DEPARTMENT OF ECONOMICS

HIMACHAL PRADESH UNIVERSITY

[NAAC Accredited 'A' Grade University] Summer Hill, Shimla-171005



Regulations and Syllabus M.A. Programme in Economics

[CBCS]

Academic session 2022-23 onwards

Department of Economics

Syllabus of Master of Arts in Economics (MA Economics)

The following Credit Based Credit Scheme for M.A. in Economics to be offered by the PG Centre to regular students enrolled in the department only, prepared and proposed by the Department Council for implementation w.e.f. the academic session 2022-23 onwards was considered and approved by PG BoS on 18/05/2022 and by Faculty of Social Sciences on 15th July, 2022. The scheme is placed before the Academic Council for consideration and approval.

Table 1: Semester wise Courses with Codes, Credits, Contact Hours and Marks Scheme

Semester	Course Code	Nature of Course	Course Name	Credits	Theory Contact Hou (L-5Hrs/Tutorial -1 hour)		Marks Scheme		
Sei					Lecture Credits	Tutorial (Seminar/ Assignment/GD/Q uiz) Credits	Theory	Internal Assessment	
	MEC-11	DSC	Micro-Economics	5	4	1	80	20	
I	MEC-12	DSC	Elementary Mathematics for Economics	5	4	1	80	20	
	MEC-13	DSC	International Economics	5	4	1	80	20	
	MEC-14	DSC	Labour Economics	5	4	1	80	20	
	MEA-15	AECC -I	Data Management and Presentation Using Microsoft Excel	2	1	1	40	10	
			Sub Total -1	22	17	5	Marl	ks=450	
	MEC-21	DSC	Macro-Economics	5	4	1	80	20	
	MEC-22	DSC	Basic Statistics	5	4	1	80	20	
II	MEC-23	DSC	Money and Banking	5	4	1	80	20	
	MEC-24	DSC	History of Economic Thought	5	4	1	80	20	
	MEA-25	AECC -II	Evaluating Contemporary Economic Issues	2	1	1	40	10	
			Sub Total -1	22	17	7 5		Marks=450	
	MEC-31	DSC	Agricultural Economics	5	4	1	80	20	
	MEC-32	DSC	Gender Economics	5	4	1	80	20	
	MEC-33	DSC	Research Methodology	5	4	1	80	20	
	MEE-34 (i)	DSE-I	Economics of Population						
III	MEE-34 (ii)	OR DSE-II	Econometrics	5	4	1	80	20	
	MEG-35 (i)	GE-I	Fundamental Concepts in Economics	4	3	1	80	20	
			Sub Total - 3	(20 + 4) 24	(16 + 3) 19	(4 + 1) 5	Marks=500		
	MEC-41	DSC	Indian Economy	5	4	1	80	20	
	MEC-42	DSC	Public Finance	5	4	1	80	20	
IV	MEC-43	DSC	Economics of Development and Planning	5	4	1	80	20	
	MEE-44 (i)	DSE-III	PG Dissertation]	4	1	80	20	
	MEE-44 (ii)	OR DSE-IV	Industrial Economics	5					
	MEG-45	GE-II	Economy of Himachal Pradesh	4	3	1	80	20	
			Sub Total - 4	(20 + 4) 24	(16 + 3) 19	(4 + 1) 5	Marks=500		
			Grand Total* (1+2+3+4) [* Grand Total includes only courses offered by the Department of Economics to students enrolled in MA Economics Course]	₩ ₂ 92 ≼ ₩	272 3 272 3 W	\$\frac{1}{20} \times \frac{1}{20} \times \frac	Total Marks = 1900		

NOTE: In Reference to Table 1 The Following Points A – E Are Relevant:

- **A)** Course code descriptions: the codes for the four types of courses on offer are explained as follows:
 - 1. Discipline Specific Core Courses (DSC), e.g., MEC-11
 - 2. Discipline Specific Elective Courses (DSE) e.g., MEE-34
 - **3.** Generic Elective (GE) e.g., MEG-35 (i)
 - **4.** Ability Enhancement Compulsory Course (AECC) e.g., AECC-I

