uncertain and imprecise
		collected data.
		CO4. Create new fuzzy topological spaces by
		using fuzzy sets.
PG83T402B	Dimension	Students will be able to
	Theory	CO1.Understand local finiteness and point-
		finiteness of a family of subsets of a topological
		space.
		CO2. Identify paracompact spaces and its
		related spaces.
		CO3. Discuss perfect function.
		CO4. Understand Local dimension Theory.
PG83T402C	Relativity	Students will be able to
		CO1. Represent Lorentz group, Time dilation,
		Space contraction.
		CO2. Understand contraction symmetric and
		skew symmetric tensors.
		CO4. Understand tensor algebra and calculus in
		curved space-time.
		CO4. Derive Einstein field equation.
PG83T402D	Ring Theory	Students will be able to
		CO1. Understand the characteristics of ring and
		ideal.
		CO2. Discuss Modules.
		CO3. Apply Schur's lemma and Jordan-Holder
		theorem.
		CO4. Determine ideals in matrix ring.
		CO5. Understand Noetheriam and Artinian
		rings.
PG83T402E	Galois Theory	Students will be able to
		CO1. Understand characteristic of a field and
		splitting field of a polynomial.
		CO2. Understand algebraic extension, algebraic
		closure and algebraically closed field.

		CO3. Apply Artin's theorem, Hilbert's theorem
		and Artin – Schreier's theorem.
		CO4. Discuss Galois groups of quadratic, cubic
		and quartic polynomials.
PG83T402F	Number Theory	Students will be able to
	- · · · · · · · · · · · · · · · · · · ·	CO1. Understand residue systems and linear
		congruences.
		CO2. Discuss Diophantine equations
		CO3. Discuss primitive roots with modulo p.
		CO4. Understand quadratic congruences.
		CO5. Apply Euler's partition theorem.
PG83T403A	Graph Theory	Students will be able to
1 000 1 10011		CO1 Discuss factorization and coverings of
		granhs
		CO2 Understand the planarity of graphs
		CO3 Apply coloring of graphs
		CO4 Discuss spectra of graphs
		CO5. Discuss domination parameters of graphs
PG83T403B	Differentiable	Students will be able to
1 000 1 100 2	Manifolds	CO1. Understand the charts and atlases.
	1,141110145	CO2. Discuss pull back functions tangent
		vectors and tangent spaces
		CO3. Understand the dual of the differential
		man
		CO4. Discuss Tensor product of finite
		dimensional vector spaces.
		CO5. Understand torsion and curvature tensors.
PG83T403C	Nevanlinna	Students will be able to
	Theory	CO1. Understand entire and meromorphic
	5	functions.
		CO2. Apply Poisson – Jenson's formula for
		meromorphic functions.
		CO3. Discuss Proximity function, Counting
		function and Characteristic function.
		CO4. Apply Picard's theorem and Borel's
		theorem to prove second fundamental theorem
		of Nevanlinna theory and uniqueness theorem.
PG83T403D	Geometric	Students will be able to
	Function Theory	CO1. Discuss conformal mapping, Unit disc
		transformation and normal families.
		CO2. Discuss Dirichlet's problem.
		CO3. Discuss power series with finite radius of
		convergence.
		CO4. Apply Area theorem, Distortion theorem,
		Bieberbach theorem.
PG83T403E	Group Theory	Students will be able to
		CO1. Understand groups, subgroups, normal
		subgroup, factor group.
		CO2. Apply Cauchy's theorem and Sylow

		theorem.
		CO3. Discuss solvable groups
		CO4 Discuss Automorphism groups semidirect
		products and factor sets
		CO5 Discuss infinite abelian groups torsion
		reduced groups and finitely generated abelian
		groups
DC83T403E	Commutativa	Students will be able to
100314031	Algobra	CO1 Understand rings subrings ideals
	Algeola	coli. Onderstand migs, submigs, ideals,
		CO2 Apply operations on ideals
		CO2. Understand modules, submodules and
		cos. Understand modules, submodules and
		quotient modules.
		CO4. Discuss properties of rings.
		COS. Understand Noetherian module. Artinian
		module. Modules of finite length.
PG831404	Differential	Students will be able to
	Equations-III	COI. Understand critical and simple critical
		points of linear and nonlinear system.
		CO2. Discuss periodic solutions.
		CO3. Understand classification of second order
		PDEs.
		CO4. Understand the solution of fundamental
	D 100 1 1	PDE's.
PG83T405	Differential	Students will be able to
	Geometry-II	CO1. Understand arbitrary speed curves and
		Frenet formulas.
		CO2. Discuss connection forms of a frame field.
		CO3. Understand patches.
		CO4. Understand topological properties of
		surfaces and Manifolds.
		CO5. Discuss nornal Curvature, Gaussian
		curvature, and Special curves in surfaces.
PG83T406	Integral	Students will be able to
	Transforms and	CO1. Understand linear integral equations of the
	Integral	first and second kind.
	Equations	CO2. Discuss solution by successive
		substitutions and successive approximations.
		CO3. Apply Laplace Transform techniques to
		understand real world problems.
		CO4. Discuss Fourier series.
		CO5. Apply Fourier transform techniques to
		solve the partial differential equations.
PG83P407	Programming	Students will be able to
	Lab-III	CO1. Write and execute C-programming for
		numerical methods.
		CO2. Discuss sub routing of C-programming.
		CO3. Discuss arrays, functions and strings in
		mathematical problems.

		CO4. Handle possible errors during program execution.
PG83T408	Project Work	Students will be able to CO1. Survey literature. CO2. Understand real world problems through mathematical modeling. CO3. Formulate the problem and apply the suitable techniques for solution. CO4. Write the dissertation.

Department of Mathematics Ph.D.

Course Outcomes (COs)

Course Code	Course Title	Course Outcomes (COs)	
PH83T01	Research	Students will be able to	
	Methodology	CO1. Understand the meaning of research and	
		objective of research.	
		CO2. Identify the problem and techniques for solutions.	
		CO3. Design research plan.	
		CO4. Use e-resources.	
		CO5. Write the dissertation.	
PH83T02	Advances in	Students will be able to	
	Mathematics	CO1. Understand semiopen sets, semicontinuity,	
		Bitopological spaces and Fuzzy topological spaces	
		CO2. Quantify graphs and trees.	
		CO3. Understand integrals of 1-forms in R ³ , Integral of	
		2- forms in \mathbb{R}^3 .	
		CO4. Apply Weierstrass factorization theorem,	
		Hadamard's factorization theorem, Picard's and Borel's	
		theorems.	
		CO5. Discuss Tensors of type (p,q) on finite	
		dimensional vectors space and on manifold.	
		CO6. Understand the topology of manifolds.	
		CO7. Understand properties of fluids - density, specific	
		weight, specific volume, specific gravity, temperature,	
		viscosity.	
		CO8. Apply discrete and Fast Fourier Transforms.	
PH83T03A	Advanced Topics	Students will be able to	
	in Topology	CO1. Understand paracompact spaces and perfect	
		maps.	
		CO2. Discuss metacompact spaces.	
		CO3. Understand strongly paracompact spaces and	
		fully normal spaces.	
		CO4. Discuss small inductive dimension function and	
		large inductive dimension function.	
PH83T03B	Graph Dynamics	Students will be able to	
		CO1. Apply Graph Transformations.	
		CO2. Find topological parameters and distance in	
		graphs.	

		CO3. Compute eigenvalues of graphs.	
		CO4 Determine the domination parameters of a graph	
		CO5. Compute chromatic polynomial of graphs	
PH83T03C	Advanced Topics	Students will be able to	
111051050	in Manifolds	CO1 Understand manifolds Tangent vectors and	
		Tangent spaces	
		CO2 Discuss diffeomorphism on manifold and	
		Homotony	
		CO3 Discuss various operations on differential forms	
		CO4 Understand vector bundles and Fiber bundles	
		CO5 Discuss Linear connection and Affine	
		connections.	
PH83T03D	Tensor Analysis	Students will be able to	
111001000	and Riemannian	CO1. Understand Tensor Algebra and Tensor Field.	
	Geometry	CO2 Understand differentiation of Tensors and	
	Sconicary	Intrinsic differentiation	
		CO3 Understand Riemannian manifolds and	
		hypersurfaces	
		CO4. Discuss complex manifolds and contact	
		manifolds.	
PH83T03E	Value	Students will be able to	
111001002	Distribution	CO1. Understand properties of entire and meromorphic	
	Theory	functions.	
		CO2. Discuss Poisson integral formula, poisson-Jenson	
		theorem, and Jensen's formula.	
		CO3. Understand characteristic function, proximate	
		function, types of meromorphic function.	
		CO4. Apply Second fundamental theorem of	
		Nevanlinna, Picards theorem, Borel theorem and	
		Montel's theorem.	
		CO5. Discuss maximum term and rank of an entire	
		function, Asymptotic values, Asymptotic curves.	
PH83T03F	Fluid Mechanics	Students will be able to	
		CO1. Discuss distinction between solids and fluid,	
		distinction between liquid and gas fluid continuum.	
		CO2. Understand flow properties.	
		CO3. Understand the classification of flow.	
		CO4. Discuss Euler's equation and Bernoulli's	
		equation with assumption and limitation.	
		CO5. Discus flow through pipes and orifices.	
PH83T03G	Fourier and	Students will be able to	
	Wavelet Based	CO1. Apply Least-Squares Approximation	
	Numerical	CO2. Discuss numerical solution of Partial Differential	
	Analysis	Equations	
		CO3. Apply Discrete and Fast Fourier Transforms.	
		CO4. Understand Wavelets and Wavelet transform.	
		CO5. Discuss Orthogonal Wavelet Systems.	
		CO6. Understand Convergence Properties of Wavelet	
		Expansions.	

Department of Sanskrit Semester-I

PG52T101- SANSKRIT CHAMPU

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Understand the Indian kavya literature.
- 2. Get the knowledge of comparative study between Valmiki Ramayana and Champu Ramayana.
- 3. Life of Rama and other characters ethical values.
- 4. Get acquainted with major writers and texts of different forms of this period.

PG52T102- PANINI GRAMMAR AND COMPOSITION (100 Marks) Course Outcomes:

- 1. Understand Sanskrit Grammar according to Maharshi Panini. In pre-historic period. The students will be aware of this by the end of the course.
- 2. The students will learn to write an essay in Sanskrit Language and in olden days also there is communication language it is. the literary merits of the great Indian grammarian like Katyayana, Vararuchi Patanjali Maharshi.
- 3. Will study the Laghusiddhanta Koumudi

PG52T103 (A)- UPANISHAD AND GEETA

Course Outcomes:

- 1. This paper introduces the Upanishads to the students .student will get the knowledge of atmajnaana according to Kenopanishad and geeta. understanding trigunas and life style of saadhaka. The students will get by the end of the course, analyse jeevaatma and paramatma,
- 2. The students will study such great adi guru Sri Shankraachaarya and Advaita philosophy.

PG52T103(B) KALIDASA AS A POET

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand various theories of comparing and criticizes the theme of Kavyas.
- 2. Understand the kavya literature of regional literature in Translation.
- 3. Kalidasa and his work will help to understand the ancient Indian culture.
- 4. Kalidasa's Imaginary and creative writings are more connecting the people for his Nature narration.

Specialization Course

PG52T104(A)- VEDANTA SHASTRA-I

Course Outcomes:

- 1. Students will get the knowledge of Upanishads according toMadhva philosophy.
- 2. It introduces Madhva Tradition.

OR

PG52T104 (B)- ALANKARASHASTRA-I Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the meaning, nature and scope of Alankaras
- 2. This course introduces about Rajashekhara Sanskrit poet and dramatist.

3. Get acquainted the writing poems, poets lifestyle, methods of writing poems, Types of writing poems, types of kavvyas, introduces types of poets and their characters.

PG52T105-PATANJALA YOGASUTRA

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the meaning and nature of Yoga and practices.
- 2. Get acquainted features of Yogi and his mindset.
- 3. Get acquainted Indriya Nigraha

Semester-II

Compulsory Course

PG52T201-SANSKRIT POETRY

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the socio-cultural history of Indian mainly of dwaparayuga and shri Krishnas' Victory against shishupala.
- 2. Get acquainted with major writers and forms of literature of the period with their uniqueness.like Magha and his works
- 3. Get acquainted with major concerns of the writers of this period.

PG52T202-VYAKARANA MAHABHASHYA AND LINGUISTICS Course Outcomes:

- 1. The paper deals with grammar of Sanskrit according Patanjali Maharshi.
- 2. The students will study the linguistic methods for teaching as well as linguistic family of groups.
- Text 1) Patanjali's Vyakarana Mahabhashya (Pashpasha Ahnika)
 2) Sanskrit Bhasha Shastra

SPECIALIZATION COURSE

PG52T203(A) - VEDIC LITERATURE Course Outcomes:

- 1. This paper aims at introducing Vedic literature in terms of Veda and Vedangas; and the students will be acquainted with Vedic knowledge and Vedic tradition.
- 2. The students will study Mantra drashtaras, (Rishis) and vedic practices in ancient India.

PG52T203(B)- KALIDASA AS A DRAMATIST

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the socio-cultural history through ancient regional literature in Sanskrit Dramas.
- 2. Get acquainted with the major concerns of Indian Sanskrit Dramatist
- 3. Get acquainted with the prominent writers in classical language

PG52T204(A)- VEDANTA SHASTRA –II Course Outcomes:

- 1. This paper aims at providing comparison and analysis as tools of study. The students will acquire these insights for comparative study of Advaita, Dvaita and Vishishtadvaita siddhantas.
- 2. The students will have a comparative understanding of Jeevatma and paramatma concept.

PG52T204(B) – ALANKARA SHASTRA-II

Course Outcomes:

- 1. Introduces of Sanskrit poet -Anandavardhana author of Dhvanyaloka .The student will know this author and his works.
- 2. Anandavardhana's Dhvani siddhanta student will get the knowledge of this by studying this course.

Open Elective Course PG52T205- SANSKRIT PROSE AND POETRY (OEC)

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understand the basic aspects of Sanskrit kavya
- 2. Get acquainted with the major literary movements in Sanskrit literature.
- 3. Get acquainted with the prominent forms and writers of Sanskrit literature.

Compulsory Course

PG52T301- SANSKRIT DRAMA AND DRAMATURGY

Course Outcomes:

At the end of the course, Students will be able to-

- 1. In this course will be taught the students about Drama and its features, types of Rupaka and Uparupakas.
- 2. Student will get the knowledge about sanskrit Dramatists. One of the great poet Bhavabhooti and his works.
- 3. Dhananjaya is the author who is framed rupakas according to Bharatamuni. Student will learn end of this course.

PG52T302-VEDA

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understands the about Veda and Vedic Hymns.
- 2. Student will get the knowledge of Vedic Deities (Devadas)

PG52303- YAJNAVALKYA SMRITI

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Understands the spritis, types of smritis.
- 2. Student will get an ability to apply the vyavahara in modern days.
- 3. Student will analyze the knowledge of Taxation, expenditure marketing modern days as well as modern days.

Text – Yajnavalkya Smriti (Vyavahara Adhyaya –

- I Prakarana (Sadharna Vyavahara)
- II Prakarana (Asadharana Vyavahara)
- V Prakarana (Sakshi)
- VI Prakarana (Lekhya)

VII Prakarana (Divya)

SPECIALIZATION COURSE PG52T304A SELECT DARSHANA – PART I

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Darshana and its introduction will help the student to learn philosophical views of (Bharateya) Indian Tradition.
- 2. Charvaka, Bauddha, Jaina, Nyaya and Mimamsa these Darshana's will be taught by the students. According to Sayana Maadhava they will get this knowledge.
- 3. Students can develop their spiritual analytical thinking.

Text– Sayana Madhava's *Sarva-darshana-sangraha* (*Charvaka*, *Bauddha*, *Jaina*, *Nyaya* and *Mimamsa*)

OR

PG52T304B- HISTORY OF SANSKRIT POETICS -I

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Students will get the ability to learn and analyse the Sanskrit Poetics as well as poets works.
- 2. Sanskrit poetics like Bharata, Bhamaha, Dandin etc. are very important poets because of their valuable contribution to the Sanskrit Aesthetic, Kavyaloka. Student will able to know about these poets.
- 3. Sanskrit Alankara's and its developments by the Sanskrit Poetics it will be the main them of this course. Student will know about this at the end of this course.

Open Elective Course

PG52T305 MAHABHARATA KATHA SOURABHA (OEC)

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Student will get the knowledge about Mahabharata and its selected stories.
- 2. At the end of this course student will get the knowledge moral values and life skills.
- 3. Students will get the knowledge by varies chapters like "Enfq[Irffit atlApf]£üE, MülhfMülf]]if

EmÉSzzÉÈ, §ÉrÉÉÉ qÉixrÉÉÈ, etc.

Compulsory Course

PG52T401 SANSKRIT PROSE

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Students will study about author Bana and his works.
- 2. Bana's Kadambari is one of the great text in Sanskrit Literature. It indicates the poets imaginary and wonderful narration of the nature of Indian ancient period. Students will get the knowledge about this and they will admire the nature.
- 3. Students will able to translate the Sanskrit works.

PG52T402 YASKA'S NIRUKTA Course Outcomes:

At the end of the course, Students will be able to-

- 1. Nirukta is a Yaska Maharshi's work which is related to Vedic words. Students will get the knowledge about Vedic words and its huge collection.
- 2. Describing and understanding of vedic words and its Nirvachana.

PG52T403 KAUTALYA'S ARTHASHASTRA Course Outcomes:

At the end of the course, Students will be able to-

- 1. Student will get the knowledge about Koutilya's Rajaneeti and Arthneeti.
- 2. Administration

Specialization Course

PG52T404(A) SELECT DARSHAN-II

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Students will get the knowledge about Darshana's Indian philosophy, Sankya, Yoga.
- 2. By studying this course student will get the knowledge about the reasoning solving the problems, understands the situation. How to control the mind themselves in critical conditions.
- 3. Students are able to know about spiritual and traditional thoughts and views given by Acharya's.

Or

PG52T404(B) HISTORY OF SANSKRIT POETICS -II

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Students will learn about the Sanskrit Poetics by studying this course students will able to define the Alankaras according to Sanskrit Poetics.
- 2. Types of Alankaras are introduced by the Sanskrit Poetics student will able to read and define the Alankaras according to author.

PG52T405 DISSERTATION

Course Outcomes:

At the end of the course, Students will be able to-

- 1. Student will able to know how to write a thesis
- 2. Ability to conduct the research, field work.
- 3. Research methodology will helps the students to do the research work systematically.

