SRI DHARMASTHALA MANJUNATHESHWARA COLLEGE (AUTONOMOUS) UJIRE - 574 240

(Re-Accredited at A^{++} Grade by NAAC)

SDM LEARNING OUTCOMES

2023-24

POST GRADUATION (CBCS)

4. PROGRAMME OUTCOMES

Programme outcomes of the TWO year Post Graduation Degree Higher Education Programmes identified by the College.

Students of all post graduate general degree Programmes at the time of graduation will be empowered towards:

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

PO2. **Effective Communication**: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make sense of the world by connecting people, ideas, books, media and technology.

PO3. **Social Interaction**: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

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

PO5. **Ethics**: Recognize different value systems including their own, understand the moral dimensions of their decisions, and accept responsibility for them.

PO6. **Environment and Sustainability**: Understand and exhibit consciousness of the issues of environmental contexts and sustainable development.

PO7. **Self-directed and Life-long Learning**: Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.

PO8. **Problem Solving**: Identify, formulate, research literature, and analyze complex Socio-Political, socio-economic, socio-cultural problems reaching substantiated conclusions using first principles of mathematics, natural sciences, management and entrepreneurial skills.

PO9. **Project management and finance**: Demonstrate knowledge and understanding of the finance 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.

PO10. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO11. **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.

PO12. **Design/development of solutions**: Design solutions for complex socio-economic 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.

5. PROGRAMME SPECIFIC OUTCOMES

1. Faculty of PG Studies in Psychology: PGPSY055

Programme Specific Outcomes:

PSO1: Apply the relevant qualitative and quantitative research methods while carrying out research or project works.

PSO2: Have hands on experience of carrying out counseling sessions and confidently use the techniques while dealing with the clients

PSO3: Widened knowledge about developing and using the psychological assessment tests and tools on the basis of the needs of the group or person.

PSO4: Comprehensive understanding of the biological basis of human behavior

PSO5: Thorough knowledge about the psychopathology among children, adolescents and adults.

PSO6: Improved skills of human resource development and management.

PSO7: Extended understanding about the cognitive abilities and processes among human beings.

PSO8: Broad understanding of the applicability of different psychotherapeutic techniques.

2. Faculty of PG Studies in Social Work: PGSW028

Programme Specific Outcomes:

PSO1: Exhibit trained social work professional quality copious to deliver their services with their specialized methods, techniques and strategies.

PSO2: Demonstrate an ability to continue the profession with inter-disciplinary knowledge.

PSO3: Be aware of opportunities to work with diverse segment of people in their improvement.

PSO4: Show an ability to work for the cause of deprived, under privileged and disadvantaged sections of the society and be equipped through appropriate practice.

PSO5: Demonstrate increased knowledge and skills in association with practice based research.

PSO6: Involve in collaborative campaign to understand human problems better.

PSO7: Render service to those who are in need of it.

PSO8: Initiate human service organizations that bring objectively precise transformation.

3. Faculty of PG Studies in Commerce: PGCOM040

Programme Specific outcomes:

PSO1: Deliver a value based commitment in the core areas of business operations and adapt to changing business environments.

PSO2: Be able to apply the fundamental, conceptual and advanced practical knowledge to take effective business decisions and also modelling, designing, implementing and evaluating the computing system in the areas of commerce, trade and industry.

PSO3: Comprehend, analyze and interpret the market gaps in the broad areas of investment finance, human resource management, marketing and the other allied areas.

PSO4: Associate and pursue research in the specialised area of interest.

PSO5: Venture into leadership prospects or entrepreneurial innovations by tapping the market opportunities.

PSO6: Contribute to reduce societal problems by creating awareness among the peer groups, consumer groups and other voluntary groups.

PSO7: Exhibit team spirit, skills and acquaint with learning organization to achieve career goals.

4. Faculty of PG Studies in Commerce (Insurance and Bank Management): PGIBM041

Programme Specific Outcomes:

PSO1: Deliver a value based commitment in the core areas of Insurance and banking operations and adapts to changing business environments.

PSO2: Apply the fundamental, conceptual and advanced practical knowledge to take effective business decisions and also modelling, designing, implementing and evaluating the computing system in the areas of commerce, trade and industry.

PSO3: Comprehend, analyze and interpret market gaps in the broad areas of Bank management, General and Life Insurance, Portfolio Management, Risk Management in banks and allied.

PSO4: Associate and pursue research in the specialised area of interest.

PSO5: Venture into leadership entrepreneurial innovations tapping market opportunities.

PSO6: Contribute to reduce services sector related problems by creating awareness among the peer groups, consumer groups and other voluntary groups.

PSO7: Exhibit team spirit, skills and acquaint with learning organization to achieve career goals.

5. Faculty of PG Studies in Journalism and Mass Communication: PGJOUR027

Programme Specific Outcomes:

PSO1: Be equipped with adequate knowledge of mass communication and journalism
PSO2: Be prepared for communication research, teaching and media profession.
PSO3: Show familiarity with evaluation of the emerging communication technology.
PSO4: Exhibit social consciousness and concern through media as their profession.
PSO5: Be able to arrange discourses on mass media and their experiments.
PSO6: Show an ability to inculcate pioneering academic proficiency.
PSO7: Show the familiarity with improved communication skills.

6. Faculty of PG Studies in Chemistry: PGCHE052

Programme Specific Outcomes:

PSO1: Show the ability to plan, design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.
PSO2: Exhibit skills in problem solving, critical thinking and analytical reasoning as applied to scientific problems.
PSO3: Demonstrate the ability to apply green chemistry techniques in daily life.
PSO4: Be able to appreciate the central role of chemistry in our society and use this as a basis for ethical behavior in issues facing chemists including an understanding of safe handling of chemicals, environmental issues and key issues facing our society in energy, health and medicine.
PSO5: Exhibit competency to take up teaching profession, industrial jobs.
PSO6: Show an interest to start small scale industries with the available resources.
PSO7: Develop an aspiration to clear the UGC/NET/KSET and Civil services examinations.

7. Faculty of PG Studies in Organic Chemistry: PGOCHE053

Programme Specific Outcomes:

PSO1: Show an ability to design, and carry out synthetic reactions, isolation and purification of products.

PSO2: Exhibit skills in problem solving, critical thinking and analytical reasoning.

PSO3: Effectively apply gained knowledge in smooth functioning of daily life.

PSO4: Show competency in teaching profession, industrial jobs..

PSO5: Show an ability to start small scale industries with the available resources.

PSO6: Accurately record and analyze the results of synthetic works.

PSO7: Behave ethically in issues that chemists face including an understanding of safe handling of chemicals, and issues like environmental, energy, health and medicine.

PSO8: Successfully clear exams like UPSC, UGC etc.

8. Faculty of PG Studies in Biotechnology: PGBTY051

Programme Specific Outcomes:

PSO1: Demonstrate bimolecular knowledge and analytical skills at an advanced level.

PSO2: Show an ability to qualify various range of positions in industry, consultancy, education and public administration.

PSO3: Undertake further Study on biotechnology and its related disciplines such as genetics, animal biotechnology, food technology, plant biotechnology, etc.

PSO4: Show an ability to work in the capacities such as Sr. Associate Scientist, Research Biochemist, Sr. Regulatory Affairs Associate, Biotechnology Researcher, Associate Engineer, Quality Controller and Regional Manager and in industries such as Pharmaceuticals, Manufacturing, Biotechnology, Research Organizations, and FMCG besides colleges and universities as teachers.

PSO5: Undertake research projects on the leading edge in a chosen Specialized area of biotechnology, based on own research experience from a master's project and international literature.

PSO6: Show skills to qualify for research/ for further education in a doctoral program.

9. Faculty of PG Studies in Physics:PGPHY054

Programme Specific Outcomes:

PSO1: Become employable acquiring understanding of the subject.
PSO2: Be familiar with good laboratory skills.
PSO3: Appreciate, understand and use the scientific method in the solving of problems.
PSO4: Show the specialized knowledge & skill sets through choice of softcore papers
PSO5: Be readily available manpower for various public and private sector industries.
PSO6: Exhibit familiarity with hands on experience in research and equipment handling.
PSO7: Show an interest to become young physicists to showcase their talents in the field of Physics.
PSO8: Demonstrate the ability to establish start-ups in the field of application of Physics for the progress of the society.

10. Faculty of PG Studies in Statistics:PGSTAT056

Programme Specific Outcomes:

PSO1: Show the ability to use the knowledge on theoretical foundations for the development of various statistical concepts and procedures.
PSO2: Develop technical skills in probability modelling and statistical inference for the practical application of statistical methods in their future employment.
PSO3: Be able to find solutions to real world problems by applying quantitative modelling and data analysis techniques.
PSO4: Exhibit the skills in the use of computational and statistical software to develop and execute various statistical techniques and statistical computing algorithms.
PSO5: Demonstrate theoretical knowledge and applications of parametric, semi-parametric and non-parametric testing procedures.
PSO6: Design experiments and surveys with a view of providing solutions to real life problems.
PSO7: Be able to use statistical reasoning, formulate a problem in statistical terms, perform exploratory analysis of data, and carry out a variety of advanced inferential procedures.
PSO8: Be familiar with tackling emerging problems through applications of statistics.

11. Faculty of PG Studies in Economics:PGECO025

Programme Specific Outcomes:

PSO1: Demonstrate adequate knowledge about the state of economy.
PSO2: Show preparedness to face and manage in a competitive world.
PSO3: Be able tore view the emerging communication technology
PSO4: Show an interest to undertake social and economic responsibilities through their commitment and competence
PSO5: Be equipped to compare and contrast the urban and rural life to evolve proper remedies to reduce the divide.
PSO6: Exhibit willingness to undertaker search-oriented experimental studies in the field of Economics
PSO7: Be able to meet the requirements of competitive world.
PSO8: Show readyness to apply the learnt skills in assessments and other crucial situations for better economic measures.

12. Faculty of PG Studies in English:PGENG026

Programme Specific Outcomes:

PSO1: Demonstrate an appropriate level of expertise in literary history, literary theory, and rhetoric
PSO2: Demonstrate high-level proficiency in literary research and in the synthesis of research
PSO3: Demonstrate critical and analytical skills in the interpretation and evaluation of literary texts
PSO4: Reflect a command of written academic English, including the abilities to organise and present material in a cogent fashion, formulate and defend original arguments, employ effectively the language of their discipline and write under time constraints.
PSO5: Demonstrate competency in teaching English to nonnative speakers of English
PSO6: Show the expertise in linguistics- phonetics, semiotics, Phonology, morphology
PSO7: Undertake the translation project from English language in to the mother tongues
PSO8: Undertake independently research projects either survey based or theory based

Part -1V

Course Outcome- PG Courses

Faculty of PG Studies in Social Work (M.S.W)

Title of the paper: SWSH401 – Social Work Profession – History, Philosophy and Ideologies

Course Outcomes:

CO1: Exhibit knowledge of the history and philosophy of social work and its emergence as a Profession.
CO2: Examine the various ideological influences on social work profession.
CO3: Understand the importance of professional values, functions, goals and ethics in both macro and micro social work practice

Title of the paper: SWSH402 – Social Case Work

Course Outcomes:

CO1: Understand casework as method of social work.
CO2: Develop the ability to establish and sustain a working relationship with individuals.
CO3: Understand the process of working with individuals.
CO4: Develop the ability to analyze and assess the components & process of case work.

Title of the paper: SWSH403 – Social Group Work

Course Outcomes:

CO1: Understand group work as a method of social work.
CO2: Develop the ability to establish and sustain a working relationship with groups.
CO3: Understand the process of working with groups.
CO4: Develop the ability to analyze and assess the components and process of group work.

Title of the paper: SWSS 404 A – Dynamics of Human Behavior

Course Outcomes:

CO1: Understand the basic concepts of psychology relevant to social work practice.
CO2: Understand human needs and human behavior.
CO3: Gain an understanding of nature, basis of human growth and personality development.
CO4: Develop sensitivity towards needs, development tasks and health status.

Title of the paper: SWSS404B – Communication Skills for Social Work Practice

Course Outcomes:

CO1: Exhibit an understanding of various methods of communication and competence to use the same.
CO2: Understand and appreciate the role of communication in development.
CO3: Demonstrate knowledge of different forms of communication and their use in the process of development and social change.
CO4: Show the development and ability to assess critically the utilization of communication media by the government and non – government sectors in the process of development.

Title of the paper: SWSH405 – Social Work Practicum I

Course Outcomes:

CO1: Demonstrate familiarity with the basics of social work practicum, home visits, survey and Case Work.

Title of the paper: SWSH451 – Community Organization and Practice

Course Outcomes:

CO1: Understand the concepts related to the work with communities and processes involved.

CO2: Exhibit an understanding of the use and practice of community organization in various fields of social work.

CO3: Exhibit knowledge about the role of a social worker in social change and social development.

CO4: Be familiar with the emerging trends and experiments in community organization.

CO5: Show familiarity with various aspects of social action as an effective method of social work.

Title of the paper: SWSH452 – Social Welfare Administration and Social Action

Course Outcomes:

CO1: Acquire knowledge of social welfare administration and its emergence as a profession.

CO2: Show an understanding of the importance of functions, principles and various issues of social welfare administration and its practical aspects.

CO3: Be able to examine various issues related with the establishment of service organizations and social policies on vulnerable groups.

Title of the paper: SWSH453 – Social Work Research and Statistics

Course Outcomes:

CO1: Understand the role of research as a method of social work profession.

CO2: Demonstrate research knowledge and skills to be able to undertake independent research projects.

CO3: Be familiar with some of the basic statistical technique and their application in field of social work research and social work practice.

Title of the paper: SWSS454 A – Social Work in Various Settings

Course Outcomes:

CO1: Understand social work as a method of social service.
CO2: Understand the various settings of social work.
CO3: Show the knowledge of the process of working in various settings.

Title of the paper: SWSS454 B – Human Rights

Course Outcomes:

CO1: Show awareness of the relationship between social work and human rights.
CO2: Be able to provide the basic information about constitutional provisions for human rights.
CO3: Be able to sensitize social work professionals about right based approach.

Title of the paper: SWSS455 A – Social Work Perspectives for Social Science

Course Outcomes:

CO1: Develop an understanding of basic concepts of social sciences relevant to social work.
CO2: Be able to apply this knowledge to work in the society.
CO3: Understand the existing social system of the country and develop ability to analyze the same.

Title of the paper: SWSS455 B – Social Policy and Planning

Course Outcomes:

CO1: Show the knowledge of the systems and process of policy formulation and social planning in India.
CO2: Be able to analyze the systems of policy formulation and planning as well as development plans and programmes.
CO3: Identify linkages between social needs, problems, development issues and policies.
CO4: Locate strategies and skills necessary to facilitate policy change and social development, with a view to reinforce values of social justice, gender justice and equality and ecological sustainability.