Here: In MEC: M denotes Master of Arts; E denotes Economics; C denotes Compulsory Course; in MEE: M denotes Master of Arts; E denotes Economics, E denotes Elective Course, in GE: G denotes Generic, E denotes Elective; in MEA: M denotes Master of Arts; E denotes Economics; A denotes Ability Enhancing Compulsory Course. The digits 11 represent 1st semester 1st course. Similarly, 34 represents 3rd Semester 4th Course and 35(i) represents 3rd Semester 5th Course (optional course number one).

B) Regarding DSE Courses

- 1. Semester III: Any one course to be opted from course-DSE-I and DSE-II.
- 2. Semester IV: Any one course to be opted from course-DSE-III and DSE-IV (except foreign national students as explained in III i) c) below.
- 3. In case of regular students, the Department will offer only one Elective Course in Semesters III and IV. A second Elective Course will be offered only if there are a minimum of 05 students opting for the same and will further depend upon the availability of faculty.
- 4. Evaluation of Dissertation and Viva Voce by External Examiner (i.e., from university other than HPU) specifically for MEE 44(i) i.e., PG Dissertation. Not more than 7 (seven) dissertations to be evaluated by one external examiner.

C) Regarding GE Courses

- i. Each student of the M.A. Programme in the subject of Economics will complete **two** GE courses during the duration of the degree programme, opting for *not* more than one GE course per semester form any other department of the Faculty of Social Sciences or other Faculties as permitted by this University.
- ii. This Department shall offer Generic Elective (GE) Courses in the III and IV Semesters.
- iii. GE Courses offered in the semesters III and IV respectively of the M.A. Programme in the subject of Economics will be opened as interdisciplinary courses to all full-time students registered in any regular master's programme of the Faculty of Social Sciences or other Faculties as permitted by this University.
 - **GE** –**I** [MEG 35(i)] titled: "Fundamental Concepts in Economics" is to be offered in III Semester. **GE II** [MEG 45] titled: "Economy of Himachal Pradesh" is to be offered in IV Semester.
- iv. Such GE Courses offered by the Department of Economics are:
 - open to regular students of the PG Centre only in any regular master's programme of the Faculty of Social Sciences or other Faculties as permitted by this University.

- GE offered in Semester III will be open to such students of Semesters I and III. Similarly, GE offered in Semester IV will be open to such Students of Semesters II and IV.
- to be offered in a combination of offline and online modes.
- v. The total number of such students accepted in each semester will not exceed the student strength in respective semester of M.A. Economics programme.
- vi. The criterion admission to GE courses in the Department will be as determined by the Department Council or University guidelines that may be issued for this purpose.
- vii. GE courses will be offered to private students only by ICDEOL.

D) Regarding AECC

- AECC I, is a two-credit *compulsory* course offered to I Semester students of MA Economics and MA Business Economics. AECC – II, is a two-credit *compulsory* course offered to II Semester students MA Economics and MA Business Economics.
- E) It is to be noted that the 1st Year (i.e., Semesters I & II) of the MA Economics Programme, including AECC and Course DSE IV titled: Industrial Economics [Course Code: MEE 44(ii)] offered as interdisciplinary courses in Semester IV are COMMON/IDENTICAL with MA Business Economics programme of this Department.

II SCHEME OF COURSES

Four categories of Courses are on offer as follows:

Table 2: The number & type of courses to be completed in each semester

Courses	Semester				ALL Semesters	
	I	II	III	IV	I - IV	
Discipline Specific Core Courses (DSC) including PG Dissertation	04	04	03	03	14	
Discipline Specific Elective Courses (DSE)	-	-	01	01	02	
Generic Elective (GE)	-	-	01	01	02	
Ability Enhancing Compulsory Course (AECC)	01	01	-	-	02	
Total Number of Courses	05	05	05	05	20	
	1		1	1	GAAR.	