DEPARTMENT OF SANKRIT

The Syllabus for PhD Course Work 2020-21

PH5201- Research Methodology

Course Outcomes

- 1. Ph.D scholars will acquire language skills and mastery over the research methodology.
- 2. The students will acquire the mechanics of writing thesis, preparing citation, and bibliography.

The PhD students shall study the following aspects of research methodology

- 1. Research and writing
- 2. Plagiarism and academic integrity
- 3. The mechanics of writing

- 4. The format of research paper
- 5. Documentation: preparing list of works
- 6. Documentation: citing sources in the text
- 7. Abbreviations
- 8. Use of electronic sources

PH5202-Recent Critical Approaches to Literature

Course Outcomes

- 1. Ph.D scholars will understand what are the critical approaches to the study of literature. They will be acquainted with the major critical theories related to Classicism, Romanticism, Formalism, and structuralism.
- 2. Ph.D scholars will study enough critical theories, ideologies and approaches to understand a problem and find out solutions.

Most of the Indian Historical documents are available in Sanskrit language. Indian literature, culture, contribution of spiritual thoughts are documented in Sanskrit language also. Research Scholars will learn that Vedic literature, classical literature, and its Relevancy in modern days and also learn that Sanskrit language encourages conducting the Research and translation work. All that will be oriented towards empowering the Research Scholars for employees.

PH5203- Area of Research

Course outcomes:

- The paper acquaints and updates the students with their area of research.
- The students get acquainted with major issues that the writers engage with.
- The paper enables the students to know the research gaps in the area.

The students with the literary and theoretical history of the chosen area. The students get acquainted with the representative writers and their works. Some major works are prescribed for a focused study. Based on the research topic syllabus of this paper is designed by the respective guides.

DEPARTMENT OF SOCIOLOGY Sociology Ph.D Course work codes

Course outcome:

The candidate will be prepared to

- 1. Take a specific social issues for research.
- 2. Review the previous research done in the related area
- 3. Publish research papers.
- 4. Attend conferences and Seminars.
- 5. Able to write reports.

Title of the Paper/course	Codes
Advanced Social Research Methods and Statistics in Sociology	PH5301
Modern Sociological Theories and Post Modern Social Theories	PH5302
Area of Specialization	PH5303

Course specific outcome:

Candidate will be:

- 1. Eligible to take up teaching profession.
- 2. They are able to work in private and NGO sectors.

3. Confident to take up surveys and action research.

DEPARTMENT OF STATISTICS

Semester-I

PG86T101: Linear Algebra-Course Outcomes

After completion of the course, the candidate will:

- have a thorough knowledge in various aspects of linear algebra
- have in depth knowledge in basics of vector algebra
- have ability to use important tools such as determinants, rank, inverse and generalized inverse in statistics.
- Acquire the knowledge of linear transformations, orthogonal bases and projections
- Study the importance and methodologies of calculating eigen values and eigen vectors
- have ability to understand and solve emerging research problems using the tools studied in linear algebra

PG86P101 Course Outcomes

Gains understanding of the tools of linear equations, generalized inverse, eigen values and eigen vectors, various quadratic forms, diagonalization of a real symmetric and also simultaneous diagonalization of real matrices using statistical softwares.

PG86T102 : Probability Theory-Course Outcomes

On completion of this course students will:

- Understand the concepts of random variables, sigma-fields generated by random variables, probability distributions and independence of random variables related to measurable functions.
- Have knowledge about measurable functions, Lebsgue measure, Lebsgue Stieltjes measure.
- Analyze modes of convergence, knowledge about convergence in probability, convergence in distribution function and almost sure convergence.
- Understand weak and strong laws of large numbers, prove Borel-Cantelli lemma and

central limit theorem.

PG86P102 Course Outcomes

The students will learn the practical applications of various aspects of probability theory.

PG86T103 Course Outcomes

After studying this course, the candidate will be able to

- Take up a project to collect primary data.
- Prepare questionnaires, plan the scheme of the survey, train investigators, tabulate and dissiminate data.
- Identify the nature of population, sampling methodology to be adopted and recognize right tool for analysis.
- Handle various kinds of non sampling errors to collect non erroneous data.
- Carry out sampling surveys on sensitive issues.

PG86P103 Course Outcomes

The candidate will acquire knowledge on selecting random samples under sampling scheme like SRS and PPS, Calculating various estimators and their precisions.

PG86T104 : Programming in C and Simulation-Course Outcomes After studying this course, the candidate will

- Be able to develop logic of problem solving.
- Develop C-Programs for problems of different branches of statistics.
- Acquire knowledge of higher/advanced features C-Programming.
- Artificially simulate various environments.

PG86P104 Course Outcomes

The candidate develops logic understands syntax and working of Cprograms on various aspects of statistical analysis and simulation of statistical Models.

Semester – II

PG86T201: PROBABILITY DISTRIBUTIONS

PG86T201 : Probability Distributions- Course Outcomes

On completion of this course students will be able to

- Understand the most common discrete and continuous probability distributions and their real life applications.
- Compute marginal and conditional distributions from joint distributions.
- Get familiar with transformation of univariate and multivariate densities. Understanding of distribution helps to understand the nature of data and to perform appropriate analysis.
- Acquire the application knowledge of compound, Truncated, mixture and noncentral probability.

PG86P201 Course Outcomes

The student will learn the practical application of different probability distributions.

PG86T202 : Theory of Point Estimation-Course Outcomes On completion of this course, the candidate will

- Learn various aspects of estimation including characteristics of an estimator.
- Have knowledge on various families of distributions and their advantages in obtaining estimators.
- Learn different methods of estimation and their advantages.
- Develop a logic to analyse the situation and apply appropriate statistics tools.

PG86P202 Course Outcomes

On completion of this course, the candidate learns the technique of:

- Computing various estimators under different situations.
- Will learn different approaches to obtain estimators using various methods.

PG86T203A Course Outcomes

On completion of this course, the candidate will:

- Have information regarding sources and methods of demographic data.
- Acquire in depth knowledge of various measures of mortality and fertility.
- Have ability to conduct socio-economic survey using tools such as sample survey and vital statistics registration system.
- Acquire the knowledge of construction of life tables for various categories of demography.
- Study the importance and methodologies of population growth and projections.
- Develop the ability to understand and solve emerging research problems.

PG86P203A Course Outcomes

The student learns framework of different sources and methods of demographic data and facilitates, the knowledge of various measures for data on births and deaths, also the applications of these measures in finding life expectancy, population projections, calculation growth rates etc.

PG86T203B Course Outcomes

On completion of this course, the candidate will:

- Learn various aspects of insurance and utility functions.
- Have knowledge on various insurance polices and calculation of their premiums.
- Have in-depth knowledge in computing life annuities, benefits premiums and benefit reserves.
- Help insurance companies to develop new advantageous polices.

PG86P203B : Course Outcomes

The candidate will acquire skills

- Of calculating increment, decrement, enmities, premiums and benefit reserves for various policies.
- Of recognizing various actuarial models.

PG86T203C : Statistical Methods-Course Outcomes

On completion of this course, the candidate will learn:

- Various methods of collecting and organizing data
- Various statistical measures such as population mean and variance.
- Measures of association between two variables.
- Different tests which are applicable to other disciplines.

Semester – III

PG86T301: Elementary Stochastic Processes-Course Outcomes

After studying this course,

• The candidate will acquire knowledge of stochastic processes, modeling real life situations through stochastic processes.

- Study stochastic processes like Poisson, pure birth, Yule-Fuly, Birth and Death, Weiner and Branching processes.
- Know how better modeling can be made using stochastic processes.
- Develop critical Analysis capacity through stochastic processes.

PG86P301 Course Outcomes

The candidate gets acquainted with use of stochastic models in different areas of applications of statistics.

PG86T302: Testing of Hypotheses-Course Outcomes

After studying this course, the candidate

- Develops confidence in their ability to formulate different research problems
- Develops ideas and research skills
- Gets in-depth knowledge of various research tools in the form of parametric and non-parametric methods.
- Learns to construct UMA and UMAU confidence intervals, likelihood ratio tests, etc.
- Study the importance of sequential analysis using Wald's SPRT and its functions, OC and ASN.

PG86P302 Course Outcomes

It improves their ability to handle and address the research problems in Statistics, Biology, Economics, Sociology, Anthropology etc. Learn applications of parametric and non-parametric methods.

PG86T303 : Statistical Oriented R-Programing-Course Outcomes

After completion of this course, the candidate will be able to

- Know various aspect of R-Programming language.
- Write R-Programs for various statistical concepts.
- Carry out simulation to complex statistical problems.
- Use and interpret inbuilt tests in R-programming.

PG86P303 Course Outcomes

The candidate will be able to

- Feed the data and carry out the analysis.
- Import data from other sources.

PG86T304A : Operations Research-Course Outcomes

After completion of this course, the candidate will be able to understand

- Linear programming and various methods to solve liner programming problem (LPP).
- Transportation problem and assignment problem and calculating minimum cost.
- About analyzing various kinds of queues and their waiting times.
- About various inventory models and obtaining economic order quantity under these models.
- Applications of LPP and other concepts in various sectors like marketing research, industries, etc

PG86P304A Course Outcomes

The candidate will learn the skills of

- Practically solve various problems of linear programming, transportation problem and assignment problem.
- To solve problem on queuing to analyze average queue, waiting time and inventory problems to calculate economic order quantity.

PG86T304B : Econometrics-Course Outcomes

On completion of this course, the candidate will:

- Develop professional competence in analysis of economic and time series data.
- Be able to understand the evolutionary practices of Linear/Multiple linear regression models, assumptions and consequences of violations of the requirements of the model.
- Be able to achieve professional competency in the field of analysis of econometric models through simultaneous equation models.
- Acquint with contemporary trends in estimation of econometrics models.

PG86P304B Course Outcomes

The candidate is able to understand practices in applications of Econometric Models in various economic problems.

PG86T304C : Applied Statistics (OEC)- Course Outcomes

On completion of this course students will be able to

- Explain the concepts of Statistical Quality Control and associated techniques.
- Construct appropriate Quality Control Charts and Forecasting models useful in monitoring a process.
- Apply various samplings inspection plants to real world problems for both theoretical and applied research.
- Assess the ability of a particular process to meet customer expectations.
- Develop an appropriate quality assurance plan to assess the ability of the service to meet requisite national and international quality standards.
- Understand to identify whether a process is in statistical control or not.
- Understand to estimate Trend, Seasonal and Cyclic components of time series.
- Understand past and future behavior of phenomena under study.
- Understand how a product quality can be improved and elimination of assignable causes of variations.

Semester – IV

PG86T401 : Multivariate Analysis-Course Outcomes

On completion of this course, students will be able to

- Understand the concept of Multivariate analysis and its usefulness.
- Understand data requirements for Multivariate analysis.
- Perform exploratory analysis of multivariate data, such as plot multivariate data, calculating descriptive statistics, testing for multivariate normality.
- Conduct statistical inference about multivariate means including hypothesis testing and different types of confidence intervals estimation.
- Undertake statistical analyses using appropriate multivariate techniques, which include principal component, factor analysis and discriminant analysis.

PG86P401 Course Outcomes

The candidate will learn applications of various multi variant techniques like Hotelling's T^2 multiple regression models, principle component analysis, etc.

PG86T402: LINEAR MODELS

UNIT – 5:

Factorial experiments, confounding in 2^n factorial experiments, Split – Plot design, Random effects models: one – way and two – way classification.

PG86T402: Linear Models-Course Outcomes

The students will gain thorough knowledge in various aspects of Linear Models

- Gain knowledge in basics of linear estimation
- Develop ability to understand important tools of linear estimation in Gauss-Markov set-up.
- Acquire the knowledge of application of multiple linear regression in various fields.
- Study the importance of analysis of variance (ANOVA) technique and its different methodologies.
- Ability to understand and solve different experimental designs such as RCBD, BIBD, PBIBD and Symmetric BIBD in emerging research problems.

PG86P402 Course Outcomes

The candidate develops idea of formulation of linear models, estimation of parameters, the practical knowledge of ANOVA models, designs of experiments and applications these tools in laboratory and agricultural experiments.

PG86T403 : SQC & Reliability Theory-Course Outcomes

After completion of this course, the candidate will

- Develop professional competence in applications of statistical tools in industry. Be able to develop control charts in various situations of quality improvement programs in industry.
- Be able to model and assess reliabilities of components/systems under different setups and configuration of components.
- Be able to use these tools in finance, insurance, health science, etc.

PG86P403 Course Outcomes

The candidate will practically learn the working of control charts in different situations, use of professional knowledge of acceptance sampling plans, reliability theory in industry and health science.

PG86T404 : PROJECT Outcomes

After carrying out this project, candidate will be able to identy problems, sampling methods, data to be collected, appropriate statistical analysis and writing the report. This will train the candidate to take up research projects.

Project Evaluation :

i. For Project Report Evaluation by internal examiners, if the project is carried out by group, the criteria for assigning marks for each candidate could be, Choice of Problem, Collection of Information, Analysis, Write up, outcomes (Conclusions)

and involvement of candidates could be weighed with the proportion 1:2:2:2:1:2 respectively. For individual project reports, it is same as (ii)

 ii. For Project Report Evaluation by external examiners the weightage to be given for Choice of Problem, Collection of Information, Analysis, Write up and outcomes (Conclusions) should weighed with following proportion 1:3:3:2:1 respectively (both individual project & Group Project)

Ph.D. Course Work

Course outcome :

The candidate will be prepared to

- Find a specific problem to take up research.
- Study previous research problems related to his area.
- Write research papers and communicate the same for publication.
- Organize and write thesis.

Course Specific outcome:

Candidate will be

- Eligible to take up teaching and research.
- Confident to work in private sectors.
- Prepared to be a lifelong learner.
- An asset to the society.

M.A.URDU -I SEMESTER

Course Code :PG54T101 Title : Classical Urdu Poetry. Course Outcomes:

At the end of the course, the students will be able to-

- 1. To Understand the socio-cultural history of the era of India, Persia and other part of the world, which has influenced the literature of the time.
- 2. To Get acquainted with major forms of poetry written in the era like, marsiya, Masnavi, Rubaiyat.
- 3. To Get acquainted with major poets, their life, sketch, important historical events and their poetry.

Course Code : PG54T102

Title: Study Of Urdu Afsana (Short Story)

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Short story is the form taken from English literature, students get awared of the form of literature its base and comparative literature
- 2. Understand the movements of lieterature and history of the time which affected short stories in Urdu.
- 3. Knows the majorwriters such as Premchand, Krishn Chandr, Rajendra Singh Bedi, etc, and their style of writing, life sketch and important work of the writers.

Course Code : PG54T103

Title :HISTORY OF URDU LITERATURE &LINUISTICS (Beginning to till 1857) Course Outcomes:

At the end of the course, the students will be able to-

- 1. To understand the meaning and nature of language, and linguistics, history and roots of Urdu linguistics and birth of Urdu Language.
- 2. Gets awared of the historical movements of the time and the progress of Urdu Language andLiterature.
- 3. Gets aquainted with the poets of the age,history of the times, role of kings of the time to pave the way to language as court language specially Adil Shahi of Deccan.

Course Code : PG54T104

Title :STUDY OF SPECIAL AUTHOR ALLAMA SHIBLI NUMANI Course Outcomes:

At the end of the course, the students will be able to-

- 1. After studying this paper the student will be aware of Allama Shibli Numani, personality, his writings, and the socio-political situation of Allama Shibli Numani Age.
- 2. Know the struggles of the time during the time of Independence.
- 3. Get acquinted with his writings, and the historical events of the time and the message.

Course Code : PG54T105 Title: STUDY OF URDU QASEEDA

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Know about the form of Urdu poetry Qaseeda. Its features etc.
- 2. Understand the history of the time when Qaseeda was written.
- 3. Know about the important poets of Urdu Qaseeda, like, Mirza Souds, Insha, Zauq Ghalib, Mohsin etc and their remarkable works.

URDU M.A.II SEMESTER

Course Code : PG54T201 Title: MODERN POETRY (NAZM) Course Outcomes:

After studying this paper the student will beable to know-

- 1. The Era of Modern Poetry, and get acquainted with form of Poetry (Nazm.)
- 2. The students will be aware of creative achievements of modern poets.
- 3. The Students will study such great poets and poets like Faiz Ahmed Faiz, Sahir Ludhyanvi,Kaifi and Parveen Shakir. And their Style and art of modern poetry.

Course Code : PG54T202

Title :PRINCIPLES OF CRITICISM AND URDU LITERARY CRITICISM Course Outcomes:

At the end of the course, the students will get to know-

- 1. The meaning of criticism. And its importance. stuents learn that criticism provides insights, methods and conventions as to how to appreciate good literature as well as in human life, co relation with literary writings. these all things students learn by this study.
- 2. Able to know about the Responsibilites of being a critc
- 3. Principles of literary criticism and different thoughts of schools of criticism(Tanqeed ke Mukhtalif Dabistan)

Course Code : PG54T203 Title : HISTORY OF MODERN URDU LITERATURE (After 1857)

Course Outcomes:

At the end of the course, the students will be able to-

- 1. To Get acquainted with the historical events, trnds, and movements which affected the Urdu Literature.
- 2. Aware of progressive writers of the time, their life, writings, and their influence on other writers.
- 3. To know about the movements and establishments of different school of thoughts, and modern Urdu prose and poetry.

Course Code: PG54T204A

Title : BIOGRAPHY AND SKETCH

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Understand the meaning of Biography, auto biography, and Sketch, and form of writing.
- 2. The student will know the era, historical events and the trends of the time which are recommended for the study.
- 3. The student will get to know about the personality, qualities and art of writing of a biography and sketch. And the remarkable biography of an eminent scholar, reformer, Sir Syed Ahmed Khan.

Course Code : PG54T204B

Title :STUDY OF INSHAYIA

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Inshaiya (light essay) is a very interesting genre of Urdu literature.
- 2. They Know that Inshayiya (Light Essays) is the form taken from English literature, the definition of Inshaiya. What is the meaning of Inshaiya, how it is different from short story, novel and other genres of Urdu literature.
- 3. Student get acquinted with the beginning and development of Inshaviya in Urdu Lieterature.
- 4. Knows the major Inshaviya nigars and their style of writing, life sketch and important work of the writers.

