

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSC-201

Course Title: Advanced Microeconomics

L-T-P: 3-1-0

Credits: 04

Subject Area: PCC

Course Outlines: Advanced Topics in Choice under Certainty, Choice under Risk and Uncertainty, Behavioral Economics–Prospect Theory, Use of Games in Economic Theories - Static Games, Dynamic Games, Zero-sum Games, Asymmetric Information, Adverse Selection, General Equilibrium Analysis, Pure Exchange, General Equilibrium Analysis Under Uncertainty.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSC-203

Course Title: Advanced Macroeconomics

L-T-P: 3-1-0

Credits: 04

Subject Area: PCC

Course Outlines: The Open Economy, International Capital Flows and Trade Balance, Mundel-Fleming Model under Perfect and Imperfect Capital Mobility, Keynesian Flexible Price Model, The Resurgence of Neoclassicism-Monetarism, New Classical Economics and Real Business Cycle Theory, New Keynesian Economics and New Consensus Macroeconomics.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSC-205

Course Title: Introduction to Econometric Theory

L-T-P: 3-0-2

Credits: 04

Subject Area: PCC

Course Outlines: Simple Linear Regression Model, Ordinary Least Square (OLS) Estimates, Multiple Linear Regression Model-Estimates and Interpretations of coefficients, The Gauss Markov Theorem, Regression with non-linear variables, Statistical Inference and OLS Asymptotics, Asymptotic Normality and Large Sample Inference, Asymptotic Efficiency of OLS, Non-normality, Multicollinearity, Heteroskedasticity, Autocorrelation, Multiple Regression Analysis with Dummy Independent Variables.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSC-202

Course Title: Elementary Development Economics

L-T-P: 3-1-0

Credits: 04

Subject Area: PCC

Course Outlines: Evolution of Development Economics-Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs); Indicators of Development, Theories in Economic Development, Poverty and Inequality-Measurements, Issues in Developmental growth, Development and Environment, Policymaking and Role of Institutions in Development.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSC-204

Course Title: Advanced Econometric Theory

L-T-P: 3-0-2

Credits: 04

Subject Area: PCC

Course Outlines: Models with Discrete Dependent variables, LPM, Logit and Probit Models- Estimation and Limitation, Limited Dependent Variable Models, Non-Linear Regression and Optimization Methods-Poisson and Negative Binomial Regression Models, Linear Instrumental Variables Regression Models and GMM, Simultaneous Equation Systems, Dynamic Econometric and Panel Data Models.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-201

Course Title: Introduction to Sociology

L-T-P: 2-1-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Evolution and pathways of sociology, Traditions of sociology, Classical theories in sociology, Functionalist vs conflict theories, Sociological methods, Ethnography, Human subjects and ethical problems in research, Social stratification and change, Caste system, Sanskritisation, Modernisation, Westernisation, Secularisation, Globalisation and the changing world, Nationality and globalisation, globalisation and inequality, globalisation and media, Mcdonaldisation, Social movements, Reform movements, Peasant and agrarian movements, tribal movements, Dalit movements, New social movements.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-202

Course Title: Human Behavior at Work

L-T-P: 2-1-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Definition, theoretical frameworks-cognitive, behavioristic, and social learning framework, Functions of manager-interpersonal, informational, and decisional functions; Personality, Personality frameworks-The Myers-Briggs Type Indicator, The Big Five Personality Model and the Dark Triad, Shaping behaviour-Schedules of reinforcement; Diversity in Organizations, Factors determining diversity in organizations, Levels of diversity-surface-level and deep-level diversity; Discrimination, Implementation of diversity management strategies; Organizational Change and Stress Management, Forces for change, Approaches to managing change, interventions, Stress management and Resilience at workplace; Organizational Justice, Ethics and Corporate Social Responsibility (CSR), the guiding principles of organizational ethics.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-203

Course Title: Introduction to Economics

L-T-P: 2-1-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Fundamental Economic Problems-Concepts of Scarcity, Choice, Opportunity Costs and Efficiency, Demand, Supply, Market Equilibrium, Consumer Behaviour, Production and Cost Analysis-Short-run and Long-run, Market outcomes Perfect Competition, Monopoly and Other Market Structures, Circular Flow of Income, National Income, Macroeconomic Challenges-Role of Fiscal and Monetary Policy, Capital Budgeting Process-Net Present Value (NPV), Internal Rate of Return (IRR), International Trade, Supply-and-Demand Analysis of Trade and Tariffs.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-204

