

SEMESTERS –IV and V

ECONOMICS

DEPARTMENT OF ECONOMICS

Category I

**Economics Courses for Undergraduate Programme of study with
Economics as a Single Core Discipline
(B.A. Honours in Economics in three years)**

STRUCTURE OF FOURTH SEMESTER

DISCIPLINE SPECIFIC CORE COURSE -10 (DSC-10): Intermediate Microeconomics II: Market, Government and Welfare

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Intermediate Microeconomics II:Market, Government and Welfare -ECON010	4	3	1	0	Class 12th with Mathematics	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- This course introduces students to analysis of multi-commodity markets.
- The efficiency results, known as welfare theorems, are central to understanding of market economy.
- The course also discusses inefficiencies coming from market concentration and externalities.
- It further would discuss the role of government to deal with the inefficiencies and resultant welfare outcomes.

Learning outcomes

The Learning outcomes of this course are as follows:

- This course helps the students to understand efficiency of markets and the environment where the standard market mechanism fails to generate the desirable outcomes in simple general equilibrium settings.
- The issues of market imperfection and market failures lead students to the economics of policy

design. The students will learn the efficacy of government interventions for the improved welfare.

Syllabus

UNIT I: Monopoly (9 hours)

Monopoly pricing, Inefficiency, Price discrimination, Regulation

UNIT II: General equilibrium (9 hours)

Exchange economy, Robinson Crusoe economy, Pareto optimality, Welfare theorems, Welfare and social choice

UNIT III: Models of Monopolistic Competition (9 hours)

Firms with differentiated products, mark-up, short-run and long-run equilibrium

UNIT IV: Externalities (9 hours)

Market inefficiency under externalities, Pigou tax, Coase theorem, Market creation and other solutions

UNIT V: Public Good (9 hours)

Inefficiency of market equilibrium, Optimal public good provision, Free rider problem, Lindahl taxes

Recommended readings

- Serrano, Roberto and Feldman, Alan (2012), *A short course in intermediate Microeconomics with Calculus*, Cambridge University Press
- Espinola-Arredondo, Ana and Munoz-Garaia, Felix (2020), *Intermediate Microeconomic Theory*, MIT Press
- Munoz-Garaia, Felix (2017) *Practice Exercises for Advanced Microeconomic Theory*, MIT Press.
- Dunaway, Eric; Strandholm, John C., Espinola-Arredondo, Ana and Munoz-Garcia, Felix (2020) *Practice Exercises for Intermediate Microeconomic Theory*, MIT press

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE -11 (DSC-11): Intermediate Macroeconomics II: Policy Issues

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Intermediate Macroeconomics Policy Issues ECON011	4	3	1	0	Class 12th with Mathematics	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- This course trains the students in policy issues faced by macroeconomists in the real world.
- It discusses issues in monetary and fiscal policies as well as exchange rate dynamics.
- It also introduces the students to the financial system and dynamics of financial crises.
- The students are introduced to macroeconomic concepts in the context of open economies and the policy issues therein.

Learning outcomes

The Learning outcomes of this course are as follows:

- This course enables students to analyse the functioning of macroeconomic policies in the real world in both closed and open economies, understand the dilemmas faced by the policymakers both in the domestic economy and in the globalised world.

Syllabus

UNIT I: Fiscal and monetary policies (15 hours)

Active or passive monetary policies; time inconsistency, monetary policy objectives and targets; rules versus discretion, IS-PC-MR model, fiscal policy, the government budget constraint; government debt and Ricardian equivalence.

UNIT II: Financial markets and crisis (15 hours)

Introduction to financial markets, Financial crises and liquidity trap

UNIT III: Issues in open economy (15 hours)

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.

Recommended readings

- Blanchard, O. (2006). *Macroeconomics*, 4th, 6th and 7th ed. Pearson Education.
- Salvatore, D. (2007), *International Economics*, Wiley.
- Dornbusch, R., Fischer, S. (1994). *Macroeconomics*, 6th ed. McGraw-Hill.
- Mishkin, Frederic (2012). *Macroeconomics: Policy & Practice*, Pearson.
- Jones, C. (2016). *Macroeconomics*, 4th ed. W. W. Norton.
- Carlin, Wendy and Soskice, David (2015) *Macroeconomics: Institutions, Instability and the Financial System*. Oxford University Press.