Course Code : PG54T205A

Title :OEC URDU BEGINNERS -I (Study of Urdu Langauge & Simple Grammer)

* Students who don't know the Urdu Script shall offer this papar

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Understand the origen & birth of the urdu languageand its relevance with other Indian Languages.
- 2. Acquired the knowledge of basic concept of Urdu script writing ,phonology etc.
- 3. Writing the things in Urdu Language.and develop their translation skill and able to translate from English to Urduand also learn the basic Urdu grammar.

Course Code : PG54T205B

Title:OEC- Urdu For Knowing-I-Poetry(Ghazliyat) & Short Story

* Students who <u>know</u> the Urdu Script shall offer this papar* Course Outcomes:

At the end of the course, the students will be able to

- 1. After studying this paper the Students will be able to know about the specific form of Urdu Ghazal.Its popularity,its biginning and growth in India.
- 2. Short story is the form taken from English literature, students get awared of the form of literature its base and comparative literature .
- 3. Get acquinted with the famous poets of Urdu Ghazal and Knows the major writers of Short story, and their style of writing , life sketch etc

Course Code : PG54T205C

Title :OEC- PERSIAN FOR BIGINNERS

(Study of Persian Langauge & Simple Grammer, Translation) Course Outcomes:

At the end of the course, the students will be able to

- 1. Know about , farsi also known as Persian Language, is the most widely spoken Member of the Iranian branch of the Indo-Iranian languages.
- 2. Acquired the knowledge of basic concept of Persian script writing ,phonology etc.
- 3. Writing the things in Persian Language.and develop their translation skill and able to translate from English to Persian and also learn the basic Persian grammar.

URDU MA III Semester

Course Code : PG54T301 Title :STUDY OF PROSE

Course Outcomes:

At the end of the course, the students will be able to

- 1. Get acquainted with the begining and growth of Prose Writing in Deccani Urdu literature. As well in North India.
- 2. Get to know about the establishment of Fort William College Kolkatta. and also the student will acquinted with its mportant role in promoting Urdu Prose in literature.
- 3. Understand the style of prose writers of this period.

Course Code : PG54T302 Title :URDU JOURNALISM & MASS COMMUNICATION

Course Outcomes:

At the end of the course, the students will be able to Know.

- 1. The meaning and importance of Mass connunication and its features , Skills to be adopted.
- 2. Understand the history and growth of Urdu Mass Communication in India.
- 3. Able to know the importance of editing, being an editor. Soft skills and language skills to be adopted to a professional mass communicator. And also able to know about Electronic Media and Internet etc.

Course Code : PG54T303 Title :URDU GAZAL KA MUTALA Course Outcomes:

At the end of the course, the students will be able to

Ghazal is a very famous form of Urdu Poetry influenced by Persian poetry.

- 1. After studying this paper the Students will be able to know about the specific form of Urdu Ghazal.Its popularity,its biginning and growth in India.
- 2. Understand the Types and Trends of Urdu Ghazal.
- 3. Get acquinted with the famous poets of Urdu Ghazal of all ages.

Course Code : PG54T304 Title : STUDY OF URDU DRAMA,

Course Outcomes:

At the end of the course, the students will be able to

- 1. Understand the Drama as a form of Urdu literatue and its features.
- 2. And also able to know about the technique of Radio Drama.stage Drama .
- 3. Get acquainted with the Important Dramas, and major Drama Writers of Urdu lieterature.

Course Code :PG54T305A Title: OEC.URDU FOR BIGINNERS-II –

(Introduction to the Form of Urdu Literature and Simple Grammar) (those who have studied Urdu Beginner Part-I in Second Sem shall offer this paper) Course Outcomes:

At the end of the course, the students will be able to

- 1. Get acquainted with important forms of Urdu literature, prose, poetry, letter writing, sketches etc.
- 2. They knew about the structure of language and its analyzation.
- 3. Get aquired the skill of reading with comprehension, and creative writings.Understand the basic aspects of Urdu grammar.

Course Code :PG54T305B

Title :OEC- URDU FOR KNOWING-II-POETRY(NAZM) & PROSE (ESSAYS) * Students who <u>know</u> the Urdu Script shall offer this papar*

Course Outcomes:

- 1. After studying this paper the Students will be able to know about the form of Urdu Nazm .Its meaning , biginning and growth in India.
- 2. students get awared of an important form of Urdu prose (Essays) its base and technique of essay writing in Urdu.
- 3. Get acquinted with the famous poets of Urdu Nazm and Knows the major Essays writers and their style of writing , life sketch etc

Course Code :PG54T305C

Title : OEC- PERSIAN KNOWING – STUDY OF PERSIAN LITERATURE (Prose & Poetry)

Course Outcomes:

At the end of the course, the students will be able to

This course serves as an intensive introduction to classical and modern Persian Philology,

- 1. To develop their proficiency in reading and comprehension through communicative methods.
- 2. Get acquainted with the Textual analysis of works, and with this method, students gain a strong grounding in Persian Literature.
3. Student acquire an understanding of grammar that is well integrated into their language usage.

URDU M.A.IV SEMESTER

Course Code : PG54T401 Title: LITERARY MOVEMENTS & MODERN TRENDS Course Outcomes:

At the end of the course, the students will be able to

- 1. Aquired the knowledge of major literary movements in Urdu literature, its features and influence on Urdu Literature.
- 2. Understand the Modern Trends of Urdu Literature. And exeplary writers of the trends.
- 3. Get acquinted with the knowledge of shaping the Urdu literature and idendifying it through the trends and style of the writer/poet.

Course Code : PG54T402

Title :TRANSLATION, PROSODY & RHETORIC

Course Outcomes:

At the end of the course, the students will be able to

- 1. Learn about the Translation skills, and its importance, knowing phrases, ideoms and phrasal verbs of a language, while translating.
- 2. Know about the problem solving of translation/usage of recent technology, and usage of internet for translation,
- 3. Understand the Meters, Understanding of Urdu, Persian and Arabic meters of poetry.

This paper helps to students to understand the works of other languages.

Course Code : PG54T403

Title :STUDY OF URDU NOVEL& NOVELT

Course Outcomes:

At the end of the course, the students will be able to

- 1. Get acquainted with the major form of Urdu fiction, Novel and Novelette.and its features.
- 2. And also able to know about the beginning and growth of Novel and Novelette in Urdu literature.
- 3. 3.Get acquainted with the Important Novel, and Novelette, and major fiction writers of Urdu lieterature.

Course Code : PG54T404A (Specialisation) Title :STUDY OF SPECIAL AUTHOUR/POETDr. MOHAMMED IQBAL Course Outcomes:

At the end of the course, the students will be able to

- 1. Know Life Personality, Philosophy, and writings of Allama Iqbal.and understand the socio-cultural history of this age.
- 2. Know his inflence on other school of thoughts through his epic poems and their message.
- 3. To aware about his love towards the country and country men.

Course Code : PG54T404B

Title: STUDY OF AN SPECIAL AUTHOUR/ POET: MIRZA GHALIB

Course Out comes:

At the end of the course, the students will be able to

- 1. Know about the age, era and life, Personality of great poet Ghalib.
- 2. Understand the Style of Ghalib's Urdu Poetry, Persian Poetry. And Prose writings.
- 3. Understand the Ghalib's influence on Urdu Poetry.

Course Code : PG54T405 DISSERTATION

Course Outcomes:

At the end of the course, the students will be able to-

- 1. Understand the aims and objectives of Research.
- 2. To get acquainted with the process of undertaking research work.
- 3. To get acquainted with the mechanics of writing research articles and dissertation.

DEPARTMENT OF STUDIES IN URDU Ph.D (PH 54)

Program Outcomes:

- 4. Ph.D is the much coveted degree in higher education. The students will learn that PhD is to be original research and solution to many problems.
- 5. Ph.D scholars will achieve excellence in language, literature, and that particular domain of knowledge.
- 6. Ph.D scholars will acquire specialization.

Program Specific Outcomes:

- 4. Ph.D program is the most sought after degree in Karnatak University, for it shapes the student's destiny. The students will learn this.
- 5. The Ph.D program aims at providing holistic approach to the student's professional requirements. The students will realize that the degree will enable them for academic endeavors.
- 6. Karnatak University Ph.D program is available for students in open competition from anywhere in the country. The students will have an opportunity to obtain Ph.D from this university.

The Syllabus for Ph.D Course Work

PH5401- Research Methodology

Course Outcomes:

- 1. Ph.D scholars will acquire language skills and mastery over the research methodology.
- 2. The students will acquire the mechanics of writing Thesis, preparing citation, and bibliography.

PH5402-ADVANCES IN THE SUBJECT of URDU

Course Outcomes:

- 1. Ph.D scholars will understand what are the critical approaches to the study of literature. They will be acquainted with the major critical theories related to Urdu Poetry, Fiction, Non Fiction Literature, different literary movements and Criticism etc.
- 2. Ph.D scholars will study enough critical theories, ideologies and approaches to understand a problem and find out solutions.

This paper will familiarize the students with various critical approaches with an emphasis on recent developments in literary theory.

PH5403- AREA OF RESEARCH

Course outcomes:

- 1. The paper acquaints and updates the students with their area of research.
- 2. The students get acquainted with major issues that the writers engage with.
- 3. The paper enables the students to know the research gaps in the area.

Paper	Name of the	Objectives	Course Outcome
Code	Paper		
PG56T101	FUNDAMENTALS OF WOMEN'S STUDIES	The paper focuses on the Women's Studies as an academic discipline, basic concepts in Women's Studies, making students aware of the Welfare Organizations, Committees, Commissions at the National and International level and availability of avenues in the field of Women's Studies.	Identifying the gender differences/discriminati ons, thereby raising self-consciousness and awareness to the situation.
PG56T102	GENDER, SOCIETY AND CULTURE	The paper aims to understand the key concepts of Gender, Society and Culture and various social institution, social factors, images which shapes the identity of women as well as reasons for the suppression of women and the impact of social evils against women.	Identifying roles/role play within the family and society, adopting change in socialization process within and for the future generations.
PG56T103	RESEARCH METHODOLOGY	The paper introduces the students to basic research methodology in Social Science, new knowledge into Feminist and gender perspective, feminist critique, analysis and interpretation.	Gaining knowledge of research and perspective of Women's Studies
PG56T104	WOMEN IN INDIA: PERSPECTIVES AND PROBLEMS	The paper concentrates on understanding the status and role of women in society. introducing the students to the concepts of development, issues related to marginalized women and violence against women with special reference to India	Exclusive knowledge of problems of women in India.
PG56T105	WOMEN AND EDUCATION	The paper deals with the importance of women's education, history, development, empowerment in India, the Governmental Initiatives, Plans, Commissions, National Policies and barriers for women's	Awareness building about the value of girls/women's education in present Indian scenario.

DEPARTMENT OF WOMEN'S STUDIES

		education.	
PG56T106A PG56T106B	WOMEN AND WORK (Specialization) FEMINIST LITERARY STUDIES (Specialization)	The paper highlights on the concept of work, feminist approaches to economic theories, women's organizations and networking, polices, legislative implementations and practices. The paper aims to explore new women's writings with a feminist perspective, introducing the students for the feminist literary thinkers, feminist writings, criticism, analysis and experiences. It gives exposure to	Identifying the emerging role, conflicts and Special Government provisions for working women. learns an in-depth writing and exposure to feminist issues of concerns.
		the Western, Indian and Regional	
		feminist writings.	
SEMESTER-	II		
PG56T201	FEMINISM AND FEMINIST THEORIES	The paper intents the students to understand Feminism with different forms of feminist thought and providing them a feminist perspective to understand women's experience, explains the Indian feminism and the trends in feminist theory.	In-depth knowledge of contributions of Feminists and the Social Reformers.
PG56T202	FEMINIST JURISPRUDENCE	This paper helps the students to become aware of the about constitutional and legal rights in India. Highlighting the special women's rights, personal laws and laws relating to crimes against women.	Gaining knowledge of laws, special concern to women, creating awareness and bringing into practice in their own life situations.
PG56T203	STATISTICAL APPLICATIONS IN WOMEN'S STUDIES	This paper aims to explain statistical techniques, soft skills, computer languages and understanding students to learn effective use of statistics and computer for research objectives.	Gaining knowledge of effective usage of statistical methods and computer applications.
PG56T204	WOMEN AND HEALTH	The paper attempts to create awareness among the students about the importance of women's health and condition in India, various determinants of population dynamics and the changing scenario and initiatives taken at national and international forums.	<u>K</u> nowledge of women's health, gender differences, dilemmas and access to it.
PG56T205A	WOMEN AND HUMAN RESOURCE DEVELOPMENT (Specialization)	The paper intents to address the significance and the need of Human resource at various levels, exposing students for practical exercises, molding them to learn management skills, effective communication, and enhancing	Overall developmental and managerial skills of students.

		their leadership quality for the	
		career development.	
PG56T205B	WOMEN AND RELIGION (Specialisation)	The paper aims to expose the students about the religion and its significance, and the cultural implications of religion on women in the form of blind beliefs & practices in India, its consequences on women's mental and physical health conditions.	Knowledge, awareness, within the students the implications of social factors in real life situations.
PG56T206	OEC Women in Contemporary India	The paper aims to provide the students an overview of the status of women from ancient period to the contemporary era relating to health, education, subordination and suppression of women, political representation of women, the problems and challenges and strategies to empower them.	Overall changing perspectives and aspects to empower women <u>.</u>
SEMESTER	-III		
PG561301	WOMEN'S MOVEMENTS AND SOCIAL CHANGE	The paper sensitizes students on various social movements to bring social change at international, national and at the state levels. The social issues based on the gender differences or gender inequalities from the time of pre- independence era to the contemporary era are given importance.	Knowledge of historical movements contributed to bring the drastic social change within the society.
PG56T302	WOMEN AND ENVIRONMENT	The paper aims to explore about the inter-linkage between the women and environment, throwing light on the indigenous knowledge of women, highlighting the changing ecosystem past, present and future, policy frameworks at state, national and International.	Knowledge of relation between the environment and women through Eco- Feminist perspective.
PG56T303	MARGINALISED WOMEN: ISSUES AND PERSPECTIVES	This paper aims to understand the group of marginalized people in the Indian context, issues and challenges bounded, myths, realities and initiatives taken for the welfare of women from the International and National agencies.	In-depth knowledge of problems and challenges of marginalized women.
PG56T304A	Review of Related Book and Internship	This paper aims to introduce the students to new writers especially to the feminist writings, thinkers, critical analysis and evaluation of the book. The expected outcome of the students will be the effective usage of words,	In-depth knowledge of selected book, better writing skills, strong analytical skills, the expansion of vocabulary and it mentally stimulates.

		language, writing skills and in depth knowledge in Women's Studies.	
PG56T304B	WOMEN, GOVERNANCE AND LEADERSHIP (Specialization)	The paper aims in understanding the overview of the politics and evolutionary changes, women's representation, participation, understanding the feminist politics and effective measures for the empowerment of women politically.	It gives the clear picture of politics with special reference to women and the gender gaps in governance as well as in building the leadership qualities.
PG56T305	WOMEN, SCIENCE AND TECHNOLOGY, (Specialization)	The paper introduces the students about the concept of women , science and technology and the myths, historical perspective, the impact and threats of technology on women and on her health in a feminist Perspective.	Gaining the knowledge of application of Science and Technology in the society and how its adverse impact on women.
PG56T306	OEC (Open Elective Paper) WOMEN'S LAWS AND EMPOWERMENT	The paper aims to explain the availability of constitutional laws and government programmes specifying women centric. Creating awareness within the students about the, personal laws, special Acts to empower women in India.	Gaining knowledge of laws, special concern to women, creating awareness and bringing into practice in their own life situation.
SEMESTER	-IV		
PG56T401	WOMEN AND DEVELOPMENT	This paper aims to provide an understanding of development through mainstreaming women, various developmental initiatives taken by the National and International bodies. Creating awareness among the students about welfare, development and its differences and the concept of beneficiaries from a gender perspective.	Gaining in-depth knowledge of adopting the gender sensitization and inclusiveness welfare, development and empowerment.
PG56T402	: FEMINIST APPROACH TO PSYCHOLOGY	The paper aims to explore the students about various psychological issues, the status of mental health, sensitizing students regarding the importance of counseling and creating in-depth knowledge of feminist psychology.	understanding the theoretical framework of psychology and mental set up of women in the society.
PG56T403	WOMEN AND ENTREPRENEUR SHIP	The paper aims to introduce to the concept of entrepreneurship, promoting women to managerial activities, problems and	Knowledge of supporting to start up as a self-entrepreneur with individual skills,

		as role models, Initiatives by the	challenges involved in
		funding agencies to start up as	it.
		entrepreneurs.	
PG56T404	Women and	The paper introduces student to	Knowledge of
	NGO's	the concept of NGO and its	supporting to start up as
		formation and management,	a self-entrepreneur by
		significance of working as a	forming the NGO's
		voluntaries and management.	working for the
		Creating awareness about raising	underprivileged people
		the issues of women and the	in the society.
		social responsibility, the	
		involvement of National and	
		International NGO's for the	
		benefit of women.	
DC56T405	WOMEN AND	The nener evolving the students	The reflection of modia
PG301403		shout the grueial role of madia in	and its impact on
	(Specialisation)	about the crucial fole of media in a public domain how it denicts	women in the society is
	(Specialisation)	women in media and critically	the knowledge
		analysis the gender aspect in	inculcated through this
		media and throws a light on the	paper.
		media ethics and laws.	p op of t
PG56T406	Research Project	The paper focuses on research, the	The knowledge gained
	and Dissertation	students are initiated by the	in the field of reporting,
		specific titles or topics related to	documenting and more
		women. The students learn to do	than anything the
		the research, full hand field	gender sensitization is
		experience, acquires the	the outcome of each and
		knowledge of reporting and	every Women's Studies
		documentation and so forth.	research involves.

DEPARTMENT OF BIOTECHNOLOGY

Credits	4 Papers -4 Theory period of four hours per week over a semester
	4 Practical period of four hours per week over a semester
M.Sc First Sen	nester Biotechnology
Program	Course Code: PG73T101-BTCT 1.1 Biomolecules
Objectives	• To understand the fundamental biochemistry principles, such as structure/function of biomolecules,
	• To study the classification, characterization and significance of Biomolecules
	• To study the role of vitamins and enzyme activity
	Course Code : PG73T102-BTCT 1.2 Microbiology Course Objectives:
	 The objectives of this course to train students practically in basic and applied principles of microbiology. The course involves demonstration and on-hand training of various microbiological techniques.

