NEWMAN COLLEGE, THODUPUZHA

NAAC Accredited with 'A' Grade (3rd Cycle, CGPA 3.32)
(Affiliated to Mahatma Gandhi University, Kottayam)

LEARNING OUTCOMES

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M. A. ECONOMICS

Programme Specific Outcomes (PSO)

At the completion of the two-year M. A. Economics programme, the student will be able to:

PSO1: Achieve an advanced understanding of economic principles, and appreciation of different methodological approaches in economics.

PSO2: Apply advanced economic principles to the design of economic policy and the ability to analyze economic issues in real world situations and to suggest solutions to challenging economic problems.

PSO3: Understand international as well as national level economic issues and to assess their impact on the domestic and world economy.

PSO4: Generation of an interest for further study, research and teaching career in Economics.

Course Outcomes (CO)

At the completion of the course under the two-year M. A. Economics programme, the student will be able to:

SEMESTER I

Core Course 1: Micro Economics I (EC010101)

CO1: Understanding on the rational buying decisions and also helps a firm to design suitable marketing strategies.

CO2: Equipped with the knowledge and skill in effective decision making under uncertain market situations

CO3: Understands the importance of time allocation and household management

CO4: Develops the skill for converting technical information into economic relationship between input and output

CO5: Develops skill to determine the homogeneity/non-homogeneity of production functions and to estimate the output level for the given input level

CO6: Acquires skills in allocating scarce resources among alternative uses

CO7: Understand of economies of scope and learning curves help in analyzing the nature and functioning of modern multiproduct firms

Core Course 2: Macroeconomics I (EC010102)

CO1: Achieve a good understanding of macroeconomic principles, concepts, and theories.

CO2: Understanding of the macroeconomic implications of decisions made by diverse economic entities and the ability to form informed opinions about macroeconomic policies pursued by them.

CO3: Learn to integrate theoretical knowledge to evaluate policy measures and analyze trade off in the deployment of resources to alternative ends and the implications of those trade- offs for the different strata of the society

Core Course 3: Development Economics (EC010103)

CO1: Develop conceptual clarity on various dimensions of development and to identify the strategic factors in the development of the less developed countries.

CO2: Ability to evolve new strategies for achieving sustainable development and inclusive growth.

CO3: Equip the student community with theoretical and empirical material for enhancing their capability to address the basic problems confronted by the society.

Core Course 4: Indian Economy-I (EC010104)

CO1: Develop a critical understanding of the Indian economy so that they may be able to engage meaningfully in debates regarding the country‘s economy

CO2: Enable students to contribute to the formulation of its policies

CO3: Understand broad contours like the status, issues and policies of the Indian economy at the aggregated (macro) as well as sectoral levels.

CO4: Understand the experiences in the pre as well as post-reform years, keeping the colonial experience at the background.

Core Course 5: Mathematical Methods for Economic Analysis (EC010105)

CO1: Ability to analyse the concepts of economics empirically.

CO2: Develops the ability to analyse the economic problems and solve them.

CO3: Understand several mathematical tools used in modern economics.

SEMESTER II

Core Course 6: Microeconomics-II (EC010201)

CO1: Develops skill in formulating business strategy in the context of market imperfections

CO2: Develops skill in using game theory models in decision making

CO3: Learns to use the concept of price elasticity in calculating marginal revenue

CO4: Acquires knowledge of reaction curve approach and its application in other branches of economics

CO5: Develops the understanding of the economic level of information search possible under different situations and the concept of bounded rationality

CO6: Learns why inefficiencies and social costs arise in imperfect markets in the context of adverse selection, moral hazard and principal agent problem

CO7: Learns the institutional arrangements in the society to overcome asymmetric Information and Develops skill in designing incentive mechanism under information asymmetry

Core Course 7: Macroeconomics-II (EC010202)

CO1: Achieve a good understanding of macroeconomic principles, concepts, and theories.

CO2: Understanding of the macroeconomic implications of decisions made by diverse economic entities and the ability to form informed opinions about macroeconomic policies pursued by them.

CO3: Learn to integrate theoretical knowledge to evaluate policy measures and analyze trade- off in the deployment of resources to alternative ends and the implications of those tradeoffs for the different strata of the society.

Core Course 8: Public Economics (EC010203)

CO1: Develop the knowledge on the leading current tools and methods of public finance

CO2: Understand the rationale for and role of government intervention in economic activities and how the government makes economic decisions.

CO3: Develop the competence of the students to identify major issues in public finance for a critical evaluation of policies.

CO4: Capacity to use skills in finding complete or partial solutions to those identified issues and also enable them to demonstrate it through their presentations and contribute to the debate and policy in terms of a public policy paper appropriate to the discipline

Core Course 9: Indian Economy-II (EC010205 08)

CO1: Develop a critical understanding of the Indian economy so that they may be able to engage meaningfully in debates regarding the country‘s economy

CO2: Understand the broad contours like the status, issues and policies of the Indian economy at the aggregated (macro) as well as sectoral levels.

CO3: Understand the experiences in the pre as well as post reform years, keeping the colonial experience at the background.

Core Course 10: Statistical Methods for Economic Analysis (EC010205)

CO1: Develops the ability to analyze the concepts of economics empirically.

CO2: Ability to analyze the economic problems and solve them.

CO3: Learn to use statistical tools and techniques in economics for analysis of data with valid logic and inferences.

SEMESTER III

Core Course 11: International Economics (EC010301)

CO1: Understand the trade policy, international economic integration and so on.

CO2: Understand the broad principles and theories, which govern the free flow of international trade, with empirical evidence.

CO3: Understand the theoretical underpinnings and empirical evidence of the major trade policies followed both at national and international level.

CO4: Develop the knowledge on international trade and policy and the creative thinking to solve real-world problems.

Core Course 12: Econometrics 1 (EC010302)

CO1: Learn how to estimate a general class of parametric models or semiparametric models, how to conduct testing and draw inference, given the data.

CO2: Acquaint with econometric techniques that are widely used in empirical work in Economics and other related disciplines.

CO3: Ability to demonstrate their understanding of the appropriate econometric methods for analyzing data interpret and discuss results.

Core Course 13: Heterodox Economics (EC010303)

CO1: Understanding on the new generation of scholarship in which novel combinations of heterodox ideas are being brought to bear on important contemporary and historical problems.

CO2: More informed understanding of mainstream economics.

Core Course 14: Environmental Economics (EC010304)

CO1: Acquaint with the tools to understand how market inefficiencies might arise in the presence of externalities like pollution and how market solutions can correct market failures.

CO2: Equipped with analytical skills that would enable the evaluation of environmental and economic policy issues.

CO3: Understand the economics of the relationship between economic activities and environmental impacts.

CO4: Builds on the knowledge of students in microeconomics and public economics.

Core Course 15: Kerala Economy (EC010305)

CO1: Understand the current and critical issues, challenges and problems of the Kerala economy and thereby enhance their analytical ability to understand the dynamics of a regional economy.

CO2: Understand about Kerala's development experiences in historical perspective. It will enable them to understand the current economic scenario and their routes in historical and global perspective.

CO3: Awareness on the burning issues in agriculture, industrial and social sectors of Kerala Economy.

SEMESTER IV

Core Course 16: International Finance (EC010401)

CO1: Develop a theoretical exposition of different aspects of international finance and financial institutions in a historic cum emerging geopolitical context particularly in that of globalization.

CO2: Equip the students with both fundamental knowledge in international finance, financial institutions and their application in real life.

