Scheme of Instruction & Syllabi

of

Bachelor of Arts (Honours) Economics

(Effective from the academic session 2022-2023)

Faculty of Science & Humanities

Invertis University
NH-24, Bareilly-Lucknow Highway, Bareilly

COURSE STRUCTURE OF B. A. Hons Economics

Invertis University, Bareilly offers B.A. (Hons) Economics programme aligned with Choice Based Credit System (CBCS) under which following types of courses are offered

    a. Core Courses (CC). A core course is a compulsory course. A student of Economics (Hons) has to take fourteen such Economics courses over six semesters.

    b. Elective Courses (EC). An elective course is a course that is to be chosen from a specified set of courses. These courses are of two types.

    c. Discipline Specific Electives (DSE). These are elective courses that provide advanced undergraduate training in specialised areas of Economics. A set of seven, semester-specific, courses of this kind are offered in the fifth and sixth semesters of the Honours programme. In each of these semesters, a student has to take two such courses from the relevant semester's set of seven courses.

    d. Generic Electives (GE). These courses, in disciplines other than Economics, are intended to broaden the training of a student in the Economics (Hons) programme. A student of Economics will take one such course, offered by another department, in each of Semesters I to IV.

    e. Ability Enhancement Compulsory Course (AECC). Two such courses are to be taken, one in Semester I (Art of Communication, equivalent to MIL) and one in Semester II (Environmental Science).

    f. Skill Enhancement Course (SEC). A student is to take one such course in Semester III and one in Semester IV.

1.   Number of Courses and Credits

    a. Core Courses (CC): 14 (6 credits each)
    b. Discipline Specific Electives (DSE): 4 (6 credits each)
    c. Generic Electives (GE): 4 (6 credits each)
    d. Skill Enhancement Courses (SEC): 2 (4 credits each)
    e. Ability Enhancement Compulsory Courses (AECC): 2 (4 credits each)
    Total number of courses (credits) taken by a student: 26 (148)

Table 1. Semester-wise Distribution of Credits

Year	Semester	Courses x Credit per Course	Total Credits
First	I	2 DSC x 6	22
		1 AECC x 4	
		1 GE x 6	
	II	2 DSC x 6	22
		1 AECC x 4	
		1 GE x 6	
Second	III	3 DSC x 6	28
		1 SEC x 4	
		1 GE x 6	
	IV	3 DSC x 6	28
		1 SEC x 4	
		1 GE x 6	
Third	V	2 DSC x 6	24
		2 DSE x 6	
	VI	2 DSC x 6	24
		2 DSE x 6	
Total		**26**	**148**

Scheme of Instruction

B. A. Hons. Economics

Second year

S. No.	Category	Course Code	SUBJECT	PERIODS			Evaluation Scheme		Subject Total	Credit
				L	T	P	CA	EE		
III-SEMESTER										
1	DSC-31	HEC301	Intermediate Microeconomics I	5	1	0	50	100	150	6
2	DSC-32	HEC302	Intermediate Macroeconomics I	5	1	0	50	100	150	6
3	DSC-33	HEC303	Statistical Methods for Economics	5	1	0	50	100	150	6
4	SEC-1	HES301	Data Analysis	3	1	0	30	70	100	4
5	GE-3		*Generic Elective-3*	5	1	0	50	100	150	6
			TOTAL	**23**	**5**	**0**	**230**	**470**	**700**	**28**
IV-SEMESTER										
1	DSC-41	HEC401	Intermediate Microeconomics II	5	1	0	50	100	150	6
2	DSC-42	HEC402	Intermediate Macroeconomics II	5	1	0	50	100	150	6
3	DSC-43	HEC403	Introductory Econometrics	5	1	0	50	100	150	6
4	SEC-2 (any one)	HES401	Research Methodology	3	1	0	30	70	100	4
		HES402	Contemporary Economic Issues							
5	GE-4		*Generic Elective-4*	5	1	0	50	100	150	6
			TOTAL	**23**	**5**	**0**	**230**	**470**	**700**	**28**

1. Programme Objectives

The programme aims to:

1. Train students in basic economic theory

1. Equip students with the mathematical and statistical techniques necessary for a proper understanding of the discipline;
2. Discuss real world economic issues and problems facing the country and the world;
3. Enable students to understand proper policy responses to economic problems;
4. Train students to collect primary data and learn sampling techniques;
5. Train students to use statistical and econometric methods to arrive at conclusions about the validity of economic theories;
6. Train students to learn the art of economic modelling.

2. Programme Learning Outcomes

Students will:

1. Get an understanding of basic economic theory;
2. Learn the mathematical and statistical techniques necessary for a proper understanding of the discipline;
3. Get an introduction to real world economic issues and problems facing the country and the world;
4. Gain an understanding of proper policy responses to economic problems;
5. Get trained to collect primary data and learn sampling techniques;
6. Learn to use scientific empirical methods to arrive at conclusions about the validity of economic theories;
7. Get trained in the art of economic modeling.

3.Teaching Learning Process

Teaching and learning in this programme involves classroom lectures as well tutorials. The tutorials allow a closer interaction between the students and the teacher as each student gets individual attention. In tutorials, the teacher can keep track of each student's progress and address her/his individual difficulties. Written assignments and projects submitted by students as part of the course are also discussed in tutorials. Some courses also have a laboratory component and some require the students to undertake an independent research project and submit a written report at the end of the project. Research projects will encourage independent thinking among students and prepare them to carry out research on their own after completion of the degree. Students will be assigned regular home assignments and will be tested periodically through quizzes and class tests to ensure that they have properly learnt the course material.