Course Title: Introduction to Abnormal Psychology

L-T-P: 3-0-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Psychopathology: Perspectives, Current Paradigms, Diagnosis & Assessment: ICD-10, DSM- DSM-5-TR, Mood Disorders: Major Depressive Disorder, Bipolar Disorder, Suicide and Preventive Measures, Anxiety Disorders: Generalized Anxiety Disorder, Panic Disorder, Phobias, Social Anxiety Disorder, Trauma and Stressor Related Disorder, Obsessive Compulsive & Related Disorders, Personality Disorders: Cluster A, Cluster B and Cluster C, Schizophrenia: Positive, Negative and Disorganized Symptoms, Etiology, Risk factors, Substance-Related and Addictive Disorders: Depressants, Stimulants, Hallucinogens, Ecstasy & PCP, Gambling and Impulse-Control, Etiology, Treatment & Prevention.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-205

Course Title: Introduction to Cognitive Science

L-T-P: 2-1-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Cognitive Science, Behaviorism in Psychology, Theory of Computation, Algorithms and Turing Machines, Syntactic Structures, Information Processing Model, Interdisciplinary Perspective, Experimental Methods, Mind-Body Problem, Monism, Dualism, Functionalism, Free Will-Determinism, Mind, Consciousness, Multiple Drafts Theory, Modularity Assumption, Classical Theories of Vision, Theories of Attention, Memory, Modal Model, ACT* Model, Working Memory Model, Visual Imagery, Image Structures and Processes, Problem Solving, The SOAR Model, Language Acquisition, Philosophy and Linguistics, Cognition and Linguistics, Neuroscience and Linguistics, Artificial Intelligence and Linguistics, Speech Recognition, Artificial Intelligence, Designing Intelligent Agents, Machine Reasoning, Logical and Inductive Reasoning, Expert Systems, Fuzzy Logic, Robotics, Biological and Behavioral, Foundations of Robotic Paradigms, Robotic Paradigms, Reactive, Hybrid Deliberative/Reactive.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE/SCHOOL: Department of Humanities and Social Sciences

Subject Code: HSS-206

Course Title: Introduction to Social Psychology

L-T-P: 2-1-0

Credits: 3

Subject Area: HSSEC

Course Outlines: Social psychological approaches to thinking about people; Implicit and explicit theories; Automatic & Controlled processing of thought - Schema, Priming, and mental framework of organizing information; Heuristics: availability, anchoring & adjustment; Biases; Group and its characteristics, Coordination and Cooperation in groups; Conformity and group Influence; Compliance and Obedience; Self-Categorization Theory; Social Role Theory; Attitude and Cognitive dissonance; Persuasion and theories of attitude change; Theories of Emotion, Emotional competence, emotional intelligence, Neurological bases of emotion. Need to belong, Interdependence theory, Attachment theory; Romantic relationship and Marriage; Love, Jealousy and Infidelity.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**NAME OF DEPARTMENT/CENTRE:** Department of Humanities and Social Sciences**Subject Code:** HSO-101**Course Title:** Power and Politics in
Contemporary India: Issues and Approaches**L-T-P:** 2-1-0**Credits:** 03**Subject Area:** OEC

Course Outlines: Approaches to understand contemporary India, Caste and class politics, Backward Class Movements, Dalit Politics, Ethnicisation of Caste, India's Middle Classes, Populism, Development induced dispossession and tribals, Jal-Jangal-Jameen Politics, Agrarian crisis, Commercialisation of agriculture, Neoliberalism and the WTO, Farmers suicides, Formal-informal dualism, Labour and migration, Right to the city, Precarity, Crisis in labour movements.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-102