CO3: Become policy-makers and key strategists on issues related to international finance and related institutions.

Core Course 17: Econometrics—II (EC010402)

CO1: Generate theoretical background that is useful for research in applied economics to the students.

CO2: Understand on the time series methods in econometrics covering aspects of the trend behavior, detrending mechanisms, and their properties, unit root theory, cointegrated system approaches, realized volatility and, model selection.

CO3: Knowledge on the advanced theory of econometrics and relevant applications of the methods.

CO4: Ability to analyzing real-life data, related to economics in particular and social science in general.

CO5: Acquaint with advanced techniques in time-series and panel-data analysis as well as the implementation of theory through software applications to gear them towards execution of independent research projects.

Elective 1: Agricultural Economic (EC800401)

CO1: Understand the performance of the agricultural sector in the process of economic development.

CO2: Develops knowledge on the concepts, significance and uses of production economics in an agricultural context

CO3: Oriented about the agricultural policies and its effect on sustainable agricultural development and to make them to understand the globalization and its impact on agricultural development.

Elective 2: Industrial Economics (EC800402)

CO1: Knowledge about the economics of industry and issues related to market structure, firms' motivations and conducts productivity and efficiency in a cogent and analytical manner.

CO2: Familiarize the broad range of the methods and models applied by economists in the analysis of firms and industries.

CO3: Detailed understanding of policy debates involved in industrial development in India.

CO4: Obtain a glimpse of the recent developments in this field and enhance their analytical skill.

CO5: Understand basic models of the behavior of firms and industrial organization and how they can be applied to policy issues

Elective 3: Labour Economics (EC800403)

CO1: Understanding on the theoretical as well as empirical issues relating to the labour market

CO2: Empirical understanding of the labour market and enable the students to understand applications of formal theoretical models in labour economics to the Indian market.

M. A. ENGLISH

Programme Specific Outcomes (PSO)

At the completion of the two-year M. A. English programme, the student will be able to:

PSO1: Gain a comprehensive understanding of the latest trends in literary studies from around the world, delving into its intricate themes and narratives.

PSO2: Acquire a thorough grasp of various theoretical discourses for the appropriate application of the same in various texts.

PSO3: Develop a constructive thinking, inquisitiveness and creative ability among students to transform them into better critiques and sensitive human beings.

PSO4: Cultivate proficiency in English Language so as to excel in global career pursuits.

Course Outcomes (CO)

At the completion of the course under the two-year M. A. English programme, the student will be able to:

SEMESTER I

Core Course 1 - Up Until Chaucer: Early Literatures in English (EN010101)

CO1: Analyse the major themes and forms in Ancient and Medieval English literature as an expression of Anglo-Saxon culture and society as it emerges into a Britain-consciousness

CO2: Examine and understand the personal, political, social, religious and cultural temperament of the period.

CO3: Evaluate the Literary merits and contributions made by Chaucer, and his contemporaries.

CO4: Create an awareness of the language of the early writers of the Modern English period and the rise of drama during the period

Core Course 2 -Literatures of the English Renaissance (EN010102)

CO1: Appreciate Renaissance writings bearing the stamp of radical changes in the outlook and ways of life.

CO2: Analyse theoretical/critical reading of the era and the texts in the light of recent theoretical interventions like New Historicism and Cultural Materialism which had a special interest in Renaissance texts.

CO3: Evaluate the various aspects of tragedy and comedy of the Elizabethan period.

CO4: Engage with a variety of scholarly views and critical conversations about Shakespeare's works as literature.

Core Course 3 -Literatures of the English Revolution/ Enlightenment (EN010103)

CO1: Examine the austere Puritan ideals of the late seventeenth century and the neoclassical vigour of the eighteenth century considerably influenced by the philosophy of the Enlightenment and the perspectival shift manifested in the transitional literature over time.

CO2: Analyse the ground-breaking works of drama, satire and nonfictional works of the period and draw upon the significant social and the political developments of the times.

CO3: Create an in-depth critique of the philosophy of the Enlightenment in the learners.

CO4: Evaluate the late seventeenth and the eighteenth-century literary scenario drawing upon the significant social and the political developments of the times.

Core Course 4 -Nineteenth-Century English Literatures (EN010104)

CO1: Evaluate the fundamental premises of the Romantic Movement and Victorian literature, their theoretical and ideological frameworks, and the major trends and offshoots across various genres.

CO2: Create an understanding of the political and social backgrounds of the growth of the romantic spirit and victorian compromise.

CO3: Analyse and interpret the works of the Romantic and Victorian writers applying the different canons of criticism.

CO4: Acquire knowledge about the unique characteristics of the Victorian society and its literary outputs.

Core Course5 – Literary Criticism (EN010105)

CO1: Familiarise the students with the key concepts and texts of literary criticism ever since its emergence, and to provide theoretical familiarity with the range, approaches, and mechanics of critique.

CO2: Assess literary texts using the theoretical tools.

CO3: Solve critical questions raised by the literary works in a methodical fashion.

CO4: Analyse works of literature and to Compare and contrast the modern schools of thought with the old ones.

SEMESTER II

Core Course 6 – Modernity and Modernisms (EN010201)

CO1: Familiarise the students with the literary trends of the early twentieth century in the context of the sensibility of literary modernism in the wake of the World War.

CO2: Evaluate the religious and cultural temperament of the period against the backdrop of the spread and influence of Marxism on a global scale and familiarise the various literary movements like the Avant Garde, the Pink Decade and so forth, that flourished during the time.

CO3: Examine the works of the twentieth century writers, applying the different tools of modernist approaches.

CO4: Create an idea of experimentation in writing in all genres which was a reaction against Romanticism and Victorianism.

Core Course 7 –Postmodernism and Beyond (EN010202)

CO1: Evaluate the postmodern works of literature which defy categorisation and prove to be experimental in nature, subverting what is conventionally revered as the norm.

CO2: Familiarise the learners with the eclectic dimensions of postmodern thought as reflected in these literary works in which the boundaries that demarcate the different genres are often blurred.

CO3: Analyse the heterogeneity of thought and articulation and to perceive the underlying ideologies that nurture oppressive institutions.

CO4: Examine the works of the twentieth century writers, applying the different tools of postmodernist approaches.

Core Course 8 -American Literatures (EN010203)

CO1: Evaluate the religious and cultural temperament of the period and familiarise the various literary movements that flourished in America.

CO2: Examine the processes and texts chiefly responsible for the evolution of American Literature as a separate branch possessing characteristic features which sets it apart from others.

CO3: Interpret the different genres and the contribution of the writers prescribed for study.

CO4: Analyse modernism in American literature and the American concept of freedom, liberty, and life.

Core Course 9 -English Language History and Contemporary Linguistics (EN010204)

CO1: Examine the history and evolution of English language from the larger body of Indo-European family.

CO2: Apply the basics of modern grammar and the main tenets of transformational syntax for a competent usage of English language.

CO3: Understand different sources of meaning and to comprehend the study of language that deals with definitions, scope of enquiry, and concepts in Linguistics.

CO4: Perceive the relationship between language and society, and language and mind.

CO5: Explore the different areas of applications of linguistics to language teaching, stylistics, and translation.

Core Course 10 -Thinking Theory (EN010205)

CO1: Evaluate the core aspects of what is currently designated as 'literary theory' and provide exposure to select current developments in this domain.

CO2: Examine the theoretical ruminations on authorship and discourse.

CO3: Analyse the reference wherein Psychoanalysis tackles issues pertaining to the Unconscious and Cognition.