Title of the paper: SWSH 456 – Social Work Practicum II

Course Outcomes:

CO1: Demonstrate the ability in organizing case work, group work and community organizations through social work camps.

Title of the paper: SWSH501 – Project Planning and Management

Course Outcomes:

CO1: Show the knowledge and skills required to facilitate participatory project planning and management.

CO2: Develop competency to facilitate processes of participatory planning with varied groups.

CO3: Exhibit values and attitudes that are essential for participatory intervention in society.

Title of the paper: SWSS502 – Citizen Participation, Good Governance and Local Self Governance (Specialisation - I)

Course Outcomes:

CO1: Recognize the key concept of citizenship, participation and governance institutions.

CO2: Show the understanding of the role of social work in promoting citizen participation in governance and effective functioning of local self-government institutions.

Title of the paper: SWSS503 – Psychiatric Social Work (Specialisation - II)

Course Outcomes:

CO1: Show an understanding of the concept of mental health and mental illness.

CO2: Understand the signs and symptoms, etiology, diagnosis and treatment of mental health problems, approaches and skills required.

CO3: Demonstrate the knowledge of historical background of psychiatric social work in India and abroad and understand the nature of psychiatric social work services.

CO4: Be able to understand the need for and methods of community mental health promotion.

Title of the paper: SWSS504 – Human Resource Management and Human Resource Development (Specialisation - III)

Course Outcomes:

CO1: Develop a knowledge and understanding of the nature and functions of personnel management.

CO2: Demonstrate the knowledge of modern aspects in human resource development.

Title of the paper: SWSS 505 –Tribal and Rural Community Development (Specialisation - I)

Course Outcomes:

CO1: Show an understanding of the concept and problems of rural community and tribal community.

CO2: Be skilled in community development approaches and programs/schemes for rural and tribal areas.

CO3: Be familiar with administration and panchyat raj system and functions.

Title of the paper:SWSS506 – Medical Social Work (Specialisation - II)

Course Outcomes:

CO1: Develop a holistic and integrated concept of health.
CO2: Be able to assess and analyze health problems and related issues.
CO3: Develop skills to handle the psycho – social problems associated with health problems.

Title of the paper: SWSS507 – Labor Legislations Part – I (Specialisation - III)

Course Outcomes:

CO1: Show an increased knowledge of industrial jurisprudence and need of labor legislations.
CO2: Exhibit the knowledge about labor administration and mechanisms.
CO3: Demonstrate develop skills to deal with legislative functions.

Title of the paper: SWSS508A - Family and Child Welfare

Course Outcomes:

CO1: Understand normative and changing norms of the institution of family and variations in them with reference to the family social ecology.
CO2: Encourage study of the process of family socialization.
CO3: Understand the need and importance of child welfare.

Title of the paper: SWSS508 B – Management Concepts

Course Outcomes:

CO1: Be familiar with management concepts and its evolution.
CO2: Show an understanding of management functions and skills required in its practice.
CO3: Exhibit a knowledge of modern trends in management.

Title of the paper: SWSS509 A – Management of Non-government Organizations

Course Outcomes:

CO1: Develop an understanding about the role of NGOs in societal development.
CO2: Develop knowledge about management of NGOs.
CO3: Show the ability to identify collaboration strategy between NGOs and government institutions.

Title of the paper: SWSS509B – Disaster Management

Course Outcomes:

CO1: Understand ecosystem equilibrium and disequilibrium.
CO2: Show developed skills to analyze factors contributing to disaster.
CO3: Develop an understanding of the process of disaster- management.
CO4: Exhibit skills in disaster management.
CO5: Develop an understanding of the role of social worker in disaster management.

Title of the paper: SWSH510 – Social Work Practicum - III

Course Outcomes:

CO1: Practice profession according to their specializations.
CO2: Be equipped with practical exposure from industries, hospitals and non-Government Organizations.

Title of the paper: SWSS551-Urban Community Development(Specialisation - I)

Course Outcomes:

CO1: Be familiar with various theories on urban life, problems and development.
CO2: Develop an understanding of factors associated with urbanization and its consequences.
CO3: Develop a critical understanding of urban problems.
CO4: Be sensitive and committed to work with the urban poor.

Title of the paper: SWSS552–Geriatric Social Work (Specialisation - II)

Course Outcomes:

CO1: Understand and analyze the policies, laws and programmes that affect the senior citizens.
CO2: Develop sensitivity to the factors that makes the older persons more vulnerable.
CO3: Demonstrate skills in developmental programmes of ageing.

Title of the paper: SWSS553 – Labor Legislations Part - II

Course Outcomes:

CO1: Be familiar with the knowledge of industrial jurisprudence and need of labor legislations.
CO2: Show the knowledge about labor administration and mechanisms.
CO3: Exhibit skills to deal with legislative functions.

Title of the paper: SWSS554 – Sustainable Development and Social Entrepreneurship (Specialisation - I)

Course Outcomes:

CO1: Be able to orient professionals about the importance of sustainable development.
CO2: Demonstrate entrepreneurship skills.

Title of the paper: SWSS555 – Therapeutic Counselling (Specialisation - II)

Course Outcomes:

CO1: Develop knowledge and skills of different psycho – therapeutic theories.
CO2: Be able to utilize different theories in relation to individuals, families and groups.
CO3: Develop competence to select and integrate therapeutic counseling skills when working with different client groups in different settings.

Title of the paper: SWSS 556 -Labor Welfare and Industrial Relations (Specialisation - III)

Course Outcomes:

CO1: Gain knowledge about concept, philosophy and evaluation of labor welfare.

CO2: Understand the components of labor welfare and their management in the overall context of human resource development.

CO3: Understand the dynamics of union management relationships in the industry.

Title of the paper: SWSS557 A – Rehabilitation and After Care Services

Course Outcomes:

CO1: Understand the concept of handicap, rehabilitation and the scope for practice.

CO2: Identify the specific client categories requiring the rehabilitation services, problem specificity and rehabilitation service interventions.

CO3: Acquaint oneself with different rehabilitation settings, different therapeutic approaches to rehabilitation process.

CO4: Acquire the social work skills adapted to facilitate the process of rehabilitation, the rights and legal provisions provided for differently able people and assimilate the knowledge of social work practice to disability specific client service.

Title of the paper: SWSS557B – Organizational Behavior and Organizational Development

Course Outcomes:

CO1: Exhibit knowledge about individual, group and organizational dynamics and their consequences.

CO2: Make clear the concepts and approaches that help in developing models or systems that support human ingenuity.

CO3: Acquaint the students with the knowledge of theories and practices that governs human behavior at work.

CO4: Help the learner understand the value and worth of human resources in an organization.

CO5: Understand the application of Transactional Analysis in several areas of employee management.

Title of the paper: SWSH558 – Research Project

Course Outcomes:

CO1: Develop ability to conceptualize, formulate &conduct simple research projects.

CO2: Learn to make informal assessment & judicious use of research studies & findings on a particular subject/area.

CO3: Develop skills for use of library& documentation services for research.

CO4: Develop attitudes favourable to the judicious integration of practice, research & theory. Develop ability for logical reasoning & critical analysis.

Title of the paper: SWSH559 – Social Work Practicum - IV

Course Outcomes:

CO1: Show a full-fledged knowledge in their specializations.

Title of the paper: PYS504 -Psychological Disorders of Childhood and Adolescence

Course Outcomes:

CO1: Understand mental retardation and specific developmental disorders of scholastic skills.
CO2: Understand pervasive developmental disorders.
CO3: Be familiar with behavioral and emotional disorders.
CO4: Be aware of Tic disorders and feeding, elimination disorders.

Title of the paper: PYS507-Human Resource Management and Development (HRM &D)

Course Outcomes:

CO1: Develop systematically the techniques of manpower for strategic change.
CO2: Thoroughly comprehend the vital aspects of human resource management.
CO3: Exhibit training techniques to improve any company's growth.
CO4: Develop various modules for people working in different sectors.

Title of the paper: PYH551 -Behavior Modification

Course Outcomes:

CO1: Demonstrate behavior modification techniques based on classical conditioning.
CO2: Exhibit behavior modification techniques based on operant conditioning.
CO3: Show assertiveness training, modelling and self-control techniques, and cognitive therapies.

Title of the paper: PYH552 - Areas of Counselling

Course Outcomes:

CO1: Understand the importance of counseling in terms of vocational, occupational and career counseling and also how to resolve the issues in career counselling.

CO2: Be familiar with the role of counseling in the couple relationship, marriage, pre-marital, and also how to deal with the sensitive issues in counselling.

CO3: Show familiarity with the importance of counseling for the dealing with family problem/issues and also the importance of family therapy in family counselling.

CO4: Demonstrate the importance of counseling for the aged and terminally ill and for grief counseling.

Title of the paper: PYS555 - Social Psychology

Course Outcomes:

CO1: Be familiar with the research areas and new trends in social psychology.

CO2: Demonstrate the understanding of one's own social behavior and improved understanding of others social behavior.

CO3: Understand the application of social psychology concepts in different areas.

Title of the paper: PYH557 - Dissertation/Project

Course Outcomes:

CO1: Exhibit familiarity with the research methodology and expertise in the area of their research (Dissertation Project).

Faculty of PG Studies in Journalism and Mass Communication (M.A)

Title of the Paper: JMC H 1.1 Development of Media

Course Outcomes:

CO1: Disseminate with the basic information about all the media.
CO2: Recognize the importance of media in the contemporary era.
CO3: Expand practical knowledge about different media.
CO4: Extend a rational framework to know the prominence of media in national context.

Title of the Paper: JMC H 1.2 Reporting for Media

Course Outcomes:

CO1: Categorize the role of the newspaper reporter and his duties.
CO2: Distinguish how the newspaper newsroom operates.
CO3: Evaluate the sources of information presented for newsgathering.
CO4: Express the news values and to widen proficiency in writing basic hard news leads using correct attribution.

Title of the Paper: JMC H 1.3 Editing and Design

Course Outcomes:

CO1: Experiment with the art of editing
CO2: Practice to acquire skills to make news attractive and readable.
CO3: Record to make page with unique patterns.
CO4: Apply the structure of newsroom culture and responsibilities.

Title of the Paper: JMC S 1.1 Advertising

Course Outcomes:

CO1: Identify the model of advertising communication.
CO2: Recognize the different ways of classifying audiences for advertising.
CO3: Evaluate the key roles of advertising as a business process.
CO4: Experiment the role of advertises plays in its process.

Title of the Paper: JMC S 1.2 Introduction to Journalism

Course Outcomes:

CO1: Discuss the prime focus on history of Kannada journalism.
CO2: Illustrate the contributions of renowned journalists.
CO3: Record the basic information about contemporary trends of Kannada journalism.
CO4: Interpret the various Kannada newspapers and magazines history.

Title of the Paper: JMC H 2.1 Communication Research Methods

Course Outcomes:

CO1: Analyze the basic concept of research.
CO2: Evaluate the importance of research in media education.
CO3: Sensitize the students to communication research.
CO4: Practice independently conceives and executes research projects.

Title of the Paper: JMC H 2.2 Media Law and Ethics

Course Outcomes:

CO1: Be acquainted with the basic principles underlying Indian Constitution and Media law.
CO2: Discuss the importance of Media law in the contemporary era.
CO3: Apply practical knowledge about different laws.
CO4: Develop a coherent framework to know the prominence of media law in National context.

Title of the Paper: JMC H 2.3 Theories of Mass Communication

Course Outcomes:

CO1: Apply communication process and its patterns in the changing situation.
CO2: Analyze the well-developed body of media theory.
CO3: Evaluate the validity of theories in future.
CO4: Examine analytical skills that will allow them to view the media critically.

Title of the Paper: JMC S 2.1 Photo Journalism

Course Outcomes:

CO1: Develop a sense of photography.
CO2: Use camera and know its applications.
CO3: Be familiar with the photography techniques.
CO4: Practice photography as a profession

Title of the Paper: JMC S 2.2 Non-Fiction Writing

Course Outcomes:

CO1: Discuss the characteristics of feature stories.
CO2: Discover tailor ideas to audience.
CO3: Evaluate variety of research techniques in gathering information.
CO4: Prepare stories for newspapers, magazines or web.

Title of the Paper: JMC O E 2.1 Communication Skills (CBCS)

Course Outcomes:

CO1: Demonstrate competency in communication skills related to production and presentation of messages in multiple formats.
CO2: Demonstrate competency in critical thinking skills related to the analysis, interpretation, and criticism of messages.
CO3: Analyze multiple theoretical perspectives and diverse intellectual traditions in communication.
CO4: Create competency in the analysis and practice of ethical communication.

Title of the Paper: JMC H 3.1 Corporate Communication

Course Outcomes:

CO1: Describe the structural identity and professional facet of the corporate world.
CO2: Exhibit strategic circumstantial expertise in framing perfect communication plan.
CO3: Develop good command over organizational communication skillful techniques.
CO4: Create competence to grab professional opportunities in various fields.

Title of the Paper: JMC H 3.2 Film Direction and Production

Course Outcomes:

CO1: Operate an extensive body of amateur work.
CO2: Apply production and postproduction skills.
CO3: Appraise the rudiments of narrative filmmaking in the short forms.
CO4: Evaluate various skills in cinematic practice.

Title of the Paper: JMC S 3.1 Media Marketing

Course Outcomes:

CO1: Explain the core concepts of media marketing.
CO2: Evaluate the role of media marketing in business and society.
CO3: Interpret the knowledge of social, legal, ethical and technological forces on media marketing decision-making.
CO4: Appraise the global nature of media marketing and appropriate measures to operate effectively in international settings.

Title of the Paper: JMC S 3.2 Business Journalism

Course Outcomes:

CO1: Explain the basic knowledge of economic system and media coverage.
CO2: Be skilled in analyzing economic issues and industrial aspects.
CO3: Apply efficiency in understanding basic features of business journalism.
CO4: Evaluate various economic issues covered by media.

Title of the Paper: JMC S 3.3 Media and Environment

Course Outcomes:

CO1: Be able to criticize anti-environment phenomena of the world.
CO2: Generate basic information about environment related issues.
CO3: Identify prime focus on global trends related to environment sector.
CO4: Exhibit creativity in media to safeguard environment.

Title of the Paper: JMC O E 3.1 Writing for Media

Course Outcomes:

CO1: Practice core newsgathering, writing, production, presentation and technical skills to a professional standard across all media platforms.
CO2: Employ appropriate technical skills and theoretical knowledge to solve problems associated with creative work.
CO3: Communicate the idea to the readers with professional effective manner.
CO4: Interpret the subject and to use different narrative styles to present the story with best possible clarity.