	Course Code : PG73T103-BTCT 1.3 Biophysical and Biochemical	
	techniques :	
	Course Objectives:	
	• A comprehensive knowledge of the equipment used in Biotechnology will	
	be offered in the course along with the applications.	
	• Update and educate the students with latest techniques for analysis.	
	Course Code : PG/3T104 BTCT 1.4 Cell Biology and Genetics	
	Course Objectives:	
	• To understand, structural and functional aspects of the cell, cellcycle	
	• To understand Classical and Molecular genetics. Genomic structure and,	
	genetic disorders	
M.Sc Second Seme	ster Biotechnology	
	Course Code: PG73T201 -BTCT 2.1 Molecular Biology,	
	Bioinformatics and Biostatistics:	
	Course Objectives:	
	• The course gives an in-depth insight into the molecular aspects of life - the	
	central dogma.	
	• It explains molecular aspects of genes and its regulation- genome- gene	
	expressions heredity- recombination- protein synthesis- molecular basis of	
	diseases- mutations genetic analysis etc.	
	• The objective of this course is to encompass the methodology and theory of	
	statistics as applied to problems in the field of life sciences and provide	
	students with basic understanding and applications of bioinformatics.	
	• The course will provide the basic concepts behind the sequence and	
	structural alignment, database searching, protein structure prediction and	
	computer-based drug designing.	
	Course Code : PG73T202 -BTCT 2.2 Immunology and	
	Immunotechnology	
	Course Objective:	
	• To know the concepts of immune response	
	• To learn the immunodiagnostic techniques	
	• Role of immune system in organ transplant.	
	• Importance of immune system in cancers.	
	Course Code: DC73T203 BTCT 2 2 Engunalogy and Matchelian	
	Course code: rG/51205-D1C12.5 Enzymology and Metabolism	
	Course objective:	
	• Describes the kinetics of enzymatic reactions and to understand enzyme	
	substrate models and mechanism of enzyme catalysis also describes the	
	fundamental concepts of metabolic painways, importance and their	
	regulatory mechanism	
	Course Code: PG73T204A -BTET 2.4 Molecular Cell Biology	
	Course Objectives:	
	• The course gives an in-depth insight into the molecular aspects of life - the	
	central dogma.	
	• It explains molecular aspects of genes and its regulation- genome- gene	
	expressions heredity- recombination- protein synthesis- molecular basis of	
	diseases- mutations genetic analysis etc.	
M.Sc Third Semes	ter Biotechnology	

	Course Code: PG73T301 -BTCT 3.1 Animal Biotechnology
	Course objective:
	• Describes the basic principles of animal tissue culture and its
	characteristics and understanding of stem cell and Tissue Engineering.
	• Understand cell culture dynamics.
	Role of Animal cell culture in regenerative medicine
	Course Code: PG73T302 -BTCT 3.2 Environmental Biotechnology and
	Diversity
	Course Objectives
	• The course explains the application of biotechnology in environmental protection.
	• The students will know about the principles and techniques underpinning
	the application of biosciences to the environment
	 To understand the ubiquitous nature of microbes
	 To give basic knowledge on extremophiles
	 To provide knowledge on characteristics of Microbes
	Course Code · PC73T303 BTCT 3.3 Bioprocess Engineering and
	Technology
	Course Objectives:
	• This course covers microbial growth and application of microbes in
	industrial product formation and importance will be given on techniques
	for screening, improvement of potential industrial microbes.
	• The course discuss on significance of fermentation processes and overview
	of the Upstream and downstream process from raw
	• material to product in industry.
	Course Code : PG73T304A -BTET 3.4 Plant and Animal Tissue
	Culture (Elective Paper)
	Course objective:
	• To understand modern plant tissue culture, genetic engineering and
	biofertilizers
	• To understand a wide range of useful and valuable traits in agricultural
	biotechnology
	• Describes the basic principles of animal tissue culture and its
	characteristics and understanding of stem cell and Tissue Engineering
M.Sc Fourth Seme	ster Biotechnology
	Course Code: PG73T401 -BTCT 4.1 Genetic EngineeringCourse
	objectives
	• To expose students to application of recombinant DNA technology in
	biotechnological research.
	• To train students in strategizing research methodologies employing genetic
	engineering techniques

	Course Code : PG73T402 -BTCT 4.2 Plant Biotechnology
	Course objective:
	 To understand modern plant tissue culture, genetic engineering and biofertilizers
	• To understand a wide range of useful and valuable traits in agricultural
	biotechnology
	 Understanding plant microbe interactions.
	Course Code : PG73T403 -BTCT 4.3 Medical Biotechnology
	Course Objective:
	• To understand the human disease diagnostics and organ function tests
	• To know the applications of DNA vaccines. Monoclonal antibodies.
	Antisense technology and
	• Gene therapy. To describe the tumor biology and therapies
	Course code : PG73PJ404-BTCPJ 4.7 Project work/ Dissertation
	• Project program in Biotechnology offers an opportunity to students for foresight of research in various branches of Biotechnology.
	• It trains them with an ability to gain specialization while customizing and individualizing the education for desired skills and career in Research methodology.
	• Students are made aware of the economic impact and are supported in creating significant workforce opportunities in Biotechnology as entrepreneurs or as employees
Program	M.Sc First Semester Biotechnology
outcome	
	Course Code: PG73T101-BTCT 1.1 Biomolecules
	Course outcome:
	• The student will be able to describe the biochemistry of carbohydrates,
	lipids, nucleic acids, vitamins, enzymes and structural organization of proteins.
	Course Code : PG73T102-BTCT 1.2 Microbiology
	Course Outcome:
	• Student will be able to Understand microbial classification
	Apply microbiological techniques
	Course Code : PG73T103-BTCT 1.3 Biophysical and Biochemical
	techniques :
	Course Outcome:
	 At the end of the course, the students will be able to Confine the functioning, maintenance and safety aspects of the basic apparatus used in Biotechnology Understand the principles and applications of centrifuge, electrophoresis and chromatography In research and related experiments Use the knowledge for the separation of proteins/peptides by selecting appropriate separationtechniques
	Course Code + DC72T104 DTCT 1 4 Coll Dislow and Constica
	Course Code : PG/31104 BIC1 1.4 Cell Blology and Genetics
	• Student will able to explain Importance of call and its encoughling size allow
	 Student will able to explain importance of cell and its organelles, signaling molecules and importance of cell cycle
	• The basics of Genetic principles and human genetics.

	M.Sc Second Semester Biotechnology		
	Course Code: PG73T201 -BTCT 2.1 Molecular Biology,		
	Bioinformatics and Biostatistics:		
	Course Outcome:		
	• At the end of the course, the student will get an idea about the principles behind molecular biology which makes students to understand the basic molecular tools and its application in basic and applied research in various		
	fields of life sciences.		
	• Student will be able apply statistics for life science experiments		
	• Students will be able to understand and describe and use the biological		
	• databases, perform structured query and analyze and discuss the results in biologically significant way.		
	• Students will become familiar with a wide variety of bioinformatics tools and softwares and apply these to conduct basic bioinformatics		
	• research and thus develop platform for molecular biology experiments.		
	Course Code : PG73T202 -BTCT 2.2 Immunology and		
	Immunotechnology		
	Course Outcome:		
	• Students will be able to Describe the immune system and Outline the		
	mechanisms of Immune response		
	• Apply the major immunological laboratory techniques for clinical analysis and research		
-	Course Code: PG73T203 -BTCT 2.3 Enzymology and Metabolism		
	Course Outcome:		
	• Student will be able to explain enzyme substrate models and kinetics of		
	enzyme reaction, understand fundamental concepts of metabolic		
	• pathways, human disorders associated with metabolism		
	Course Code: PG73T204A -BTET 2.4 Molecular Cell BiologyCourse		
	Outcome:		
	• At the end of the course, the student will get an idea about the		
	• principles behind molecular biology which makes students to understand the basic molecular tools and its application in basic and applied research in various fields of life sciences		
	 Student will be able apply statistics for life science experiments 		
	M Sc Third Semester Biotechnology		
	Course Code: PG73T301 -RTCT 3 1 Animal Riotechnology		
	Course Outcome.		
	 Student will able to understand principles of animal tissue culture and its culturing methods and understanding of stem cell culture 		

Course Code: PG73T302 -BTCT 3.2 Environmental Biotechnologyand	
Diversity	
Course Outcome	
• At the end of the course the students will, obtain knowledge on basic	
principles and technologies of decontamination of persistent organic	
pollutants (dangerous contaminants of the environment) mainly by means	
of biotechnological approaches.	
• After the completion of the course students would be able Students able to	
differentiate various groups of Microbes.	
• Get knowledge on adaptability of extremophiles.	
Knowledge about microbial taxonomy.	
Course Code : PG73T303 -BTCT 3.3 Bioprocess Engineering and	
Technology	
Course Outcome:	
• Explains various cell culture methods, strain improvement and to design	
and develop medium for inoculum development.	
• Understand the techniques of sterilization and able to explains various	
aspects of fermenter for an industrial fermentation process.	
• To supplement the academic input of students by way of seminars,	
 conferences, guest lectures and industry oriented projects/ visits	
(Floating Dopon)	
(Elective raper)	
• On completion of the course, students able to understand	
 Mass multiplication and conservation of rare and endergored medicinal 	
• Mass multiplication and conservation of fate and endangered medicinal plants	
 Enhancement of secondary metabolites from medicinal plants 	
 Comparison of biofertilizers and chemical fartilizers 	
 Comparison of oforerunzers and chemical fertilizers. Crop improvement through hybrid varieties 	
 Student will be able to understand principles of animal tissue culture and 	
its culturing methods and understanding of stem cell culture	
M Sc Fourth Semester Biotechnology	
 Course Code: DC73T/01 BTCT / 1 Constin Engineering	
Course outcome	
• At the end of the course, the student will achieve good knowledge on	
methodological repertoire which allows them to innovatively apply these	
techniques in basic and applied fields of life science researches	
Course Code : DC72T402 DTCT 4.2 Plant Bistochrology Course	
Course Code : PG/51402 - BTC1 4.2 Plant Biotechnology Course	
• On completion of the course students will be able to understand	
 Mass multiplication and conservation of rare and andergored medicinal 	
Induprication and conservation of rare and endangered medicinal plants	
Finhancement of secondary metabolites from modicinal plants	
 Comparison of biofertilizers and chemical fartilizers 	
Comparison of bioferunzers and chemical fertilizers.	
• Crop improvement through hybrid varieties.	

Course Code : PG73T403 -BTCT 4.3 Medical BiotechnologyCourse	
outcome:	
• Students will be able to Apply the diagnostic and organ function	
 tests for detection of diseases and disorders 	
 Comprehend the DNA vaccines, Monoclonal antibodies, Antisense technology and Gene therapy Understand the tumour biology with hormonal and enzymatic therapies 	
Course code PG84PJ404MBCPJ 4.7 Project work/ Dissertation	
 After submission of the project dissertation the students will develop an ability to hypothesize and develop a rationale towards research. 	
• They will be able to compare, synthesize existing and new knowledge, and integration of results based on their research	
• Gain sufficient hands-on learning experience related to the area of specialization with a focus on research orientation	

DEPARTMENT OF COMMERCE PROGRAMME CODE AND COURSE CODES AND COURSE OUTCOMES M.COM COURSE

PROGRAMME	COURSE	COURSE OUTCOMES
CODE AND COURSE	TITLE	
CODES		
	I Se	mester
PG63T101	Marketing	Provides the students with the basic
	Management	knowledge of marketing concepts used by
		contemporary businesses in the modern
		world and to understand the differences in
		marketing strategies as dictated by products,
		customers, environment, etc.
PG63T102	Financial	Provides an understanding of various
	Management	concepts of financial management and to
		develop skills amongst the students in
		designing appropriate financial strategies for
		business enterprises.
PG63T103	Organizational	Develops conceptual and theoretical
	Behaviour	understanding of organizational behavior
		theory and its basic elements amongst the
		students and in developing appropriate
		knowledge for influencing individual
		behavior on group behavior and vice versa in
		the organizational behavior.
PG63T104	Strategic	Provides conceptual knowledge of strategic
	Management	management process in businesses and
		develop skills of analysis, implementation
		and evaluation of various strategies in the
		business organizations amongst the students.
PG63T105	Security	Provides conceptual understanding of the

	Analysis and	elements of investment process in securities
	Portfolio	and in developing skills of analysis and
	Management	selection of appropriate securities for
	_	investment.
	II Se	mester
PG63T201	Financial	Provides an understanding of theoretical
	Reporting	concepts of corporate financial reporting
	Standards	trends and to develop skills in interpretation
		of financial statements of global
		organizations.
PG63T202	Corporate	Equip students with the basic understanding
	Restructuring	with the concepts of corporate Restructuring
		and to develop skills for valuation and
		integration of corporate Restructuring
PG63T203	Business	Develop an understanding the quantitative
	Research	research concepts and their application in
	Methods	business and equip students with necessary
		skills to apply research methods in business.
PG63T204	Strategic	Develop an understanding of various
	Human	concepts of strategic human resource
	Resource	planning, recruiting, selecting, compensating,
	Management	evaluating the human resources and
		understand talent management, knowledge
		management, etc. Students improve their
		Strategical thinking capacity and integrate
		the activities of HR with the organizations
DC62T205	Economia	goals.
FG051205	Analysis for	aconomics relevant for managerial decision
	Managerial	making and to develop skills in the
	Decisions	application of those concepts
PG63T206	Fundamentals of	The students will be able to explain the
10031200	Business	meaning and significance of business and its
	Open Elective	working and understand the impact of
	Course (To be	environment on functioning of business
	chosen from the	entities.
	courses offered	
	by the other	
	Departments)	
	III Se	emester
PG63T301	Accounting	Provides an understanding of the basic
	Information	concepts and techniques of accounting
	System	information system in business entities and
		to develop skills among the students relating
		to system development process, data
		resource management and transaction
		processing and practicals with accounting
		softwares.
PG63T302	Multi-national	Provides an understanding of concepts and

	Business	techniques of financial management of		
	Finance	MNCs and to develop the skills of their		
		applications in the management of financial		
		operations and risks of MNCs.		
Specialization Group: Cost Management and Control				
PG63T303A	Production and	Provides a basic understanding of the		
	Operations	principles of production and operations		
	Management	management to students and enable them to		
		link the relationship of the subject with cost		
		management practices.		
PG63T303B		Provides knowledge of cost management		
	Cost	techniques as applied in manufacturing and		
	Management	service organizations and to develop skills		
		of their applications.		
PG63T303C	Advanced	Provides an understanding of advanced		
	Management	management accounting concepts as		
	Accounting	employed in manufacturing entities and to		
		develop skill in them in applying such		
		concepts and techniques.		
Speci	alization Group: A	Group: Accounting and Taxation		
PG63T303A	Corporate	Enable students to learn the techniques of		
	Accounting	accounting for and reporting of corporate		
		entities' annual accounts and of specialize		
		nature of financial activities and events.		
PG63T303B	Accounting for	Provides conceptual knowledge regarding		
	Specialized	the accounting principles in specialized types		
	Institutions	of business enterprises and to impart skills		
		for accounting and reporting of financial		
		transactions in such enterprises.		
PG63T303C	Corporate Tax	Provides knowledge of direct tax laws and		
	Planning (Direct	their application in tax planning of		
	Taxes) – I	corporate entities and to develop skills of		
		the applications of various provisions of		
		direct tax laws in India		
Speci	ialization Group :	Accounting and Finance		
PG63T304A	Corporate	Enable students to learn the techniques of		
	Accounting	accounting for and reporting of corporate		
		entities' annual accounts and of specialize		
		nature of financial activities and events.		
PG63T304B	Accounting for	Provides conceptual knowledge regarding		
	Specialized	the accounting principles in specialized types		
	Institutions	of business enterprises and to impart skills		
		tor accounting and reporting of financial		
		transactions in such enterprises.		
PG63T304 C	Fundamentals of	Provides an in depth understanding of		
	Financial	various derivative securities and markets. It		
	Derivatives	covers options, futures, forwards, swaps,		
		interest rate forwards and options,		
		commodity derivatives. It aims at giving the		

		concentual understanding as well as	
		conceptual understanding as well as	
		practical knowledge about derivative	
		markets in India.	
	Specialization	Group : Finance	
PG63T304A	Business	The objectives of the course are to provide	
	Analysis and	the students with the fundamental concepts	
	Valuation	and principles of valuation of business	
		enterprises and to develop among the	
		students the skills of valuation of businesses	
		in parts and as a whole.	
PG63T304B	Corporate	The course aims at imparting necessary	
	Financial Risk	skills for understanding the nature of risk.	
	Management	its implications on financial health and	
	Management	solvency and also learning various tools and	
		techniques of risk management	
PG63T303C	Fundamentals of	This course provides an in depth	
100313030	Financial	understanding of various derivative securities	
	Derivativas	and markets. It covers options futures	
	Derivatives	forwards swaps interast rate forwards and	
		options, someodity derivatives. It sime at	
		options, commounty derivatives. It aims at	
		giving the conceptual understanding as well	
		as practical knowledge about derivative	
		markets in India.	
S	pecialization Grou	p: Bank Management	
PG63T305A	Principles of	Provide conceptual and practical	
	Bank	understanding of the principles and	
	Management	techniques involved in the management of	
		banking institutions and to enable students to	
		acquire specialized skills in the arena of bank	
		management	
PG63T305B	Banking in	To enable students to understand the	
	India	evolution, growth and contribution of	
		banking institutions in India in both private	
		and public domain and to acquire knowledge	
		specific Indian banking environment.	
PG63T305 C	Management	The subject is designed to provide	
	Accounting for	knowledge of the basic concepts and	
	Bankers	techniques of management accounting	
		relevant to banking institutions and to	
		develop skills of their application among	
		the students.	
Speci	alization Group: H	Banking and Finance	
PG63T305A	Principles of	Provide conceptual and practical	
	Bank	understanding of the principles and	
	Management	techniques involved in the management of	
		banking institutions and to enable students to	
		acquire specialized skills in the arena of bank	
		management	
PC63T305P	Corporata	Aims at imparting pagassary skills for	
I OUDIDUD	Corporate	1 mins at imparting increasary skills 101	