CO4: Evaluate the 'Post-postcolonial Turn'-critical race/ethnic studies.

SEMESTER III

Core Course 11 -Reading India (EN010301)

CO1: The course is intended to provide an insight to the historical, cultural and literary heritage of India by acquainting the students with major movements and figures of Indian literature in English.

CO2: Questions of language, nation and aesthetics figure prominently among the course.

CO3: Evaluate the unique characteristics of Indian writing in English with special emphasis to Indian cultural ethos and its uniqueness.

CO4: Examine the social, and political controversies in India during the colonial and post- colonial periods.

Core Course 12-Postcolonial Fiction (EN010302)

CO1: Introduce the students to the discursive nature of colonialism.

CO2: Analyse the counter- discursive impulses of postcolonial theory, narratives and texts.

CO3: Evaluate the critical theoretical practices based on the post colonial experience.

CO4: Understand the social, and political controversies in India during the colonial and post- colonial periods.

Core Course 13 -Body, Text and Performance (EN010303)

CO1: Examine and understand the basic structural, thematic and theoretical patterns which govern the poetic process, especially in its relation to the performative or the theatrical.

CO2: Analyse Cinematic tellings/adaptations dealing with the issues of race, slavery and caste.

CO3: Evaluate the elements of violence on the body and mind of desire in myriad forms.

CO4: Create an understanding of various literary genres on body, text and performance, such as, Expressionism, Comedy of Menace, Epic Theatre, Alienation Effect and the musical Opera.

Core Course 14 -Literature and Gender (EN010304)

CO1: Analyse the historical, thematic and cultural concerns of literature that attempts against the backdrop of gender issues.

CO2: Examine the gender issues on the theoretical framework and focus on the fundamental political, religious and social issues that shape gender relations.

CO3: Create an awareness that gender is fluid rather than a fixed hetero-normative Male- Female concept.

CO4: Interrogate the social stakes involved in being a woman and address the issue of Gender and Community Identity.

Core Course 15 -Ethics In/ As Literature (EN010305)

CO1: Evaluate the students' understanding of certain 'ethics' that narrative fiction has adopted across centuries, continents and languages.

CO2: Test the students' insight on various ethical, formal choices that schools, influences and narrative devices.

CO3: Examine how students employ various ethical, formal choices that schools, influences and narrative devices to shape narrative fiction into its present expressive plurality.

CO4: Analyse how fiction has dealt with the issues of environment, otherness and disabilities at different level.

SEMESTER IV

Core Course 16 -Cultural Studies (EN010401)

CO1: Introduce students to specific interpretive strategies commonly employed in Cultural Studies.

CO2: Explore how cultural processes and artifacts are produced, shaped, distributed, consumed, and responded to in diverse ways.

CO3: Assess cultural expressions based on the interpretative strategies learned.

CO4: Evaluate popular culture and the ideological biases involved.

Core Course 17-Postcolonial Poetry (EN010402)

CO1: Analyse the diversity of poetry coming from the erstwhile colonies of the European Colonial Empires.

CO2: Evaluate the regional specifics that 'in a hybrid mode' negotiate the issues of sovereignty, language, race, gender, identity and place.

CO3: Create a deeper appreciation of cultural diversity by getting introduced to poetry from a variety of cultures.

CO4: Examine and understand the idea of the cross-cultural influences among the Postcolonial countries.

Elective Course1 - English Language Teaching (ELT) (EN830401)

CO1: Analyze the fundamental techniques of teaching English language.

CO2: Apply various theories of ELT from the earliest to the modern.

CO3: Examine and understand the concepts related to second language acquisition and the related pedagogical issues.

CO4: Equip them with the methods and means of assessment and evaluation.

CO5: Create awareness about how the theory can be put to practice in the real classroom activity.

Elective Course 2- Translation Studies (EN830402)

CO1: Analyse the contextual diversity of 'translations.'

CO2: Examine the theoretical/ political positions related to Translation Studies.

CO3: Develop proficiency in translation studies.

CO4: Critically analyze and evaluate different translation methods and strategies.

Elective Course 3 - Dalit Studies (EN830403)

CO1: Examine students' understanding on the development of the Dalit Literature.

CO2: Analyse the intent of Dalit Literature and aesthetics from different regions of India.

CO3: Evaluate the contents of Dalit Literature and aesthetics from different regions of India.

CO4: Create a comprehensive knowledge of the origin, growth, and development of Dalit literature in students.

M.Sc. Chemistry

Programme Specific Outcomes (PSO)

At the completion of the two-year M.Sc. Chemistry programme, the student will be able to:

PSO1: Acquire the ability to synthesize, separate, and characterize compounds using laboratory and instrumentation techniques.

PSO2: Develop analytical and problem-solving skills that require the application of chemical principles.

PSO3: Understand and predict the structure and bonding in molecules/ions.

PSO4: Understand the theoretical concepts of instruments commonly used in various chemistry fields, as well as interpret and utilize data generated in instrumental chemical analysis.

Course Outcomes (CO)

At the completion of the course under the two-year M.Sc. Chemistry programme, the student will be able to:

SEMESTER I

Course 1: Organometallics and Nuclear Chemistry (CH500101)

CO1: Students could explain the structure, bonding and reactivity of organometallic compounds

CO2: Students would able to apply and analyze the methods of synthesis and mechanism of organometallic compounds

CO3: Deep familiarization about the functions of metal ions in biological systems.

CO4: Able to perform the applications sides of radioactive isotopes in various fields

Course 2: Structural and Molecular Organic Chemistry (CH500102)

CO1: Grasps and familiarize the basic concepts in organic chemistry

CO2: Develop the knowledge about the ideas of physical organic chemistry and theoretical correlations to explain the phenomenon

CO3: Conceptualisation of organic photochemistry in real life examples

CO4: Attain authentic ideas about stereochemistry of organic compounds

CO5: Attain deep idea about conformational analysis of organic compounds

Course 3: Quantum Chemistry and Group Theory (CH500103)

CO1: Students will be able to revise and update the fundamental ideas, mathematical concepts and application of group theory to molecular systems

CO2: Expertise in categorising common molecules into various point groups and applying GOT to derive the character tables of various point groups

CO3: Understand and solve particle in a box model, harmonic oscillator model, particle on a ring and gain a deep understanding in the application of tunnelling effect

Course 4: Thermodynamics, Kinetic Theory and Statistical thermodynamics (CH500104)

CO1: Apply the principles and laws of equilibrium thermodynamics in multi component systems.

CO2: Could able to calculate the thermodynamic properties of ideal gases and real gases using principles and techniques of statistical thermodynamics.

CO3: Familiarize the properties and theories of gases.

SEMESTER II

Course 1: Coordination Chemistry (CH500201)

CO1: Attain a deep knowledge in coordination compounds

CO2: Able to explain the kinetics and mechanism of reactions of metal complexes

CO3: Understand the stereochemistry of naturally occurring coordination compounds

CO4: Familiarize with the coordination chemistry of Lanthanoids and Actinoids

Course 2: Organic Reaction Mechanism (CH500202)

CO1: Students obtain a review of organic reaction mechanisms

CO2: learn and understand the involvement of carbanions in organic reactions, their structure and reactivity through various organic reactions

CO3: Understand the involvement of carbocations in organic reactions, their structure and reactivity through various organic reactions

CO4: Predict the involvement of carbenes, carbenoids, nitrenes and arynes in organic reactions and proposes their structure and reactivity through various organic reactions

CO5: Analyse and explain the involvement of free radicals in organic reactions, their structure and reactivity through various organic reactions

CO6: Understand the reactions of carbonyl compounds and the mechanisms involved.