Course Title: Society, Culture, and
Development

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: The sociology of development, Theoretical approaches to development, Dependency theories, World system theory, Modernization theories, Actor-oriented theories, Culture and development, Concept of culture, Cultural institutions and development, Society, community and development, Globalization and development, Concept and theories of globalization, Inequality and globalization, Globalization and economic transformation in developing countries, Regional development in India, Development and underdevelopment in India; Development and exclusion in India, Concept of social exclusion and inclusive development, Caste, tribe, gender and social exclusion, Environment and development, Sustainable development, Dimensions and principles of sustainable development, Alternative development.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-103

Course Title: Science, Technology and Society

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Social significance of science and technology, Contextual nature of science, Scientist as analogical, indexical and practical reasoned, Perspectives on scientific knowledge, Robert Merton's ethos of science, Matthew effect in science, symbolism of intellectual property, Thomas Kuhn's structures of scientific revolutions, Karl Popper's theory of falsification and Manuel Castell's network society, Positioning HSS in technology institutes, science and technology in ancient and colonial India, peer review in Indian science, Recent trends in Sociology of Science, Science and technology in developing and developed countries, information technology and globalisation, internet and social inequality.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-104

Course Title: Industrial Sociology

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: The Sociological Imagination, Context for development of Sociology and industrial Sociology, The Industrial, French and Bolshevic Revolutions and their socioeconomic and industrial implications, Types of productive systems, industrialisation and post-industrial society, Max Weber, F. W. Taylor, Human Relations approach, Fordism, Types and structure of trade unions, Theories of labour movement, Labour movements in India, Recent trends in work and industry, IT industry in India, McDonaldisation of society, Future of work, Social exclusion in Indian MNCs.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-105

Course Title: Cognitive Ergonomics

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Introduction to Cognitive Ergonomics, Approaches to Cognitive Ergonomics, Perception, Attention, Memory and Learning, Thinking and Language, Human Information Processing, User-centered design, Scenario-based design, Personas, Monitoring and Supervisory Control, Definitions of usability by International Organization of Standardization (ISO) and Nielsen, Usability Testing, User Experience, Error, Types of Human Error, Concept of risk and Risk Management, Cognitive Safety and Basic Concepts, Safety Performance Measurement, Health and Well-being at Work, Safety-critical Scenarios.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-106

Course Title: Dimension of Human Behavior

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Biological Basis of Behavior: Neuron- Basic Structure and Functions, Brain- Major Structures and Functions, Localisation and Lateralisation of Brain Functions; States of Consciousness and Bodily Rhythms: Consciousness and Brain activity, Sleep-Varieties, Theories, Circadian Rhythm, Dreaming- Theories, Activation-synthesis Model; Psychopathology: Clinical Assessment and Diagnosis, Anxiety Disorders- Phobias, OCD, Personality Disorder- Clusters A, B & C, Substance-Related Disorders, Mood Disorders, Schizophrenia; Parapsychology: Historical roots, Methodology, Recurring Issues; Group Behavior: Social Cognition- Heuristics, Schemas, Attribution- Theories, Impression Formation, Social Influence- Conformity, Compliance, Obedience, Attitudes- Persuasion, Cognitive Dissonance.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-107

Course Title: Positive Psychology

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Positive Psychology- Background and the various Perspectives, Positive Emotional States- Well-being, emotional, social and psychological, Emotional Intelligence (EI) and its different perspectives, Positive Cognitive States- Wisdom, courage, humanity, justice, temperance, transcendence, hope, optimism, mindfulness and spirituality, Prosocial Behaviours-Altruism, empathy and forgiveness, Psychological Resilience, Positive Self, Positive Psychological Therapies.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-108

Course Title: Gender and Culture Studies

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Development of Gender Theories, Correlation between Gender and Culture Theories, History and Concept of Feminism, Understanding Post-modernism and its Intersection with Feminist Theories, Theories of the Construction of Gender, Gender and Language, Gender and Society, Gendered Identities, Culture through Gender, Post-modernist Cultural Theories, Contemporary Issues-Technology and Gender, Media and Gender, Sports and Gender.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-109

Course Title: Disability and Literature

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Graphic Medicine, Ethics of Care, Medical and Social Disability, Debility, Public Health and Global South, Epidemics and Identity, Modernity and Medicine, Subjectivity and Illness, Writing and Healing, Medical and Emotional care.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-110