	Financial Risk	understanding the nature of risk, its
	Management	implications on financial health and solvency
	E .	and also learning various tools and
		techniques of risk management.
PG63T305C	Fundamentals of	Provides an in depth understanding of
	Financial	various derivative securities and markets. It
	Derivatives	covers options, futures, forwards, swaps,
		interest rate forwards and options,
		commodity derivatives. It aims at giving the
		conceptual understanding as well as practical
		knowledge about derivative markets in India.
	Open Elec	ctive Course
PG63T306	Investment and	Provides an in depth understanding of
	Tax Planning	various Investment avenues and tax
		planning. Imparting necessary skills for
		understanding the nature of investment, its
		implications on financial health of the
		investor and based on investment investor
		learning various tools and techniques of tax
		planning
DC (201401	IV SEN	AESTER
PG631401	Computer	The course is designed to develop among
	Applications in	the students the basic conceptual and
	Business	technical skills of 11 as applied in various
		functional areas of the business entities.
		Impart knowledge among students on
DC63T/02	Corporata	The subject sime to provide basic
1 003 1402	Governance	understanding of evolution concept role
	Governance	and principles of corporate governance in
		the world and in India and to develop the
		knowledge of measuring the governance
		performance of entities.
Speciali	zation Group: Cos	st Management and Control
PG63T403A	Strategic Cost	To develop basic concepts and principles of
	Management	strategic cost management and impart
		specialized knowledge and skills of strategic
		cost analysis in business entities.
PG63T404B	Quantitative	Enables students to understand the
	Methods for	application of quantitative techniques in
	Cost	business operations and to develop skills in
	Accountants	implementing such techniques in managing
		business operations.
Speci	alization Group: A	Accounting and Taxation
PG63T403A	Contemporary	Provide among the students an understanding
	Issues in	of contemporary developments in the field of
	Accounting	accounting and their application in resolving
		complex issues of financial reporting.
PG63T404B	Corporate Tax	The course is designed to enable students to

	Planning – II	understand the basic concepts of GST Law	
	(GST &	introduced in India and to develop skills of	
	Customs)	computing GST and in filing all the returns	
		involved under the GST.	
Spec	cialization Group:	Accounting and Finance	
PG63T403A	Contemporary	Provide among the students an understanding	
	Issues in	of contemporary developments in the field of	
	Accounting	accounting and their application in resolving	
		complex issues of financial reporting.	
PG63T404B	Basic Financial	Provide a basic understanding of advanced	
	Econometrics	financial tools used in testing financial	
		research hypotheses. The knowledge of the	
		subject would summarily help in improving	
		the quality of research undertaken in the field	
		of business finance.	
	Specialization	Group : Finance	
PG63T403A	Behavioural	Able to examines the behavioural strategies	
	Finance	that investors rely upon to make decisions,	
		the structure and speculative dynamics of	
		returns in world equity markets (from a	
		psychological perspective), and the	
		practical implications of behavioural	
		finance.	
PG63T404B	Basic Financial	Provide a basic understanding of advanced	
	Econometrics	financial tools used in testing financial	
		research hypotheses. The knowledge of the	
		subject would summarily help in improving	
		the quality of research undertaken in the field	
		of business finance.	
	Ein an ai al	p: Bank Management	
PG631403A	Financial	Provide an understanding of the concepts and	
	Management in	techniques adopted in the management of	
	Dominercial	heading institutions and to develop the skills	
	DallKS	of their applicability in such institutions	
PG63T404B	Foreign	Provide an understanding of the concepts	
1 003 1404 D	Fychange &	techniques and approaches employed in	
	Risk	foreign exchange management so as to	
	Management	enable students acquaint themselves with the	
	Management	skills of their use in business entities	
Sn	ecialization Grou	r. Ranking and Finance	
PG63T403A	Financial	The course is designed to provide an	
1 0001 10011	Management in	understanding of the concents and	
	Commercial	techniques adopted in the management of	
	Banks	financial resources and cash flows by	
		banking institutions and to develop the	
		skills of their applicability in such	
		institutions.	

PG63T404B	Basic Financial Econometrics	The subject aims to provide a basic understanding of advanced financial tools used in testing financial research hypotheses. The knowledge of the subject would summarily help in improving the quality of research undertaken in the field of business finance
Project Report		
PG63PR405	Project Report	Expose the students to various operational aspects of business organizations. Help them to sharpen their writing skills ; and Channelise their thinking towards the application of the concepts that are learnt in the course. Expose students to face oral communication through presentation and answer in project viva-voce.

Course code	Title of the course Course outcome		
First Semester			
	Compu	ilsory courses	
PG34T 101	Micro Economic Analysis-I	 Understand the economic behaviour of individual economic agents, consumers and firms Analyse the process of price formation in 	
		 different type of markets 3) Apply the microeconomic tools to estimate demand, production, costs and profits of business firms 	
PG34T 102	Macro-Economic Analysis-I	 The objectives of this paper are to study the macroeconomic measurement indicators. To study the importance of national income and economic development. To understand various types of national income accounts. To have in-depth understanding of theories of employment and determination of output and income 	
PG34T 103	Economics of Growth and Development-I	 Economics of Growth and Development helps to understand the several concepts and measurement of economic growth and development, Students have the knowledge on growth and distributive Justice-poverty measurement and income distribution and their value, development gap, causes, consequences and measures to reduce development gap. Compare the classical and neo-classical growth and development models etc; analyse the impact on output, income and employment both in developed and developing countries. It also demonstrates the experience of success and failure in the economies of different regions of the world. 	
PG34T 104	Mathematics for Economics	 Students will learn applications of equilibrium equations and graphs which are directly useful in economic analysis. Students will be familiar with the maxima, minima, elasticity, decide the optimal level of production for a firm. Demonstrate the rules of differentiation, calculating integration, describe the 	

DEPARTMENT OF ECONOMICS

		4)	importance and application of integration in consumer's and producer's surpluses. Demonstrate knowledge of basic concept of linear program, duality, capacity to solve linear programming problems, familiar with the basic techniques most commonly used in economic problems
PG34T 105	Indian Economy	1) 2) 2)	Identify the problems of Indian Economy Investigate the causes for the persistent problems in agricultural, industrial, financial and foreign trade sectors
		3) 4)	undertaken by the government; and Analyse the impact of monetary and fiscal policies and major economic events like the budget.
	Specialization / O	ptio	onal Paper (any one)
PG34T 106A	Agricultural Economics	 1) 2) 3) 4) 	Agriculture economics helps to understand the nature and scope of agriculture economics, importance, its modernization, relation with other sector and it also proved with some theories. It analyses the agricultural production and productivity, efficiency in traditional agriculture and their value, resource combination and substitution, cost concepts and supply curves, laws of returns, farm budgeting, It demonstrates the growth trends in five- year plans, variations in output and productivity, cropping pattern, public investment and capital formation, technological progress, food security and sustainable agriculture. It provides the knowledge on Institutional and technological change in Indian agriculture and agriculture marketing, state policy, terms of trade between agriculture and non-agriculture prices and

	Industrial Economics	1) Learn how economic theories are used in
		analysis of industrial location. Evaluate
		these theories in view of empirical
		evidence. Describe policy Implications of
		these theories.
		2) Develop an understanding about different
		industrial policies structure and
		Composition of industry
PC3/T 106B		3) Develop an understanding of economics of
F0341 100D		integration diversification and
		Integrations diversification and
		1) To understand the basic issues such as
		+) To understand the basic issues such as
		Utilization involved in the industrial
		development of India and massures
		Dequired for improving productivity and
		efficiency
	Economics of	1) Acquire a deeper understanding about the
	Education	role of human capital especially of
		education in economic development.
		2) Possess knowledge of the latest
		development in education.
PG34T 106C		3) Acquire skills to relate human
		development with economic development.
		4) Acquire knowledge about cost- benefit
		analysis, approaches to educational
		Planning, educational planning and
		subsidies.
	Regional Economics	1) The aim of this paper is to enable the
		students to gain the in-depth knowledge of
		regional economics.
PG34T 106D		2) The paper focus on the comprehensive
		understanding of the Regional imbalances
		in India and Karnataka.
		3) Students will able to understand the
		techniques of Regional Economics
PG34T 106E	Human Development	
	Karnataka Economy	1) The objective of this course is to teach the
PG34T 106F		students about sectoral aspects of
		Karnataka economy.
		2) To make the students to understand
		historical and geographical features of
		Karnataka economy.
		3) To study in detail regional disparities and
		state finance.
Second Semester		
Compulsory courses		

PG34T 201	Micro Economic	Understand the proc	cess of the
	Analysis-II	determination of factor pri	ces;
		Analyse the conditions	for maximizing
		social welfare and identif	y the barriers to
		attain maximum welfare;	
		Design consumption a	ind investment
		strategies in a state of unce	ertainty; and
		Ability to identify m	echanisms for
		searching and comparing i	nformation
PG34T 202	Macro-Economic	The aim of this course	is to study the
	Analysis-II	fundamentals of demand f money.	or and supply of
		To provide comprehensiv	e understanding
		of modern quantity theorie	s of money.
		To enable the students to	study in detail,
		theories of inflation	and policy
		implications.	
PG34T 203	Economics of Growth	Economics of growth an	nd development
	and	helps to understand the	efficiency and
	Development-II	productivity value in key	sectors and their
		sect oral growth acros	s the country
		including Agriculture,	Industry and
		Infrastructure.	1
		I rade and economic deve	Trada impost
		WTO and GATT	s. Trade impact
		Acquire the Knowledge	of social sector
		including food health at	ad demography
		poverty and environme	nt along with
		policy.	int mong with
		It helps to describe the	mechanism of
		application of macroeco	nomics policies
		and their impact in develop	pment process.
PG34T 204	Statistics for	An understanding of how	to think about,
	Economics	evaluate and draw con	nclusions from
		economic data by app	lying statistical
		techniques.	
		Familiarize the statistical of	concepts that are
		widely used in Eco	nometrics and
		Research in Economics	
		Familiarise and understand	I the students on
		statistical concepts inclu	iding Sampling
		methods, classification	i OI data,
		dispersion theory	interior and
		distribution and compliance	distribution
		4 To make them understar	nd statistical
		inferences correlation and	regression
		analysis, time series and in	idex number.

Specialization / Optional Paper		
PG34T 205A	Agri-Business	1) Knowledge on Agri-Business helps to
		understand the concepts, its necessities,
		characteristics, commercialisations, trends
		and pattern in India.
		2) It shows the importance of agricultural
		credit Institutions in agriculture
		development and both theoretical and
		Indian agricultural marketing problems
		and remedial measures.
		3) This helps to understand the agricultural
		price instability, price policy, objectives
		and instruments.
		4) It demonstrates the importance of
		agribusiness in international trade, WTO,
		AOA MINC's their importance, functions,
DC24T 205D	Laharan Daamariya	progress, problems and prospectus.
PG341 205B	Labour Economics	1) To understand meaning, nature, scope and importance of Jahour coopering Major
		avents trands and development of labour
		markets in the real world
		2) To approciate differences in views of
		economists both from positive and
		Normative standpoints with respect to
		issues in labour market and wage
		Determination
		3) To understand labour unions, labour
		legislations and importance of I.L.O.
		4) The students will learn basic economic
		forces behind employment and
		wages,Sources of labour market
		imperfections, driving forces for education
		and skill Development, discrimination
		among the workers and Government
		policies for Labour welfare.
PG34T 205C	Economics of Health	1) To understand the basic concepts of health
		economics, scope and importance Of
		health economics.
		2) A better understanding of the economic
		theory of health through a study of
		Economic models.
		5) Learn to evaluate and interpret empirical findings in health and healthcare Services
		on the basis of cost-benefit analysis
		4) Possess knowledge of the latest
		developments in pricing and policies of
		Health and healthcare services.
PG34T 205D	Urban Economics	1) Describe the conceptual and theoretical
		framework of urban economics.
		2) Interpret the pattern and trends of

		urbanization.
		3) Evaluate the impact of urbanization and
		issues and challenges of urbanization.
		4) Evaluate Government policies on various
		aspects of urban development.
		1 1
PG34T 205E	Gender and	1) The objective of this course is to enable
	Development	the students to understand thoroughly
		the theories of Gender and
		Development.
		2) It also attempts to study the economic
		growth and gender equality, impact of
		technology women's labor market.
		5) Students would have knowledge about the gender planning gender hydroting
		and development
PG34T 205E	Human Development	1) The objective of this course is educating the
103412031	in Karnataka	students about various concept of human
	III IXumutuku	development
		2) To familiar students about the importance
		human capital in general and human
		development disparities among different
		districts of Karnataka.
		3) To impart knowledge to students about
		different dimension of human development.
	Ор	en Elective paper
PG34T 206	Indian Economy	1) To study the sectoral structure of Indian
		economy.
		2) To study the importance of agriculture and
		industrial sectors.
		3) To examine the impact of financial sector
		4) To study the financial conditions of control
		4) To study the inflaticial conditions of central governments
	Thi	rd Semester
	Comp	ulsory courses
PG34T 301	Public Economics	1) This course enables the students to learn
		about nature and scope of public
		economics, economic systems, market
		failure in provision of public goods,
		mechanism for revealing for public
		choice and types of public policy for
		provision of public goods and thereby
		attaining maximum social advantage.
		2) It also aims at understanding the theories
		of public expenditure, public revenue
		mobilization and public debt and its
		management.
		3) At the end of the course, the students

		would have learned the essential theories
		and frameworks needed to design the
		public policies for effective of provision
		of public goods and services and efficient
		management of public assets and
		liabilities.
PG34T 302	International Trade and	1) Deep understanding about International
	Finance-I	trade theories and their empirical testing
		2) To make them understand the students
		about benefits of International trade in
		terms of Gains from trade and Terms of
		trade
		3) Conceptual understanding of International
		trade policy and Trade and Economic
		integration among the countries such as
		EU, NAFTA, SAFTA and ASEAN
		4) By the end of the course, students should
		be able to apply International trade
		theories and policies in their research.
PG34T 303	Research Methodology	1) Ability to frame research question/s;
	and Data	2) Capacity to search and manage literature
	Analysis	in a scientific manner;
		3) Designing suitable instruments to collect
		data;
		4) Developing appropriate data analysis
		plans; and
		5) Initiality written and oral presentation
		skills to communicate information and
DC24T 204	Theorem	1) Eamiliarize the Econometrics applications
F0341 304	Feenometries 01	1) Fairmanse the Econometrics applications
	Econometrics	that are which y used in empirical work in
		2) Concentual understanding and 'hands on'
		2) Conceptual understanding and finands on applications using accompanie data drawn
		from real world examples along with
		formal theoretical proofs and ampirical
		tosting
		3) Familiarise and understand the students on
		Advanced econometrics concents
		including
		problems faced in estimation and
		inference in the context of single and
		multiple equations regression model and
		various diagnosis testing.
		4) To make them understand Simultaneous
		equations and problems in estimation.
		5) By the end of the course, students should
		be able to develop simple econometric
		models and interpret the econometric and
		statistical results reported in other studies.

Specialization / Optional Paper (any one)		
PG34T 305A	Rural Development	1) This course provides the students with the
		basics of rural development, including
		concepts, characteristics, problems,
		theories and approaches and programmes
		implemented for rural redevelopment in
		India.
		2) It also enables the students to study the
		various aspects of poverty and
		unemployment in India, transferring the
		rural economy-economic diversification in
		rural areas and the role of infrastructures in
		rural development.
		3) At the end of the course, the students will
		be able to understand the problems,
		approaches, programmes implemented for
		the development of rural economy in India
		and understand the essentiality to design
		the new policies and programmes for
		sustainable development of rural economy
		in India.
PG34T 305B	Financial Institutions	1) Students would have knowledge regarding
	and Market-I	money market, capital market, stock
		exchange i.e. Indian Financial System
		which is the backbone of the country.
		2) To familiar students about the relationship
		between financial development and
		economic development.
		3) To impart knowledge to students about
		controller of financial system, e.g. KBI,
		A) Identify the existence and development of
		and secondary market debt
		market new financial instruments which
		are utilize and effectively participate in the
		development process
PG34T 305C	Demography	1) To understand meaning nature scope and
105115050	Demography	importance of demography. Relationship
		between development and population
		growth.
		2) Understand various theories of population
		and their implications for India.
		3) To understand structure and characteristics
		of Indian population,
		4) To understand an analysis of Indian
		Population Policy.
PG34T 305D	Environmental	
	Economics	
PG34T 305E	Theory of Co-operation	1) Knowledge on cooperation helps to

			understand the theories, concepts,	
			principles, social, economic and moral	
			benefits and its value	
		2)	Understanding of theoretical and structural	
		ĺ ĺ	aspect of co-operative organisation. And	
			create awareness how it differs from the	
			capitalism socialism and its place in	
			planned accommutic possible	
		2)	It halve to understand the conclusion of	
		3)	It neeps to understand the evolution of	
			cooperative models and principles	
			including Raiffeisen Model, Schulze-	
			Delitzsch Model and Rochdale Model;	
			Co-operation and other economic systems:	
		4)	The study of cooperation also helps to	
			understand the cooperative doctrines of	
			ancient, modern cooperation viz Utopian	
			Co-operative doctrines -Robert Owen, Dr.	
			William King and Charles Fourier -	
			Socialistic Ideas and Co-operation G.D.H.	
			Cole and Charles Guide-Fair Price Theory.	
		5)	It also helps understand the state level	
		0,	cooperation state aid advantages its	
			limitations officials and non-officials in	
			co-operative movement	
PG34T 305F	Economics of	1)	Students will understand	
1 00 11 0001	Infrastructure	1)	basic Economics theories and models	
			required for infrastructure sector	
			understanding	
		2)	Students will exhibit the shility to	
		2)	integrate technical aconomic social and	
			regulatory frameworks	
			for Infrastructure saster planning and	
			resource management	
		2)	Students will be able to demonstrate clear	
		5)	understanding of concents Infrastructure	
			understanding of concepts infrastructure	
		4	Able to surply this lossed dec to the	
		4)	Able to apply this knowledge to the	
			analysis of specific infrastructure	
			economics issues in India	
	Forth Semester			
DC24T 401	Lucion Dublic Einenco	11SO	This course sime to enable the students to	
r 034 I 40I	mutan rublic rinance		understand various consets of Indian	
			understand various aspects of Indian	
			public nance and policy which include	
			the trends and patterns of public revenue	
			in India, public expenditure, budget and	
			tiscal policy, public debt and its	
			management.	
		2)	It also aims at understanding the federal	
			finance, center-state financial relations	