Title of the Paper: JMC O E 3.2 India – EU: How We Perceive Each Other

Course Outcomes:

CO1: Students of Science and Social Science have some basic knowledge about Europe and the European Union
CO2: Current perceptions of India are rooted in the past of India-Europe relations
CO3: Significance of understanding cultural difference to effective policies on diversity management
CO4: Some issues in relation to Indians resident in the EU

Title of the Paper: JMC H 4.1 New Media Technology

Course Outcomes:

CO1: Develop a sense of new technological innovations.
CO2: Identify new technologies and its application.
CO3: Show the ability to support the new software's in media studies.
CO4: Be able to support the conduct of research in ICT.

Title of the Paper: JMC S 4.1 Media Management

Course Outcomes:

CO1: Discuss basic knowledge over contemporary media organizational structures.
CO2: Systematic understanding of contemporary media management mechanism.
CO3: Identify prime focus on problems of newspaper organizations, TV channels and film industry.
CO4: Evaluate marketing strategies of media organizations.

Title of the Paper: JMC S 4.2 Radio Broadcasting

Course Outcomes:

CO1: Discuss the importance of Radio Broadcasting in India.
CO2: Explain the basic terms and concepts of Broadcasting.
CO3: Illustrate the structure and functioning of the broadcast industry.
CO4: Exhibit professional manners.

Title of the Paper: JMC S 4.3 Television Production

Course Outcomes:

CO1: Discuss the technological aspects of television production.
CO2: Identify the different modes of broadcasting.
CO3: Evaluate the basics of television as an effective medium to reach the people.
CO4: Categorize the difference between variety of editing techniques.

Title of the Paper: JMC S 4.4 Folk Media Communication

Course Outcomes:

CO1: Recall the relevance of folk media in modern society.
CO2: Acquire expertise in various folk media communication.
CO3: Distinguish various folk-art forms in Karnataka.
CO4: Identify the problems and prospect of folk artists.

Title of the Paper: JMC S 4.5 Development Communication

Course Outcomes:

CO1: The Indian Society, the process of development and the role of communication in it.
CO2: Upgraded the skills of journalists and to theoretically equip them to deal with the challenges they face in communicating about development and economic issues.
CO3: Specific national development issues, programmes and projects and the role of Communication.
CO4: Skills in development of communication material in media like print, radio and TV With understanding of other media like slides, puppetry, posters etc.

Title of the Paper: JMC P 4.1 - Dissertation/Project

Course Outcomes:

CO1: Exhibit familiarity with the research methodology and expertise in the area of their research (Dissertation/Project).

Faculty of PG Studies in Biotechnology (M.Sc.)

Title of the paper: BTH401 Biochemistry

Course Outcomes:

CO1: Understand chemical reactions and structures of biological molecules essential to life on Earth

CO2: Demonstrate the theoretical knowledge and practical application of UV/VIS, IR, and NMR spectroscopy, Colorimetry, Turbidometry, Nebulometry, nucleic acid purification, electrophoresis, SDS-PAGE protein electrophoresis, Western blotting, protein purification, Centrifugation.

CO3: Apply skills with Circular Dichorism, X-ray Diffraction and Radio isotope techniques like GM counter, Liquid scintillation counter and Cerenekov counting and Autoradiography.

CO4: Be highly conversant about classification of Biomolecules

Title of the paper: BTH402 Microbiology

Course Outcomes:

CO1: Explain the microbial world, its beginning with basics of evolution of microorganism on early earth life & its gradual transformation to most resistant forms.

CO2 : Demonstrate taxonomic grouping of microorganism through conventional & molecular approach and explain properly.

CO3 : Demonstrate the knowledge of microbial nourishment : respiration, factors affecting growth, measurement of growth, Co-existence of microorganisms as microbial association, structure & life cycle of virus on the basis of viral genomes as dsDNA, ssDNA, ssRNA, dsRNA with few predominant viral form carrying replication in different host such as bacteria, animal, plant.

CO5: Ability to analyze of the dark side of microbial world that is microbe & host interaction leading to disease is explained with respect to few plant pathogens, animal pathogens etc, Pathogenesis caused by invading bacteria and few secreted microbial products such as toxin resulting in food poisoning and also the role played by micro-organisms in food spoilage, prerequisites contributing to food spoilage.

CO6 : Suggest remedial measures of preservation of food through various methods.

Title of the paper: BTH403 Cell Biology

Course Outcomes:

CO1: Trace and relate the evolution of cells.

CO2: Show the conversant ability on different organelles present within the cell that has an evolutionary significance with respect to the changing environment, adaptations, improvisation of survival skills and the changing surroundings based on their activities.

CO3: participate in academic meets or workshops concerning cell signaling, cell interactions.

Title of the paper: BTS404 Molecular Genetics

Course Outcomes:

CO1: Explain the inheritance patterns of characters from one generation to another.

CO2: Show the expertise in Chromosomal mapping or gene mapping.

CO3: Analyze how modifications of chromosomes aka genes causes diseases in humans and populations.

CO4: Relate to life the change in a gene could happen all of a sudden in an organisms.

Title of the paper: BTS405 Bio Analytical Techniques

Course Outcomes:

CO1: Demonstrate the knowledge of the working principle, instrumentation, and applications of an age old technique, chromatography and also show how this traditional method has been modernized into the present day HPLC, UPLC etc

CO2: Analyze the working principle, instrumentation and applications of technique of electrophoresis.

CO3: Apply the principles and methodology of different centrifugation techniques

CO4: Show the familiarity of the usage of radio isotopes that has marveled modern biology, environment, medicine as well as in routine biological assays.

CO5: Employ spectroscopy for the identification of unknown compounds in the biological samples.

Title of the paper: BTH451 Molecular Biology

Course Outcomes:

CO1: Show the understanding of the basic properties of Nucleic acid and its principle and mechanism of replication in prokaryotes and Eukaryotes.

CO2 : Explain the role of different type of enzymes and accessory proteins involved in DNA replication.

CO3 : Analyze the transcription process in prokaryotes and eukaryotes, RNA processing enzymes and modification in different types of RNA in view of translation, regulation of gene expression, DNA damage and types of repair mechanism.

CO4 : Describe developmental biology in terms of gene action, ribosomal RNA synthesis during cogenesis and molecular genetics of pattern formation.

Title of the paper: BTH452 Genetic Engineering

Course Outcomes:

CO1: Distinguish between invivo & invitro gene cloning through PCR, and discuss about various components used in PCR, types, & application

CO2: Show familiarity with the end processing of PCR products to be used for gene cloning experiments.

CO3: Be skilled in invivo gene cloning, importance of vehicles, availability of different types of vehicles for carrying gene of interest is dealt. Classification of vehicles on the basis of function as cloning vector, expression vector, shuttle vectors are discussed.

CO4: Show the familiarity with the process of ligation of gene of interest with vector with a prior generation of compatible ends to create rDNA & its transfer to subsequent host followed by screening & selection of recombinant cells.

CO5: Demonstrate the understanding of the Construction of genomic & cDNA libraries, wide application of genetic engineering in DNA sequencing, finding genetic variations through RFLP,RAPD,AFLP methods, analysis of gene expression methods, comparison of differential expressed transcript.

CO6: Analyze the translational products and the manipulation of gene expression.

Title of the paper: BTS453 Metabolism

Course Outcomes:

CO1: Relate the living entities based on the principles of thermodynamics laws

CO2: Explain the complex reaction while calculating the free energy of a particular reaction.

CO4: Understand how the energy is stored inside the cell which is readily available whenever needed

Title of the paper: BTS454 Enzymology

Course Outcomes:

CO1: Show the familiarity of the basic structures &functions of enzymes & their role in physiology.

CO2: Explain the diversity of enzymes and their multiple roles in achieving system homeostasis.

CO3: Apply skills in handling enzymes as key therapeutic ingredients in biotech industries

Title of the paper: BTS455 Bioethics, IPR and Entrepreneurship

Course Outcomes:

CO1: Understand the basic problems, methods, and approaches to the field of bioethics. Familiarity with the main ethical theories of bioethics and identify the philosophical components of the public discussion on bioethical issues.

CO2: Recognize and interpret the theological presuppositions of bioethical questions and appreciate the contribution of religious traditions to the field of bioethics

CO3: Understand the legal and public policy implications of bioethics and become able to understand the interplay of morality and law both at a general level and in relation to specific bioethical issues

CO4: Knowledge to acquire the patent and copyright for their innovative works.

CO5: Apply cutting-edge knowledge and skills in developing captivating products often under considerable time constraints with very limited resources.

Title of the paper: BTE458 Applications of Biotechnology

Course Outcomes:

CO1: Demonstrate the principles of tissue culture that relies on totipotency in modern day agriculture, horticulture and medicines.

CO2: Demonstrate the principles of plant and animal culture, media preparation, asepticity and contamination.

CO3: Describe the Fertility restoration by means of *In vitro* fertilization and embryo transfer technology.

CO4: Understand pollution related problems and remedies, various laws, rules & regulations pertaining to pollution.

CO5: Describe commercial production of various biomolecules, Bt crops, mining etc.

Title of the paper: BTE459 Recombinant DNA Technology

Course Outcomes:

CO1: Show the basic knowledge about the rDNA technology and gene cloning -mainly the different factors used in this technique, different enzymes and proper function with respect to the cloning.

CO2: Explain different gene transfer methods, and their identification by using different detection methods and different methods for gene labelling with respect to their application.

CO3: Find jobs in industries where different methods of DNA technology is used in various fields.

CO4: Compare the various methods and apply them in different fields

Title of the paper: BTH501 Plant Biotechnology

Course Outcomes:

CO1: Compare the age old and conventional methods of plant breeding which are quiet unsuccessful for feeding the ever-growing populations with the modern technologies for plant improvisation.

CO2: Apply the nature's rule in plant development in creating micro propagation from different plant parts.

CO3: Evolve methods for ecological conservation - artificial means, modification of plants

Title of the paper: BTH502 Animal Biotechnology

Course Outcomes:

CO1: Show a thorough knowledge of the basics of initiating cell culture by tissue disaggregation and the development of primary culture, characterising primary cell lines, & basic equipment, media, physical factors, asepsis design of lab.

CO2: Reflect the awareness of large scale culture of cell in Bioreactor for monolayer & suspension culture is studied.

CO3: Apply cell cultures in different fields like in vitro fertilization, fish cell culture, mollusk culture, glandular cell.

CO4: Use various transgenic approaches used to improve animal as bioreactor

CO5: Produce commercially important proteins from animal cell and use gene therapy and mechanism of gene therapy.

Title of the paper: BTS503 Bioprocess Technology

Course Outcomes:

CO1: Be aware of bioreactors, design media and optimise process parameters.

CO2: Explain different types of fermentation and bioreactors.

CO3: Apply the principles of Bioprocess engineering for designing and analysis of biological reactors for industrially important primary and secondary products.

CO4: Demonstrate the knowledge of Bioreactor, distillation, tray drying, chemical reactors, heat exchanger, Rheology and downstream processing.

CO5: Show a sound knowledge of theoretical principles and practical considerations for the industrial production of several chemicals like acids, alcohols, antibiotics and cultivation of Mushroom.

Title of the paper: BTS504 Microbial Technology

Course Outcomes:

CO1: Show the familiarity with different types of the microbial products and their essential roles in different fields..

Co2: Analyze different types of vitamins, organic acids, antibiotics, hormones and other commercially important compounds and their production methods.

Co3: Apply the skills of commercial production of microbial enzymes, their purification methods, and their proper applications in different fields.

CO4: Explain different types of polysaccharides produced by the microbes and their proper applications in the different industries.

CO5: Demonstrate competence of commercial methods to produce different types the microbial products - beverages, different types of the foods and also the production different types of eco-friendly fertilisers and their use to crops as well as the field.

Title of the paper: BTS505 Biostatistics and Bioinformatics

Course Outcomes:

CO1: Understand the application, approaches and the significance of statistical analysis in their experiments.

CO2: Analyze methodologies of statistics and their application in selection of the biological samples.

CO3: Show the knowledge and awareness of the basic principles and concepts of bioinformatics where biology, computer science and mathematics are closely related.

CO4: Experiment with the existing software tools effectively to extract information from large databases and to use this information in computer modelling.

CO5: Demonstrate the problem-solving skills, including the ability to develop new algorithms, an understanding of the intersection of life and information sciences, information theory, gene expression, and database queries.

Title of the paper: BTOE508: Industrial Biotechnology

Course Outcomes:

CO1: Analyze the fermentation technology , requirements to fermentation with respect to media composition, strains developments , different screening methods to isolate the desired micro-organisms, media for commercial fermentation .

CO2: Compare different fermentation processes and different microbes.

CO3: Show the ability to identify and explain different products of the fermentation and the production methods- organic acids, different therapeutic compounds, antibiotics and their applications.

CO4: Show the different microbial enzymes in the industrial processing like different metabolic enzymes of the microbes and their proper application in various fields.

Title of the paper: BTOE509: Nanotechnology

Course Outcomes:

CO1: Understand the fundamental principles of nanotechnology and their application to biology.

CO2: Use in academic platforms the concepts of nanotechnology, their application along with engineering and physics to the nano-scale and non-continuum domain.

CO3: Demonstrate the understanding of the Nano fabrication methods, design processing conditions to engineer functional Nano materials.

CO4: Evaluate current constraints, such as regulatory, ethical, political, social and economic, encountered when solving problems in living systems.

CO5: Apply and transfer of interdisciplinary systems and engineering approaches to the field of bio and nanotechnology projects.

CO6: Evaluate the state-of-the-art characterization methods for Nano materials, and determine Nano material safety and handling methods required during characterization.

Title of the paper: BTH551 Immunology

Course Outcomes:

CO1: Analyze and explain the body's functional role in fighting against invading pathogen. in this aspect it discusses various types of immunity like innate, acquired, humoral & cell mediated, effect or mechanism of activated cell in combating invading pathogen.

CO2: Express how streamlining of antigen from immunogen takes place by defining characteristics of an antigen. Explain the concept of self-tolerance during lymphocyte maturation failing of which leads to auto immune disease.

CO3: Show the knowledge of the exaggerated levels of immune reaction to a harmless particle leading to hypersensitive reaction, different types.

CO4: Express a comprehensive knowledge of Synthesis in terms diverse amount of antibodies with varied specificity; antibody gene rearrangement, different classes of antibody with structure & biological function, concept of vaccination, immune function during transplantation.

Title of the paper: BTS552 Environmental Biotechnology

Course Outcomes:

CO1: Show the basic and advanced information regarding environmental pollutions, causes and outcomes.

CO2: Apply the novel techniques using microorganisms and plants to control the pollutions

CO3: Notice positive changes after usage of organisms for mining and also for mining related issues and compare the scenarios wherein the danger of release of GMOs to the environments.

Title of the paper: BTS553 Agricultural Biotechnology

Course Outcomes:

CO1: Demonstrate the Understanding of the principles and the emerging concepts in agricultural biotechnology.

CO2: Explain the role that microorganisms like *Agro bacterium* plays in producing genetically modified plant crops.