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DISCIPLINE SPECIFIC CORE COURSE -12 (DSC-12): Introductory Econometrics

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Introductory Econometrics ECON012	– 4	3	0	1	Class 12th with Mathematics	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- This course introduces a basic set of the econometric methods to conduct empirical analysis in economics and social sciences.
- 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.
- The tools of econometrics will be useful to establish relationships among economic variables.
- This course will be taught as a combination of theory and practicals.

Learning outcomes

The Learning outcomes of this course are as follows:

- The students will be able to estimate linear models using the method of ordinary least squares and make inferences about population parameters.
- They will also understand the issues of estimation arising due to misspecification of models and violations of assumptions.
- Students will also gain hands-on-experience of applying the concepts learnt to a wide range of problems using econometric software.

Syllabus

UNIT I: Linear Regression Model (9 hours)

OLS method of Estimation and Properties of estimators, Measures of Fit, Testing of Hypotheses, Prediction, Introduction to econometric software and practical application using econometric software (GRETLE/Views/ R/Stata/EXCEL etc.)

UNIT II: Multiple Regression Model (9 hours)

OLS method of estimation and Properties of OLS estimators, Testing of Hypotheses, Measures of fit, practical application using econometric software (GRETLE/Views/ R/Stata/EXCEL etc.)

UNIT III: Functional Forms and Qualitative independent variables (9 hours)

Nonlinear Models and Transformations of Variables, Dummy variables, practical application using econometric software (GRETLE/Views/ R/Stata/EXCEL etc.)

UNIT IV: Violations of Assumptions (9 hours)

Consequences, Detection, and Remedies: Multicollinearity, Heteroscedasticity, Serial Correlation, practical application using econometric software (GRETLE/Views/R/Stata/EXCEL etc.)

UNIT V: Specification Bias (9 hours)

Model selection criteria, types of specification errors, omitted variable bias, inclusion of irrelevant variables, incorrect functional form, errors of measurement, practical application using econometric software (GRETLE/Views/ R/Stata/EXCEL etc.)

Recommended readings

- James H. Stock and Mark W. Watson (2019) *Introduction to Econometrics*, Fourth Edition, Pearson.
- Wooldridge, J. M. (2019). *Introductory econometrics: A modern approach*. 7th edition, Cengage learning.

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Category II

Economics Courses for Undergraduate Programme of study with Economics as one of the Core Disciplines (B.A. Programmes with Economics as Major discipline)

DISCIPLINE SPECIFIC CORE COURSE -7 (DSC-7): Intermediate Macroeconomics I: Foundations of Aggregate Income Determination

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Intermediate Macroeconomics I: Foundations of Aggregate Income Determination – ECON008	4	3	1	0	Class 12th with Mathematics	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- This course builds upon the basic concepts of macroeconomics. It introduces labour markets and the aggregate supply (AS) curve.
- Aggregate Demand (AD) and Aggregate Supply (AS) are brought together to determine equilibrium prices and output examine the policy impacts.
- The course discusses Phillips curve and the alleged trade-off between inflation and unemployment. Both adaptive and rational expectations are introduced.
- A flavour of micro-foundations is introduced with respect to consumption and investment.

Learning outcomes

The Learning outcomes of this course are as follows:

- This course enables students to analyse the interaction of aggregate demand and supply and the effects of fiscal and monetary policy, trade-off between inflation and unemployment, and consumption and investment behaviour of the households.

Syllabus

UNIT I: Short-run and medium-run equilibrium (15 hours)

The labour market, Wage determination; wages, prices, and unemployment; natural rate of unemployment; from employment to output, Derivation of aggregate supply curve, Interaction of aggregate demand and supply to determine equilibrium output, price level and employment.

UNIT II: Philips Curve and Theory of Expectations (15 hours)

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

UNIT III: Microeconomic foundations of macroeconomic behaviours (15 hours)

Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; other theories of consumption expenditure.

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

Recommended readings

- Blanchard, O. (2006). *Macroeconomics*, 4th ed. Pearson Education.
- C.L.F. Attfield, D. Demery and N.W. Duck (1991). *Rational Expectations in Macroeconomics: an introduction to theory and evidence* 2nd Ed.
- Sheffrin, Steve (1996). *Rational Expectations*. 2nd ed., Cambridge University Press.
- Dornbusch, R., Fischer, S. (1994). *Macroeconomics*, 6th ed., McGraw-Hill.
- Branson, W. (2013). *Macroeconomics: Theory and policy*, 3rd ed, East West Press.
- Carlin, W and D Soskice (2007), *Macroeconomics: Imperfections, Institutions and Policies*, Indian Edition, OUP.