		 and transfers, state and local finances. 3) At the end of the course, the students will be able to understand various forms of budget and preparation of budget and public policies for effective provision and management of Indian public assets, goods and services.
PG34T 402	International Trade and Finance-II	 Deep understanding about multilateral trading systems, international financial transactions and financial institutions Familiarize the students about theories on International capital flow and their empirical testing Deep understanding about multilateral trade body's (GATT and WTO), principles, objectives, agreements, trade negotiations, trade dispute settlements, present status and prospects Familiarize the students about international financial transactions: Balance of payment, exchange rate theories and determination Working of International financial institutions such as IMF, World Bank, and Regional financial institutions
PG34T 403	Dissertation	 Identify research methods, state research questions and literature for review. Critically analyse and evaluate the knowledge and understanding in relation to the agreed area of study. Applications of Economic theories and Econometrics models Effective research, academic writing and data collection and analysis skills Enhance the research writing skills and employability of the students.
PG34T 404	Applied Econometrics	 This course aims at understanding the procedures useful in modeling and forecasting time series data. It also aims at familiarizing the students with recent advances in time series analysis that have affected the developments of the theory of dynamic econometrics. This is a course for applied econometrics deal with advanced models forecasting in different complex situations. Demonstrate the knowledge of applications of vector auto-regressions

		and models for volatility, panel data
		models in Economics
PG34T 405	Managerial Economics	1) To estimate and forecast demand for a
		firm
		2) To design strategies for achieving
		production maximization and cost
		minimization
		3) Analyse production and pricing decision
		of a firm under different markets
		conditions
	Specialization / O	ptional Paper (any one)
PG34T 406A	Institutions for Rural	1) The objectives of this course are to
	Development	familiarize the students with local
		institutions involved in mobilization of the
		weaker sections of the society and
		motivating to take pro-active role in rural
		involved in provision of gradit and
		agricultural marketing facilities for rural
		development co-operative societies
		narticipatory rural development
		institutions and micro-leveling planning
		2) At the end of the course, it will enable the
		students to understand various aspects of
		rural development and build their
		institutional capabilities to commit
		themselves for development of rural areas
		by providing necessary inputs
PG34T 406B	Financial Institutions	1) It provides a path to follow research in
	and Market-II	general area of economics and business.
		2) Students will be understanding the Indian
		financial system, Non-Bank Financial
		Institutions, Insurance, Investment
		Banking, Merchant Banking, Mutual
		Funds Insurance, Foreign Exchange
		Market and Financial Sector Reforms.
		3) Students would gain understanding of
		testing What is different and generally
		much more interesting and useful is that
		narameter being estimated and tested
		4) To familiarize the students fully with the
		changing role of financial institutions in
		the process of economic growth and
		development in India.
PG34T 406C	Human Resource	1) This course enables the students to
	Management	understand thoroughly the theories of
		Human Resource Management and
		familiarize the students about the vital

		aspects of Human Resource Management-	
		scope and its importance of HRM,	
		economic and non-economic factors and	
		their interactions, distinction between	
		human resource and non-human resource,	
		functions of HRM; planning, recruitment	
		and selection. At the end of the course, it	
		will enable the students to ensure efficient	
		and effective human resource	
		management.	
PG34T 406D	Environmental Hazards	1) Objectives of this Course is to study the	
	and Disasters	present conditions of ecological	
		imbalance.	
		2) To have an in-depth knowledge about	
		climate change	
		3) To study the reasons for Environmental	
		Hazards and Disasters.	
PG34T 406E	Co-operative	1) The purpose of this paper is to familiarize	
	Management in India	the student with emergence of co-	
		operative movement at the global level	
		and in India.	
		2) Students will understand the objectives	
		and principles of co-operative	
		management and marketing management.	
		3) Students will learn about the marketing	
		management and office management in	
		India.	
PG34T 406F	Energy Economics	1) To understand the basic concepts of	
		energy economics, sources of energy and	
		importance of energy in economic	
		development.	
		2) It would enable the students to provide	
		theoretical and empirical perspective on	
		the topics related to energy demand,	
		energy supply, energy markets and	
		Environmental consequences of energy	
		use and policies and regulatory	
		Mechanism for the sector.	
		3) Evaluate performance on the basis of cost-	
		Denefit analysis.	
		4) 10 learn about pricing, planning and	
		policies adopted for ensuring energy	
		Efficiency and conservation for	
		sustainable development.	
Open Elective Paper			

PG34T 306	Karnataka	1) The objective of this course is to teach the
	Economy	students about sectoral aspects o
		Karnataka economy.
		2) To make the students to understand
		historical and geographical features o
		Karnataka economy.
		3) To study in detail regional disparities and
		state finance.

Course Code: PG81P101-CPAG 1.5: Palaeontology(35) and Viva (05) Course outcome:

- Paleontology is highly relevant to the modern and future world. We can learn how climate change has effected past organisms as well as how organisms have changed the physical world. We can also better understand the principles of extinction, evolutionary change, and biodiversity.
- The student will be able to describe the use fossil remains to understand different aspects of extinct and living organisms. Individual fossils may contain information about an organism's life and environment. Much like the rings of a tree, for example, each ring on the surface of an oyster shell denotes one year of its life.

Course Code : PG81P102- CPAG 1.6:Minerology(35) Viva Course Outcome:

- Mineralogy is an important discipline for several reasons. For one, the study of the composition of the earth's crust gives scientists an idea of how Earth was formed. ... The study of the chemical properties of minerals could lead to the discovery of new uses for Earth's mineral resources.
- Rocks and minerals are all around us! They help us to develop new technologies and are used in our everyday lives. ... Rocks and minerals are important for learning about earth materials, structure, and systems. Studying these natural objects incorporates an understanding of earth science, chemistry, physics, and maths

Course Code : PG81P103- CPAG : 1.7 Structural geology (35) Viva (05) Course Outcome:

- Structural geology, scientific discipline that is concerned with rock deformation on both a large and a small scale. Its scope of study is vast, ranging from submicroscopic lattice defects in crystals to fault structures and fold systems of the Earth's crust.
- An essential importance of structural geology is to know areas that contain folds and faults because they can form traps in which the accumulation and concentration of fluids such as oil and natural gas occur.

M.Sc Second Semester Applied Geology

Course Code : PG81P205.CPAG 2.5: Petrology (35) Viva (05) Course Outcome:

- Petrology plays an important role in ascertaining the physical and chemical composition of rocks and the different conditions that influence their formation. Modern petrologists rely on knowledge in mineralogy to help in mapping and sampling of rocks.
- Petrology is the study of rocks igneous, metamorphic, and sedimentary and the processes that form and transform them. Mineralogy is the **study** of the chemistry, crystal structure and physical properties of the mineral constituents of rocks

Course Code: PG81P206 – CPAG 2.6:Ore Geology (35) Viva (05) Course Outcome:

- Most of the world's gold ore is used to create jewelry and decorative items. Ore is a deposit in Earth's crust of one or more valuable minerals. The most valuable ore deposits contain metals crucial to industry and trade, like copper, gold, and iron. Copper ore is mined for a variety of industrial uses
- An ore deposit, in its simplest terms, is a portion of the Earth's crust from which

some industrial raw material can be extracted at a profit. As such, its characteristics are as much economic as geochemical.

Course Code : PG81P207 -CPAG 2.7: Ore Reserve estimation (35) Viva (05) Course Outcome:

- a comprehensive validation of the block valuations to confirm the absence of global and conditional biases and to quantify the actual improvement achieved in the overall quality of the estimates compared to those executed on earlier technique
- As with all ore reserve estimations, a thorough understanding of the geology is essential, including a practical model of the mineralization structures, and the definition of the various ore types present. This will ensure that the geostatistical analyses and valuations are carried out within defined geologically homogeneous zones, so as to avoid obvious nonstationarity, and that significant mineralization structures are modeled.

Third Semester Applied Geology

Course Code: PG81P305 -CPAG 3.5:Geochemistry

Course Outcome:

- How Geochemistry helps. Rocks have an abundance of liquids, gasses, and mineral deposits that contain information previously hidden from study. A **geochemist's** job is to study these naturally occurring elements and make informed decisions based on what they learn.
- **Geochemistry** is broadly concerned with the **application** of chemistry to virtually all aspects of **geology**. Inasmuch as the Earth is composed of the chemical elements, all geologic materials and most geologic processes can be regarded from a chemical point of view.

Course Code: PG81P306 –CPAG 3.6:HydroGeology (35) Viva (05) Course Outcome:

- One of the most **important** aspects of groundwater engineering and **hydrogeology** is water well design and construction. Proper well design and construction are **important** to maintain the health of the groundwater and the people which will use the well. ... A reliable aquifer, providing a continuous water supply.
- **Hydrology** is the science that deals with all aspects of the water available on the earth. It includes study of occurrence of water, its properties, its distribution and circulation and also its effects on the living beings and their surroundings.

Course Code: PG81307-CPAG3.7:Geostatistics and Computer applications Course Outcome:

- Geostatistics is a class of statistics used to analyze and predict the values associated with spatial or spatiotemporal phenomena. In the environmental sciences, geo-statistics is used to estimate pollutant levels in order to decide if they pose a threat to environmental or human health and warrant remediation.
- Geostatistical Methods of Interpolation. Geostatistical interpolation techniques are based upon the acknowledgement that modeling by means of a simple, smooth mathematical function is often inappropriate for spatially continuous variable because the spatial variation is too irregular.
- Geologists and geophysicists have led the exploration for fossil fuels (coal, oil, natural gas, etc.) and concentrations of geothermal energy, for which applications have grown in recent years. They also have played a major role in locating deposits of commercially valuable minerals.

• A Geologist studies the composition of the earth, assesses the natural disasters and its effects on the environment, explores areas rich in under-water resources, oil, natural gas and minerals and determines the quality of soil by conducting geochemical and geophysical tests.

Fourth Semester Applied Geology

Course Code: PG81P405–CPAG 4.5: Mineral Beneficiation (35) Viva (05) Course Outcome

- In the mining industry or extractive metallurgy, beneficiation is any process that improves (benefits) the economic value of the ore by removing the gangue minerals, which results in a higher grade product (concentrate) and a waste stream (tailings).
- The mining process involves the excavation of large amounts of waste rock to remove the desired mineral ore. The ore is then crushed into finely ground tailings for chemical processing and separation to extract the target minerals.
- Mineral resources are essential to our modern industrial society and they are used everywhere. We need minerals to make cars, computers, appliances, concrete roads, houses, tractors, fertilizer, electrical transmission lines, and jewelry.

Course Code : PG81P406-CPAG 4.6:Exploration Geophysics: Course Outcome:

- Geological exploration is the process of finding commercially viable mineral resource and the objective is to locate it in the shortest possible time and at the lowest possible cost
- Geophysical methods Seismic tomography to locate earthquakes and assist in Seismology. Reflection seismology and seismic refraction to map the surface structure of a region. Geodesy and gravity techniques, including gravity gradiometer. Magnetic techniques, including aeromagnetic surveys to map magnetic anomalies.
- Geophysical exploration methods can be used before construction to obtain information on the character of formations and on the chemical characteristics of ground water. These techniques determine density, magnetic and acoustical properties of the geologic medium.

Course Code : PG81P407-CPAG 4.7:Phot Geology and Remote sensing (35) Viva (05)

Course Outcome:

- Photogeology is the study of Geological features through aerial photography. It is the study of structural elements on the earth through taking of photography using aircraft, without being in contact with it. It is a form of remote sensing.
- Remote sensing is becoming an important and useful tool in mapping large, remote areas and has many applications in geosciences such as geologic and geostructural mapping, mineral and water exploration, hydrocarbon exploration, natural hazards analysis, and geomorphology.
- The primary application of remote sensing? Analyzing the condition of rural roads, Creating a base map for visual reference, Computing snow pack, Collecting earth's pictures from space, Controlling forest fires, Detecting land use and land cover, Estimating forest supplies, Locating construction and building alteration.

IDIRHEM

DP15T01: Introduction to reproductive Health-Course Outcome

After studying this course, the candidates will be able to

- Address the basic biological aspects in males, females, reproduction and Reproductive Health issues such as contraception, infertility, sexually transmitted diseases, etc.
- Understand family planning methods, policy issues, quality of care, etc.

DP15T02: Reproductive Health Risk Analysis and Management DP15T02: Reproductive Health Risk Analysis and Management-Course Outcomes

After completing this course, the candidate will be able to

• Overview health risks of pregnant woman, new born, predict health risks and uncertainty in human life and in particular reproductive cycle.

DP15T03: Reproductive Health Program Management

DP15T03: Reproductive Health Program Management-Course Outcome The candidate will learn about

• Reproductive Health program management through principles, strategies, case studies and evaluation of reproductive health policies.

DP15T04: Reproductive Health Research Methods

DP15T04: Reproductive Health Research Methods-Course Outcomes

The candidate will be prepared to take up research in Reproductive Health through research methods, research data, research hypothesis and data collection, data processing techniques.

DP15T201A: Population Studies and Reproductive Health

(OEC Paper for PG Second Sem)

DP15T201A: Population Studies and Reproductive Health-Course Outcome (OEC Paper for PG Second Sem)

By opting this course, the candidate will be able to understand and analyze • population concept such as population density, age-sex composition, urbanization, age pyramids.

Department of Microbiology		
Course Outcome	Course Code: PG84T101-MBCT 1.1 General Microbiology	
	Course Outcome:	
	After the completion of the course students would be able	
	• To study and analyze the different branches of microbiology,	
	techniques employed for culturing and detection of microorganisms	
	• To gain knowledge about newer emerging microorganisms	
	• To unravel the mechanisms and study the economic significance	
	of microorganisms and microbiology.	

Department of Missohieles
Course Code : PG84T102-MBCT 1.2 Microbial						
Diversity and Taxonomy:						
Course Outcome:						
After the completion of the course students would be able to						
• classify and differentiate various groups of microbes.						
• Get knowledge on adaptability of extremophiles.						
Knowledge about microbial taxonomy.						
• Importance of conservation and role of culture collection centers						
inconservation.						
Course Code : PG84T103-MBCT 1.3 Microbial						
Techniques : Course Outcome:						
After the completion of the course students would be able:						
• To know bacterial classification, nutrition, cultivation,						
preservation of microbial culture.						
• To describe the morphological features, cell arrangement and						
structural components of microbial cells.						
• To use different microscopes for studying bacterial morphology.						
• To work in medical laboratories, pharmacological, food and						
fermentation industries.						
Course Code : PG84T104 MBCT 1.4 Microbial Physiology and						
Metabolism						
Course Outcomes:						
After the completion of the course students would be able						
• To acquaint with basics of metabolism and growth under normal						
and stressed conditions.						
• To understand major fermentation, aerobic and anaerobic						
pathways for energy generation in microbial cells. To know the						
concepts of microbial cross-talk.						
M.Sc Second Semester Microbiology						
Course Code: PG84T201 -MBCT 2.1 Microbial Genetics						
andMolecular Biology:						
Course Outcome:						
After the completion of the course students would be able to						
haveelaborate knowledge on nucleic acids						
• To have better understanding of gene expressions						
• To understand the genetic constituents of bacteria with special						
emphasis on inheritance.						
• To extend the knowledge on molecular basis of mutation at						
microbial level.						
• To focus on gene regulation and expression mechanisms.						
• To understand the principles role of plasmids and gene						
and protoprov fore of prostings and gene						

Course Code : PG84T202 -MBCT 2.2 Computer							
Applications, Bioinformatics and Biostatistics							
After successful completion of this course students are expected							
to beable to:							
• Understand the basics of computer applications, biostatistics and							
bioinformatics							
• Provide an overview of various bioinformatics tools, databases							
available and sequence analysis.							
• Provide knowledge on database concept, management, retrieval							
along with utilization in gene and protein analysis.							
• Impart basic knowledge of statistics and tools used for several							
quantitative analysis in microbiology							
• Understand how evolution can be studied on genetic basis and able							
to predict the significance of the biological phenomenon on the							
basis of available data set							
• Retrieve information from available databases and use them for							
microbial identifications and drug designing.							
Course Code : PG84T203 -MBCT 2.3 Genetic							
EngineeringCourse Outcome:							
After the completion of the course students would be able to							
• Acquire knowledge on the concepts and terminology in genetic							
engineering.							
• Familiar with various cloning strategies in prokaryotes.							
• To have awareness of IPR, the social and ethical issues							
 concerningcloning by genetic engineering							
Course Code : PG84T204A -MBET 2.4 Fundamentals and							
Applications of							
MicrobiologyCourse							
Outcome:							
After the completion of the course students would be able							
• to study and analyze the different branches of microbiology,							
techniques employed for culturing and detection of							
microorganisms							
• To gain knowledge about newer emerging microorganisms							
• To unravel the mechanisms and study the economic significance							
 ofmicroorganisms and microbiology.							
M.Sc Third Semester Microbiology -							

Course Code · PC8/T301 MRCT 3.1 Environmental
Microbiology Course Outcome:
After successful completion of this course students are expected
• After successful completion of uns course students are expected to be able to: To know the basics and concents of various
any ironmental related terms
• Explain the physiological processes that occur in the environment
• Understand the basic principles of environment microbiology
and be able to apply these principles to understanding and
solving environmental problems – waste water treatment and
bioremediation
• Discuss issues related to pollution, quality improvement,
environmental adaptation and their use in human welfare
• Address bioethical and biosafety issues related to plant
transgenics, Impart basic knowledge of patenting, intellectual
property rights, laws available and copyrights.
Course Code : PG84T302 -MBCT 3.2 Agricultural Microbiology
and Plant pathology Course Outcome:
After the completion of the course students would be able to
• have knowledge about soil as an excellent habitat for multitude of
microorganisms balancing the soil ecosystem.
• To be employable in the field of agronomy/soil Science
• To acquire skills and knowledge on the importance of
microorganisms in biogeochemical cycles biological fertility of
soil.
• Understand various plant microbes interactions especially
rhizosphere, phyllosphere and mycorrhizae and their applications
especially the biofertilizers and their production techniques.
Provide knowledge about plant pathogenesis and plant defense
mechanisms.
Course Code : PG84T303 -MBCT 3.3 Food and Dairy
Microbiology
Course Outcome:
After the completion of the course students would be able to
• understand the principles of microorganisms during various food-
processing, milk and preservation steps.
• To comprehend the interactions between microorganisms and the
food environment, and factors influencing their growth and
survival. To understand the significance and activities of
microorganisms in food.
• To recognize the characteristics of food-borne and spoilage
microorganisms, and methods for their isolation, detection and
identification.
• To analyze the importance of microbiological quality control
programmes in food production.
• To describe the rationale for the use of standard methods and
procedures for the microbiological analysis of food, milk and
milk products