CO7: Have a detailed idea on the concerted reactions

Course 3: Chemical Bonding and Computational Chemistry (CH500203)

CO1: Students will be able to apply, analyze and evaluate group theoretical concepts in spectroscopy

CO2: Expertise in extending the ideas of quantum mechanics to many electron systems

CO3: Critically evaluate valence bond theory and molecular orbital theory

CO4: Understand and develop basic foundation on using various tools in computational chemistry

CO5: Create knowledge on format of GAMESS / Firefly

Course 4: Molecular Spectroscopy (CH500204)

CO1: Understand the basic principles and theory of microwave, NMR, IR, Raman, UV-Vis spectroscopy.

CO2: Apply the theory to simple problems

Practical 1: Inorganic Chemistry Practical-1 (CH500205)

CO1: Apply the principles of qualitative and quantitative analytical techniques in inorganic chemistry for identification of ions.

CO2: Familiarize the preparation of inorganic complexes.

CO3: Apply and predicts the characterization of inorganic complexes.

Practical 2: Organic Chemistry Practical-1 (CH 500206)

CO1: Apply class room learning in separation and purification of organic compounds and binary mixtures

CO2: Use the computational tools to draw the reaction schemes and spectral data to various organic reactions.

Practical 3: Physical Chemistry Practical-1 (CH500207)

CO1: Students will be able to apply the theory behind adsorption, distribution law and surface tension

CO2: Expertise in constructing and studying phase diagrams of three component and eutectic systems

CO3: Using computational tools to compute Single point energy, Geometry optimization as well as doing conformational analysis

SEMESTER III

Course 1: Structural Inorganic Chemistry (CH 500301)

CO1: Acquire knowledge about solids and its electrical, magnetic and optical Properties

CO2: Familiarize about inorganic chains, rings, cages and metal clusters.

CO3: Learn about glasses, ceramics, refractories etc

Course 2: Organic Syntheses (CH 500302)

CO1: Understand the application of various oxidising and reducing agents used in organic synthesis

CO2: Identify the importance of organic reagents like NBS, DDQ, DCC and Gilman reagent in organic synthesis

CO3: Gain an understanding of the different ways of synthesising carboxylic rings

CO4: Illustrate the necessity of protection and deprotection in organic synthesis

CO5: Knowledge of retrosynthetic approach to planning organic synthesis

Course 3: Chemical Kinetics, Surface Chemistry and Crystallography (CH500303)

CO1: Learn the fundamental theories of reaction rates and mechanism of chain reactions.

CO2: Study the different types of surfaces and application of various isotherms in surface catalyzed reactions.

CO3: Familiarize the symmetries of different point groups and types of liquid crystals.

Course 4: Spectroscopic Methods in Chemistry (CH 500304)

CO1: Learners would be able to apply the different spectroscopic methods to solve problems

CO2: Using spectral data for explaining important organic reactions and functional transformations.

SEMESTER IV

Course1: Advanced Inorganic Chemistry (CH 800401)

CO1: Apply group theory in inorganic chemistry

CO2: Understand about inorganic spectroscopic methods and other analytical methods

CO3: Deep understanding about inorganic photochemistry and nanomaterials

CO4: Gather detailed concept of acids and bases and non-aqueous solvents

Course2: Advanced Organic Chemistry (CH 800402)

CO1: Gain knowledge about the role of molecular receptors in medicine

CO2: Develop skill to characterise nanomaterials with SEM, TEM, XRD

CO3: Engage in deep understanding of the advances in polymer chemistry

CO4: Instil scientific thinking with knowledge in scientific thinking

Course 3: Advanced Physical Chemistry (CH800403)

CO1: Understand the excited states involved in a photochemical reaction

CO2: Analyze and apply diffraction methods and atomic spectroscopic techniques.

CO3: Apply the theories in electrochemistry for analyzing kinetics of electrode reactions.

Practical 1: Inorganic Chemistry Practical-2 (CH010405)

CO1: Able to estimate simple binary mixtures of metallic ions in solution by volumetric and gravimetric methods

CO2: Learn to analyze alloys and ores

Practical 2: Organic Chemistry Practical-2 (CH010406)

CO1: Students will have a firm foundation in the fundamentals and application of green chemistry

CO2: Students will be able to design and carry out multi step synthesis and to purify the products obtained by relevant methods

CO3: Carry out experiments using microwave assisted organic synthesis

CO4: Using UV-Visible spectrophotometric techniques for estimating organic compounds

Practical 3: Physical Chemistry Practical-2 (CH010407)

CO1: Analyse and apply the theoretical principles of chemical kinetics

CO2: Acquire practical skill to undertake experiments with polarimeter and refractometer

CO3: Evaluation of unknown concentration of solutions using techniques like conductometry, potentiometry and viscosity measurements.

M.Sc. MATHEMATICS

Programme Specific Outcomes (PSO)

At the completion of the two-year M.Sc. Mathematics programme, the student will be able to:

PSO 1: Improve the perspective on Mathematics as per modern requirement.

PSO 2: Enhance logical, analytical and critical thinking skills.

PSO 3: Develop research aptitude and interpret the knowledge acquired for propagation of Mathematics in society.

PSO 4: Develop comprehensive knowledge and problem-solving skills in advanced level mathematical branches such as algebra, analysis, topology, differential equations etc.

Course Outcomes (CO)

At the completion of the course under the two years M.Sc. Mathematics programme, the student will be able to:

SEMESTER I

Core Course 1- Abstract Algebra (ME010101)

CO1: Define groups and its properties

CO2: Express group actions

CO3: Examine and verifying Sylow's theorems

CO4: Categorize polynomials

CO5: Summarize examples of factor rings, prime and maximal ideals

Core Course 2- Linear Algebra (ME010102)

CO1: Organise finite and infinite dimensional vector spaces and subspaces over a field and their properties, including the basic structure of vector spaces.

CO2: Link the definition and properties of linear transformations and matrices of linear transformations and change of basis including kernel, range and isomorphism.

CO3: Organise the properties of determinants and its relation to matrix transpose, inverse etc.

CO4: Execute the characteristic polynomial, Eigen vectors, Eigen values and Eigen spaces and understand the basic theory of simultaneous triangulations, direct sum decompositions.

Core Course 3- Basic Topology (ME010103)

CO1: Devise topology as a generalization of metric spaces.

CO2: Annotate the familiar concept of continuity to arbitrary spaces.

CO3 Build the peculiarities of compactness and connectedness in different spaces.

CO4: Interpret the hierarchy of separation axioms.

Core Course 4- Real Analysis (ME010104)

CO1: Explain Bounded variation and its properties

CO2: Describe Rectifiable Curves

CO3: Describe Riemann-Stieltjes Integral of a function and summarize the properties related to it

CO4: Illustrate Uniform convergence of a function and classify the different functions under uniform convergence

CO5: Summarize power series of different functions

Core Course 5- Graph Theory (ME010105)

CO1: Define graphs and its properties.

CO2: Compare different graphs and trees using their connectivity.

CO3: Connect Euler and Hamilton graphs and graph colouring to real life problems.

CO4: Detect geometric properties of graphs using planar graphs.

SEMESTER II

Core Course 6- Advanced Abstract Algebra (ME010201)

CO1: Build field extensions and geometric construction of finite fields.

CO2: Organise unique factorization domains, Euclidean domains and Guassian integers.