4.Assessment Methods / Evaluation Scheme

Assessment methods and evaluation schemes will be as *per* University of Delhi norms. Practical papers will also follow the evaluation scheme of University of Delhi.

Semester-III

HEC301: Intermediate Microeconomics I
Core Course (CC)   Credit: 6

Course Objective
The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts. This course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Learning Outcomes
The course trains the students of Economics about the basic elements of consumer theory and production theory and the functioning of perfectly competitive market. This course aims to give students a solid grasp of microeconomic analysis at the intermediate-level using mathematical techniques where appropriate.

Unit 1
Consumer theory. Preference; utility; budget constraint; choice; demand; Slutsky equation; buying and selling; choice under risk and intertemporal choice; revealed preference

Unit 2
Production, costs and perfect competition Technology; isoquants; production with one and more variable inputs; returns to scale; short run and long run costs; cost curves in the short run and long run; review of perfect competition

References

1. Bernheim, B., Whinston, M. (2009). *Microeconomics.* Tata McGraw- Hill.
2. Snyder, C., Nicholson, W. (2010). *Fundamentals of microeconomics.* Cengage Learning.
3. Varian, H. (2010). *Intermediate microeconomics: A modern approach*, *8th ed.* W. W. Norton.

Additional Resources

1. Bergstrom, T., Varian, H. (2014). *Workouts in intermediate microeconomics*. W. W. Norton.

Teaching Learning Process
Lectures and tutorials

Keywords
Consumer theory, producer theory, perfect competition

HEC302: Intermediate Macroeconomics I
Core Course (CC)   Credit: 6

Course Objective
This is the second module of a three-module sequence on Macroeconomics. This course introduces students to formal modeling of the macroeconomy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces students to various micro-founded theories of macro behaviour, e.g., consumption and investment behaviour of households and the demand for money generated in the household sector.

Course Learning Outcomes
This course enables students to analyse the macroeconomic performance of various countries using formal analytical tools. It also allows them to evaluate important macroeconomic policies and their implications.

Unit 1
The labour market Wage determination; wages, prices and employment; natural rate of unemployment; from employment to output

Unit 2
Aggregate demand and aggregate supply curves Derivation of aggregate demand and aggregate and supply curves; interaction of aggregate demand and supply to determine equilibrium output, price level and employment

Inflation, unemployment and expectations Phillips curve; adaptive and rational expectations; policy ineffectiveness debate

Unit 4
Microeconomic foundations Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; lifecycle and permanent income hypotheses; rational expectations and random walk of consumption expenditure

Investment: determinants of business fixed investment; residential investment and inventory investment

Demand for money

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics*, *9th ed*. Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics*, *7th ed*. Pearson Education.
3. Branson, W. (2013). *Macroeconomics: Theory and policy*, *3rd ed,* East West Press.
4. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics*, *12th ed*. McGraw-Hill.
5. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
6. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

Teaching Learning Process
Lectures and tutorials

Keywords
Aggregate demand, aggregate supply, inflation, unemployment, expectations

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HEC303: Statistical Methods for Economics
Core Course (CC)   Credit: 6

Course Objective
The course teaches students the basics of probability theory and statistical inference. It sets a necessary foundation for the econometrics courses within the Honours programme. The familiarity with probability theory will also be valuable for courses in advanced microeconomic theory.

Course Learning Outcomes
At the end of the course, the student should understand the concept of random variables and be familiar with some commonly used discrete and continuous distributions of random variables. They will be able to estimate population parameters based on random samples and test hypotheses about these parameters. An important learning outcome of the course will be the capacity to analyse statistics in everyday

life to distinguish systematic differences among populations from those that result from random sampling.

Unit 1
Introduction and overview The distinction between populations and samples and between population parameters and sample statistics

Unit 2
Elementary probability theory Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence

Unit 3
Random variables and probability distributions Defining random variables; probability distributions; expected values and functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables)

Unit 4
Random sampling and jointly distributed random variables Density and distribution functions for jointly distributed random variables; computing expected values of jointly distributed random variables; covariance and correlation coefficients

Unit 5
Point and interval estimation Estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters

Unit 6
Hypothesis testing Defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples

References

1. Devore, J. (2012). *Probability and statistics for engineers, 8th ed.* Cengage Learning.
2. Larsen, R., Marx, M. (2011). *An introduction to mathematical statistics and its applications*. Prentice Hall.
3. Miller, I., Miller, M. (2017). *J. Freund's mathematical statistics with applications*, *8th ed.* Pearson.

Teaching Learning Process
Lectures and tutorials

Keywords
Population parameters, sample statistics, probability, statistical inference

Semester-IV

HEC401: Intermediate Microeconomics II
Core Course (CC)   Credit: 6

Course Objective
This course is a sequel to Intermediate Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets and topics under information economics.

Course Learning Outcomes
This course helps the students to understand efficiency of markets and the environment where the standard market mechanism fails to generate the desirable outcomes. The issues of market imperfection and market failures are important building blocks of this course.