CO3: Critically evaluate the application of plant and microbial biotechnologies for sustainable agriculture.

CO4: Discuss and analyze how modern agricultural biotechnology and genetic resources can be harnessed to achieve environmental sustainability.

CO5: Undertake the modernized farming practices both in plant and animals for betterment in a highly profitable manner.

Title of the paper: BTS554 Food Biotechnology

Course Outcomes:

CO1: Identify the different types of fermented foods like, food produced by vegetables, fruits, fish and meat.

CO2. Show the understanding of the various enzymes used in different methods like enzymes in different industries like baking, dairy and in food and feed- different generic technologies used for preparation of different variety of foods.

CO3: Demonstrate the basic information about the functional foods with respect to health benefits and different plant phenolic compounds which can bring the health benefits and standards of food authentication with respect to different tests for toxicity testing,

CO4: Apply the principles and techniques for the food processing, and different biotechnological methods in the production of different foods which includes GM foods

CO5: Show the awareness of various types of food spoilage by different factors and also the proper methods for their preservation.

Faculty of PG Studies in Chemistry (M.Sc.)

Title of the paper: CHH401: Inorganic Chemistry

Course Outcomes:

CO1: Understand the structure of ionic and covalent compounds and study of their properties

CO2: Show the knowledge of industrial and commercial applications of halogens, noble gases and non-aqueous solvents

CO3: Demonstrate the understanding of organic precipitants and extraction techniques, masking and de-masking techniques, statistical treatment of errors

Title of the paper:CHH402: Organic Chemistry

Course Outcomes:

CO1: Explain the bonding in organic molecules, aromatic & non aromatic compounds, addition compounds, effect bonding on properties of acids and bases

CO2: Analyze reaction mechanism and intermediates, Carbocations, carbanions, free radicals and nitrenes

CO3: Show the knowledge of Stereochemistry of compounds and their properties – involving C-C, C-S, C-N and C-P bonds

Title of the paper: CHH403: Physical Chemistry

Course Outcomes:

CO1: Show familiarity of the concept of entropy, laws of Thermodynamics, Chemical potential and fugacity of molecules

CO2: Identify and explain the chain reactions, composite reactions, autocatalytic reactions and reactions in solutions including fast reactions

CO3: know the role of quantum Chemistry in understanding properties of molecules

Title of the paper: CHS404: Spectroscopy

Course Outcomes:

CO1: Show a fair understanding of the basics of Microwave and Vibration spectroscopy

CO2: Understand the Electronic spectra of molecules

CO3: Demonstrate the Nuclear magnetic applications and study of ^{1}H-NMR, ^{13}C-NMR spectra for identification of organic molecules

Title of the paper:CHS405: Methods of Analysis

Course Outcomes:

CO1: Apply Chromatographic techniques for separation of components in a reaction mixture

CO2: Know about Structural elucidation of crystals, use XRD and Electron Diffraction techniques

CO3: Apply thermo- analytical methods for identification of samples and radiochemical analysis of samples

Title of the paper:CHS406: Environmental Chemistry

Course Outcomes:

CO1: Show the understanding of air pollution, pollutants and their control and safety measures

CO2: Identify impurities in waste water and their removal

CO3: Identify toxic and solid pollutants in environment and their treatment

Title of the paper: CHH451: Advanced Inorganic Chemistry

Course Outcomes:

CO1: Predict spectral and structural properties of organic and inorganic molecules through symmetry elements and symmetry operation

CO2: Explain the types of bonds and preparatory methods in boranes, inorganic polymers, cage compounds and metal carbonyls

CO3: Analyze the **e**lectronic structure, oxidation states, extractions and separation of lanthanides and actinides.

Title of the paper: CHH452: Advanced Organic Chemistry

Course Outcomes:

CO1: Faliliarity of electrophilic and nucleophilic substitution reactions and addition to carbon-carbon, carbon- hetero multiple bonds

CO2: Demonstrate the free radical substitution reactions, auto oxidations and coupling of alkynes, elimination reactions

CO3: Explain the heterocyclic compounds with specific reference to the synthesis and reactions. Biologically important heterocycles

Title of the paper: CHH453: Advanced Physical Chemistry

Course Outcomes:

CO1: Apply the statistical and irreversible thermodynamics for various forces and phenomena

CO2: Demonstrate the Knowledge of electrochemistry of solutions, ion-solvent interaction and applications of electrochemistry

CO3: Find the need for approximate methods for structure-property relationships

Title of the paper: CHS454: Spectroscopy and Analytical Techniques

Course Outcomes:

CO1: Express the Understanding of Structural elucidation of species containing unpaired electrons by ESR., NQR, Mossbauer and photoelectron spectroscopic techniques and their applications

CO2: Show the knowledge of Atomic Absorption Spectrometry, Emission Spectroscopy, Molecular Luminescence Spectroscopy and Light-Scattering methods for detection of metals, particles and particle size

CO3: Use mass spectrometry in identification of organic compounds and employ Case studies of structural elucidations- UV, IR, NMR and Mass spectral data of compounds

Title of the paper:CHS455: Chemistry of Biomolecules

Course Outcomes:

CO1: Show the knowledge of cell structures, structure and functions of lipids and function and role of lipoproteins

CO2: Identify the role of amino acids, proteins, nucleic acids and enzymes in biological processes

CO3: Know about monosaccharide's, di, tri and tetra saccharine, polysaccharide s and their functions and degradations

Title of the paper: CHE456: Chemistry of Life

Course Outcomes:

CO1: Show an awareness on cosmetics, perfumery, fats, oils, soaps and detergents in daily life

CO2: Recognize the importance of balanced diet, food adulteration and addends

CO3: Understand the color chemistry, role of fertilizer, insecticides and pesticides.

Title of the paper: CHE457: Environmental Chemistry

Course Outcomes:

CO1: Study the air pollution, pollutants and their control and safety measures

CO2: Identify the impurities in waste water and their removal

CO3: Identify the toxic and solid pollutants in environment and their treatment

Title of the paper: CHH501: Coordination Chemistry

Course Outcomes:

CO1: Apply crystal field theory for the study of complexes

CO2: Interpret the spectra and magnetic properties of complexes

CO3: Understand the reaction mechanism in transition metal complexes

Title of the paper: CHH502: Reaction Mechanisms and Synthetic Methods

Course Outcomes:

CO1: Understand the reaction mechanism and synthetic uses of organic named reactions
CO2: Demonstrate the Knowledge of different pericyclic reactions
CO3: Use oxidizing and reducing reagents in organic reactions

Title of the paper: CHH503: Solid State Chemistry

Course Outcomes:

CO1: Demonstrate crystal defects and non-stoichiometry, solid state reactions and preparatory methods
CO2: Show the knowledge of electronic properties, Band theory, and magnetic properties of materials
CO3: Knowledge of liquid crystals, superconductivity and organic conducting polymers.

Title of the paper:CHS504: Chemistry of Synthetic Drugs

Course Outcomes:

CO1: Show an improved knowledge on theory of drug action and its design, use of general and local anaesthetics
CO2: Be aware of antibiotic, analgesics and anti-inflammatory agents in daily life.
CO3: Express the knowledge of CNS depressants, anticonvulsant, antimalarial drugs

Title of the paper:CHS505: Bioorganic Chemistry

Course Outcomes:

CO1: Apply the Knowledge of structural and synthesis of amino acids, proteins and their linkages
CO2: Decode the synthesis of nucleoside and nucleotides and study of DNA and RNA structure
CO3: Learn the classification and nomenclature of Vitamins and their deficiency diseases

Title of the paper: CHE506: Medicines in Daily Life

Course Outcomes:

CO1: Acquire information on common drugs used and their mode of action, clinical significance of trace elements in biological system

CO2: Be aware of antibiotic, analgesics and anti-inflammatory agents in daily life

CO3: Show the importance of Ayurvedic medicines in daily life and isolation of active molecules from medicinal plants

Title of the paper:CHE507: Chemistry of Materials

Course Outcomes:

CO1: Gain knowledge on cement, glass, lubricants, paints and pigments.

CO2: Identify the role of catalysts in industrial process, theory and control of corrosion and principles of chemical energy system.

CO3: Classification of polymers and structure property relationship, Strategies in plastic waste management

Title of the paper:CHH551: Bioinorganic Chemistry

Course Outcomes:

CO1: Understand the role of metal ions in biological systems, energy and enzymes

CO2: Explain the Importance of oxygen carriers, metal storage and nitrogen fixation in biological systems

CO3: Be familiar with Biochemistry of non-metals and Chelation in Medicine

Title of the paper: CHH552: Synthetic Design, Molecular Rearrangements and Heterocyclic Chemistry

Course Outcomes:

CO1: Illustrate the basic principles and techniques used in disconnection approach

CO2: Be familiar with mechanistic treatment of nucleophilic, electrophilic free radical rearrangements.

CO3: Understand nomenclature, structure, synthesis and reaction of four and five membered heterocycles.

Title of the paper: CHH553: Polymers and Photochemistry

Course Outcomes:

CO1: Understand the techniques and kinetics of polymerization.

CO2: Be aware of stereochemistry, phase transition, solutions and conducting properties of polymers

CO3: Learn photochemical reactions, their properties, kinetics and their rearrangement reactions.

Title of the paper:CHS554: Nuclear, Surface and Nano Chemistry

Course Outcomes:

CO1: Apply the concepts radioactivity, decay and nuclear power reactors

CO2: Explain the surface reactions, mechanisms

CO3: Understand the Nano materials, their synthesis and characterization and their application

Title of the paper:CHS555: Organometallic Chemistry

Course Outcomes:

CO1: Learn the structural features of transition metal-carbon pi complexes
CO2: Show familiarity with the catalysis by organometallic compounds
CO3: Use organometallic compounds in organic synthesis

Title of the paper:CHS556: Electrochemistry and Reaction Dynamics

Course Outcomes:

CO1: Differentiate electrorganic synthesis with conventional synthesis and corrosion types and its control. Role of electro catalysis in hydrogen preparation.
CO2: Be familiar with solar energy conversion to chemical energy and application of batteries, fuel cells
CO3: Understand the Complex reactions, Potential energy surfaces, Theory of kinetic isotope effects and Pharmaco kinetics

Faculty of PG Studies in Organic Chemistry (M.Sc.)

Title of the paper: OCH401: Inorganic Chemistry

Course Outcomes:

CO1: Demonstrate the knowledge of the structure of ionic and covalent compounds and study of their properties

CO2: Reflect the Knowledge of industrial and commercial applications of halogens, noble gases and non-aqueous solvents

CO3: Usage of organic precipitants and extraction techniques, masking and de-masking techniques, statistical treatment of errors

Title of the paper: OCH402: Organic Chemistry

Course Outcomes:

CO1: Appraise the bonding in organic molecules, aromatic & non aromatic compounds, addition compounds, effect bonding on properties of acids and bases

CO2: Be familiar with the reaction mechanism and intermediates, Carbocations, carbanions, free radicals and nitrenes

CO3: Show the understanding of Stereochemistry of compounds and their properties – involving C-C, C-S, C-N and C-P bonds

Title of the paper: OCH403: Physical Chemistry

Course Outcomes:

CO1: Apply the Concept of entropy, laws of Thermodynamics, Chemical potential and fugacity of molecules

CO2: Exhibit chain reactions, composite reactions, autocatalytic reactions and reactions in solutions including fast reactions

CO3: Identify the role of quantum Chemistry in understanding properties of molecules

Title of the paper: OCS404: Spectroscopy

Course Outcomes:

CO1: Show the Knowledge of the basics of Microwave and Vibration spectroscopy
CO2: Understand the Electronic spectra of molecules
CO3: Show familiarity with the Nuclear magnetic applications and study of ^{1}H-NMR, ^{13}C-NMR spectra for identification of organic molecules

Title of the paper: OCS405: Methods of Analysis

Course Outcomes:

CO1: Apply the Chromatographic techniques for separation of components in a reaction mixture
CO2: Experiment the Structural elucidation of crystals by XRD and Electron Diffraction techniques
CO3: Use Thermo- analytical methods for identification of samples and radiochemical analysis of samples

Title of the paper: OCS406: Environmental Chemistry

Course Outcomes:

CO1: Be aware of air pollution, pollutants and their control and safety measures
CO2: Identify the impurities in waste water and their removal
CO3: Identify toxic and solid pollutants in environment and their treatment

Title of the paper: OCH451: Advanced Inorganic Chemistry

Course Outcomes:

CO1: Predict spectral and structural properties of organic and inorganic molecules through symmetry elements and symmetry operation
CO2: Study different types of bonds and preparatory methods in boranes, inorganic polymers, cage compounds and metal carbonyls
CO3: Explain **e**lectronic structure, oxidation states, extractions and separation of lanthanides and actinides.

Title of the paper: OCH452: Advanced Organic Chemistry

Course Outcomes:

CO1: Demonstrate electrophilic and nucleophilic substitution reactions and addition to carbon-carbon, carbon- hetero multiple bonds

CO2: Analyze free radical substitution reactions, auto oxidations and coupling of alkynes, elimination reactions

CO3: Demonstrate the heterocyclic compounds with specific reference to the synthesis and reactions. Biologically important heterocycles

Title of the paper: OCH453: Advanced Physical Chemistry

Course Outcomes:

CO1: Application of statistical and irreversible thermodynamics for various forces and phenomena

CO2: Demonstrate the Knowledge of electrochemistry of solutions, ion-solvent interaction and applications of electrochemistry

CO3: Realize and Express the need for approximate methods for structure-property relationships

Title of the paper: OCS454: Spectroscopy and Analytical Techniques

Course Outcomes:

CO1: Understand the Structural elucidation of species containing unpaired electrons by ESR. Study of NQR, Mossbauer and photoelectron spectroscopic techniques and their applications

CO2: Be aware of Atomic Absorption Spectrometry, Emission Spectroscopy, Molecular Luminescence Spectroscopy and Light-Scattering methods for detection of metals, particles and particle size

CO3: Use mass spectrometry in identification of organic compounds and undertake Case studies of structural elucidations employing UV, IR, NMR and Mass spectral data of compounds

Title of the paper: OCS455: Chemistry of Biomolecules

Course Outcomes:

CO1: Demonstrate the knowledge of cell structures, structure and functions of lipids and function and role of lipoproteins

CO2: Understand the role of amino acids, proteins, nucleic acids and enzymes in biological processes

CO3: Show knowledge of the monosaccharide's, di, tri and tetra saccharides, polysaccharide s and their functions and degradations

Title of the paper: OCH501: Reaction Mechanisms

Course Outcomes:

CO1: Knowledge of mechanism and applications of name reactions which are being used continuously in synthetic chemistry.