CO3: Compare automorphism of fields and splitting fields.

CO4: Execute Galois theory in mathematical applications.

Core Course 7- Advanced Topology (ME010202)

CO1: Build products in arbitrary space.

CO2: Interpret embedding and metrization and different types of compactness.

CO3: Adapt nets as a generalization of sequences.

Core Course 8- Numerical Analysis with Python (ME010203)

CO1: Link basic mathematical expressions using Python.

CO2: Interpret graphs of different functions.

CO3: Group different numerical methods using Python.

Core Course 9- Complex Analysis (ME010204)

CO1: Direct complex numbers as points on a sphere.

CO2: Tag power series of complex functions.

CO3: Adapt complex integration to understand analytic functions in a better way.

Core Course 10- Measure Theory and Integration (ME010205)

CO1: Tag measure as generalization of length.

CO2: Organise the difference between Reimann and Lesbesgue integration.

CO3: Examine the applications of signed measures.

CO4: Test the properties of Lesbesgue measure in general measure spaces and understand product measures.

SEMESTER III

Core Course 11- Advanced Complex Analysis (ME010301)

CO1: Define harmonic functions and its applications.

CO2: Illustrate Gamma functions and entire functions in detail.

CO3: Explain the product development and normal families.

CO4: Execute complex analysis techniques to specific research areas.

Core Course 12- Partial Differential Equations (ME010302)

CO1: Implement partial differential equations for solving real life problems.

CO2: Assess different methods of solution of PDE.

CO3: Define non-linear equations and interpret their solution methods

CO4: Compare families of equipotential surfaces.

Core Course 13- Multivariate Calculus and Integral Transforms (ME010303)

CO1: Summarize Fourier Integral of a function

CO2: Describe Differentiability of Multivariable function

CO3: Connect Mean Value theorem to Multivariate functions

CO4: Apply Jacobian matrix in the study of differentiability of functions

CO5: Interpret Integration of Differential Forms.

Core Course 14- Functional Analysis (ME010304)

CO1: Compare properties of metric spaces and normed spaces.

CO2: Infer linear operators and its properties.

CO3: Estimate inner product spaces and deducing its properties.

CO4: Tag Hilbert adjoint operator, self adjoint operator and its properties on normed spaces.

Core Course 15- Optimization Techniques (ME010305)

CO1: Memorize LPP

CO2: Calculate optimal values with integer solutions

CO3: Execute minimum and maximum flows..

CO4: Solve nonlinear programming problems

SEMESTER IV

Core Course 16- Spectral Theory (ME010401)

CO1: Deduce the uses of functional analysis and unifies ideas from normed spaces and complex analysis.

CO2: Tag fundamental theorems from the theory of normed spaces, including the uniform boundedness theorem, the open mapping theorem, the closed graph theorem, and the Banach Fixed Point theorem.

CO3: Judge the fundamentals of spectral theory and assess its power.

CO4: Score the spectral properties of various operators such as compact linear operators, self-adjoint linear operators, positive operators and projection operators.

CO5: Implement ideas from spectral theory to other mathematical contexts and related areas.

Core Course 17- Analytic Number Theory (ME010402)

CO1: Adapt arithmetic functions and its application.

CO2: Tag prime number theorem and distribution of primes.

CO3: Summarize the application of congruence and quadratic residues and primitive roots for solving numerical problems.

Elective Course 1- Differential Geometry (ME800401)

CO1: Interpret the application of real analysis in geometry.

CO2: Tag geodesics and parallel transport.

CO3: Build parametrized surface and study its basic properties.

Elective Course 2- Algorithmic Graph Theory (ME800402)

CO1: Tag graph algorithms.

CO2: Define trees, rooted trees, paths and distances.

CO3: Build networks, learn max flow-min cut theorem and Menger's theorem.

CO4: Devise matchings and factorizations in graphs.

Elective Course 3-Combinatorics (ME800403)

CO1: Adapt algebraic concepts to solve basic problems in real life.

CO2: Build Ramsey type problems and Ramsey numbers.

CO3: Predict generating functions and recurrence relations.

M. Sc. PHYSICS

Programme Specific Outcomes (PSO)

At the completion of the two-year M. Sc. Physics post graduate programme, the student will be able to:

PSO1: Provide a complete theoretical understanding of different areas of Physics together with analytic and critical thinking skills through acquired knowledge

PSO2: Learn to carry out experiments in advanced areas of physics and obtain research experience and scientific writing skills through project work

PSO3: Enhance proficiency in analyzing complex physical problems and recognize Physics as a platform for honing logical reasoning skills that can be employed across various domains.

PSO4: Explore the multidisciplinary areas through the selection of advanced projects and kindle entrepreneurial skills and lifelong learning

Course Outcomes (CO)

At the completion of the course under two-year M. Sc. Physics post graduate programme, the student will be able to:

SEMESTER I

Core Course 1- Mathematical methods in physics-I (PH010101)

CO1: Develop basic ideas on vector integration and differentiation and illustrate it's physical meaning.

CO2: Define basic properties of vector and matrices

CO3: Illustrate and compare various coordinate systems.

CO4: Learn the basic skills in tensor analysis for solving physics problems.

CO5: Explain potential theory.

CO6: Understand the basic ideas of linear vector space

Core Course 2- Classical Mechanics (PH010102)

CO1: Develop the fundamental concepts of the Lagrangian and the Hamiltonian methods and will be able to apply them to various problems.

CO2: Explain the physics of small oscillations and the concepts of canonical transformations and Poisson brackets.

CO3: Explain the basic ideas of central forces and rigid body dynamics.

CO4: Determine the differential equation of orbit, stability of orbit under central force.

CO5: Galiliean and Lorentz transformation and various reference frames. Apply the basic theory of relativity and concept of time dilation, length contraction and simultaneity, and various Four vectors like position, velocity, acceleration, momentum, Force etc.

CO6: Acquire idea about the concept of Lorentz matrices and Lagrangian formulation in different relativistic cases.

CO7: Apply the Hamilton-Jacobi method and the concept of action –angle variables.

Core Course 3- Electrodynamics (PH010103)

CO1: Explain basic concepts in electrostatics, magnetostatics and electrodynamics.

CO2: Understand the wave nature of electromagnetic field and its properties

CO3: Aware about the electromagnetic field radiation out of accelerated charges and the impact of relativity in electromagnetism along with confined propagation of EM waves.

CO4: Apply Maxwell equations in analysing the electromagnetic field due to time varying charge and current distribution

CO5: Describe the nature of electromagnetic wave and its propagation through different media and interfaces.

Core Course 4- Electronics (PH010104)

CO1: Construct different op-amp configurations and analyze the difference in working according to the parameters.

CO2: Apply the above concepts for solving problems related to Op-Amp.

CO3: Compare the theoretical and practical working of op-amp and analyze the various factors associated with it.

CO4: Explain and design active filters, oscillators, comparators and converters.

CO5: Describe the architecture and working of timer, PLL and regulator IC's.

CO6: Develop the principle of operation of AM and FM receivers.

SEMESTER II

Core Course 5- Mathematical methods in physics-II (PH010201)

CO1: Solve the problems in complex numbers using Cauchy's different equations and theorems and express functions using Taylors and Laurents expansion series.

CO2: Apply the fourier series, Laplace and Fourier transforms to solve different problems.

CO3: Impart the basic idea of solutions of partial differential equations

CO4: Study the different methods of mathematical physics and develop a mathematical skill to solve problems in quantum mechanics, electrodynamics and other fields of theoretical Physics.