Unit 1
General equilibrium, efficiency and welfare Equilibrium and efficiency under pure exchange and production; overall efficiency and welfare economics

Unit 2
Market structure and game theory Monopoly; pricing with market power; price discrimination; peak-load pricing; two-part tariff; monopolistic competition and oligopoly; game theory and competitive strategy

Unit 3
Market failure Externalities; public goods and markets with asymmetric information

References

1. Osborne, M. (2004). *An introduction to game theory*. Oxford University Press.
2. Snyder, C., Nicholson, W. (2010). *Fundamentals of microeconomics.* Cengage Learning.
3. Varian, H. (2010). *Intermediate microeconomics: A modern approach*, *8th ed.* W. W. Norton.

Additional Resources

1. Bergstrom, T., Varian, H. (2014). *Workouts in intermediate microeconomics*. W. W. Norton.

Teaching Learning Process
Lectures and tutorials

Keywords
General equilibrium, efficiency, welfare, market structure, imperfect competition, externalities, public goods

HEC402: Intermediate Macroeconomics II

Core Course (CC)   Credit: 6

Course Objective

This course is a sequel to Intermediate Macroeconomics I. In this course, students are introduced to long run issues like growth, technical progress, economics of ideas, R&D, innovation and knowledge creation. This course also provides insights into modern business cycle analysis. Finally it introduces students to open economy macro issues. At the end, it provides a long run perspective to policy-making by framing policies in a dynamic context.

Course Learning Outcomes

This course will enable students to combine their knowledge of the working of the macroeconomy with long run economic phenomena like economic growth, technological progress, R&D and innovation. It will also enable students to understand business cycles and the concomitant role of policies.

Unit 1

Economic growth Harrod-Domar model; Solow model; Golden rule, technological progress, economics of ideas, engines of growth, modern theories of endogenous growth

Unit 2

Business cycles Real business cycle theory; new Keynesian models of sticky prices

Unit 3

Open economy models Short-run open economy models; Mundell-Fleming model; exchange rate determination; purchasing power parity; asset market approach; Dornbusch's overshooting model; monetary approach to balance of payments; international financial markets

Unit 4

Fiscal and monetary policy Active or passive; monetary policy objectives and targets; rules versus discretion: time consistency; the government budget constraint; government debt and Ricardian equivalence

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics*, *9th ed*. Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics*, *7th ed*. Pearson Education.
3. Branson, W. (2013). *Macroeconomics: Theory and policy*, *3rd ed,* East West Press.
4. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics*, *12th ed*. McGraw-Hill.
5. Jones, C. (2013). *Introduction to economic growth*, *2nd ed*. W. W. Norton.
6. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
7. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

HEC403: Introductory Econometrics
Core Course (CC)   Credit: 6

Course Objective
This course introduces students to the econometric methods used to conduct empirical analysis in Economics. The course is designed to provide the students with the basic quantitative techniques needed to undertake applied research projects. It also provides the base for more advanced optional courses in econometrics.

Course Learning Outcomes
Students will learn to estimate linear models using ordinary least squares and make inferences about population parameters. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted.

Unit 1
Nature and scope of econometrics

Unit 2
Simple linear regression model: Two variable case Ordinary least squares estimation of a linear model; properties of estimators; goodness of fit; testing of hypotheses; scaling and units of measurement; confidence intervals; the Gauss-Markov theorem; forecasting and prediction

Unit 3
Multiple linear regression model Extension of the single explanatory variable case to a multivariate setting; introducing non-linearities through functions of explanatory variables

Unit 4
Violations of classical assumptions: Consequences, detection and remedies Multicollinearity; heteroscedasticity; serial correlation

Unit 5
Specification Analysis Omission of a relevant variable; inclusion of irrelevant variable; specification tests

References

1. Dougherty, C. (2011). *Introduction to econometrics*, *4th ed.* Oxford University Press.

2. Gujarati, D. (2014). *Econometrics by example, 2nd ed.* Palgrave Macmillan.
3. Gujarati, D., Porter, D. (2010). *Essentials of econometrics*, *4th ed.* McGraw-Hill.
4. Kmenta, J. (2008). *Elements of econometrics*. Khosla Publishing House.
5. Maddala, G., Lahiri, K. (2009). *Introduction to econometrics, 4th ed.* Wiley.
6. Wooldridge, J. (2014). *Introduction to econometrics: A modern approach, 5th ed.* Cengage Learning.

Teaching Learning Process
Lectures and tutorials

Keywords
Regression, least squares, linear models

Generic Elective Courses (GE)

HEG011: Introductory Microeconomics
Generic Elective (GE)   Credit: 6

Course Objective
This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Course Learning Outcomes
The course introduces the students to the first course in Economics from the perspective of individual decision making as consumers and producers. The students learn some basic principles of microeconomics, interactions of supply and demand and characteristics of perfect and imperfect markets.

Unit 1
Introduction What is microeconomics? Scope and method of economics; the economic problem: scarcity and choice; the concept of opportunity cost; the question of what to produce, how to produce and how to distribute output; science of economics; Institutions for allocating resources; the basic competitive model; prices, property rights and profits; incentives and information; rationing; positive versus normative analysis. The Scientific method; the role of assumptions; models and mathematics; why economists sometimes disagree. Interdependence and gains from trade; specialisation and trade; absolute advantage; comparative advantage and trade

Unit 2
Supply and demand: Markets and welfare Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets. Application to international trade; comparison of

equilibria with and without trade, the winners and losers from trade; effects of tariffs and quotas; benefits of international trade; some arguments for restricting trade

The households The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labour supply and savings decision - choice between leisure and consumption

The Firm and Perfect Market Structure Behaviour of profit maximizing firms and the production process; short run costs and output decisions; costs and output in the long run

Imperfect Market Structure Monopoly and anti-trust policy; government policies towards competition; imperfect competition

Input Markets Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; and labour markets and public policy

References

1. Bernheim, B., Whinston, M. (2009). *Microeconomics*. Tata McGraw-Hill.
2. Mankiw, N. (2007). *Economics: Principles and applications*, *4th ed.* Cengage Learning.