CO2: Demonstrate independently the mechanistic treatment of nucleophilic, electrophilic, free radical rearrangements

CO3: Use advanced named reactions in the synthesis of variety of chemical products

Title of the paper: OCH502: Organic Synthetic Methods and Reagents

Course Outcomes:

CO1: Learn and apply the concepts of oxidation reactions, reagent used for oxidation and halogenation reactions

CO2: Observe the catalytic hydrogenation, metal reductions and safety measures to be taken during the chemical reactions

CO3: Demonstrate the knowledge of activating groups, protecting groups and miscellaneous reagents and their usage in synthetic chemistry.

Title of the paper: OCH503: Advanced Heterocyclic Chemistry

Course Outcomes:

CO1: Show familiarity with the nomenclature of heterocyclic compounds and knowledge on four membered, five membered and six membered heterocycles

CO2: Learn the mesoionic compounds, anthocyanins, flavones and heterocycles in functional group and ring transformation.

CO3: Show the detailed information on named reactions in heterocyclic chemistry and their synthetic applications

Title of the paper: OCS504: Chemistry of Synthetic Drugs

Course Outcomes;

CO1: Demonstrate knowledge on theory of drug action and its design, use of general and local anaesthetics

CO2: Show familiarity with antibiotic, analgesics and anti-inflammatory agents in daily life

CO3: Awareness and the knowledge of CNS depressants, anticonvulsant, antimalarial drugs

Title of the paper: OCS505: Bioorganic Chemistry

Course Outcomes:

CO1: Reflect the knowledge of structural and synthesis of amino acids, proteins and their linkages

CO2: Decode the synthesis of nucleoside and nucleotides and study of DNA and RNA structure

CO3: Learn the classification and nomenclature of Vitamins and their deficiency diseases

Title of the paper: OCH551: Organometallic Chemistry

Course Outcomes:

CO1: Understand catalysis by organometallic compounds and application of reagents in various chemical reactions

CO2: Explain the Importance of synthetic utility of various organometallic reagents like organolithium organosilicon, tin and boron compounds

CO3: Describe the utilisation of different types of synthetic reagents in variety of chemical reactions.

Title of the paper: OCH552: Organic Synthetic Design and Green Techniques

Course Outcomes;

CO1: Exhibit the knowledge about synthetic design, planning of organic synthesis and functionality of groups.

CO2: Illustrate basic principles and techniques used in disconnection approach

CO3: Knowledge of Principles of Green Chemistry and applications of different green techniques in chemical synthesis

Title of the paper: OCH553: Photochemistry and Asymmetric Synthesis

Course Outcomes:

CO1: Learn the photochemical reactions, their properties, kinetics and their rearrangement reactions.

CO2: Show the Pericyclic reactions, electocyclic reactions, cycloadditon reactions and sigmatropic reactions.

CO3: Learn independently about asymmetric synthesis, separation of enantiomers, chiral reagents and use of reagents in asymmetric synthesis

Title of the paper: OCS554: Advanced Medicinal Chemistry

Course Outcomes:

CO1: Demonstrate the sound knowledge of antineoplastic agents antimetabolites, cardiovascular agents and antiarrythmic agents and their mode of action

CO2: Be familiar with the antiviral drugs anti-inflammatory drugs, antihypertensive agents and their mode of action

CO3: Articulate the knowledge of industrial pharmacy, different methods of extraction, separation, purification and processes involved in drug delivery system

Title of the paper: OCS555: Chemistry of Natural Products

Course Outcomes:

CO1: Learn the structural features of structure, synthesis and stereochemistry of alkaloids

CO2: Show the detailed knowledge of natural product terpenoids, diterpenoids and prostaglandins

CO3: Be aware of chemistry of different steroids and steroidal hormones.

Title of the paper: OCS556: Industrial Organic Chemistry

Course Outcomes:

CO1: Understand different types of polymerization techniques and kinetics of polymerization.

CO2: Show conceptual knowledge on color and constitution of dyes, synthesis of dyes, pesticides and insecticides.

CO3: Know the usage of different heterocyclic compounds as agrochemicals, plant growth regulators and veterinary products.

Faculty of PG Studies in Commerce (M.Com)

Title of the paper: CMHC1.1 Accounting Theory and Practice

Course Outcomes:

CO1: Show familiarity with the basic accounting principles and concepts of accounting.
CO2: Be able to read and analyze the financial statements of a firm.
CO3: Exhibit enhanced understanding about the role of underwriting in capital market.
CO4: Understand the concepts and accounting adjustments.

Title of the paper: CMHC1.2 Business Research Methods-I

Course Outcomes:

CO1: Understand the concept of research, types of research and approaches
CO2: Be skilled in the sampling techniques.
CO3: Be able to construct questionnaire relying on several types of questions
CO4: Be skilled in writing an effective research proposal.

Title of the paper: CMHC1.3 Strategic Management

Course Outcomes:

CO1: Show an understanding of strategic management and analyzing company's vision mission statements.
CO2: Analyze company's strategic situation by emphasis on strategic analyze at business and corporate level.
CO3: Be familiar with strategic formation, strategic change and strategic innovation.
CO4: Exhibit an ability to suggest for change and development of a company strategy

Title of the paper: CMSC1.4 Managerial Analysis for Business

Course Outcomes:

CO1: Solve practical problems in business
CO2: Exhibit decision making skill and coordinate business activities
CO3: Be skilled in demand forecasting techniques.
CO4: Demonstrate skill in profit planning and control

Title of the paper: CMSC1.5 E-Commerce

Course Outcomes:

CO1: Analyze the evolution, significance and the role of e-commerce in integrated global business era.
CO2: Illustrate a concrete classification of networks and its pros and cons for business organization.
CO3: Analyze various e-commerce models and its impact on markets and business organizations
CO4: Demonstrate e-payment, e-security and E-CRM are the key areas to be addressed and focused by the business organizations in different sectors.

Title of the paper: CMOE2.1 Essentials of Management

Course Outcomes:

CO1: Assess the theoretical and conceptual approaches of the management.
CO2: Analyze various forms of business organization and the hierarchy of management in those business organizations.
CO3: Describe the eligibility criteria for entering corporate sector.

Title of the paper: CMHC2.2 Corporate Accounting

Course Outcomes:

CO1: Analyze the process of internal and external reconstruction
CO2: Prepare liquidation of financial statements and statement of affairs.
CO3: Analyze the importance and process of inflation accounting
CO4: Show an ability to understand the process of environmental and e-accounting.

Title of the paper: CMHC2.3 Business Research Methods

Course Outcomes:

CO1: Be familiar with the role of statistics in business.
CO2: Apply appropriate statistical tools for analysis based on research needs and type of data available.
CO3: Show fair understanding about the application of parametric and non-parametric test in research analysis.
CO4: Exhibit knowledge about methods of data interpretation and layout of research report.

Title of the paper: CMHC2.4 Advanced Financial Management

Course Outcomes:

CO1: Exhibit enhanced awareness about capital structure and theories of capital structure
CO2: Interpret the financial status of a firm based on leverage analysis.
CO3: Exhibit enhanced knowledge and analytical ability to assess the impact of dividend policy on market price per share of a firm.
CO4: Estimate the working capital requirement and cash and inventory need based on the operation of the firm

Title of the paper: MSC2.5 Modern Marketing

Course Outcomes:

CO1: Analyze the customized marketing trends applicable to product and service line companies.

CO2: Assess the various market segmentation base, targeting and positioning the products and services which leads to a company's sustainability.

CO3: Be acquainted with an insight into the most critical analysis of consumer and organization buying behavior.

CO4: Conduct survey on changing's trends in services and services marketing

Title of the paper: CMSC2.6 Organizational Behavior

Course Outcomes:

CO1: Discuss the development in the field of organizational behavior

CO2: Analyze and compare different models used to explain individual behavior

CO3: Explain the process involved in group dynamic

CO4: Identify organizational culture and its implementation on organizational change

Title of the paper: CMOE3.1 Entrepreneurship Development and Start Up

Course Outcomes:

CO1: Analyze the concepts of entrepreneurship development.

CO2: Provide an insight into significance of entrepreneurship development to boost the skilled workforce and tackle unemployment.

CO3: Assess the risk and return associated with start-ups and the available Government schemes and ailments.

Title of the paper: CMHC3.2 Accounting Standards and Financial Reporting

Course Outcomes:

CO1: Practice accounting standards and be familiar with their impact in the corporate sector.
CO2: Analyze cash flow statement is used for planning the cash movement.
CO3: Calculate the value of intangible assets and can identify the importance in business
CO4: Analyze the various reporting practices prevailing in Indian Corporate sector

Title of the paper: CMHC3.3 Entrepreneurship Development and Small Business Enterprises

Course Outcomes:

CO1: Be familiar with employment opportunities
CO2: Show an increased business knowledge
CO3: Show familiarity with entrepreneurial skills in causing social change
CO4: Start up a new venture

Title of the paper: CMHC3.4 Business Environment and Policy

Course Outcomes:

CO1: Be familiar with global business environment and its significance in the business decision.
CO2: Show better understanding about different trade policy on export and import.
CO3: Be familiar with the significance of environment scanning.
CO4: Identify the strength, weakness, opportunities and threats of the firm based on environmental scanning.

Title of the paper: CMHC3.5 Accounting for Managerial Decisions

Course Outcomes:

CO1: Realize the preparation of lease accounting and their evaluation for taking and leasing decisions

CO2: Apply the concept and mechanics of the time value of money, apply capital budgeting techniques, and apply the theory of capital structure to assess a firm's leverage and the cost of capital.

CO3: Apply different instruments to deal with exchange risk and markets imperfections while maximizing benefits from expanding to global markets.

CO4: Understand the importance of risk within the context of financial decision making on comparing various source of finance

Title of the paper: CMHS3.6 Security Analysis and Portfolio Management

Course Outcomes:

CO1: Be skilled in best investment plans and expected returns

CO2: Show familiarity with balance risk

CO3: Be skilled in capital market and rational decision making

CO4: Identify diversified portfolios

Title of the paper: CMSC3.5A Human Resource Development

Course Outcomes:

CO1: Exhibit competitive skill

CO2: Be aware of opportunities for career development

CO3: Demonstrate skills in team building

CO4: Show ability to deal corporate world

Title of the paper: CMSC3.6A Human Resource Management

Course Outcomes:

CO1: Analyze the importance of human resource management in organization
CO2: Be aware of different tools used in forecasting and planning human resource needs.
CO3: Be familiar with tool used in managing employees effectively.
CO4: Identify the key issues related to administering the human resource.

Title of the paper: CMHC4.1 Advanced Cost and Management Accounting

Course Outcomes:

CO1: Show an understanding of the importance and role of cost accounting systems
CO2: Analyze and apply flexible and static budgets and variance analysis
CO3: Apply quantitative techniques in problem solving and decision making.
CO4: Assess the relevance, strengths and weaknesses of different costing

Title of the paper: CMHC4.2 International Business

Course Outcomes:

CO1: Exhibit clarity about the approaches and various phases of internationalization of business.
CO2: Be able to read the present status of balance of trade and its role in the development of macroeconomic policy.
CO3: Describe the reasons and consequences of forex market volatility and its impact on domestic and international business.
CO4: Identify the issues and solutions in relation to the internationalization strategies of firms.

Title of the paper: CMSC4.3 Retail Management

Course Outcomes:

CO1: Understand the ways that retailers use marketing tools and techniques to interact with their customers.

CO2: Understand the factors relating to visual merchandising, such as store layouts and presentation

CO3: Prepare strategic plan for a business, including financial strategy and financial performance measures

CO4: Identify the flow of goods and services in a retail environment in the form of inventory control, supply chain, and risk management

Title of the paper: CMSC4.5 Advanced Business Accounting

Course Outcomes:

CO1: Identify the process of human resources in an organization

CO2: Prepare financial statement of investment account and farm accounting.

CO3: Identify the process of preparation of voyage accounts

CO4: Understand ethical issues and responsibilities of international accounting standards

Title of the paper: CMSC4.6 Capital Market Operation

Course Outcomes:

CO1: Provide sufficient marketability

CO2: Be skilled in reasonable safety measure and fair dealing in trade

CO3: Be skilled in evaluation of securities

CO4: Show familiarity with competitive investments

Title of the paper: CMSC4.5A Organizational Change and Development

Course Outcomes:

CO1: Accept and face the competitive environment
CO2: Demonstrate the ability to develop different entity and empower people
CO3: Demonstrate humanistic values through practice.
CO4: Be skilled in team building.

Title of the paper: CMSC4.6A Labor Legislation

Course Outcomes:

CO1: Analyze the theoretical and conceptual framework of Labor Law in India and its association with ILO.
CO2: Exhibit applicability and significance of various provisions of the Factories Act, 1948 and Child Labor (Prohibition & Regulation) Act, 1986, through case analysis and references.
CO3: Assess the Social security legislation related to minimum wages, ESI, Compensation, Bonus etc. and also orienting on the role of an HR manager in handling the different situation.
CO4: Provide an insight into hormonal industrial relations and interpretations.

Faculty of PG Studies in Insurance and Bank Management (M.Com)

Title of the paper: IBHC1:1: Accounting Theory and Practice

Course Outcomes:

CO1: Exhibit knowledge about the basic accounting principles and concepts of accounting.
CO2: Read and analyze the financial statements of a firm.
CO3: Express enhanced understanding about the role of underwriting in capital market.
CO4: Understand the concepts and accounting adjustments for bonus and right issue.

Title of the paper: IBHC1:2: Business Research Methods

Course Outcomes:

CO1: Show a clear understanding about the concept of research, types of research and approach.
CO2: Demonstrate knowledge about the sampling techniques to be used different research.
CO3: Prepare questionnaire relying on several types of questions.
CO4: Write an effective research proposal.

Title of the paper: IBSC1:3: Business Ethics and Corporate Governance

Course Outcomes:

CO1: Apply and assess ethics in various levels of business.
CO2: Assess the ethical decision making in HRM, Finance and marketing.
CO3: Analyze the framework of corporate governance in resolving ethical conflicts and adopt uniformity in regulation of business.
CO4: Compare corporate social responsibility and its impact on societal as well as business development.

Title of the paper: IBSC1: 4: Bank Management

Course Outcomes:

CO1: Demonstrate the understanding of the fundamentals Indian Banking System.
CO2: Show the understanding of different types of e-banking system prevailing in India.
CO3: Identify various priority sectors lending and their impact on Indian economy.
CO4: Identify the Non-performing assets and how it influences the performance of banks.

Title of the paper: IBSC1:5 Entrepreneurial Development

Course Outcomes:

CO1: Be able to understand entrepreneurial traits.
CO2: Apply parameters to assess opportunities and constraints for new business ideas.
CO3: Analyze the systematic process to select and screen a business idea and draft business plan.
CO4: Design the strategies for successful implementation of ideas.

Title of the paper: IBHC2:1: Personal Financing and Budgeting

Course Outcomes:

CO1: Demonstrate an understanding of various investment opportunities.
CO2: Determine tax liability in the process of income calculation.
CO3: Show the importance of stock market.
CO4: Identify the importance of budget preparation its practical utility in their life.