Core Course 6- Quantum Mechanics 1 (PH010202)

CO1: Apply the fundamental concepts of Quantum Mechanics and Dirac formalism

CO2: Explain how quantum systems evolve in time

CO3: Apply the principles of quantum mechanics to orbital, spin, and total angular momenta

CO4: Solve problems related to angular momenta in different quantum systems

CO5: Solve the bound states of central potential.

Core Course 7- Statistical Mechanics (PH010203)

CO1: Give an account of the microscopic description of thermodynamic properties of matter.

CO2: Awareness about ensemble theory and apply them to various physical systems.

CO3: Understand the basics of quantum statistics and apply the concept of Bose-Einstein distribution, Fermi-Dirac distribution to physical problems.

CO4: Awareness about the basics of phase transition.

CO5: Create analytic ability to solve problems relevant to statistical mechanics

Core Course 8- Condensed Matter Physics (PH010204)

CO1: Acquire broad idea about crystal systems and crystal symmetry and explain energy bands in solids.

CO2: Illustrate wave diffraction and define reciprocal lattice for various crystal systems.

CO3: Explain the basic electronic properties of a semiconductor.

CO4: Explain the magnetic properties of materials

SEMESTER III

Core Course 9- Quantum Mechanics II (PH010301)

CO1: Define different stationary state approximation methods and solve various quantum systems.

CO2: Use the basics of time dependant perturbation theory and apply it to solve semi classical theory of atom-radiation interaction.

CO3: Apply the theory of identical particles in various quantum systems.

CO4: Apply the idea of quantum theory of scattering to develop the concepts of Born approximation and the method of partial waves and their applications.

CO5: Apply the idea of relativistic quantum mechanics. Apply Klein Gordon equation and Dirac equation and their implications in various quantum systems

Core Course 10- Computational Physics (PH010302)

CO1: Exercise least square method and interpolation to find solution from a set of data points.

CO2: Exercise least square method and interpolation to find solution from a set of data points.

CO3: Apply numerical methods to a variety of physical problems.

CO4: Apply numerical methods to a variety of physical problems.

Elective Course 1-Electronics Specialization- Digital Signal Processing (PH800301)

CO1: Study about DT systems and to learn about FFT algorithms.

CO2: Study the design techniques for FIR and IIR digital filters.

CO3: Acquire knowledge of signal processing.

Core Course 11- Atomic and Molecular Physics (PH010303)

CO1: Explain the atomic structure, spectra and coupling schemes of typical one –electron and two- electron systems.

CO2: Explain the theory of microwave and IR spectroscopies as well as electronic spectroscopy of molecules.

CO3: Develop the concepts of Raman spectroscopy and non-linear Raman effects.

CO4: Acquire introductory ideas about NMR, ESR and Mossbauer spectroscopy.

SEMESTER IV

Elective Course 2: Microelectronics and Semiconductor Devices (PH800402)

CO1: Expose the students to the architecture and instruction set of basic microprocessors.

CO2: Illustrate the architecture and instruction set of basic microcontrollers.

CO3: Discuss the fundamentals of semiconductor devices and their processing steps in detail.

CO4: Apply the knowledge of semiconductor fabrication processes to work in industry in the area of semiconductor devices.

CO5: Provide the perspectives of IC fabrication and characteristics.

Core Course 12: Nuclear and Particle Physics (PH010401)

CO1: Explain the nuclear structure, composition and properties of it and write down the distribution of matter and charge of the nucleus.

CO2: Write down the deuteron-binding energy, spin, parity, magnetic moment and electric quadrupole moment and describe the scattering and interaction of nucleons

CO3: Build up the fundamentals of nuclear and particle Physics.

CO4: Attain knowledge about basic properties of nucleus and nuclear forces.

CO5: Explain the major models of nucleus and the theory behind nuclear decay processes.

CO6: Explain about basic four interactions in nature, idea of elementary particles, Quark model and its experimental evidences, Standard model, Symmetry and various conservation laws in particle physics.

CO7: Build a foundation for nuclear astrophysics and ideas about practical applications of nuclear Physics.

Elective Course 3: Communication Systems (PH800403)

CO1: Evaluate the basic concepts of different communication systems such as Digitial communication, Mobile communication, satellite communication, Fibre optic communications etc.

CO2: Familiarize various wireless communication systems and the cellular concert

CO3: Explain path loss, multipath falling, and multiple access techniques

CO4: Explain the process governing various communication systems.

CO5: Attain knowledge on the different types of Radar systems, Navigational Aids, and the Radar Transmitter and Receiver basic design.

Computational Physics Practicals (PH010402)

CO1: Upon successful completion of this course, students will have the knowledge and skills to:

CO2: Develop programs using programming language like C++/Python to solve mathematical problems

CO3: Develop programs and analyze physics problems

Advanced Practicals in Electronics (PH800302)

CO1: Develop programs to perform mathematical and logical operations using 8086

CO2: Design and analyze circuits use in communication.

CO3: Set up and analyze the performance of lasers, photodiode.

M.Com. Finance and Taxation

Programme Specific Outcomes (PSO)

At the completion of the two-year M.Com. Finance and Taxation post graduate programme, the student will be able to:

PSO1: Demonstrate higher level knowledge and understanding of contemporary trends in the field of Accounting, Finance, Tax and Wealth management.

PSO2: Evaluate factors that influence business operations and with the conceptual requirements and skills on preparation and interpretation of financial statements.

PSO3: Demonstrate how research influences effective implementation in financial decision making and provide guidance to students to plan and undertake independent research work.

PSO4: Create higher level of specialized career opportunities in domestic and global business arena.

Course Outcomes (CO)

At the completion of the course under the M.Com. Finance and Taxation programme, the student will be able to:

SEMESTER I

Core Course 1: Specialised Accounting (CM010101)

CO1: Providing an in depth understanding about theoretical and practical aspects of major Accounting Standards to apply the same in different practical situations

CO2: Ascertain the value of goodwill and value of companies based on the value of shares and compare the real value of shares and with the market prices and identify the mispricing.

CO3: In-depth understanding about the determination of purchase consideration in the event of amalgamation and to prepare post amalgamation financial statements

CO4: Develop a clear understanding about different types of NBFCs, their provisioning norms and to understand the concept of NAV of mutual funds through its computation

CO5: Acquaint with the theoretical aspects of emerging areas in accounting

Core Course 2: Organisational Behaviour (CM010102)

CO1: Basic understanding about the concepts of organization behaviour

CO2: A very good understanding about individual behaviour, personality and motivation

CO3: Imparting deep understanding about group behaviour and leadership related to organizational behaviour

CO4: Add the knowledge base of the leaner regarding change management and deal with stress.

CO5: Impart knowledge about the role of organizational culture and conflict on organizational behaviour

Core Course 3: Marketing Management (CM010103)

CO1: Understand the concepts like customer centricity, CRM, value chain and customers delight

CO2: Get a clear understanding about the market segmentation process and its applications in marketing strategies

CO3: Develop an idea about consumer behaviour and its impact

CO4: Good understanding about product line, product mix, brand equity, brand identity, brand personality and brand image

CO5: Develop sound ideas regarding services marketing and service quality.

Core Course 4: Management Optimisation Techniques (CM010104)

CO1: Develop theoretical understanding about various business optimisation models.

CO2: Ability to develop Linear Programming Models for business problems and solve the same.