- 1. Discipline Specific Core Compulsory Courses (14 Core Courses; {Core})
- 2. Discipline Specific Elective Courses (2 Elective Courses; {DSE})

The syllabi for all DSC & DSE courses are specified in five units. Each question paper shall consist of eleven questions in all i.e., one compulsory question and two questions from each of the five units. The candidates are required to attempt six questions in all (one compulsory question and one question from each unit).

3. Generic Elective Courses (2 Generic Elective; {GE})

The syllabi for all GE courses are specified in four units. Each question paper shall consist of nine questions in all i.e., one compulsory question and two questions from each of the four units. The candidates are required to attempt five questions in all (one compulsory question and one question from each unit).

4. Ability Enhancement Compulsory Course (2 Ability Courses; {AECC})

The syllabi for all AECC papers are specified in two units per paper. Each question paper shall consist of five questions in all i.e., one compulsory question and two questions each from both units. The candidates are required to attempt three questions in all (one compulsory question and one question from each unit).

A student is required to complete **four** Core Courses each & **one** Ability Enhancing Compulsory Course (AECC) each in Semesters I and II, and **three** Core Courses, **one** Elective Course & **one** Generic Elective course (GE) each in Semesters III and IV.

III SCHEME OF EXAMINATION

MARKS Allotted to each paper:

Each DSC, DSE and GE Course shall be of 100 marks and qualifying marks in each Course shall be 40 per cent. The break up is as follows: 32 marks out of 80 (i.e., 40 % of 80) and 8 marks out of 20 (i.e., 40 % of 20).

Each AECC shall be of 50 marks and qualifying marks in each Course shall be 20 marks. The break up is as follows: 16 marks out of 40 (i.e., 40 % of 40) and 4 marks out of 10 (i.e., 40 % of 10).

- For regular students enrolled in MA Economics course in PG Centre, HPU, Regional Centre of HPU at Dharamsala and Centre for Evening Studies, HPU
 - a) The distribution of 100 marks for DSC and DSE courses shall be 80 for Theory and 20 for Internal Assessment (except for PG Dissertation IV
 - b) Semester). The Internal Assessment of 20 marks shall comprise of 5 marks each for: i) Class Test(s), ii) Assignment(s) and iii) Presentation(s)/Seminar(s) and iv) attendance.

Marks for attendance are given as per following criteria:

75% to 80% : 1 Mark 81% to 85% : 2 Marks 86% to 90% : 3 Marks 91% to 95% : 4 Marks 96% to 100% : 5 Marks

- c) PG Dissertation IV Semester will be:
 - supervised by faculty who are teaching PG Economics classes.
 - evaluation will be of 80 marks for Dissertation and 20 marks for Viva

- Voce by an External Examiner (i.e., from university other than HPU) duly recommended by the Department Council and approved by the competent authority, specifically for MEE 44(i) i.e., PG Dissertation.
- Not more than 7 (seven) dissertations to be evaluated by one external examiner.
- Remuneration for Evaluation of PG Dissertation; viva-voce and TA/DA claim of External Examiner(s) are to be borne by this University.
- d) For Foreign Nationals enrolled as regular students, PG Dissertation is compulsory and is to be designated as DSC(MEC-41) in place of Indian Economy. Also, there will be only ONE DSE on offer to foreign national regular students namely MEE 44(ii) i.e., Industrial Economics.
- by this University) will carry a total of 100 marks distributed as: 80 marks for Theory and 20 marks internal assessment. The Internal Assessment of 20 marks shall comprise of 5 marks each for: i) Class Test(s), ii) Assignment(s) and iii) Presentation(s)/Seminar(s) and iv) attendance. Marks for attendance are given as per criteria for DSC & DSE specified at a) above.
- f) The distribution of 50 marks for each of the AECC shall be 40 for Theory and 10 for Internal Assessment. The Internal Assessment of 10 marks shall comprise of 2.5 marks each for: i) Class Test(s)/Assignment(s) and ii) Presentation(s)/Seminar(s) and 5 marks for attendance.