Title of the paper: IBHC2:2: Corporate Accounting

Course Outcomes:

CO1: Analyze the process of internal and external reconstruction.
CO2: Prepare liquidation of financial statements and statement of affairs.
CO3: Analyze the importance and process of inflation accounting.
CO4: Demonstrate an understanding of practical importance in the process of environmental and e-accounting.

Title of the paper: IBHC2:3: Business Research Methods-11

Course Outcomes:

CO1: Show an understanding about the concept of research, types of research and approach.
CO2: Reflect a fair knowledge about the sampling techniques to be used different research.
CO3: Construct a questionnaire relying on several types of questions.
CO4: Be able to write an effective research proposal.

Title of the paper: IBHC2:4: Strategic Human Resource Management

Course Outcomes:

CO1: Analyze the importance of human resource management in organization.
CO2: Use different tools in forecasting and planning human resource needs.
CO3: Apply the tool used in managing employees effectively.
CO4: Identify the key issues related to administering the human resource.

Title of the paper: IBSC2:5: Financial Institutions and Services

Course Outcomes:

CO1: Appraise the Indian financial system and the importance of money and capital market.
CO2: Identify various functions of RBI and importance in economic development.
CO3: Assess various sources of finance for starting of risk enterprises.
CO4: Assess various agencies involved in credit rating and its process.
CO5: Analyze various function of financial institutions and their importance.

Title of the paper: IBSC2:6: Rural Banking and Management

Course Outcomes:

CO1: Be familiar with the key issues related to rural banking.
CO2: Be able to discuss the initiatives of the government for inclusive financial system in academic platforms.
CO3: Identify the current development in the field of micro finance.
CO4: Analyze the issues and challenges of various models of micro-finance.

Title of the paper: IBOE3:1: Bank Practices

Course Outcomes:

CO1: Demonstrate the understanding of basic financial system.
CO2: Identify functions of central banks.
CO3: Compare and analyze the relation between banker and customer.
CO4: Be able to write bank examination successfully.

Title of the paper: IBHC3:2: Banking and Insurance Accounting

Course Outcomes:

CO1: Analyze the accounting practices of banking and insurance companies through practical. Exercise.
CO2: Do Practical assessment of human asset accounting on the basis of evaluation models.
CO3: Assess the regulatory framework of accounting standards in India.
CO4: Analyze the adaptability to IFRS and the accounting convergence.

Title of the paper: IBHC3:3: Strategic Financial Management

Course Outcomes:

CO1: Demonstrate the enhanced awareness about capital structure and theories of capital structure.

CO2: Demonstrate the knowledge through the interpretation of the financial status of a firm based on leverage analysis.

CO3: Show an enhanced knowledge and analytical ability to assess the impact of dividend policy on market price per share of a firm.

CO4: Estimate the working capital requirement and cash and inventory need based on the operation of the firm.

Title of the paper: IBSC3:4: Principles and Practices of General Insurance

Course Outcomes:

CO1: Incorporate employee benefit into financial planning recommendation.

CO2: Integrate the tax implication into insurance decisions.

CO3: Show a better understanding about the concepts of fire, marine, health and other miscellaneous insurance.

CO4: Use various statutory provisions of insurance like Insurance Act, 1938, IRDAI Act. 1999.

Title of the paper: IBSC3:5: Strategic Marketing Management

Course Outcomes:

CO1: Show a better awareness about marketing and its functions.

CO2: Demonstrate enhanced familiarity about the consumer behavior and its determinants.

CO3: Reflect better understanding about the concepts and evolution of marketing ideas.

CO4: Apply various levels of strategic marketing plan.

Title of the paper: IBHC4:1: Risk Management

Course Outcomes:

CO1: Analyze the impact of risks associated with assets and liabilities of the banks and its impact on the banks performance.
CO2: Assess the effect of credit risk in banks.
CO3: Articulate the current banking scenario, analyzing the measures undertaken by banks as per RBI guidelines.
CO4: Apply the credit derivatives in mitigating risks.

Title of the paper: IBHC4:2: Portfolio Management

Course Outcomes:

CO1: Analyze best and unique investment policy.
CO2: Assess the balance risk and return.
CO3: Demonstrate the knowledge about capital market.
CO3: Show the rational thinking on various investment portfolios and rational decision making.
CO4: Identify diversified portfolios.

Title of the paper: IBSC4:3: Budgeting and Cost Control

Course Outcomes:

CO1: Reflect the understanding of the importance and role of cost accounting systems.
CO2: Analyze and apply flexible and static budgets and variance analysis.
CO3: Apply quantitative techniques in problem solving and decision making.
CO4: Assess the relevance, strengths and weaknesses of different costing systems.

Title of the paper: IBSC4:4: Principles and Practices of Life Insurance

Course Outcomes:

CO1: Show a better understanding of concepts, significance, legal conditions of insurance contract.

CO2: Analyze the implication of principles of insurance with insurance contract.

CO3: Demonstrate the better understanding about the various risks and methods of handling risk.

CO4: Show the enhanced understanding about the various types life insurance product.

CO5: Show the efficiency in estimating premium, claim, paid up value, surrender value, loan and bonus on insurance policy.

Title of the paper: IBSC4:5: Project Work

Course Outcomes:

CO1: Undertake research independently.

CO2: Be able to prepare research methodology and identification of research gap.

CO3: Be able to prepare questionnaire for data collection.

CO4: Prepare final research report and make presentations in academic meetings.

Faculty of PG Studies and Research in Physics (M.Sc.)

Title of the paper: PHH401: Mathematical Methods of Physics I

Course Outcomes:

CO1: Understand that mathematics can be used as an effective tool in solving physical problems.

CO2: Appreciate the utility and ingenuity of various mathematical theorems when applied to physical principles.

CO3: Be familiar with the abstraction of physical concepts when codified in mathematical language.

CO4: Understand and apply mathematical formulation in various branches of Physics.

Title of the paper: PHH402: Quantum Mechanics I

Course Outcomes:

CO1: Appreciate the paradigm-shift in the laws of microscopic particles.

CO2: Understand the laws of Physics at the level of elementary particles.

CO3: Appreciate the deep and profound ideas that govern the particles at the quantum scale.

CO4: Show an understanding of the nature and properties of various systems from the perspective of quantum mechanical principles.

Title of the paper: PHH404: Electrodynamics

Course Outcomes:

CO1: Show an ability to solve problems on electricity & magnetism, electrostatics/dynamics.

CO2: Exhibit an understanding of Maxwell's equations and its applications.

CO3: Learn the concepts of metallic waveguide structure and propagation of EM wave through it.

Title of the paper: PHH451: Mathematical Methods of Physics II

Course Outcomes:

CO1: Show advanced learning on how mathematics can be used as an effective tool in solving physical problems.
CO2: Understand and apply mathematical formulation in various branches of Physics.
CO3: Be familiar with programing and how it can be used in solving problems and doing calculations in Physics.
CO4: Exhibit skills in computational and programing application-demanding subjects.

Title of the paper: PHH452: Quantum Mechanics II

Course Outcomes:

CO1: Appreciate the deep and profound ideas that govern the particles at the quantum scale,
CO2: Understand the nature and properties of various systems from the perspective of quantum mechanical principles,
CO3: Apply their knowledge & understanding of the subject to fathom the working of various devices, instruments and constructs,
CO4: Understand how abstract laws of quantum mechanics help us understand the nature and behavior of matter and its various manifestations.

Title of the paper: PHH453: Nuclear and Radiation Physics

Course Outcomes:

CO1: Knowledge of the basic constituents of the nucleus and properties of the nucleus.
CO2: Be familiar with the three processes of radioactive decay & understand the exponential behavior of radioactive samples and know how radioactive dating works.
CO3: Understand the effects of nuclear binding energy and why it leads to nuclear fission and fusion as energy sources. Also know the difference between nuclear fission and nuclear fusion.
CO4: Understand the working principles of the various nuclear detectors and how the nuclear radiations interact with matter.
CO5: Show awareness about the advantages and disadvantages of nuclear radiations.
CO6: Be aware of several practical applications of nuclear physics.

Title of the paper: PHH454: Condensed Matter Physics and Electronics

Course Outcomes:

CO1: Demonstrate skills in Condensed Matter Physics.

CO2: Learn to use a number of approximation schemes to calculate physical properties of various condensed matter systems based on quantum mechanics.

CO3: Appreciate the physical ideas behind these approximation schemes, as well as their limitations.

Title of the paper: PHE455: Natural Phenomena and Energy Sources

Course Outcomes:

CO1: Understanding the concepts of natural phenomena in a scientific perspective.

CO2: Show an awareness about energy sources.

CO3: Uses and applications of various energy sources.

Title of the paper: PHH501: Atomic and Molecular Physics

Course Outcomes:

CO1: Understand the basics concepts of Atomic/molecular Physics.

CO2: Analyze the spectra of various atoms.

CO3: Understand the structure and constitution of atoms and molecules.

Title of the paper: PHH502: Thermodynamics and Statistical Physics

Course Outcomes:

CO1: Discuss and answer the First Law of Thermodynamics.

CO2: Show an ability to define heat, work, thermal efficiency and the difference between various forms of energy.

CO3: Exhibit skills to identify and describe energy exchange processes (in terms of various forms of energy, heat and work).

CO4: Apply the steady-flow energy equation or the First Law of Thermodynamics to a system of thermodynamic components (heaters, coolers, pumps, turbines, pistons, etc.) to estimate required balances of heat, work and energy flow.

CO5: Explain the concepts of path dependence/independence and reversibility/irreversibility of various thermodynamic processes, to represent these in terms of changes in thermodynamic state.

Title of the paper: PHS503: Condensed Matter Physics I

Course Outcomes:

CO1: Show an understanding of basic concepts required to understand the nature of bulk materials.
CO2: Be oriented towards a new specified subject.
CO3: Be familiar with the principle and applications of the solid state.

Title of the paper: PHS504: Electronics I

Course Outcomes:

CO1: Be able to develop printed circuit boards.
CO2: Show familiarity with linear and nonlinear applications of operational amplifiers.
CO3: Show familiarity with power devices and importance of power amplifiers.

Title of the paper: PHS505: Condensed Matter Physics II

Course Outcomes:

CO1: Demonstrate the familiarity with the types of extrinsic semiconductors, theory and mathematical aspects related to extrinsic semiconductors.
CO2: Show an understanding of the formation of pn junction and also junction theory.
CO3: Be skilled in low dimensional semiconductors and their applications.
CO4: Be aware of different semiconductor devices.
CO5: Understand the advanced semiconducting materials.

Title of the paper: PHS506: Electronics II

Course Outcomes:

CO1: Show an awareness about basic terminologies of radio communication system.
CO2: Be familiar with the different types of modulation techniques used in radio communication system.
CO3: Show an increased learning about radio transmitter and receiver in detail.
CO4: Be familiar with different types of pulse communication system and digital communication system.

Title of the paper: PHH551:Lasers, Vacuum Techniques and Cryogenics

Course Outcomes:

CO1: Be familiar with difference between low level source, linear optics and laser source, nonlinear source.
CO2: Be aware of research work in NLO.
CO3: Show familiarity with the application of laser in NLO.
CO4: Show an understanding of low temperature gas production methods, low temperature measuring equipment like thermocouple, RTD, gas thermometer.

Title of the paper: PHH552: Astrophysics and Relativity

Course Outcomes:

CO1: Be familiar with the details of stellar evolution, stellar classification and galaxies.
CO2: Know about big bang theory, evolution of Universe and origin of life on Earth.
CO3: Exhibit the knowledge about concepts of relativity and relativistic dynamics.
CO4: Show familiarity with the structure of space-time and gravity.

Title of the paper: PHS553: Condensed Matter Physics – III

Course Outcomes:

CO1: Exhibit a working knowledge of concepts in Condensed Matter Physics concepts.
CO2: Show the skills in understanding of experimental techniques of the subject.
CO3: Familiarity with recent advances in the subject.

Title of the paper: PHS554: Electronics – III

Course Outcomes:

CO1: Be familiar with the basic concepts of microprocessors.
CO2: Exhibit programming skills of microprocessor 8085 using assembly language.
CO3: Show familiarity with the concepts of interfacing with microprocessors.

Title of the paper: PHS555: Condensed Matter Physics – IV

Course Outcomes:

CO1: Show an increased knowledge in research work in crystals& crystal growth,
CO2: Be familiar with the different types of crystal defects and its application in electrical conductivity in battery.
CO3: Show an awareness about special verity of the materials, polymers and their applications.
CO4: Know about Liquid Crystal Displays and their applications.

Title of the paper: PHS556: Condensed Matter Physics – IV

Course Outcomes:

CO1: Be familiar with the basic structure and working principle of Optical Fiber Cable.
CO2: Know about different types of optical sources and optical detectors.
CO3: Be familiar with the basic power budget designing techniques used in OFC communication system.

Faculty of PG Studies in Economics (M.A)

Title of the paper: ECH1.1: Micro Economic Analysis

Course Outcomes:

CO1: Demonstrate the basic knowledge of the subject in academic interactions.
CO2: Use theoretical knowledge about act of consumer behavior in the interpretation of the conditions of the market.
CO3: Apply the terms and concepts of economics while undertaking researches.

Title of the paper: ECH1.2: Macro Economic Analysis

Course Outcomes:

CO1: Show the knowledge and competence about valuation of national Income and different methods of calculation.
CO2: Demonstrate the basic information about Macroeconomics.
CO3: Identify causes of fluctuations in an economy and suggest the ways to control it.
CO4: Analyze the nature and functioning of the economy at the macro level.

Title of the paper: ECH1.3: Economics of Growth and Development

Course Outcomes:

CO1: Be competent to differentiate the Economic growth and Economic development.
CO2: Undertake surveys and projects with the theatrical framework.
CO3: Recognize the role of technology in the economic growth and suggest the ways to augment the same in the workplaces.

Title of the paper: ECS1.4: Quantitative Methods In Economic Analysis

Course Outcomes:

CO1: Recognize the Importance of the use of mathematical methods in Economic analysis.
CO2: Analyze economical phenomenon by using mathematical methods.
CO3: Employ the tools of analysis in the study and interpretation of the economic situations.

Title of the paper: ECS1.5: Economics of Insurance

Course Outcomes:

CO1: Understand the nature of insurance and its importance in day to day life.
CO2: Explain the detailed knowledge about general insurance.
CO3: Evolve future plans for the life security through savings and investments.
CO4: Show the knowledge of Marketing strategies of Insurance Products and there regulatory aspects.