CO3: Application of Linear Programming in the areas of transportation and assignment CO4: Develop decision making skills under uncertainty, risk and replacement of assets

CO4: Understand and apply network analysis techniques for project implementation

Core Course 5: Methodology for Social Science Researches (CM010105)

CO1: Develop a thorough understanding about the basic concepts of social science research

CO2: After completing this course, the learner should be able to formulate a research design

CO3: After studying the theoretical aspects of sampling design, the learner should be able to draw a sampling design.

CO4: Detailed knowledge about the instrument development, its validation and different forms of scaling.

CO5: Understand the technique of research reporting.

SEMESTER II

Core Course 6: Advanced Corporate Accounting (CM010201)

CO1: Prepare consolidated financial statements of group companies.

CO2: Preparation of the financial statements of public utility companies and deal with the disposal of surplus.

CO3: Develop and awareness on the procedure of bankruptcy under the recent Bankruptcy Procedure Code.

CO4: Familiarize with the accounting procedures of liquidation of companies and preparation of various statements required as per the Companies Act.

CO5: Understand about the preparation of accounts of some special lines of businesses like shipping, hospitals and hotels.

Core Course 7: Human Resource Management (CM010202)

CO1: Acquaintance with basic concepts of HRM and performance appraisal.

CO2: Understanding about human resource development, stress management and work life management.

CO3: High level knowledge about various aspects of training.

CO4: Understanding about various aspects of industrial relations so as to evaluate the real cases of industrial relations.

CO5: Understanding about HR outsourcing HR accounting and HR audit.

Core Course 8: International Business and Finance (CM010203)

CO1: Familiarize globalization, internationalization of business and the international business environment.

CO2: Understand about theories of international trade, trade barriers and trade blocks.

CO3: Imparting idea about various economic institutions related to international trade.

CO4: Achieve high level knowledge about various aspects of international monetary system.

CO5: Develop an understanding about the international investment environment.

Core Course 9: Quantitative Techniques (CM010204)

CO1: Understand about the applications of quantitative techniques

CO2: Understand about the applications of quantitative techniques

CO3: Identify appropriate parametric test for testing the hypotheses

CO4: Acquire the skills to identify the most suitable non parametric test for testing a hypothesis

CO5: Acquire the skills to apply the principles of SQC

Core Course 10: Strategic Management (CM010205)

CO1: Strong understanding about the theoretical foundations of strategic management.

CO2: Clear understanding about various models of environmental and internal analysis.

CO3: Development of an idea about the strategy formulation process at the corporate level.

CO4: Familiarization with various tools strategic planning and evaluation.

CO5: Understand about the modes of implementation and control of strategies.

SEMESTER III

Core Course 11: Strategic Financial Management (CM010301)

CO1: Learn the theoretical foundations of financial management and financial management decisions.

CO2: Evaluate the feasibility of different options regarding discount, credit period, storage cost etc related to current assets and current liabilities and estimate working capital requirements

CO3: Evaluate long term proposals and evaluate the risk associated with long term investment.

CO4: Evaluate the decisions regarding leasing of capital assets.

CO5: Evaluate and compare the performance of business entities.

Core Course 12: Income Tax – Law and Practice (CM010302)

CO1: Acquire knowledge regarding the basic concepts of Income Tax

CO2: Able to compute capital gain and income from other sources

CO3: Learner shall be able to determine eligible deductions and compute Taxable Income and tax liability of an individual

CO4: Determine taxable profit of a business or profession

CO5: Able to calculate Gross Total Income of an individual

Core Course 13: Security Analysis and Portfolio Management (CM010303)

CO1: Understand the concepts of investments, different types of investments, views of investment and process of investment and apply the theoretical knowledge in investment information for selecting the securities.

CO2: Understand the types of risk in security market and applying various tools for the valuation of bonds as well as economic indicators to predict the market.

CO3: Understand the tools of technical analysis, analyse the patterns and trends in the market by using various tools and enable to take investment decisions after understanding market efficiency level also.

CO4: Apply Modern portfolio theories and construct optimum portfolios.

CO5: Revise constructed portfolios as per risk and return association by using different strategies.

Core – Elective 1: Indirect Tax Laws (CM800301)

CO1: Understand the basic concepts of the Goods and Services Tax

CO2: Develop a clear idea about the levy and collection of tax and tax credit

CO3: Develop the knowledge about the provisions regarding registration, preparations of books of accounts and filing of returns under the Act

CO4: Understand about the powers of GST authorities regarding inspection, search and seizure

CO3: Basic understanding about the Customs Law in India.

SEMESTER IV

Core Course 14: Advanced Cost and Management Accounting (CM010401)

CO1: Apply activity-based absorption methods instead of conventional absorption method.

CO2: Apply the marginal costing principles in decision making situations of businesses.

CO3: Dealing with practical cases of pricing decisions in different situations

CO4: Understand the concepts of standard costing, and the process of cost control through it.

CO5: Deal with the practical issues related to transfer pricing

Core Course 15: Income Tax – Assessment and Procedures (CM010402)

CO1: Compute the total income and tax liability of firms and Association of Persons

CO2: Carry out assessment of companies and determine their tax liability

CO3: Make the assessment of co-operative societies and trusts.

CO4: Understand about the assessment procedures, TDS and advance payment of tax and application in various situations

CO5: Learn tax planning concepts and apply the same

Core – Elective 2: Derivatives and Risk Management (CM800401)

CO1: Knowledge about the derivative market in India, its evolution, types, players, risks involved and basic quantitative foundations

CO2: Analyze the implications of Risk in the perception of individuals and Institutions and measurement of risks

CO3: Understand and explain the concept of forward market and its function ,

CO4: Analyze the operation and pricing of various types of futures

CO5: Understand the concepts and methodology of option trading and apply the models of pricing the option contracts

CO6: Develop an idea of exchanges through swaps

Core Course 16: Personal Investment and Behavioural Finance (CM800402)

CO1: Understand the meaning and significance of Financial literacy, Financial Discipline & Financial Competency, the role of family and parents in financial socialisation

CO2: Understand and Evaluate the Significance of savings on financial destiny and it relationship with Consumerism and to understand the different elements/steps in Personal Financial Planning to attain Financial Well Being and Evaluate the different retail investment avenues.

CO3: Know the meaning of Behavioural Finance, its evolution and related theories

CO4: Understand different Heuristics, Biases and other Irrational Investment Behaviours

CO5: Understand the relationship between biases and to adopt techniques to lower the impact of biases.

M.Com. Finance and Taxation (Self Financing)

Programme Specific Outcomes (PSO)

At the completion of the two-year M.Com. Finance and Taxation post graduate programme, the student will be able to:

PSO1: Demonstrate higher level knowledge and understanding of contemporary trends in the field of Accounting, Finance, Tax and Wealth management.

PSO2: Evaluate factors that influence business operations and with the conceptual requirements and skills on preparation and interpretation of financial statements.

PSO3: Demonstrate how research influences effective implementation in financial decision making and provide guidance to students to plan and undertake independent research work.

PSO4: Create higher level of specialized career opportunities in domestic and global business arena.

Course Outcomes (CO)

At the completion of the course under the two-year M.Com. Finance and Taxation programme, the student will be able to:

SEMESTER I

Core Course 1 -Specialized Accounting (CM010101)

CO1: Evaluate theoretical and practical aspects of major accounting Standards.

CO2: Estimate the value of goodwill and value of companies based on the value of shares and compare the real value of shares and with the market prices and identify the mispricing.

CO3: Structure the determination of purchase consideration in the event of amalgamation and to prepare post amalgamation financial statements.