 Marks for attendance are given as per criteria for DSC & DSE specified at a) above.
- ii) For **regular students** enrolled in MA (Economics) course in colleges affiliated to HP University, Shimla.
 - a. The distribution of 100 marks for DSC and DSE courses shall be 80 for Theory and 20 for Internal Assessment (except for PG Dissertation IV Semester). The Internal Assessment of 20 marks shall comprise of 5 marks each for: i) Class Test(s), ii) Assignment(s) and iii) Presentation(s)/Seminar(s) and iv) attendance.

Marks for attendance are given as per following criteria:

75% to 80% : 1 Mark 81% to 85% : 2 Marks 86% to 90% : 3 Marks 91% to 95% : 4 Marks 96% to 100% : 5 Marks

- b) PG Dissertation for regular students enrolled in the IV Semester in colleges will be:
 - supervised by faculty who are teaching PG Economics classes.
 - evaluation will be of 80 marks for Dissertation and 20 marks for Viva
 Voce by an External Examiner form HP University, Shimla duly
 recommended by the Subject Department of the College and approved
 by the competent authority, specifically for MEE 44 (i) i.e., PG

- Dissertation.
- Not more than 7 (seven) dissertations to be evaluated by one external examiner.
- Remuneration for Evaluation of PG Dissertation; viva-voce and TA/DA claim of External Examiner(s) are to be borne by the College concerned.
- c) For Foreign Nationals enrolled as regular students, PG Dissertation is compulsory and is to be designated as DSC(MEC-41) in place of Indian Economy. Also, there will be only ONE DSE on offer to foreign national regular students namely MEE 44(ii) i.e., Industrial Economics.
- d) The GE course *offered to students of other subjects/faculties* (as permitted by this University) will carry a total of 100 marks distributed as: 80 marks for Theory and 20 marks internal assessment. The Internal Assessment of 20 marks shall comprise of 5 marks each for: i) Class Test(s), ii) Assignment(s) and iii) Presentation(s)/Seminar(s) and iv) attendance. Marks for attendance are given as per criteria for DSC & DSE specified at a) above.
- e) The distribution of 50 marks for each of the AECC shall be 40 for Theory and 10 for Internal Assessment. The Internal Assessment of 10 marks shall comprise of 2.5 marks each for: i) Class Test(s)/Assignment(s) and ii) Presentation(s)/Seminar(s) and 5 marks for attendance.

 Marks for attendance are given as per criteria for DSC & DSE specified at a) above.
- iii) In case of students of distance education i.e., **ICDEOL**:
 - a) Each DSC & DSE paper will carry a total of 100 marks distributed as: 80 marks for Theory and 20 marks for Compulsory Assignment. Each Compulsory Assignment will comprise of five questions i.e., one question per Unit for each of the DSC & DSE courses Assessment (except for PG Dissertation IV Semester).
 - b) PG Dissertation IV Semester, will be:
 - supervised by faculty of ICDEOL who are teaching PG Economics classes. If the number of students opting for the Dissertation is large, then supervisors from PG Centre, CES and Regional Centre may be allowed by following all rules/guidelines and seeking approval of competent authority.
 - evaluation of the dissertation will be of 80 marks for Dissertation and 20 marks for Viva Voce by an External Examiner (i.e., from university other than HPU) duly recommended by the Department Council and approved by the appropriate university authority, specifically for MEE 44(i) i.e., PG Dissertation.
 - Not more than 7 (seven) dissertations to be evaluated by one external examiner.
 - Remuneration for Evaluation of PG Dissertation; viva-voce and

TA/DA claim of External Examiner(s) are to be borne by ICDEOL.