Title of the paper: ECS1.6: Agricultural Economics

Course Outcomes:

CO1: Explain the interdependence of agriculture and other sectors.
CO2: Articulate the knowledge about production and productivity.
CO3: Show a fair knowledge of the financial sources available for agriculture development.
CO4: Analyze the need for agriculture price policy for its growth and pressurise the authorities to evolve the same.
CO5: Analyze inter regional variations in the growth of agriculture.

Title of the paper: ECS1.7 : Man Power Economics

Course Outcomes:

CO1: Share the knowledge about labor laws and market.
CO2: Analyze the employment strategies for the overall growth of the economy.
CO3: Use the extensive information collected about labor unions and issues related to accessibility of social security benefits to laborers in academic presentations.
CO4: Advise the govt. or employers to determine the wages in different situations to ensure proper work.

Title of the paper: ECH2.1: Business Economics

Course Outcomes:

CO1: Show and apply the discernment ability while doing business and interacting on issues concerning the business field.

CO2: Evaluate the price fluctuation in the market and communicate to the customers or buyers about the right time for buying.

CO3: Predict the futures based on the market trends.

CO4: Demonstrate the theoretical knowledge of cost and revenue of the business firm through extending help the people in the business fields.

CO5: Explain how to plan the business with capital management.

Title of the paper: ECH2.2: Economic Thought

Course Outcomes:

CO1: Trace the earlier history of the economists about economic issues.

CO2: Evaluate the validity of theories in future.

CO3: Apply the theories in day to day business.

CO4: Reflect socialist thought about the different issues of economics.

Title of the paper: ECH2.3: Statistical Analysis in Economics

Course Outcomes:

CO1: Possess the preliminary knowledge about the use of statistics in economic and apply while interpretation and analysis.

CO2: Develop scientific and sound theoretical economic models.

CO3: View the economic issues more accurately using the tools and appropriate approaches.

CO4: Predict the future economic phenomenon accurately.

Title of the paper: ECS2.4: Economics of Infrastructure

Course Outcomes:

CO1: Show the analytical skills on issues like the role of transportation in economic development.
CO2: Highlight the need for new technological competency.
CO3: Evaluate the necessity of basic infrastructure for the development.
CO4: Explain the importance of social infrastructure in economic development.

Title of the paper: ECS2.5: Monetary Economics

Course Outcomes:

CO1: Articulate the understanding about the characteristics and functions of money.
CO2: Discuss how the demand for money is created by studying theories of money.
CO3: Make presentations on the theories concerning money and its circulation.
CO4: Realize the nature of sound banking business.

Title of the paper: ECS2.6: RURAL DEVELOPMENT

Course Outcomes:

CO1: Interpret the problems of rural areas in different ways.
CO2: Explain the Strategic role of the students in the development of rural areas.
CO3: Assess the demographic features of the rural areas to frame strategic economic Policies for the development.
CO4: Discuss the nature of the rural industries.

Title of the paper: ECO2.7: GLOBAL ECONOMY

Course Outcomes:

CO1: Evaluate various economic issues at global level.
CO2: Reflect the sound knowledge about Money and Banking.
CO3: Show the ability about how prepare the budget.
CO4: Explain how the fiscal policies working.
CO5: Communicate the idea of economic reforms with the others.

Title of the paper: ECO2.8: Health Economics

Course Outcomes:

CO1: Express the knowledge about economic value of health.
CO2: Evaluate the status of health infrastructure in India.
CO3: Explain how to finance the health related aspect.
CO4: Describe how the good health creates more wealth.

Title of the paper: ECH3.1: Public Economics

Course Outcomes:

CO1: Estimate the role of government in economic affairs.
CO2: Appraise the economic choices direct the bureaucracy.
CO3: Evaluate and make differences between different types of goods and services available in the society.
CO4: Show the good command on the works of physical policies in an economy.

Title of the paper: ECH3.2: Econometrics -I

Course Outcomes:

CO1: Apply the mathematical techniques in economic analysis.
CO2: Analyze the economic phenomenon by applying scientific methods.
CO3: Construct sound /scientific economic models.
CO4: Make presentations in academic platform.

Title of the paper: ECS3.3: Research Methodology

Course Outcomes:

CO1: Analyze the basic concept of research.
CO2: Evaluate the importance of research in Economics field.
CO3: Be sensitized in communication research.
CO4: Apply the statistical tools in the analysis of economic phenomenon.
CO5: Practice independently conceives and executes research projects.

Title of the paper: ECS3.4: Financial Institutions and Markets

Course Outcomes:

CO1: Discuss the features financial system.
CO2: Interpret the role of financial intermediaries.
CO3: Explain the operation of financial markets.
CO4: Study international financial markets for enhancing the knowledge domain.

Title of the paper: ECS3.5: Computer Applications in Economic Analysis

Course Outcomes:

CO1: Show familiarity with the basics of computer.
CO2: Acquire information about techniques of data processing.
CO3: Apply the practical knowledge about computer data analysis.

Title of the paper: ECS3.6: Karnataka Economy

Course Outcomes:

CO1: Assess and explain the status of Karnataka economy.
CO2: Make an evaluation of status of infrastructure in Karnataka and propose for additions further improvements.
CO3: Participate in the discussion on financial health of Karnataka.
CO4: Demonstrate the knowledge of the problems of Karnataka economy.

Title of the paper: ECO3.7: Resource Economics

Course Outcomes:

CO1: Re-examines the status of resources.
CO2: Evaluate the role of environment in agriculture development.
CO3: Show concerns and the awareness about environment.
CO4: Explain how to manage natural resources.

Title of the paper: ECO3.8 : Industrial Economics

Course Outcomes:

CO1: Understand and use the theories in the process of industrialization.
CO2: Evaluate the industrial market.
CO3: Show a brief knowledge about accessibility to industrial finance.
CO4: Understand the conditions of Industrial labors.
CO5: Critically evaluate the Industrial Policies.

Title of the paper: ECH4.1: International Economics

Course Outcomes:

CO1: Identify technologies to improve the trade relations.
CO2: Explain the health of the economy for better understanding.
CO3: Discuss basic knowledge over contemporary measurement of growth by studying theories.
CO4: Re-examine the theories that helps to build strong economic models.

Title of the paper: ECH4.2: Econometrics-II

Course Outcomes:

CO1: Show a better understanding of the relationship between the variables in the Econometric analysis.
CO2: Analyze the economic phenomenon by applying regression with qualitative independent variables.
CO3: Develop scientific economic models.

Title of the paper: ECS4.3: Development Issues of Indian Economy

Course Outcomes:

CO1: Reflect the basic knowledge about Indian Economy and use the information whenever the necessary.
CO2: Evaluate the current status of the Indian agriculture sector.
CO3: Examine the growth of Indian Industrial sector.
CO4: Give explanation on Indian Banking system, role of money.
CO5: Evaluate economic reforms in the Indian economy.

Title of the paper: ECS4.4: Environmental Economics

Course Outcomes:

CO1: Describe the relationship between environment and economic development based on theoretical background.
CO2: Use the terms, concepts and methods to calculate the values of the environment.
CO3: Discuss the environmental policy issues, this helps to frame sound environmental policies in future.
CO4: Participate in the discussion on the status of environment in India and the problem of Natural resources.

Title of the paper: ECS4.5: Managerial Economics

Course Outcomes:

CO1: Be able to speak from an academic perspective on the nature of business firms.
CO2: Apply the organization skill of business/firm while undertaking entrepreneurial ventures.
CO3: Discuss theories of profit to ensure accurate investment decision.
CO4: Explain the Pricing Practices and Strategies, manager can take correct decision about the firm.

Title of the paper: ECS4.6: Urban Economics

Course Outcomes:

CO1: Examine the process of Urbanisation and urban labor market.

CO2: Appraise the theories that help in the process of policy formation for the development urban areas.

CO3: Study the consequences of urbanisation to take necessary measures to control urban pollution

CO4: Evaluate the conditions of housing in urban areas

Faculty of PG Studies in Statistics (M.Sc.)

Title of the paper: STH411 - Real Analysis

Course Outcomes:

CO1: Ability to describe the fundamental properties of real numbers that lead to the formal development of real analysis.

CO2: Show familiarity with necessary mathematical foundations required for understanding different theoretical aspects in statistics.

CO3: Understand the concept of limits and how they are used in sequence, series, differentiation and integration.

CO4: Construct mathematical proofs for basic results involved in real analysis.

Title of the paper: STS412 - Linear Algebra

Course Outcomes:

CO1: Awareness of necessary theoretical foundations on matrix algebra and vector geometry, which will help them better understand linear models and multivariate analysis.

CO2: Ability to learn about the implementation of various mathematical aspects in practical problems.

CO3: Develop algebraic skills and knowledge on computational techniques essential for the study of vector spaces, matrix algebra, linear transformations, systems of linear equations, eigen values and eigenvectors, and quadratic forms.

CO4: Familiarity with the use of 'R' software in solving computational problems of linear algebra.

Title of the paper: STH413 - Probability and Distributions – I

Course Outcomes:

CO1: Familiarity with necessary theoretical foundations on the developments of statistical concepts and develop problem solving skills.

CO2: Ability to understand the fundamental aspects and principles of probability theory.

CO3: Exhibit learning about the standard discrete and continuous univariate distributions and its characteristics.

CO4: Show improved knowledge on various transformation techniques, order statistics, truncated and mixed distributions.

Title of the paper: STH414 - Theory of Sampling

Course Outcomes:

CO1: Ability to understand the basic principles underlying survey design and estimation.

CO2: Exhibit theoretical knowledge on various techniques used for designing and selecting a sample from a population.

CO3: Show an increased learning about how to estimate finite population parameters.

CO4: Ability to implement and analyze various sampling techniques to real life problems.

Title of the paper: STE421 - Introductory Statistics and Data Analysis

Course Outcomes:

CO1: Explain the fundamental concepts, theorems and techniques of statistical analysis.

CO2: Show an improved knowledge about statistical concepts such as descriptive statistics, probability theory and sampling techniques and understand its importance.

CO3: Ability to apply relevant statistical tools to real life problems.

CO4: Exhibit learning about standard univariate distributions such as binomial, Poisson and normal and understand its applications.

Title of the paper: STH422 - Probability and Distributions - II

Course Outcomes:

CO1: Ability to understand the conceptual basis for the asymptotic theory.
CO2: Familiarity with the characterization properties of the distributions.
CO3: Understand the applications of theoretical aspects.
CO4: Ability to solve problems by using the theoretical knowledge.

Title of the paper: STH423 - Design and Analysis of Experiments

Course Outcomes:

CO1: Demonstrate necessary theoretical foundations on the fundamentals and principles involved in designed experiments.
CO2: Exhibit theoretical knowledge on various experimental designs such as BIBD, nested designs, factorial experiments, split-plot designs, strip-plot designs, complete and partial confounding.
CO3: Ability to construct standard experimental designs and identify the appropriate statistical models to analyze the data.
CO4: Ability to understand the importance and applications of experimental designs in analyzing real life problems.

Title of the paper: STH424 - Theory of Estimation

Course Outcomes:

CO1: Show an understanding of the random phenomenon of the character of interest.
CO2: Exhibit familiarity with the estimation techniques.
CO3: Be aware of the asymptotic behavior of estimation.
CO4: Ability to understand the applications of theoretical aspects.

Title of the paper: STS425 - Data Management and Statistical Computing with Python

Course Outcomes:

CO1: Be able to gain comprehensive knowledge on Python programming paradigms.
CO2: Show an increased learning about the implementation of Python programming in data management and statistical computing.
CO3: Exhibit insights on using Pandas in Python required for data manipulation.
CO4: Be able to explore about how to generate powerful data visualizations using Python.

Title of the paper: STE531 - Inferential Statistics and Data Analysis

Course Outcomes:

CO1: Be able to identify the basics of hypothesis testing and perform hypothesis test for mean, proportion and difference between means and proportions from two populations.
CO2: Construct confidence intervals for mean and proportion.
CO3: Conduct one-way analysis of variance hypothesis test.
CO4: Apply non-parametric tests, correlation and regression techniques to real life problems.

Title of the paper: STH532 - Theory of Testing of Hypothesis

Course Outcomes:

CO1: Develop various tests for the validity of different kinds of hypotheses.
CO2: Show acquisition of adequate foundations on the fundamentals involved in testing of hypothesis and understand its importance.
CO3: Show learning about the theoretical aspects of most powerful, uniformly most powerful, unbiased, likelihood ratio tests, interval estimation and its implementation in practical problems.
CO4: Exhibit knowledge on various non-parametric tests and its applications in real life problems.

Title of the paper: STH533 - Regression Analysis

Course Outcomes:

CO1: Understand the relationship between the response and the predictors and how the variation in response is explained by the predictors.

CO2: Show an acquisition of necessary theoretical foundations on different regression techniques and its extensive use in data analysis.

CO3: Skilled in model adequacy checking and regression diagnostics.

CO4: Familiarity with the theoretical aspects of simultaneous equation models and identification problem.

Title of the paper: STH534 - Stochastic Processes

Course Outcomes:

CO1: Elucidate the power of stochastic processes and their range of applications.

CO2: Exhibit theoretical knowledge on modelling for sequence of non-independent random variables, which are extensively used in the analysis of time dependent data.

CO3: Demonstrate essential stochastic modelling tools including Markov chains, renewal theory and branching process.

CO4: Formulate and solve problems which involve setting up stochastic models.

Title of the paper: STS535 - Multivariate Analysis

Course Outcomes:

CO1: Show an acquisition of necessary theoretical foundations on various statistical techniques for analyzing vector-valued random entities.

CO2: Exhibit theoretical knowledge on various multivariate techniques such as principal component analysis, cluster analysis, classification and discrimination.

CO3: Apply the multivariate techniques in solving real life problems.

CO4: Understand the extensive use of multivariate techniques in data analysis.

Title of the paper: STH541 - Time Series Analysis

Course Outcomes:

CO1: Demonstrate advanced understanding of the concepts of time series and their applications in real life.

CO2: Apply the concept of stationarity to the analysis of time series in various contexts.

CO3: Implement Box-Jenkins approach to model and forecast time series data empirically.

CO4: Develop fundamental research skills in applied time series analysis.

Title of the paper: STH542 - Reliability and Survival Analysis

Course Outcomes:

CO1: Show an increased learning about reliability techniques and statistical lifetime models used in medical sciences and industries.

CO2: Show an acquisition of necessary theoretical foundations on the fundamentals of reliability theory and understand its importance in industrial applications.

CO3: Understand different censoring situations and importance of estimating survival rate and hazard rate.

CO4: Show an improved knowledge about the developments of various reliability and survival models and its implementation in real life problems.

Title of the paper: STS543 - Statistical Modelling

Course Outcomes:

CO1: Exhibit theoretical knowledge on Bayesian and non-parametric techniques for the data analysis and inference.

CO2: Explain the Bayesian framework for data analysis and demonstrate when the Bayesian approach can be beneficial.

CO3: Understand the importance of some advanced statistical concepts such as non-parametric density estimation, non-parametric regression and resampling techniques.