CO4: Summarize different types of NBFCs, their provisioning norms and to understand the concept of NAV of mutual funds through its computation.

CO5: Write emerging areas in accounting.

Core Course 2 -Organizational Behaviour (CM010102)

CO1: Evaluate the concepts of organisation behaviour.

CO2: Assess individual behaviour, personality and motivation.

CO3: Judge group behaviour and leadership related to organisational behaviour.

CO4: Evaluate change management and deal with stress.

CO5: Generalize the role of organisational culture and conflict on organizational behaviour.

Core Course 3 -Marketing Management (CM010103)

CO1: Evaluate the concepts like customer centricity, CRM, value chain and customer delight.

CO2: Structure the market segmentation process and its applications in marketing strategies.

CO3: Develop an idea about consumer behavior and its impact.

CO4: Summarize about product line, product mix, brand equity, brand identity, brand personality and brand image.

CO5: Evaluate research and develop sound ideas regarding services, marketing and service quality

Core Course 4 -Management Optimization Techniques (CM010104)

CO1: Evaluate various business optimisation models.

CO2: Assess Linear programming models for business problems and solve the same.

CO3: Test Linear Programming in the areas of transportation and assignment.

CO4: Develop decision making skills under uncertainty, risk and replacement of assets.

CO5: Test network analysis techniques for project implementation.

Core Course 5 -Methodology for Social Science Research (CM010105)

CO1: Evaluate the basic concepts of social science research.

CO2: Formulate a research design.

CO3: Infer the theoretical aspects of sampling design

CO4: Assess the instrument development, its validation and different forms of scaling.

CO5: Evaluate the technique of research reporting.

SEMESTER II

Core Course 6 - Advanced Corporate Accounting (CM010201)

CO1: Evaluate consolidated financial statements of group companies.

CO2: Evaluate financial statements of public utility companies and deal with the disposal of surplus.

CO3: Write the procedure of bankruptcy under the recent Bankruptcy Procedure Code.

CO4: Assess the accounting procedures of liquidation of companies and prepare of various statements required as per the Companies Act.

CO5: Evaluate the accounts of some special lines of businesses like shipping, hospitals and hotels.

Core Course 7 -Human Resource Management (CM010202)

CO1: Assess HRM and performance appraisal.

CO2: Generalize human resource development, stress management and work-life management.

CO3: Evaluate about various aspects of training.

CO4: Assess various aspects of industrial relations so as to evaluate the real cases of industrial relations.

CO5: Write HR outsourcing Recounting and HR audit.

Core Course 8 -International Business and Finance (CM010203)

CO1: Evaluate globalisation, internationalisation of business and the international business environment.

CO2: Generalise about theories of international trade, trade barriers and trade blocks.

CO3: Infer about various economic institutions related to international trade.

CO4: Develop high level knowledge about various aspects of international monetary system.

CO5: Evaluate the international investment environment.

Core Course 9 -Quantitative Techniques (CM010204)

CO1: Evaluate about the applications of quantitative techniques.
CO3: Choose appropriate parametric tests for testing the hypotheses.
CO4: Choose the most suitable non parametric test for testing a hypothesis.
CO5: Develop the skills to apply the principles of SQC

Core Course 10 - Strategic Management (CM010205)

CO1: Evaluate the theoretical foundations of strategic management.
CO2: Evaluate the various models of environmental and internal analysis.
CO3: Develop an idea about the strategy formulation process at the corporate level.
CO4: Assess the various tools strategic planning and evaluation.
CO5: Evaluate the modes of implementation and control of strategies.

SEMESTER III

Core Course 11 -Strategic Financial Management (CM010301)

CO1: Structure the theoretical foundations of financial management and financial management decisions.
CO2: Evaluate the feasibility of different options regarding discount, credit period, storage cost etc related to current assets and current liabilities and estimate working capital requirements.
CO3: Evaluate long term proposals and evaluate the risk associated with long term investment.
CO4: Evaluate the decisions regarding leasing of capital assets.
CO5: Evaluate and compare the performance of business entities.

Core Course 12 -Income Tax – Law and Practice (CM010302)

CO1: Assess the basic concepts of Income Tax.
CO2: Evaluate income from salary and house property.
CO3: Assess taxable profit of a business or profession.

CO4: Assess capital gain and income from other sources.

CO5: Estimate Gross Total Income of an individual.

CO6: Evaluate eligible deductions and compute Taxable Income and tax liability of an individual.

Core Course 13 - Security Analysis and Portfolio Management (CM010303)

CO1: Assess concepts of investments, different types of investments, views of investment and process of investment and develop the theoretical knowledge in investment information for selecting the securities.

CO2: Assess the types of risk in security market and applying various tools for the valuation of bonds as well as economic indicators to predict the market.

CO3: Evaluate the tools of technical analysis, analyse the patterns and trends in the market by using various tools and enable to take investment decisions after assessing market efficiency level also.

CO4: Test Modern portfolio theories and construct optimum portfolios.

CO5: Revise constructed portfolios as per risk and return association by using different strategies.

Core Elective 1 -Indirect Tax Laws (CM800301)

CO1: Evaluate concepts of the Goods and Services Tax

CO2: Summarize levy and collection of tax and tax credit

CO3: Assess the provisions regarding registration, preparations of books of accounts and filing of returns under the Act.

CO4: Assess the powers of GST authorities regarding inspection, search and seizure

CO5: Summarize the Customs Law in India.

SEMESTER IV

Core Course 14 -Advanced Cost and Management Accounting (CM010401)

CO1: Test activity-based absorption methods instead of conventional absorption method.

CO2: Test the marginal costing principles indecision making situations of businesses.

CO3: Solve the practical cases of pricing decisions in different situations

CO4: Evaluate the concepts of standard costing and the process of cost control through it.

CO5: Evaluate the practical issues related to transfer pricing

Core Course 15 - Income Tax-Assessment and Procedure (CM010402)

CO1: Estimate the total income and tax liability of firms and Association of Persons.

CO2: Facilitate assessment of companies and measure their tax liability.

CO3: Facilitate assessment of co-operative societies and trusts.

CO4: Evaluate the assessment procedures, TDS and advance payment of tax and application in various situations

CO5: Assess tax planning concepts and test the same

Core Elective 2 -Derivatives and Risk Management (CM800401)

CO1: Evaluate the derivative market in India, its evolution, types, players, risks involved and basic quantitative foundations.

CO2: Assess the implications of Risk in the perception of individuals and Institutions and measurement of risks.

CO3: Explain the concept of forward market and its function.

CO4: Evaluate the operation and pricing of various types of futures.

CO5: Evaluate the concepts and methodology of option trading and apply the models of pricing the option contracts.

CO6: Develop an idea of exchanges through swaps.

Core Elective 3- Personal Investment and Behavioral Finance (CM800402)

CO1: Devise financial literacy, Financial Discipline& Financial Competency, the role of family and parents in financial socialization.

CO2: Evaluate the significance of savings on financial destiny and its relationship with consumerism and the different elements/steps in Personal Financial Planning to attain financial Well Being and retail investment avenues.

CO3: Express about Behavioural finance, its evolution and related theories

CO4: Distinguish different Heuristics, biases and other Irrational Investment Behaviours.

CO5: Summarize biases and to adopt techniques to lower the impact of biases

Core- Project -Project Report (CM010403)

CO1: Facilitate Quality Research Output and Presentation

Core- Viva -Comprehensive Viva Voce (CM010404)

CO1: Communicate his/her understanding in various subjects studied.