- c) For Foreign Nationals enrolled as regular students, PG Dissertation is compulsory and is to be designated as DSC(MEC-41) in place of Indian Economy. Also, there will be only ONE DSE on offer to foreign national regular students namely MEE 44(ii) i.e., Industrial Economics.
- d) The GE course offered to *students of other subjects/faculties* (as permitted by ICDEOL) will carry a total of 100 marks distributed as: 80 marks for Theory and 20 marks for five compulsory assignments for each GE course.
- e) Each AECC paper will carry a total of 50 marks distributed as 40 for Theory and 10 for two compulsory assignments (one per Unit of syllabus) for each of the AECC courses.

iv) If private students are allowed by this University:

- a) Each DSC, DSE and GE Course shall be of 100 marks and there will be no internal assessment/compulsory assignment.
- b) Each AECC paper will carry a total of 50 marks and there will be no internal assessment/compulsory assignment.
- c) GE courses to be offered to private students of MA (Economics) will be decided by ICDEOL.
- d) GE Economics courses will be offered to private students of other subjects/faculties as allowed and offered by ICDEOL.
- e) The Dissertation (IV Semester) i.e., MEE 44(i) is *not* to be offered to private students.
- f) If offered to private students, to ensure parity with Regular and ICDEOL students:
 - the evaluation of the dissertation will be of 80 marks for Dissertation and 20 marks for Viva Voce by External Examiner(s) (i.e., from university other than HPU) duly recommended by the Department Council and approved by the appropriate university authority, specifically for MEE 44(i) i.e., PG Dissertation.
 - Not more than 7 (seven) dissertations will be evaluated by one external examiner.
 - Remuneration for Evaluation of PG Dissertation; viva-voce and TA/DA claim of External Examiner(s) are to be borne by ICDEOL because private students are admitted to MA (Economics) through ICDEOL.

IV FORMAT OF QUESTION PAPERS

- a) For: i) Regular students of PG Centre/Regional Centre; Dharamsala/Centre for Evening Studies HPU; ii) Regular students enrolled in colleges affiliated to HPU & iii) ICDEOL
 - i. For DSC & DSE papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Five long answers questions carrying 12 marks each per unit i.e., total 60

marks.

- ii. For GE papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Four long answers questions carry 15 marks per unit i.e., total 60 marks.
- iii. For AECC papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Two long answers questions carry 15 marks each, per unit i.e., total 30 marks.
- iv. Duration of DSC, DSE & GE Papers will be three (3) hours. Duration for AECC will be one and a half (1.5) hours.

b) For Private Students

(if Private students are allowed by this University)

- i. For DSC & DSE papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Five long answers questions carrying 16 marks each per unit i.e., total 80 marks.
- ii. For GE papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Four long answers questions carry 20 marks per unit i.e., total 80 marks.
- iii. For AECC papers: Compulsory question consists of 10 short answer questions of 2 marks each i.e., total 20 marks. Two long answers questions carry 15 marks each, per unit i.e., total 30 marks.
- iv. Duration of DSC, DSE & GE Papers will be three (3) hours. Duration for AECC will be one and a half (1.5) hours.

V General Information

- 1. Number of seats, eligibility, basis of admission, age limit, reservation, fee structure, scheme of examination and qualifying marks will be as per the University rules as prescribed in the Himachal Pradesh University Ordinance and Handbook of Information from time to time.
- 2. In case of ambiguity or conflict in provisions, the HP University Ordinance shall prevail.

Master of Arts in Economics (MA Economics) Programme Outcome

Over the duration of study, students are expected to acquire:

- **Economic reasoning** to view and analyze the working of the world by evaluating the cost of an action with the benefits generated.
- **Ability to identify and solve of economic problems** so as to contribute to the development of the subject through creative analysis and evaluation.
- Critical and creative thinking to analyze everyday problems faced by society, evaluate specific policy proposals, compare arguments with different conclusions to a specific societal issue and assess the role played by assumptions in such arguments.
- **Scientific temperament** of logical and rational thinking.
- **Ethically** articulate and apply values and ideals that demonstrate awareness of ongoing socio-economic challenges.
- **Analytical tools** for application of appropriate quantitative/qualitative techniques used in economics along with ICT, software etc.
- **Resource management** to plan usage of resources at different levels.
- **Ability of research and development** to apply principles of economics to analyze and evaluate issues of relevance.
- **Specialization and employability** through development of a deeper understanding, creativity, originality, analytical and critical skills.
- **Research temperament** through the use statistical and econometric tools and techniques that help in drawing inferences about various issues of economics importance and thereby contribute to the development of the subject.