CO4: Exhibit theoretical knowledge on some advanced regression techniques such as logistic, multi-logit, count data, and log linear regression and understand its applications.

Title of the paper: STS544 - Big Data Analytics

Course Outcomes:

CO1: Ability to understand the theoretical aspects involved in big data.

CO2: Implement Hadoop ecosystem tools in solving big data problems.

CO3: Explore the concepts and techniques involved in business intelligence used for decision making purpose.

CO4: Show an understanding of theoretical knowledge on various data mining techniques such as neural networks, association rule mining, text mining, web mining and social network analysis.

Faculty of PG Studies in English (M.A)

Title of the paper: ENG01HC: British Literature: Medieval Period to Restoration

Course Outcomes:

CO1: Remember the socio- historical background to the medieval society of England, its social structure and relate the growth of language to the social milieu

CO2: Trace the growth of literature in English language from Chaucerian Age through Elizabethan Age to the events leading to Restoration

CO3: Identify and appreciate different forms of early English Literature produced in the period such as ballads, court poetry, sonnets, epics, lyrics, and plays by studying representative texts

CO4: Acquire a synthetic view of the 14th, 15th, 16th, and 17th century British literature and employ tools of literary appreciation and use their understanding of later movements.

Title of the paper: ENG02HC: British Literature- Eighteenth and Nineteenth Century

Course Outcomes:

CO1: Trace the historical and social development of the eighteenth and nineteenth century Europe

CO2: Observe the implications of the major European socio political events on the British literary works

CO3: Identify the salient features of the Neo classical and the Romantic literary works

CO4: Deploy the relevant critical and theoretical ideas in the interpretation of the literary works of the period

Title of the paper: ENG03HC: American Literature

Course Outcomes:

CO1: Describe the major conventions, tropes, and themes of Enlightenment literature.
CO2: Demonstrate fluency in communication.
CO3: Identify salient features of literary texts from a broad range of American literature.
CO4: Express themselves effectively in a variety of forms, Identify and discuss those features with regard to individual authors/works.

Title of the paper: ENG04SC: Indian Literature in English Translation

Course Outcomes:

CO1: Support interpretive claims about a variety of texts.
CO2: Demonstrate quantitative fluency and specialized knowledge/applied learning.
CO3: Analyze literary works for their structure and meaning, using correct terminology.
CO4: Gather advanced knowledge in the academic disciplines like translation studies.
CO5: Receive fairly good knowledge of the literature written in English by non-British writers as well as the literatures written in other languages and translated into English.

Title of the paper: ENG05SC - Introduction to English Language and Linguistics

Course Outcomes:

CO1: Articulate general issues concerning nature & function of language- phonetics, phonology, morphology, syntax, semantics, and pragmatics.
CO2: Exhibit acquired knowledge of the ways different human languages embody these mechanisms and analyze specific sounds & understand systematic properties of sound system of English.
CO3: Recognize and analyze the grammatical system of English and other languages and also the structure and function of language as used in natural discourse.
CO4: Compare and contrast languages in terms of systematic differences in phonetics, phonology, morphology, syntax, semantics, and pragmatics.
CO5: Understand and analyze the link between language and various dimensions of culture.
CO5: Be aware of the cognitive and social dimensions of first and second language acquisition.
CO6: Show familiarity with the principles of first and second language acquisition and to apply them in appropriate context

Title of the paper: ENG06SC: Early Indian Writing in English

Course Outcomes:

CO1: Trace the social, cultural and historical contexts of the texts
CO2: Analyze the texts in terms of style, figurative language, and literary conventions
CO3: Apply relevant literary theories in the interpretations of the texts
CO4: Identify the rhetorical modes used in the texts

Title of the paper: ENG07HC: British Literature: The Victorian Period

Course Outcomes:

CO1: Relate the knowledge of the socio- political and socio literary factors that gave rise to Victorian Complacency, Prudery to the literary productions of this period
CO2: Analyze the impact of scientific discoveries and the intellectual strife that the age encountered as well as the way in which literary figures responded to it
CO3: Interpret the texts to explore the moral and intellectual conflict
CO4: Evaluate critically the texts written in this period and conclude on ways culture and art could offer antidotes to strife and anarchy.

Title of the paper: ENG08HC: British Literature- Twentieth Century Poetry

Course Outcomes:

CO1: Trace the intellectual underpinnings of Modernism
CO2: Identify the features of Modern Poetry
CO3: Interpret the literary compositions of the period against the background of the major political events that shaped them
CO4: Identify and interpret the stylistic devices used in the poetry of the 20th century

Title of the paper: ENG09HC: Literary Criticism: Plato to F. R. Leavis

Course Outcomes:

CO1: Develop appropriate level of critical and creative thinking skills.
CO2: Get oriented to the intricacies of studies and research in literature and criticism.
CO3: Demonstrate a thorough knowledge of various literary theories and the ability to employ those theories in analyzing and interpreting various texts.
CO4: Demonstrate proficiency in critical thinking and Learn to articulate verbally and in writing critical papers.

Title of the paper: ENG10SC: Gender Studies

Course Outcomes:

CO1: Demonstrate knowledge of the history or culture of the English language.
CO2: Ability to analyze how literature has been used as a tool of marginalization in terms of gender, class, caste, religion, ethnicity etc.
CO3: Demonstrate knowledge of how literature has also been used as a tool to fight against marginalization of various sorts.
CO4: Gather advanced knowledge in the academic disciplines like gender studies.

Title of the paper: ENG11SC: Film Studies

Course Outcomes:

CO1: Display a working knowledge of film techniques, offering descriptive examples from films.
CO2: Identify and describe distinct cinematic elements pertaining to genres and directors.
CO3: Analyze films for their structure and meaning, using appropriate terminology.
CO4: Write analytically about films using MLA guidelines.
CO5: Effectively communicate ideas related to the films during class and group activities.

Title of the paper: ENG12SC - Partition Narratives

Course Outcomes:

CO1: Appreciate the historic relationship between India and Pakistan.

CO2: Summarize and contextualize the events and opinions surrounding the Partition of India.

CO3: Demonstrate awareness about the culture and cultural diversity of the countries.

CO4: Demonstrate the value of cultural diversity, as well as cohesion, within and across groups.

CO5: Demonstrates the awareness of how the data and experiences may be interpreted by people from diverse cultural perspectives and frames of references.

Title of the paper: ENG13OE – Functional English

Course Outcomes:

CO1: Demonstrate English language skills in listening, speaking, reading and writing in various professional situations

CO2: Use strategies, such as contextualization of new vocabulary, previewing, skimming and scanning techniques, and knowledge of text organization and discourse markers, in the comprehension of written and spoken language;

CO3: Use grammatically correct and situationally and culturally appropriate language in speaking and writing for effective communication in a variety of interpersonal and academic situation

CO4: Show a cross-cultural understanding and confidence in using language through collaboration with increased interaction within the professional circles and the larger community in order to complete the projects undertaken.

Title of the paper: ENG14OE – Popular Literature / Culture

Course Outcomes:

CO1: Interpret texts with attention to ambiguity, complexity, and aesthetic value.

CO2: Practice a deliberate writing process with emphasis on inquiry, audience, research, and revision

CO3: Evaluate genres of writing and write in appropriate genres and modes for a variety of purposes and audiences

CO4: Read diverse texts within their historical and cultural contexts, developing a critical understanding of how literature can both uphold and resist existing structures of power

CO4: Deploy ideas from works of criticism and theory in their own reading and writing

CO5: Participate in critical conversations and prepare, organize, and deliver their work to the public.

Title of the paper: ENG15HC: Twentieth Century Fiction and Drama

Course Outcomes:

CO1: Trace the major socio political events of Europe during the early decades of the twentieth century

CO2: Trace the scientific inventions and theories that shaped the narrative techniques of Modern fiction

CO3: Review the major movements of the British theatre during the 20th century period

CO4: Interpret the fiction and drama of the period with reference to the major socio political events that shaped them

Title of the paper: ENG16HC – Contemporary Literary Criticism and Approaches

Course Outcomes:

CO1: Identify major theoretical/critical movements and theorists, as well as primary concepts with which they are associated

CO2: Define and apply specific theoretical concepts, theories, and terms to literary and cultural texts - Use online databases to define key terms and trace implications in source texts;

CO3: Evaluate and analyze strengths and limitations of critical/theoretical arguments

CO4: Examine historical contexts for the development of contemporary theory and criticism

CO5: Strengthen and deepen critical reading, writing, and interpretive ability

Title of the paper: ENG17SC: English Language Teaching

Course Outcomes:

CO1: Differentiate the objectives and approaches in teaching English as a second language, as a foreign language, as an additional language- this define ones approach

CO2: Demonstrate the knowledge of various theories on human learning and apply these to language teaching and learning

CO3: List out the different methods of language teaching and analyze their effectiveness and apply these methods in the actual classes besides preparing lesson plans for teaching language

CO4: Review the patterns of study behavior and draft sample modules for ‘Bridge Courses’ and ‘getting Remedial Courses’ alongside assembling various study skills.

Title of the paper: ENG18SC: Dalit Literature

Course Outcomes:

CO1: Gather advanced knowledge in the academic disciplines like Dalit studies. And feel competent to discuss topics for this course beyond the classroom setting.

CO2: Understand the complex relationship between literature & society that produces it and understand the intricacies of social class and caste in India.

CO3: Exhibit a working knowledge of the caste system and its modern manifestations in India.

CO4: Get foundational knowledge about the concerns raised by dalit writings and understand the dynamics of oppression practiced over the years by various societies.

Title of the paper: ENG19SC: The Study of Drama and Theatre

Course Outcomes:

CO1: Demonstrate the understandings of the major social and theatre movements that shaped the world drama and theatre.

CO2: Show the understanding of the connections between theatrical productions and social contexts.

CO3: Interpret the dramas using stylistics as well as theories.

CO4: Interpret the historical, social, political, and religious relevance of the plays of different periods.

Title of the paper: ENG20SC - Study of Life Narratives.

Course Outcomes:

CO1: Employ knowledge of literary traditions to produce imaginative writing.

CO2: Demonstrate expected level of expertise in literary history and literary theory.

CO3: Demonstrate the insights to correlate the literary texts and the socio-political cultural environment in which they are produced.

CO4: Demonstrate appropriate level of competence in the use of English for personal and academic purposes.

Title of the paper: ENG21OE: Individual Development and Communication Skill

Course Outcomes:

CO1: Trace how the human development came to be seen as both possible and desirable based on the theories of Nurture - Nature

CO2: Assess frequently personal strengths and weaknesses for setting higher level goals and planning

CO3: Make effective presentations both in the oral and written modes in the academic assemblies

CO4: Demonstrate the skills and competencies in arguments, interviews and other similar situations

Title of the paper: ENG22OE: Writing for the Media

Course Outcomes:

CO1**:** Show in writing the knowledge of fundamentals of text beginning with conventions of grammar, punctuation, paragraphing etc.

CO2: Deploy the language skills in content development, story writing, reports for the media

CO3: Demonstrate the etiquettes and practices in the media and develop skills to attain excellence in written and oral presentation

CO4: Operate with profession competence in such tasks as public speaking, panel discussion, using both technical and professional skills.

Title of the paper: ENG23HC: Modern Indian Writing in English

Course Outcomes:

CO1: Trace the growth of Indo Anglian literature and analyze the major themes that found favor with the writers and compare it with present ones

CO2: Identify the patterns in the contemporary writings with regard to themes and style and relate it to the socio political issue of the time

CO3: Compare and contrast Indo Anglian literary production with the writings elsewhere on the global scene

CO4: Examine the possibilities of using native wisdom and experience to push the boundaries of prescriptive notions of themes and styles.

Title of the paper: ENG24SC: Postcolonial Literature

Course Outcomes:

CO1: Define and explain terms and concepts such as 'colonialism', 'post colonialism', 'imperialism'

CO2: Apply these concepts and approaches to literature produced in Asia and Africa and draw conclusions from the western attitude towards the 'Oriental' and the 'Third World'

CO3: Recognize the need to accept alternative theories to accept and appreciate literature that defy the colonial works

CO4: Construct ways of including 'subaltern' and 'other' works as articulations of the 'non west' and this encouraging extension of the boundaries of English literature

Title of the paper: ENG25SC-Translation Theory and Practice

Course Outcomes:

CO1: Use the knowledge of translation theory and terminology relevant to practical translation

CO2: Provide competent translations of general texts

CO3: Describe, analyze and explain the nature of translation difficulties both informally in discussion and formally in writing

CO4: Recognize and handle different registers and genres in both the Source and Target Languages of texts for translation

Title of the paper: ENG26SC: Cultural Studies

Course Outcomes:

CO1: Demonstrate knowledge of the history or culture of the English language.

CO2: Display high order critical and analytical skills in interpreting literary and cultural texts.

CO3: Exhibit a comprehensive knowledge of the socio-political-cultural events of the past centuries in relation to the literatures of those ages.

CO4: Develop fairly good understanding of the field of culture studies and demonstrate that understanding in analyzing cultural artifacts at local and global level.

Title of the paper: ENG27SC: European Novel

Course Outcomes:

CO1: Review the social and political history of Europe during the late 19th and the early 20th Century

CO2: Interpret the novels examining the responses of the authors to these historical events

CO3: Define the major philosophies of the period and deploy them in the interpretation of Modern European novels

CO4: Participate in critical discussions related to their present day relevance of these literary texts

Title of the paper: ENG28SC: Research Methodology

Course Outcomes:

CO1: Demonstrate the ability to choose methods appropriate to research aims and objectives

CO2: Understand the limitations of particular research methods

CO3: Develop advanced critical thinking skills

CO4: Demonstrate enhanced writing skills

CO5: Undertake independently research projects on literary works or based on surveys

Title of the paper: ENG29SC: Afro-American Literature

Course Outcomes:

CO1: Read independently and appreciate the texts of Anglophone literature written in Africa and America that articulate the experiences of the black writers

CO2: Apply such ideas/ practices/ movements as racism, Negritude to these literary texts and relate it to various attitudes such as dehumanization, condescension and negritude.

CO3: Appraise the value and worth of protest literature, post-colonial literature, subaltern literature and how discrimination and subjugation affects literary expression

CO4: Interpret and analyze literary texts produced in diverse contexts and redefine the objectives and aspirations of literary production.

Title of the paper: ENG30RP: Research Project

Course Outcomes:

CO1: Demonstrate the ability to carry out substantial research based project

CO2: Demonstrate capacity to identify relevant secondary sources and analyze them to arrive at new findings

CO3: Analyze data and identify research findings.

CO4: Produce a dissertation of a maximum of fifty to seventy pages on a relevant research topic.

CO5: Demonstrate the skill of citing sources, writing bibliography, pagination, using punctuations, chapter divisions, reviewing literature etc.

PRINCIPAL

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