Teaching Learning Process
Lectures and tutorials

Keywords
Supply, demand, elasticity, consumer behaviour, firm behaviour, perfect and imperfect markets

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HEG021: Introductory Macroeconomics
Generic Elective (GE)   Credit: 6

Course Objective
This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like GDP, savings, investment, money, inflation, and the balance of payments. It also introduces students to simple analytical frameworks (e.g., the IS-LM model) for determination of equilibrium output.

Course Learning Outcomes
This course will allow students to understand the basic functioning of the macroeconomy.

Unit 1
Introduction to macroeconomics and national income accounting Basic issues studied in macroeconomics; measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current and capital accounts

Unit 2
Money Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy

Unit 3
Inflation Inflation and its social costs; hyperinflation

Unit 4
The closed economy in the short run Classical and Keynesian systems; simple Keynesian model of income determination; IS-LM model; fiscal and monetary multipliers

References

1. Abel, A., Bernanke, B. (2016). *Macroeconomics*, *9th ed*. Pearson Education.
2. Blanchard, O. (2018). *Macroeconomics*, *7th ed*. Pearson Education.
3. Dornbusch, R., Fischer, S., Startz, R. (2018). *Macroeconomics*, *12th ed*. McGraw-Hill.
4. Jones, C. (2016). *Macroeconomics, 4th ed.* W. W. Norton.
5. Mankiw, N. (2016). *Macroeconomics, 9th ed.* Worth Publishers.

Teaching Learning Process
Lectures and tutorials

Keywords
GDP, BOP, money, inflation, classical model, Keynesian model

HEG031: Data Analysis
Generic Elective (GE)   Credit: 6

Course Objective
This is a skill enhancement course for data analysis. The students will be given hands on training on using statistical and computing software to better visualize and understand data concepts. The course is to be delivered through 2 classroom lectures and 4 computer lab classes per week.

Course Learning Outcomes
The course will use data simulations and publicly available data sources to help students learn about data types, their organization and visual representation. They will learn how to compute summary statistics and do some basic statistical inference.

Unit 1
Introduction to the course: How can the representation and analysis of data help us study real-world problems. Publicly available data sets

Using Data: Available statistical software, steps in data storage, organization and cleaning

Unit 3
Visualization and Representation: Alternative forms of presenting summarizing and presenting data

Unit 4
Simple estimation techniques and tests for statistical inference

References

1. Levine, D., Stephan, D., Szabat, K. (2017). *Statistics for managers using Microsoft Excel*, *8th ed*. Pearson.
2. Tattar, P.*,* Ramaiah, S., Manjunath, B. (2018). *A course in statistics with R.* Wiley.

Teaching Learning Process
Lectures and tutorials

Assessment Methods
Internal assessment and final examination as per CBCS rules

Keywords
Data representation, statistical software, estimation

HEG032: Money and Banking
Generic Elective (GE)   Credit: 6

Course Objective
This course highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Course Learning Outcomes
This course exposes students to the theory and functioning of the monetary and financial sectors of the economy.

Unit 1
Money Concept, functions, measurement; theories of money supply determination

Unit 2
Financial institutions, markets, instruments and financial innovations
Role of financial markets and institutions; problem of asymmetric information –
adverse selection and moral hazard; financial crises

Money and capital markets: organisation, structure and reforms in India; role of financial derivatives and other innovations

Unit 3
Interest rates Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India

Unit 4
Banking system Balance sheet and portfolio management.

Indian banking system: Changing role and structure; banking sector reforms.

Unit 5
Central banking and monetary policy Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India

References

1. Bhole, L., Mahukud, J. (2017). *Financial institutions and markets, 6th ed.* Tata McGraw-Hill.
2. Fabozzi, F., Modigliani, F., Jones, F., Ferri, M. (2010). *Foundations of financial markets and institutions*, *4th ed*. Pearson Education.
3. Khan, M. (2015). *Indian financial system*, *9th ed*. Tata McGraw-Hill.
4. Mishkin, F., Eakins, S. (2017). *Financial markets and institutions*, *8th ed.* Pearson.
5. Various latest issues of RBI Bulletins, Annual Reports, Reports on Currency and Finance, and Reports of the Working Group, IMF Staff Papers.

Teaching Learning Process
Lectures and tutorials

Keywords
Money, financial institutions, financial innovations, interest rate, banking, monetary policy

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HEG033: Indian Economy I
Generic Elective (GE)   Credit: 6

Course Objective
This course reviews major trends in aggregate economic indicators in India and places these against the backdrop of major policy debates in India in the post-independence period.

Course Learning Outcomes

This course will help students understand the key issues related to the Indian economy. It will broaden their horizons and enable them to analyze current economic policy thus improving their chances of getting employed, and be more effective, in positions of responsibility and decision making.

The course also serves as the base for further study of sector specific policy discussion that is pursed in the course in the next semester.