Ca	uma Cada
	CRAT201A MPET 3.4 Food and Formantation Tashnology
	Go41504A -MDE1 5.4 FOOU and Fermentation recimology
	for the completion of the course students would be able
All	To study and analyze the different branches of Microbiology
•	To study and analyse the different branches of Microbiology,
	Te complexe employed for food, dairy and other industries
	To gain knowledge about newer emerging inicroorganisms
•	To unravel the mechanisms and study the economic significance of
	microorganisms and fermentation technology.
M	Sc Fourth Semester Microbiology
C	ourse Code: PG84T401MBCT 4.1 Immunology
ar	nd Immunotechnology
	ourse Outcome:
	After the completion of the course students would be able to
•	Gain knowledge of immune system, cells involved along with
	complement system and autoimmunity.
•	To evaluate the usefulness of immunology in different
	pharmaceutical companies
•	To understand immune system, antigen antibody interactions.
•	To gain theoretical knowledge of various diseased conditions
	generated due to interplay of immune system components
С	ourse Code: PG84T402MBCT 4.2 Medical
Μ	icrobiology Course Outcome:
	After the completion of the course students would be able to
•	Develop skill to isolate and identify microorganism form
	clinical sample. ☐ To do antibiotics sensitivity and resistance
	test
•	To do detection of parasite/ pathogens using diagnostic kits.
•	This course provides learning opportunities in the basic
	principles of medical microbiology and infectious disease.
•	It covers mechanisms of infectious disease transmission
	principles of asentic practice and the role of the human body's
	normal microflora
	The course provides the conceptual basis for understanding
	nathogenic microorganisms and the mechanisms by which
	the vegues diseases in the human body
	It also provides opportunities to develop informatics and
•	diagnostic skills including the use and interpretation of
	laboratory tosts in the diagnosis of infections diagnostic
	Taboratory tests in the diagnosis of infectious diseases.
•	Explain the methods of microorganism's control, e.g.
	chemotherapy& vaccines

Course Code: PG84T403 MBCT 4.3 Bioprocess and Fermentation							
Technology							
Course outcome:							
• To give knowledge on strain improvement methods							
• To learn different fermentation techniques, bioreactor							
design, inoculum development.							
• To understand techniques involved in downstream fermentationprocess							
 Course Outcome: After the completion of the course students wouldbe able To get knowledge on strain improvement 							
• To understand methods of manipulating the metabolic pathways to get desired yield.							
• To understand industrial production and purification of antibiotics, enzymes, amino acids and steroids. To work in fermentation industry.							
• To understand the application of these bio-molecules in benefit to mankind.							
Course code PG84PJ404MBCPJ 4.7 Project work/							
DissertationCourse Outcome:							
• After submission of the project dissertation the students will							
develop an ability to hypothesize and develop a rationale towards							
research.							
• They will be able to compare, synthesize existing and new							
knowledge, and integration of results based on their research.							
• Gain sufficient hands-on learning experience related to the area of							
specialization with a focus on research orientation							

DEPARTMENT OF POLITICAL SCIENCE

Compulsory Papers Course Outcomes (Cos)

Paper No.	Title of the Paper	Cos
Core		1. Students will be able to develop needed scholarship to
Paper 01.	Ancient Indian	undertake further research into the ancient texts.
	Political Thought	2. Able to understand hidden knowledge of ancient India
PG50T101		for the benefit of the humanity.
		1. Students will be able to know about the classical
Core	Classical	thinkers and themes of western political philosophy.
Paper 02.	Wastern Political	This paper attempts to understand thinkers and texts
	Thought	both from philosophical and historical perspective.
PG50T 102.	Thought	2. The students through this paper are expected to learn
		analytical skills and philosophical mode of thinking

Core	Contemporary	1. Students will be able to understand how different
Paper 03	Indian Politics	political institutions, actors and processes shape Indian
-		politics.
PG50T 103.		2. Comprehend the multiple trajectories and contestations
		of Indian democracy; develop skills in research,
		analysis, presentation and writing on Indian politics;
		learn the skill of critical thinking and analyze the day to
		day politics by understanding its multi-dimensions and
		the realities of the social fabric of Indian society.
Core		1. Students gain knowledge to take on the challenges of a
Paper 04	Contemporary	changing administrative set up and strategy in a
•	Public	changing world.
PG50T 104	Administration	2. Students are enabled to develop the skill of being good
		administrators.
		1. Students will be able to survey major topics in
Core	Introduction to	international relations to encourage them to undertake
Paper 05	Introduction to	further examination in more advanced ways.
_	Deletiona	2. Students will be able to critique common academic and
PG50T 105	Kelations	policy arguments about global affairs and will have
		acquired the tools to begin their own analyses.

STREAMS OF SPECIALIZATION VI.A.INDIAN GOVERNMENT AND POLITICS FIRST SEMESTER

Paper No. and	Title of the	1.	Students	get	familiar	with	the	significant	ce of
Semester	Paper		national	mo	vement	and	its	importance	e in
			developir	ng th	e spirit	of nat	ional	ism and re	spect
Specialization			for the	sacri	fices ma	de by	the the	ose to free	this
Paper 06.1	Indian National		country fi	rom	colonialis	sts.			
-	Movement	2.	Students	get	exposu	e to	vari	ous school	ls of
PG50T106 A			thought	that	operated	l in	the	Indian Nat	ional
			Movemen	nt.					

VI.B.PUBLIC ADMINISTRATION FIRST SEMESTER

Paper No. and	Title of the	1.	Students are able understand major research dealing
Semester	Paper		with in public administration so as to make them
Specialization			understand some of the important and best works in the field
Paper 06.2	Theories of Public	2.	Students get encouraged to develop their own
PG50T106 B	Administration		research interests and skills thus promoting scholarship, which is concerned with the
			development, testing, and application of theory.

VI.C.INTERNATIONAL RELATIONS

FIRST SEMESTER

Paper No. and	Title of the	1. Students are able to apply ideological foundations			
Semester	Paper	of India's Foreign Policy.			

Specialization Paper 06.3	Foreign Policy	 Students are able to analyze India's Foreign Policy Students are able to evaluate India's relation with other countries.
PG50T106 C	01 Inula	4. Students are able to develop India's contemporary security challenges.

VI.D.COMPARATIVE GOVERNMENT AND POLITICS FIRST SEMESTER

Paper No. and	Title of the	1. Students understand the functioning of various forms
Semester	Paper	of Government and the Politics in different countries
Specialization Paper 06.4 PG50T106 D	Comparative Government and Politics: A Theoretical Perspective.	 viz., UK, USA, and Switzerland as they have distinctive characters. 2. Students get exposed to the working of differen governments and to make their choice in matters of better governance comparing it with institutiona structures and frameworks of other countries.

II SEMESTER Compulsory Papers

Paper No.	Title of the Paper	1. The Course is designed to introduce the students to the epistemological foundations of medieval
VII Core paper 07 PG50T201	Medieval Indian Political Thought	philosophy with a view to generating interest in the classical texts in medieval political thought.2. The students are expected to have background knowledge in the classical texts by making them familiar with different interpretations.3. The aim is to inspire them to have an interest in reading the original works the debates around the
VIII Core Paper 08 PG50T202.	Medieval Western Political Thought	 Students will be able to understand the medieval philosophy that was produced in Western Europe during the middle ages. Students will be able to learn about the growth of state and the ideologies.
IX Core Paper 09 PG50T203	Indian Government & Administration	 Students are able to understand about India's Constitution, its framing and the processes involved in realizing its goals and objectives. Students are familiarized about the structures of power, the nature of state power and the manner in which it is distributed between the Centre-State and Urban and Rural Local bodies. The students are exposed to the judicial process particularly the way in which it seeks to protect the Constitution from legislative and executive encroachments and the resultant tension between these institutions.

X	Contemporary	 It helps students to analyze and understand the
Core	Issues in	major themes in international relations and global
Paper 10	International	politics. Students get improved in critical thinking and
PG50T204	Relations	writing skills and able to describe the social
XI OEC** Paper 11 PG50T205	Human Rights: Theory and Practice	 It enable the students to understand the contentious relationship between human rights and economic development; issues related to poverty and economic-social and cultural rights. Help students to choose professions like human right activists, advocates and work through NGOs for the realization these rights.

**Open Elective Course to be offered by the students of other Departments. The students of the Department of Political Science have to offer one Open Elective offered by any one of the other Departments in the University.

STREAMS OF SPECIALIZATION XII.A. INDIAN GOVERNMENT AND POLITICS SECOND SEMESTER.

Paper No. and	Title of the	1. Students will be able to apply constitutional values
Semester	Paper	in their day to day life.
		2. Students will be able to understand ideological bases
XII.A 2.		of Indian Constitution.
Second Sem	Making of the	3. Students will be able to apply constitutional values
Specialization	Constitution of India	in the functioning of governmental institutions at all
Paper 12.1		level.
		4. Students will get acquainted with fundamental rights
PG50T206 A		& they will increase societal understanding of these
		rights.

XII.B.PUBLIC ADMINISTRATION SECOND SEMESTER

Paper No. and	Title of the	1. Students will be able to understand the theoretica
Semester	Paper	perspective about Public personnel Administration.
XII.B 2.		2. Sharpens the student's intellect in understanding
Second Sem	Public	the need and importance of the line and staff.
Specialization Paper 12.2 PG50T206 B	Personnel Administration	

XII.C.INTERNATIONAL RELATIONS SECOND SEMESTER

Paper No.	Title of the	1. Students will be able to understand the relevance of
and Semester	Paper	diplomacy as a tool in international relations in the

XII.D.COMPARATIVE GOVERNMENT AND POLITICS SECOND SEMESTER

Paper No. and	Title of the	1. The paper intends to expose the students to the
Semester	Paper	advantage and disadvantages of different types of
	Unitary and	governments in different parts of the world.
AII.D 2. Second Sem	Federal	2. Students learn the significance of field studies,
Second Sem	Governments.	comparing governments and their performances and
Paper 12.4	(Japan and	helping them to prepare parameters for such studies.
	China	
PG50T206 D	America and	
	Switzerland)	

III SEMESTER Compulsory Papers

Paper No.	Title of the Paper	 Ability to develop principle based thinking. Students are able to apply theoretical knowledge
XIII Core Paper 13 PG50 T 301 .	Modern Indian Political Thought	 for public decision making. 3. Students are able to evaluate state, political economy and civil society for public interest. 1. 4. Students are able to establish just and legitimate society.
XIV Core Paper 14 PG50 T 302	Contemporary Western Political Thought	 Students will be able to understand the issues in Contemporary Western Political Thought. Students will be able to understand the views of Western political thought and it helps for further research.
XV Core Paper 15 PG50 T 303	Contemporary Political Theories	 Help students to develop a critical skill to analyze an occurrence with its complete understanding of theoretical knowledge in their discipline This paper will devote to the close reading of texts by thinkers associated with political theorists and thus help students to develop a critical skill to analyse an occurrence with its complete understanding.
XVI Core Paper 16 PG50 T 304	Modern Political Analysis	 Students are able to evaluate political culture and socialization. Students are able to analyze Political Developments.
XVII** OEC	Political Journalism	1. students learn political reporting covering government and governance, campaigns and

Core Paper 17	candidates, tactics and strategies and policy issues in
PG50 T 305	the public arena.2. It helps to develop professionalism in political news
	coverage.

**Open Elective Course to be offered by the students of other Departments. The students of the Department of Political Science have to offer one Open Elective offered by any one of the other Departments in the University.

STREAMS OF SPECIALIZATION XVIII.A.INDIAN GOVERNMENT AND POLITICS THIRD SEMESTER

Paper No. and Semester	Title of the Paper	1. Students will be able to understand the dynamism of Indian Constitution.
XVIII A 3 Specialization paper 18.1 PG50 T 306 A	Dynamics of Indian Constitution	2. Students understand the theoretical reflections on constitutional reform highlights and the factors Influencing constitutional processes.

XVIII.B.PUBLIC ADMINISTRATION THIRD SEMESTER

Paper No. and Semester	Title of the Paper	1.	Students cultural re	understand ole of the ma	the nage	corporate ment and or	social rganizat	and ion.
XVIIIB 3.	ľ	2.	Students	learn the cre	ative	skills of n	nanagin	g an
Specialization	Organization		organizat	ion.				
Paper 18.2	and							
Third Sem	Management							
PG50 T 306 B								

XVIII.C.INTERNATIONAL RELATIONS THIRD SEMESTER

Paper No. and	Title of the	1. Students learn about the international law and
Semester	Paper	organizations.
XVIII.C 3 Specialization Paper 18.3	International Law And	2. Students will be able to know about the intensity of International law and the working of International Organizations.
Third Sem PG50 T 306 C	International Organization	

XVIII.D 3. (SPECIALIZATION) COMPARATIVE GOVERNMENT AND POLITICS THIRD SEMESTER

Paper No. Title of the 1. Helps students to study various forms of governments and
--

and Semeste	r Paper	inter and intra variations among them to understand how
	Parliamentary	their performances are affected by their structures and how
XVIIID 3	and	they impact their societies.
Specialization	Presidential	
Paper 18.4	Governments	
Ĩ	(UK and	
Third Sem	Australia,	
PG50 T 306	D Brazil and	
	Nigeria)	
		IV SEMESTER
		Compulsory Papers
Paper	Title of the	
No.	Paper	
XIX		1. The paper contributes to the better understanding of local
Core Paper	Local	government its institutional structures, functioning and duties
19	Government	including those entrusted to them by the state or the centre and
	and Politics in	which are of interest to locals.
Fourth Sem	India	
PG50 1 401		
XX		1. Students will gain in depth knowledge about elections.
Core Paper		Students will take part in elections.
20	Elections and	2. The nature of democracy demands that the elected
	Electoral	registators/officials are accountable to the people, and they
Fourth Sem	Process in India	must return to the voters at prescribed intervals to seek their
PG50 T 402		Includie to continue in office.
		s. In muta we have the first-past-the-post system and studying it is important
		1. Help students develop the analytical skill of measuring the
XXI		1. Help students develop the analytical skill of measuring the
Core Paper		context and halping them to actively use the information to
21	Political	formulate informed policies and programmes
	Economy	2 It halps them to assess the impact of Politics in both formal
Fourth Sem	-	and informal ways on the formulation of economic policies
PG50 T 403		general economic development in increasing the standard of
		1 Students shall able to analyze some basic concents of research
		and its methodologies
XXII		2 Students are able to develop various research designs and
Core Paper	Danasal	techniques
22	Kesearch Mother during	3 Students are able to identify various sources of information
	Ivietnods in Social Science	for literature review and data collection
Fourth Sem	Social Science	4. Students are able to perform data analysis and its
PG50 T 404		interpretations
		5. Students are independently able to search for, integrate and
	Draigat Wark	1 Students are able to carry out field studios
YYIII	r ruject work	2. Students learn the skills of writing research design and
Core Paper	chosen from the	2. Students rearring the skills of writing, research design and methodology. This set of skills integrates three basic skills
23	syllahus in any	research information technology and critical thinking
20	naner	3 It helps students to develop the ability to put their thoughts in
	ruhei	e. It helps students to develop the donity to put then thoughts in

Fourth Sem	prescribed for	the	form	of	writing	and	to	build	connections	between
PG50 T 405	M.A. Degree in	con	cepts, v	varia	bles and	facts.				
	Political									
	Science)									

STREAMS OF SPECIALIZATION XXIV. A. INDIAN GOVERNMENT AND POLITICS FOURTH SEMESTER

Paper No. and	Title of the	1. This will sharpen the students' critical intellect and their
Semester	Paper	ability to unravel the mysteries of the call for good
XXIV.A 4		governance and the limitations of the existing
Fourth Sem C	Political	governments and its other political institutions.
SpecializationPape	Process and	2. Students understand Political Process and Politics,
r 24.1.	Politics in India	Political Representation, Major political challenges.
PG50 T 406A		

XXII.B.PUBLIC ADMINISTRATION FOURTH SEMESTER

Paper No. and Semester	Title of the Paper	1. Helps to develop the ability to analyze and critique the complexity of public administration in terms of
XXIV.B 4 Fourth Sem SpecializationPaper 24.2. PG50 T 406B	New Public Management	mixed values, interests, competing orientations, and other factors, and of the ubiquity and effect of the evaluation of policies.

XXIV.C.INTERNATIONAL RELATIONS FOURTH SEMESTER

Paper No.	Title of the	
and Semester	Paper	
XXIV.C 4 Fourth Sem	India and	1. Students will be able to critique common academic and policy arguments about global affairs and will have
Specialization Paper 24.3. PG50 T 406C	Regional Organization	acquired the tools to begin their own analyses.

XXIV.D.COMPARATIVE GOVERNMENT AND POLITICS FOURTH SEMESTER

Paper No.	Title of the	1. Students understand the geo political environment of
and Semester	Paper	South, South East and West Asian Countries.
XXIVD 4	South, South	2. Helps students to understand political phenomena.
Fourth Sem	East and West	Across countries.
Specialization	Asian Studies	

Paper 24.4.	(Korea and
PG50 T 406D	Indonesia,
	Egypt and
	Saudi Arabia)

MASTER OF VISUAL ART (MVA) FOR APPLIED ARTS SPECIALISATION I ST TO IVTH SEMISTER WITH EFECT FROM 2020-21 ONWARDS

PG 36/2 Master in Visual Arts Applied Arts

PG36/2 P101 (A) VISUALIZATION-I AND (B) ILLUSTRATION-I (200 MARKS)

Course Outcomes

- 1) Visualization: The subject helps the students to shape up his /her future in the field of Advertising Specialist, Marketing Specialist, Creative Designer, Visualize, Event Planner, Creative Director, Graphic Designer, Social Media Manager, Copy Writer, Band Strategist, and Advertising Agency Jobs and so on.
- 2) Illustration: The subject helps the students to shape up his /her future in the field of advertising agencies as Designer, Gaming Company As A Game Developer, In Animation Area As Animator, Fashion Designer, Cartoon Artist, Book Illustrator, Model Designer, 2D/3D Model Making. So job opportunities are available in various sectors.

<u>Major</u>

Objective: To introduce various concepts and creative strategy so as to understand the process of creativity to make the students understand the fact the Visualization/ Illustration has persuasive forms

Candidate admitted in M.V.A. Applied Arts will select any one of the following practical subjects for specialization in all semester.

- i. Visualization
- ii. Illustration

Visualization:

Course of study:

Advertising campaign, Analytical study of different product groups. Visuals to be based on the class of commodity and class of appeal. All teaching is based on the selected subject by the student.

Submission for the Project Work.

- (i) Submission of class works
- (ii) One campaign in handwork. (Compulsory *with Journal*)

All printing media in hard works/Digital Works.