Course Title: Women's Writing

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Introduction to Feminist Theory, Writing and Gender, Women's Writing in India, Global Women's Writing, Adaptations, Genres of Feminist Narrative, Friendship and Kinship, Dystopia and Feminist Science Fiction.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-111

Course Title: Film & Literature

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Literature and Film, Evolution of Cinema, Adaptation Theories, Aspects of Cinematography, Montage, Flashback Technique, Film Narratives, Story, Plot, Script, Narration (Restricted and omniscient) Duration, Motivation, Motif- Parallelism, Character Traits, Cause and Effects, Visual Effects, Exposition, Climax, Point of View, Film Editing, Difference Between the Adapted Movie and the Novel.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-112

Course Title: Medical Humanities

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Medical Humanities-An Interdisciplinary Approach, Ethical Aspect of Medical Humanities: Principle of Medical Humanities-Respect for Autonomy, Principle of No maleficence, Principle of Beneficence, Principle of Justice, Literature and Medicine-Connoisseurship of patient, Emotional existence, Feminist Approach, Patriarchal Approach, Biomedical Discourse, Attention Disorders, Sexual Behavior, Death and Dying, The Mind and its Discontents, Narrative Medicine-Patient Narrative & the Real World, Narrative of Double Marginalized, (Dis)Ability and Literature, Medical Humanities-Exploring Social Issues.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-113

Course Title: Creative Writing in English

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Creativity & Resistance, Poetry- Types of Poems, Poetic Diction, Simile, Metaphor, Imagery, Symbol, Rhymes and Rhythm, Impersonal Theory of Poetry; Novel and Short Story- Writing a Novel: Situation and Event; Plot and Character; Style of Fiction; Drama- Elements and Types of Drama, Writing a Drama: Exposition, Rising Action, Climax, Anti-Climax and Resolution; Objective Correlative; Aesthetic Distance; Creative Writing- Media and Creative Writing; Writing Literary Reviews; Report and Feature Writing for Dailies and Magazines; Conducting Interview of Celebrities.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-114

Course Title: Partition Literature

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Introducing the History of the Partition of India, History and Alternative Memory Writings, Woman and Community, Home and Nostalgia in the Immigrant Discourse, Studying Displaced People and Abandoned Homes through Fictions, Trauma, Silence and Agency/Lack thereof in the Immigrant Woman's Writing, Looking Back at Partition – Literature in the 21st Century.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-115

Course Title: Canadian Literature – Perspectives
on Postcolonialism

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Introducing Canadian Literature: History of Canada and Canadian Literature, Missionaries and the Canadian First Nations Reserves, Alternative Story/History-telling by the Canadian Indigenous Communities, Documentaries on the Canadian Indigenous People, Multiculturalism – The Mosaic as an Impasse, Immigration and the South Asian Diaspora, The Canadian South Asian Stage.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-116

Course Title: Fiction of Indian Diaspora

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Fiction : Types, origin and development ; 'Diaspora', a brief historical account ; Multiculturalism, Enculturation, Deculturation, Acculturation, Assimilation and Transculturation, Expatriation and Immigration, Border and Cultural Space; Indian Diaspora: The different periods; demography and the characteristic features; the Writers of Indian Diaspora: Major Concerns, Themes, Narrative Technique(s) and Current Debates; Detailed Critical Discussion on the Prescribed texts, themes, literary influences and techniques; Diaspora Writings: significance, implications and impact on our life and the formation of culture.

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

NAME OF DEPARTMENT/CENTRE: Department of Humanities and Social Sciences

Subject Code: HSO-117

Course Title: Psychological Basis of Behavior

L-T-P: 2-1-0

Credits: 03

Subject Area: OEC

Course Outlines: Introduction to Psychology, Application and Methods, Principles of Learning, Theories of Learning, Memory and types, Theories of Forgetting, Thinking, Concept Formation, Problem Solving, Motivation, Drives, Needs, Theories of Motivation, Perception, Principles of Perception, Factors influencing Perception, Personality, Nature versus Nurture, Theories of Personality Development, Intelligence, Accessing Intelligence, Individual Differences, Theories of Intelligence.