Unit 1

Issues in Growth, Development and Sustainability

Unit 2

Factors in development: Capital formation (physical and human); technology; institutions

Unit 3

Population and economic development: Demographic trends; urbanisation

Unit 4

Employment: Occupational structure in the organised and unorganised sectors; open-, under- and disguised- unemployment (rural and urban); employment schemes and their impact

Unit 5

Indian development experience: Critical evaluation of growth, inequality, poverty and competitiveness, pre- and post- reform eras

References

Given the current nature of the course, the readings will be updated every year. Selected chapters will be prescribed from:

1. Agrawal, P. (ed.) (2018). *Sustaining high growth in India,* Cambridge University Press.
2. Balakrishnan, P. (2007). The recovery of India: Economic growth in the Nehru era. *Economic and Political Weekly*, 42(45-46), 52-66.
3. Bloom, D. (2012). Population dynamics in India and implications for economic growth. In C. Ghate (ed.): *The Oxford handbook of the Indian economy*. Oxford University Press.
4. Case, K., Fair, R. (2007). *Principles of economics, 8th ed.* Chapter 31. Pearson.
5. Dreze, J., Sen, A. (2013). *India: An uncertain glory*. Allen Lane.
6. Kapila, U. (2009). *Economic development and policy in India*. Academic Foundation.
7. Kapila, U. (2015). *Indian economy since independence, 26th ed.* Academic Foundation.
8. Mehrotra, S. (2015). *Realising the demographic dividend: Policies to achieve inclusive growth in India.* Cambridge University Press.
9. Ministry of Finance. *Economic survey* (latest)
10. Ministry of Finance. *Finance commission report* (latest)

11. Mohan, R. (2014). Pressing the Indian growth accelerator: Policy imperatives. *IMF papers.*
12. Todaro, M., Smith, S. (2011). *Economic development, 11th ed.* Pearson.
13. United Nations Development Programme. (2010). *Human development report 2010.* Palgrave Macmillan.

Teaching Learning Process
Lectures and tutorials

Keywords
Indian economic development, government policy

HEG034: Economic History of India
Generic Elective (GE)   Credit: 6

Course Objective
This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

Course Learning Outcomes
The course exposes the students to understanding the intricacies of India's economic, political and social developments both in the past and present times. It develops analytical skills, and will be useful in a variety of careers in academics, research, journalism, private sector and government.

Unit 1
Colonial India: Background and introduction

Unit 2
Macro trends in national income, population, labour and occupational structure

Unit 3
Agriculture, agrarian structure and land relations

Unit 4
Railways and industry

Unit 5
Economy and state in the imperial context

References

Some readings may be updated from year to year.

1. Chatterjee, B. (1992). *Trade, tariffs and empire*. Oxford University Press.

2. Chaudhary, L., Gupta, B., Roy, T., Swami, A. (eds.) (2016). *A new economic history of colonial India*. Chapters 4, 7, 9. Routledge.
3. Guha, S. (1991). Mortality decline in early 20th century India. *Indian Economic and Social History Review,* 28(4), 371-87.
4. Habib, I. (2006). *Indian economy 1858-1914: A people's history of India.* Chapter 3. Tulika.
5. Klein, I. (1984). When rains fail: Famine relief and mortality in British India. *Indian Economic and Social History Review,* 21 (2), 185-214.
6. Kumar, D. (ed.) (1982). *Cambridge economic history of India, c.1751-c.1970 2*. Chapters 8, 12. Orient Longman.
7. Morris, M. (1965). *Emergence of an industrial labour force in India*. Chapter 11. Oxford University Press.
8. Parthasarathy, P. (2011). *Why Europe grew rich and Asia did not: Global economic divergence, 1600-1850*. Chapters 2, 8. Cambridge University Press.
9. Parthasarathi, P. (2009). Historical issues of deindustrialization in nineteenth century South India. In T. Roy, G. Riello (eds.): *How India clothed the world: The world of South Asian textiles, 1500-1850*. Brill.
10. Roy, T. (2018). *A business history of India: Enterprise and the emergence of capitalism from 1700*. Chapters 4, 5. Cambridge University Press.
11. Roy, T. (2011). *The economic history of India 1857-1947, 3rd ed.* Chapters 3, 11. Orient Longman.
12. Subramanian, L. (2010). *History of India 1707-1857*. Chapter 4. Orient Blackswan.
13. Tomlinson, B. (1975). India and the British Empire 1880-1935. *The Indian Economic and Social History Review,* 12(14), 337-380.
14. Washbrook, D. (2012). The Indian economy and the British empire. In D. Peers, N. Gooptu (eds.): *India and the British empire*. Oxford University Press.

Teaching Learning Process
Lectures and tutorials

Keywords
Colonial India, agriculture, industry, demography

HEG041: Public Finance
Generic Elective (GE)   Credit: 6

Course Objective
This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralisation in India. The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

Course Learning Outcomes

The module aims to introduce students to the main concepts in public finance, equip students with a thorough analytical grasp of government taxes: direct and indirect taxes, and familiarise students with the main issues in government expenditure. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of public finances, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various government policy options, and demonstrate their understanding of the usefulness and problems related to government revenues and expenditures.