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DISCIPLINE SPECIFIC CORE COURSE -8 (DSC-8): Basic Econometrics

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Basic Econometrics – ECON024	4	3	1	0	Class 12th with Mathematics	Basic Statistics for Economics (ECON022)

Learning Objectives

The Learning Objectives of this course are as follows:

- This course introduces students to the econometric methods used to conduct empirical analysis based on the basic statistics.
- It offers the basic quantitative techniques needed to undertake applied research projects to establish the relationship between variables of interests across wide variety of disciplines.

Learning outcomes

The Learning outcomes of this course are as follows:

- Students will learn to estimate simple estimation and inferences about population parameters, to formulate empirical models and analyze data.
- An expertise in econometrics increases the job prospect of the students significantly.

Syllabus

UNIT I: Regression Models (15 hours)

OLS estimators, hypothesis Testing using software and practical application; multiple Regression Model - estimation, Testing and practical application using software like GRETL/EViews/ R/Stata/EXCEL etc.

UNIT II: Qualitative variables and Estimation (15 hours)

Application of qualitative variables, Nonlinear Models, Applications of dummy variables

UNIT III: Issues with Classical Assumptions (15 hours)

Violation of normal distribution, Collinearity with independent variables, heteroscedasticity, autocorrelation, practical application

Recommended readings

- Christopher Dougherty, *Introduction to Econometrics*, 4th edition, OUP, Indian edition.
- Damodar Gujarati, *Econometrics by Example*, 2nd edition, Palgrave Macmillan, 2014.
- Gujarati, D., Porter, D. (2010). *Essentials of Econometrics*, 4th ed. McGraw-Hill.

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Category III

Economics Courses for Undergraduate Programme of study with Economics as one of the Core Disciplines (B.A. Programmes with Economics as non-Major or Minor discipline)

DISCIPLINE SPECIFIC CORE COURSE -4 (DSC-4): Intermediate Macroeconomics I: Foundations of Aggregate Income

Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
		Lecture	Tutorial	Practical/ Practice		
Intermediate Macroeconomics I: Foundations of Aggregate Income Determination – ECON008	4	3	1	0	Class 12th with Mathematics	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- This course builds upon the basic concepts of macroeconomics. It introduces labour markets and the aggregate supply (AS) curve.
- Aggregate Demand (AD) and Aggregate Supply (AS) are brought together to determine equilibrium prices and output examine the policy impacts.
- The course discusses Phillips curve and the alleged trade-off between inflation and unemployment. Both adaptive and rational expectations are introduced.
- A flavour of micro-foundations is introduced with respect to consumption and investment.

Learning outcomes

The Learning outcomes of this course are as follows:

- This course enables students to analyse the interaction of aggregate demand and supply and the effects of fiscal and monetary policy, trade-off between inflation and unemployment, and consumption and investment behaviour of the households.

Syllabus

UNIT I: Short-run and medium-run equilibrium (15 hours)

The labour market, Wage determination; wages, prices, and unemployment; natural rate of unemployment; from employment to output, Derivation of aggregate supply curve, Interaction of aggregate demand and supply to determine equilibrium output, price level and employment.

UNIT II: Philips Curve and Theory of Expectations (15 hours)

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

UNIT III: Microeconomic foundations of macroeconomic behaviours (15 hours)

Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; other theories of consumption expenditure.

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

Recommended readings

- Blanchard, O. (2006). *Macroeconomics*, 4th ed. Pearson Education.
- C.L.F. Attfield, D. Demery and N.W. Duck (1991). *Rational Expectations in Macroeconomics: an introduction to theory and evidence* 2nd Ed.
- Sheffrin, Steve (1996). *Rational Expectations*. 2nd ed., Cambridge University Press.
- Dornbusch, R., Fischer, S. (1994). *Macroeconomics*, 6th ed., McGraw-Hill.
- Branson, W. (2013). *Macroeconomics: Theory and policy*, 3rd ed, East West Press.
- Carlin, W and D Soskice (2007), *Macroeconomics: Imperfections, Institutions and Policies*, Indian Edition, OUP.

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