- (iii) Free hand sketching 500
- (iv) A short documentary film, TV Commercial etc.
- (v) Drawing 20 (Related to Project Work)

<u>Illustration :</u>

Course of Study:

Illustrate any publications such as children story book or Educational book related with any of the appropriate medias including Print and in various techniques available. Knowledge of computer and software like Photoshop, Illustrator etc. to create illustration. Illustration for books meant for different age groups

- (i) Typography & Book Design.
- (ii) Story Illustration.
- (iii) Industrial Illustration.
- (iv) Press Illustration etc.

Submission-Assignments :

- a. Submission of class works
- b. Minimum submission would be 5 illustrated books of at least 16 Pages each and 6 individual

Assignments on various types of illustrations

- c. Free hand sketching 1000
- d. Drawing 20

<u>Journal</u>

It is to be used as a visual diary. Recording and documenting the process of learning to build Visualization:/Illustration It needs to be document in both words and graphic format . It needs to be presented at each display, discussion of practical works. plenty scribbles drawing, pictures eat can be included.

Submission-Assignments :

- (i) Minimum 35 PagesA4 size
- (ii) Scribbles drawing. minimum 20

PG36/2 P102 (A) CREATIVE ILLUSTRATION (B) DIGITAL BRANDING (100 MARKS)

Course Outcomes

- 1. Creative Illustration: The subject helps the students to shape up his /her future in the field such as Creating Illustrated Ideas On Various Books, Graphic Designer, Story Board Designer, Textile Brand Designer, Board Artist, Freelance Illustrator, Children Book Illustrator, Animation Illustrator Etc and jobs are available in many multimedia companies.
- 2. Digital Branding: The subject helps the students to shape up his /her future in the field in various job opportunities like App Development, Website Development, Digital Medias, Social Medias, Media Marketing, Multimedia Management, Advertising Agencies, Multi Media Company, Online Marketing Companies and so on.

Minor

Opted by the students

Objective : To introduce various concepts and understand the process of creativity to make the students understand, fact the in creative Illustration /Digital Branding has persuasive form

Creative Illustration:

- Different types of creative Illustration, (marketing, service, Avernus)
- Different types of media modern techniques, (colours, pen and ink, pencils, etc,)

Digital Branding:

• Objective: To enhance the knowledge of students in the current practices of digital marketing and to understand the concept of digital branding through social media.

• Digital Market: Introduction to marketing in the digital environment, Types of web presence, common e-commerce business models, pure play, hybrid and multi-channel options. Media options online, Fulfilment options and strategies.

PG36/2T103 MARKETING MANAGEMENT (100 MARKS)

Course Outcomes

1. Marketing Management: - This subject will help student in various standard steps to manage the market and to overcome with successful businessmen.

Theory

Objective: Students should gain insights of marketing approach and should understand how to market their artistic work to the customers.

Introduction To Marketing: Meaning & Definition – Goals – Concepts of Marketing – Approaches to Marketing – Functions of Marketing. Recent trends in Marketing - Green Marketing – Relationship Marketing – Retailing – Concept Marketing and Virtual Marketing.

Market Segmentation: Meaning & Definition - Bases of Market Segmentation – Types of market segmentation, Target Markets, Concept of Target Market, Positioning and differentiation strategies, Concept of positioning – Value Proposition & USP, Marketing Information System, and Strategic marketing planning.

Marketing Mix:Meaning – Elements – Product - New Product Development –Pricing – Objectives – Factors influencing Pricing Policy and Methods of Pricing. Physical Distribution – Meaning – Factors affecting Channel Selection – Types of Marketing Channels. Promotion – Meaning and Significance of Promotion – Promotion Mix **Assignment:**

As assigned by the Tutor.

PG36/2T104 INTEGRATED MARKETING COMMUNICATIONS (100 MARKS) Course Outcomes

1. Integrated Marketing Communications: This subject will help student in various communication methods, procedures and to overcome various hurdles which occur during the communication process. To communicate in proper manner.

Objective: To familiarize the students with the different elements of Integrated marketing communications, so that they can look at marketing communications with a holistic approach. The course is designed to enable the students to learn the basics of marketing communications.

Integrated Marketing Communication (IMC):

Marketing Communication, Objectives of Marketing Communication, Factors contributing to IMC, Participants in IMC, IMC Promotion Mix, IMC Management & Planning Model, Challenges in IMC,

Emerging Concepts and Issues in Marketing Communications Sponsorship:

POP: Supportive Communication, Role of E-Commerce in Marketing Communication. Corporate Communication, Public Relations – Types of PR, Sales Promotion – Different types of Sales Promotion, relationship between Sales promotion and advertising, Publicity – Types of Publicity, relationship between advertising and publicity, Personal Selling, Direct marketing and direct response methods, Event Management.

Assignment:

As assigned by the Tutor.

MASTER OF VISUAL ARTS APPLIED ARTS MVA APPLIED ART SEMESTER II

PG36/2 P201 (A)VISUALIZATION-II AND (B) ILLUSTRATION -II (200 MARKS)

Course Outcomes

- 1. Visualization: The subject helps the students to shape up his /her future in the field of Advertising Specialist, Marketing Specialist, Creative Designer, Visualize, Event Planner, Creative Director, Graphic Designer, Social Media Manager, Copy Writer, Band Strategist, and Advertising Agency Jobs and so on.
- 2. Illustration: The subject helps the students to shape up his /her future in the field of advertising agencies as Designer, Gaming Company As A Game Developer, In Animation Area As Animator, Fashion Designer, Cartoon Artist, Book Illustrator, Model Designer, 2D/3D Model Making. So job opportunities are available in various sectors.

PG36/2 P202 (A) CREATIVE ILLUSTRATION AND (B) DIGITAL BRANDING –II (100 MARKS)

Course Outcomes

1. Creative Illustration: The subject helps the students to shape up his /her future in the field such as Creating Illustrated Ideas On Various Books, Graphic Designer, Story Board Designer, Textile Brand Designer, Board Artist, Freelance Illustrator, Children Book Illustrator, Animation Illustrator Etc and jobs are available in many multimedia companies.

2. Digital Branding: The subject helps the students to shape up his /her future in the field in various job opportunities like – App Development, Website Development, Digital Medias, Social Medias, Media Marketing, Multimedia Management, Advertising Agencies, Multi Media Company, Online Marketing Companies and so on.

PG36/2 T203 ADVERTISING MANAGEMENT (100 MARKS

Course Outcomes

1. Advertising Management This subject will help the student to learn and manage advertisement through procedures and theories. **Theory**

Objective: To understand evolution of advertisement and basic concepts from the following contents is useful to the art students for their intensive study about advertising.

Origin Of Advertising: Pre- Printing Period, The invention of the printing press, Period of Expansion, Period of Scientific Development, Period of Business and Social Integration, The origin of commercial advertising, History of Advertising agencies, technological advancement in media. Modernization of media, Ancient India Advertising techniques. Advertising Management: Meaning, Nature and Scope of Advertising, Advertising – Classification of advertising, Types of advertising, advertising appropriation, advertising campaigns, Process of Advertising. Advertising Agencies – their role, functions, organization, Remuneration, client agency relationship. Management of Advertising Agencies, Testing of Advertising Effectiveness, Preparation and Choice of Methods of Advertising Budget, Ethical and Social Issues in Advertising.

PG36/2 T204 ADVERTISING MEDIA STRATEGY (100 MARKS)

Course Outcomes

1. Advertising Media Strategy This subject will help student to learn how to plan, how to select the strategy and implement the best Advertising Media Strategy.

Objective: Advertising Media Management program prepares the students for the role of strategic media planning and buying within the advertising and communications industry and to achieve strategic results and to expand their knowledge of emerging media.

Advertising and Campaign Planning: Marketing strategy & Situation analysis; Advertising plan; Advertising objectives; DAGMAR approach; Advertising strategy; Advertising campaign-planning process. Economic, social & ethical aspects of advertising.

Media Plan – reach and frequency of advertisements – cost of advertisements related to sales –and scheduling. Measuring impact of advertisements, Message development.

Advertising Media Strategy: Role of media; types of media; their advantages and disadvantages; Media research & advertising decisions; selection & scheduling strategies. Media Planning: Type and choice criteria, Research, Frequency and Continuity, Media information and selection, media plan frame work -Advertising and Media Vehicles: Newspaper, Radio, Television, Outdoor Ads, Exhibitions, Boardings, Hand Bills etc., Computerized media selection - determining the size and timing of insertion -determining the reach and frequency and GRP goals - creativity in media planning – media strategy, scheduling and patterns of scheduling.

PG36/2T205 OEC MEDIA AND PUBLIC RELATION-I (100 MARKS

Course Outcomes

1. OEC (Opted by the Student)

PRODUCT:-The Student can select any existing product for study purpose. MARKET: - The Student can select any existing market for study purpose. MEDIA: - The Student can select any existing media for study purpose.

MASTER IN VISUAL ARTS APPLIED ARTS MVA APPLIED ART SEMESTER III

PG36/2 P301 (A) VISUALIZATION AND (B) ILLUSTRATION-III (300 MARKS)

Course Outcomes

1. Visualization: The subject helps the students to shape up his /her future in the field of Advertising Specialist, Marketing Specialist, Creative Designer, Visualize, Event Planner, Creative Director, Graphic Designer, Social Media Manager, Copy Writer, Band Strategist, and Advertising Agency Jobs and so on.

2. Illustration: The subject helps the students to shape up his /her future in the field of advertising agencies as Designer, Gaming Company As A Game Developer, In Animation Area As Animator, Fashion Designer ,Cartoon Artist ,Book Illustrator ,Model Designer ,2D/3D Model Making. So job opportunities are available in various sectors.

PG36/2 P302 (A) OUTDOOR MEDIA AND (B) INDOOR MEDIA-I(100 MARKS)

Course Outcomes

1. Outdoor Media: The subject helps the students to shape up his /her future in the field in various job opportunities in Ad. Agencies such like Banner, Holding and various digital ads and various creative developments.

2. Indoor Media: The subject helps the students to shape up his /her future in the field in various job opportunities in Ad. Agencies such like Office materials, Stationery and various print media, various digital ads and various creative developments.

Minor

Objective : Impress specializes in the production of promotional of media for the print of seal materials marketing tool for campaigns. Exhibitions or presentation which can attract consumer attention and promote brand

PG36/2 T303 RESEARCH METHODOLOGY (100 MARKS)

Course Outcomes

1. Research Methodology: - There the student gets specific guidelines to be followed during the research procedure. Such as, Field, Problem, Scope, Methodology, Survey, ethics and other steps.

Objective: To motivate the students to conduct research on specified area or selected topic and to prepare a research proposal.

Introduction To Research: Meaning – Objectives – Types of Research – Scope of Research – Research Approaches – Research Process — Research Methods Vs Research Methodology - Steps in Research – Problem Formulation – Statement of Research Objective – Exploratory – Descriptive – Experimental Research

Data Collection And Measurement:Types data: Primary & Secondary, Data collection techniques, Scales of Measurement, Classification of Scales - Single Item v/s Multi Item Scales, Comparative v/s Non-Comparative scales, Continuous Rating

Scales; Criteria for Good Criteria for Questionnaire Designing; Types of **Questionnaire**; Questionnaire Design Procedure, Pilot test, validity and reliability of **Questionnaire**, Cranach's alpha, interview schedule

Assignment:

Students should submit a synopsis on current issues of advertising or marketing in the prescribed below format.

- a. Introduction (Theoretical Background)
- b. Review of literature (as cited in synopsis)
- c. Statement of the problem/Need for the study
- d. Objectives of the study
- e. Scope of the study
- f. Hypothesis(if any)
- g. Operational definition of the concepts
- h. Methodology
- i. Sampling
- j. Data collection
- k. Plan of analysis
- l. Limitations of the study
- m. Chapter Scheme:

Assignment: Student should prepare a research proposal/synopsis issue of proposed topic

PG36/2T304 OEC MEDIA AND PUBLIC RELATION-I (100 MARKS

Course Outcomes

1. OEC (Opted by the Student)

PRODUCT:-The Student can select any existing product for study purpose. **MARKET**: - The Student can select any existing market for study purpose. **MEDIA**: - The Student can select any existing media for study purpose

Case study :-Media :

Print media, Point of sale, Window display, Packaging label, Tag, Danglers Need to Public Promotional Relation

MVA APPLIED ART SEMESTER IV

PG36/2 P401 (A) VISUALIZATION-I AND (B) ILLUSTRATION-IV (300 MARKS

Course Outcomes

1. Visualization: The subject helps the students to shape up his /her future in the field of Advertising Specialist, Marketing Specialist, Creative Designer, Visualize, Event Planner, Creative Director, Graphic Designer, Social Media Manager, Copy Writer, Band Strategist, and Advertising Agency Jobs and so on.

2. Illustration: The subject helps the students to shape up his /her future in the field of advertising agencies as Designer , Gaming Company As A Game Developer , In Animation Area As Animator, Fashion Designer ,Cartoon Artist ,Book Illustrator ,Model Designer ,2D/3D Model Making. So job opportunities are available in various sectors.

<u>Major</u>

- Visualization
- Illustration

Visualization

Course of Study

Deeper understanding of market and marketing techniques (4 P's), concept building, building of brand image, creation of U.S.P.

Submission of Assignments:

(i) Execution of any 2 advertising campaign with report (*market survey and about your campaign*) on consumer's product or institutional (Services or Social) related with any of the appropriate media including Print and various techniques available.

(Minimum Submission for each Advertising Campaign is 10 works.)

(ii) Project Work (*with report*): Students has to submit a project work (campaign) based on contemporary social issues, any industry, corporation, public services/Govt. services.

(Minimum submission for the Project Work is 10 works.)

- (iii) Submission of class works
- (iv) One campaign in handwork. (Compulsory with report)
- (v) A short documentary film, TV Commercial etc.
- (vi) Free hand sketching 500
- (vii)Drawing 20. (Related to Project Work)

Illustration:

Course of Study

Advance Study in illustration for Graphic Expression. Emphasis on forming of individual style of creating illustration, cartooning/caricature. Knowledge of computer and software like Photoshop, Illustrator etc. to create illustration.

Advance techniques in book illustration, Creation of Characters.

- (i) Typography & Book Design.
- (ii) Story Illustration.
- (iii) Editorial Illustration.
- (iv) Press Illustration etc.

Submission-Assignments :

- (i) Submission of class works including theory assignments
- (ii) Minimum submission would be 5 books with minimum 16 pages.
- (iii) Free hand sketching 500
- (iv) Drawing 20. (Related to project work)

<u>Art journal</u>

It is to be used as a visual diary. Recording and documenting the process of learning to build Visualization:/Illustration It needs to be document in both words and graphic format. It needs to be presented at each display, discussion of practical works . plenty scribbles drawing, pictures eat can be included.

PG36/2 P402 (A) OUTDOOR MEDIA-II AND (B) INDOOR MEDIA-II(100 MARKS

Course Outcomes

1. Outdoor Media: - The subject helps the students to shape up his /her future in the field in various job opportunities in Ad. Agencies such like Banner, Holding and various digital ads and various creative developments.

2. Indoor Media: - The subject helps the students to shape up his /her future in the field in various job opportunities in Ad. Agencies such like Office materials, Stationery and various print media, various digital ads and various creative developments.

PG36/2 P403 DISSERTATIONS (100 MARKS

Course Outcomes

1. Dissertation:-Student improves the skills in writing, develops research nature, helps in developing literature.

It is a researched work on selected topic by the Masters' Student. It helps to develop the research interest in the subjects of Art History and allied subjects.

The Post-Graduate candidates should continue the research based on the synopsis submitted in the previous semester. The guide too continues.

Submission:

The dissertations/research should be prepared in the prescribed manner and handed over to the Principal, through the Head of the Department positively before the commencement of the theory examinations.

The Dissertations/research should be neat type written/computer/DTP/ in double line space, 12 font in New Roman, Bookman, Book Antiqua, Arial, Helvetica. The Dissertation should contain a minimum of 30 pages of type written text along with appropriate visuals. It should have the requisite bibliography and references. No web Materials allowed in downloaded form (or else this would be rejected as it would mount up to plagiarism).

Assignment: final three copies in Book format A4 size, and PDF : soft copy of the dissertation.

PG36/2 P404 DISPLAY / SUBMISSION OF CLASS WORK (100 MARKS) Course Outcomes

1. Display: - There the student will display all the works done throughout the course, thus student will get exposure to general market and general public. Wherein, the student gets experience, trends.

Notice :-At the end of 3^{rd} and 4^{th} Semester each student should display their works compulsory.

MVA Applied Arts Course Outcome

Today's Era Of Education As Drastically Changed Towards World Class Trends And Pattern. Master In Applied Art Course In CBCS KUD As Updated According To UGC Norms. This Courses Comprises With Four Semesters And Two Years Course. The Course As Core Practical Subjects Such As Visualization And Illustration, Theory Subjects Such Marketing Management, Integrated Marketing Communications, Advertising Management, Advertising Media Strategy And Project Work Such As Writing Journal For Each Work, Minor Subjects Such Creative Illustration, Digital Branding, Outdoor And Indoor Media And Also Dissertation Where Real Nature Of Work Can Be Studied In Live Projects. Therefore, This Course Nurtures The Student To Different Fields Like Ad.Agencies, Manufacturing, Industrial, Fashion, Interior Designing And Various Designing Companies With Good Packages. The Course Enables Student Start Up Own Entrepreneurship Also.

Course Specific Outcomes.

This Applied Arts PG Course is a specialization basically deals in Campaigning, Graphic design, Interior design, Fashion design, Ad. Advertising agencies, Advertising Companies, Publishing Houses, Printmaking, Animation Industry, Digital Media, Art Studios, Media and Public Relations, IT Companies, Manufacturers / Product Design, Fashion Houses, Photography, Government Sector, Schools / Colleges / Universities / Academic Institutes and visual communication.

It also, gives exposure to print media, electronic media and advertising. Applied arts can include architecture, pottery, basket weaving, costumes, interior design, jewelry, tools, weapons, web site Development, Application Development and bookbinding as well.

The key career opportunists after completing this course, the student enables him/her to become Art Teacher, Artist, Applied Artist, Craft Artist, Freelance Artist, Illustrator, Graphic Designer, Animator, Editor, Visualizer, Compositor, Modeler, Layout Designer, Exhibition Designer, Furniture Designer, Professional Photographer, Production Artist, Professor / Lecturer, Design Company Director, Event Manager and So on.