Unit 1

Theory: Overview of Fiscal Functions, Tools of Normative Analysis, Pareto Efficiency, Equity and the Social Welfare; Market Failure, Public Good and Externalities; Elementary Theories of Product and Factor Taxation (Excess Burden and Incidence)

Unit 2

Issues from Indian Public Finance: Working of Monetary and Fiscal Policies; Current Issues of India's Tax System; Analysis of Budget and Deficits; Fiscal Federalism in India; State and Local Finances

References

1. Alam, S. (2016). GST and the states: sharing tax administrations. *Economic and Political Weekly,* 51(31).
2. Cullis, J., Jones, P. (1998). *Public finance and public choice*, *2nd ed*. Oxford University Press.
3. Das, S. (2017). Some concepts regarding the goods and services tax. *Economic and Political Weekly,* 52(9).
4. Government of India. (2017). *GST - Concept and status - as on 3rd June, 2017*. Central Board of Excise and Customs, Department of Revenue, Ministry of Finance.
5. Hindriks, J., Myles, G. (2013). *Intermediate public economics*, *2nd ed*. MIT Press.
6. Rao, M. (2005). Changing contours of federal fiscal arrangements in India. In A. Bagchi (ed.): *Readings in public finance*. Oxford University Press.
7. Rao, M., Kumar, S. (2017). Envisioning tax policy for accelerated development in India. *Working Paper No. 190, National Institute of Public Finance and Policy*.
8. Reddy, Y. (2015). Fourteenth finance commission: Continuity, change and way forward. *Economic and Political Weekly,* 50(21), 27-36.
9. Stiglitz, J. (2009). *Economics of the public sector*, *3rd ed*. W. W. Norton.

Teaching Learning Process
Lectures and tutorials

Keywords
Taxation, public expenditure, policy

HEG042: Indian Economy II
Generic Elective (GE)   Credit: 6

Course Objective
The course seeks to equip students with sector-specific knowledge and skills to analyse key economic issues and policy documents. It will also enable them to relate theoretical frameworks of macroeconomics and microeconomics to the Indian context.

Course Learning Outcomes
Students will have capability to understand government policies and will enable informed participation in economic decision making, thus improving their employment prospects and career advancement.

Unit 1
Macroeconomic policies and their Impact: Fiscal, financial and monetary policies

Unit 2
Agriculture: Policies and performance; production and productivity; credit; labour; markets and pricing; land reforms; regional variations

Unit 3
Industry: Policies and performance; production trends; small scale industries; public sector; foreign investment, labour regulation

Unit 4
Services and trade: Trends and performance; trade and investment policy

References

Given the nature of the course, readings will be updated every year.

1. Anant, T. (2006). Institutional reforms for agriculture growth. In N. Majumdar, U. Kapila (eds.): *Indian agriculture in the new millennium: Changing perceptions and development* policy, Vol. 2. Academic Foundation.
2. Balakrishnan, P. (2014). The great reversal: A macro story. *Economic and Political Weekly,* 49 (21), 29-34.
3. Bhaduri, A. (2012). Productivity and production relations: The case of Indian agriculture. In A. Bhaduri (ed.): *Employment and development*. Oxford University Press.
4. Bhagwati, J., Panagariya, A. (2012). A multitude of labor laws and their reforms. In *India's tryst with destiny*. Collins Business.
5. Chanda, R. (2012). Services led growth. In K. Basu, A. Maertens (eds.): *New Oxford companion to economics in India.* Oxford University Press.
6. De, S. (2012). *Fiscal policy in India: Trends and trajectory.* Ministry of Finance Working Paper.

7. Dev, M. (2012). Agricultural development. In K. Basu, A. Maertens (eds.): *New Oxford companion to economics in India.* Oxford Unversity Press.
8. Dev, S., Rao, N. (2010). Agricultural price policy, farm profitability and food security. *Economic and Political Weekly,* 45 (26-27), 174-181.
9. Dhar, B. (2015). India's new foreign trade policy. *Economic and Political Weekly,* 50(16), 14-16.
10. Ghatak, M. (2012). Land reforms. In K. Basu, A. Maertens (eds.): *New Oxford companion to economics in India*. Oxford University Press.
11. Gulati, A., Saini, S. (2017) 25 years of policy tinkering in agriculture. In R. Mohan (ed.): *India transformed: 25 years of economic reforms.* Penguin.
12. Kanagasabapathy, K., Tilak, V., Krishnaswamy, R. (2013). A rethink on India's foreign trade policy. *Economic and Political Weekly,* 48 (31),137-139.
13. Kumar, N. (2015). FDI and portfolio investment flows and development: A perspective on Indian experience. In U. Kapila (ed.): *Indian economy since independence*, *26th ed*. Academic Foundation.
14. Ministry of Finance. Clothes and shoes: Can India reclaim small scale manufacturing? *Economic Survey, 2016-17, 1.*
15. Nagaraj, R. (2017). Economic reforms and manufacturing sector growth. *Economic and Political Weekly,* 52(2), 61-68.
16. Nayak, P. (2012). Privatization. In K. Basu, A. Maertens (eds.): *New Oxford companion to economics in India*. Oxford University Press.
17. Panda, M. (2017). Macroeconomic scenario and policy options. In M. Dev (ed.): *India development report 2017*. Oxford University Press.
18. Vaidyanathan, A. (2012). Irrigation. In K. Basu, A. Maertens (eds): *New Oxford companion to economics in India*. Oxford University Press.

Teaching Learning Process
Lectures and tutorials

Keywords
Indian economic development, government policy

HEG043: Global Political Economy
Generic Elective (GE)   Credit: 6

Course Objective
This generic elective course introduces students to the contemporary structures, trends and developments in the Global Economy through a Political Economy lens. It explores the period since the end of Second World War up to recent global economic crisis – from the 'Golden age of capitalism' to the 'neoliberal' shift. It particularly explores changes in the organization of production and corporate structure along with changes in labour processes and labour regimes and also the increasing dominance of finance in the contemporary world. It also examines the shifts in the nature, scope and ideology of the state under globalisation.

Course Learning Outcomes

This course enables students who have not studied economics at the undergraduate level to develop a critical understanding of the contemporary global economy. It enables them to form a more informed view of the world we inhabit by analyzing some of the economic trends and developments over the last five or six decades. As the economy is a crucial sphere both of social life in general and the world of work in particular, an analytical exposure to the structures, institutions and processes of the global economy will thus enrich their comprehension of the contemporary world. With such a comprehension, students from all backgrounds will thus be better prepared to face the professional world and can use the knowledge base of this course for facing the challenges of group discussions and general interviews for corporate or civil service jobs. Students of other social sciences and humanities, who intend to pursue higher studies and research, will also immensely benefit from this course by being able to develop an interdisciplinary understanding of basic economic structures and processes, which are often crucial to the understanding of their core subjects.

Unit 1

Introduction and overview: Perspectives on political economy of globalisation with a historical overview

Unit 2

Changing dynamics of capitalist production, organisational forms and labour processes: Fordist and post-Fordist production regimes; multinational corporations – evolution, structural form and dynamics; global value chains and production networks; the changing nature of employment, job security and labour rights in a globalised economy

Unit 3

The political economy of global trade: Structure and institutions of the international trade regime

Unit 4

The role of finance in the globalised economy: financialisation of the global economy – trends, instruments, features and consequences

Unit 5

The state in the era of globalisation: Globalisation and the limits of the welfare and developmental states; the neoliberal state.

Unit 6

Global economic instability and crisis: The 2008 global economic crisis – prelude, proximate and long term causes; possibility of recurring crises.

References

1. Bhaduri, A. (2002). Nationalism and economic policy in the era of globalization. In D. Nayyar (ed.): *Governing globalization: Issues and institutions*. Oxford University Press.
2. Chang, D. (2009). Informalising labour in Asia's global factory. *Journal of Contemporary Asia,* 39, 161-179.

3. Dore, R. (2008). Financialisation of the global economy. *Industrial and Corporate Change,* 17, 1097-1112.
4. Harvey, D. (2005). *A brief history of neoliberalism.* Introduction, Chapters 1-3. Oxford University Press.
5. Hymer, S. (1975). The multinational corporation and the law of uneven development. In H. Radice (ed.): *International firms and modern imperialism.* Penguin Books.
6. Nayyar, D. (2003). Globalisation and development. In H.-J. Chang (ed.): *Rethinking development economics.* Anthem Press.
7. Reddy, N. (2003). Economic globalisation, past and present: The challenges to labour. In K. Jomo, K. Jin (eds): *Globalization and its discontents, revisited.* Tulika Books.
8. Rodrik, D. (2011). *The globalization paradox: Why global markets, states and democracy can't coexist*. Oxford University Press.
9. Thun, E. (2011). The globalization of production. In J. Ravenhill (ed.): *Global political economy.* Chapter 11. Oxford University Press.
10. Tonkiss, F. (2008). *Contemporary economic sociology: Globalisation, production, inequality.* Chapter 4. Routledge.
11. Vakulabharanam, V. (2009). The recent crisis in global capitalism: Towards a Marxian understanding. *Economic and Political Weekly,* 44, 144-150.
12. Varoufakis, Y. (2011). *The global Minotaur*: *America, the true origins of the financial crisis and the future of the world economy*. Zed Books.
13. Winham, G. (2011). The evolution of the global trade regime. In J. Ravenhill (ed.): *Global political economy.* Oxford University Press.

Teaching Learning Process
Lectures and tutorials

Keywords
Fordism, globalisation, MNCs, global production networks, labour flexibility, informalisation, global trade regime, financialisation, state under globalisation, neoliberalism, economic crisis

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HEG044: Game Theory
Generic Elective (GE)   Credit: 6

Course Objective
Game theory is used in various fields, such as economics, biology, business, law, politics, sociology, and computer science. The purpose of this course is to introduce the basics of game theory to undergraduate students in various disciplines. Game Theory introduces the students to optimal decision making under an interactive settings. This course introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems in various disciplines. The course will deal with the solution concepts for normal form and extensive form games along with a variety of applications. Ideas related to asymmetric information among the interacting agents would also be analysed in this course. The course ends with the

application of game theory to analyse moral hazard, adverse selection and signalling problems.

Course Learning Outcomes
The students will learn how to model multi-person decision-making in an interactive setting. They will understand how to formulate different real life situations as games and learn to predict the optimal strategies of players and how the players can exploit strategic situations for the benefit of their own.

Unit 1
Normal form games. The normal form; dominant and dominated strategies; dominance solvability; mixed strategies; Nash equilibrium; symmetric single population games; applications

Unit 2
Extensive form games with perfect information. The game tree; strategies; subgame perfection; backward induction in finite games; commitment; bargaining; other applications

Unit 3
Simultaneous move games with incomplete information. Strategies; Bayesian Nash equilibrium; applications

Unit 4
Extensive form games with imperfect information. Strategies; beliefs and sequential equilibrium; applications

Unit 5
Information economics. Adverse selection; moral hazard; signalling games

References

1. Osborne, M. (2004). *An introduction to game theory*. Oxford University Press.

Teaching Learning Process
Lectures and tutorials

Keywords
Normal form games, extensive form games, complete information, Nash equilibrium, subgame perfect equilibrium, incomplete information, Bayesian Nash equilibrium, sequential equilibrium

HES301: Data Analysis
Skill Enhancement Elective Courses (SEC)   Credit: 4

Course Objective
This is a skill enhancement course for data analysis. The students will be given hands on training on using statistical and computing software to better visualize and understand data concepts. The course is designed to be delivered through 2 classroom lectures and 4 computer lab classes per week.

Course Learning Outcomes
The course will use data simulations and publicly available data sources to help students learn about data types, their organization and visual representation. They will learn how to compute summary statistics and do some basic statistical inference.

Unit 1
Introduction to the course: How can the representation and analysis of data help us study real-world problems. Publicly available data sets

Unit 2
Using Data: Available statistical software, steps in data storage, organisation and cleaning

Unit 3
Visualisation and Representation: Alternative forms of presenting summarising and presenting data

Unit 4
Simple estimation techniques and tests for statistical inference

References

1. Levine, D., Stephan, D., Szabat, K. (2017). *Statistics for managers using Microsoft Excel*, *8th ed*. Pearson.
2. Tattar, P.*,* Ramaiah, S., Manjunath, B. (2018). *A course in statistics with R.* Wiley.

Teaching Learning Process
Lectures and tutorials

Keywords
Data representation, statistical software, estimation

HES401: Research Methodology
Skill Enhancement Elective Course (SEC)   Credit: 4

Course Objective
The course begins with the formulation of a research problem and covers the issues concerning the generation of primary sample data. In this regard the designing of a questionnaire, the methods of design of a sample and its size, the modes of data collection from direct interview to online surveys, the appreciation of possible sources of errors, and the cleaning of data forms the bulk of the classroom instruction.

Course Learning Outcomes
The course imparts skills to undertake data based research. The student enrolling in this course would develop competency in executing sample surveys and would have reasonable exposure to a variety of secondary data sources.

Unit 1
Data types and sources: Qualitative and quantity data, measurement and scales; secondary sources of data and institutions

Unit 2
Sample questionnaires: Measurement and scales; questionnaires

Unit 3
Sample type and size: Simple random sampling; cluster sampling; stratified sampling and its complications; Determining an appropriate size

Unit 4
Errors in surveys: Misunderstanding of questions and answers; problem of non-response

Unit 5
Processing of survey data: Cleaning of data and its coding

Unit 6
Ethics and scientific integrity: Standards of conduct, privacy in data

References

1. Bethlehem, J. (2009). *Applied survey methods: A statistical perspective.* Wiley.
2. Cochran, W. (2008). *Sampling techniques, 3rd ed.* Wiley.
3. Cooper, D., Schindler, P., Sharma, J. (2012). *Business research methods*, *12th ed.* McGraw-Hill.
4. Flick, U. (2012). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications.
5. Groves, R., Fowler, F., Couper, M., Lepkowski, J., Singer, E., Tourangeau, R. (2009). *Survey Methodology*. Wiley.
6. Kumar, R. (2014). *Research methodology: A step by step guide for beginners*, *4th ed.* Sage Publications.

HES402: Contemporary Economic Issues
Skill Enhancement Elective Courses (SEC)   Credit: 4

Course Objective
The course seeks to familiarize students with basic concepts related to the Economic Survey and Union Budget. It aims to equip students with sufficient knowledge and skills to analyse these documents.

Course Learning Outcomes
Students will have the capability to understand government policies and will in general be informed participants in economic decision making.

Unit 1
Concepts

- Fiscal policy, areas of government spending in India
- Capital and revenue expenditure, plan and non-plan expenditures
- Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy
- Capital receipts, revenue receipts, tax and non-tax revenue, direct and and indirect taxes, need for rationalisation of tax structure, Goods and Services Tax (GST)
- Actual, revised and budget estimates
- Zero-base budgeting
- Gender budgeting
- Fiscal devolution and centre-state financial relations

Unit 2
The economic survey

- Analysis of current and past policy emphasis

Unit 3
The union budget

- Need for the budget, understanding the process of budget making in India
- Analysis of fiscal and revenue deficits
- Analysis of sources of revenue and expected growth in revenue, tax simplification, improvement in administration, expansion of tax net and other measures to improve revenue receipts,

- Analysis of expenditure pattern and expected growth in expenditure, thrust areas of budget, sectors that have received higher/lower shares of expenditure, the reasons and consequences thereof, steps proposed to ensure effective spending

References

Given the nature of the course, the readings will be updated every year.

1. Centre for Budget and Governance Accountability. Recent reports.
2. Chakraborty, P. (2015). Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (ed.): *Macroeconomics*. Oxford University Press.
3. Dasgupta, D., De, S. (2012). Fiscal deficit. In *The new Oxford companion to economics in India*. Oxford University Press.
4. Kapila, U. (2016). *Fiscal and budgetary developments in Indian economy since independence*. Academic Foundation.
5. Ministry of Finance. Economic and social classification of the budget.
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7. Ministry of Finance. Finance Commission report (latest).
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10. Mukherjee, S. (2015). Present state of goods and services tax (GST) reform in India. Working Paper No. 154. *National Institute of Public Finance and Policy*.
11. Reddy, Y. (2015). Continuity, change and the way forward: The fourteenth finance commission. *Economic and Political Weekly,* 50(21), 27-36.
12. Spiegel, M. (2003). *Theory and problems of probability and statistics*. Chapter 19. McGraw-Hill.

Teaching Learning Process
Lectures and tutorials

Keywords
Union budget, economic survey, government policy