Programme Specific Outcome

Upon completion of this Master's degree programme the students are expected to attain:

- an understanding of the theoretical and practical dimensions of economics;
- a scientific temperament through provisioning of concurrent input;
- exposure to a wide range of economic specializations and familiarization with different branches of economics.

DSC Course Code: MEC-11 MICRO-ECONOMICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- comprehend consumer behaviour in all its ramifications.
- locate optimum products and factors combinations.
- describe different market conditions so as to understand equilibrium in price and output combinations.
- examine various factors of production and their price determination.
 discuss welfare economics and various criteria to determine the society's welfare.

Unit –I

Role and significance of assumption in economic models, Empirical testing of economic models.: The Slutsky theorem; Compensated demand curves; The revealed preference theory. Duality theory, Dual properties of utility and expenditure function, Shepard's Lema inter-temporal choice in consumption.

Unit-II

Recent developments in the theory of limit pricing; Models of Sylos-Labini. F, Modigliani and Bhagwati; Baumol's theory of contestable markets; Public utility pricing; inter-temporal and intra temporal equity.

Unit-III

Markets with Asymmetric information: Hidden Characteristics adverse selection and Moral hazards in insurance, Banking, Labour market & second-hand product markets. Pricing and output behaviour under oligopoly: Collusive and non-collusive models: Extensions of the oligopoly: models: Models of Baumol, Marris and Williamson,

Unit-IV

Theory of Distribution: The adding up Problem and Euler's theorem. Modern theory of distribution. Theory of Rent: Ricardian and Modern. IS-LM curve theory of interest, Modern theory of wages; wage determination under trade unionism., Marxian and Kalecki's theories of profit.

Unit- V

Welfare Economics: Marshallian and Robbinsian concepts Pigouvian Welfare Economics. New Welfare Economics: Pareto's optimum and externalities; Compensation principle.

- American Economic Association (1979). Readings in Welfare Economics,
- American Economic Association (1950), Readings in the Theoryof Income Distribution, George Allen and Unwin, London.
- Archibald, G.C., Ed. (1971), Theory of the Firm, Penguin Rooks, Harmonds wroth.
- Baumol. W.J. (1982) Economic Theory and Operations Analysis, 4ed, Prentice Hall of India, New Delhi.
- Bronfenbrenner, M. (1971). Income Distribution: Theory Macmillan, London.
- Bruce, N. and R. Boadway (1984). Welfare Economics, Basil Blackwell,Oxford.
- Da Costa, G.C. (1980). Production, Prices and distribution, Tata McGraw Hill, New Delhi
- Deaton, A. S. & J. Muehlhauser (1980). Economics and ConsumerBehaviour, Cambridge University Press, Cambridg3.
- Ferguson, C.E. (1968). Microeconomic Theory. Cambridge UniversityPress, London.
- Friedman, R. Price Theory. Kalyani Publishers, Ludhiana.
- Friedman. M. (1953). Essays in Positive Economics, Chicago UniversityPress, Chicago.
- Gould, J.P. and C.E. Ferguson. Micro-Economic Theory. Irwin, Homewood, Illinois.
- Graaff. J. De V. (1957). Theoretical Welfare Economics. (Cambridge University Press.) Vikas Publishing House, New Delhi
- Gravel H. and R. Rees (1981). Microeconomics, Longman, London
- Green, H.A.J. Consumer Theory. Philips L. Applied ConsumptionAnalysis.
- Guirk, J. and R. Saposoick (1963). Introduction to General Equilibriumand Welfare Economic, McGraw-Hill, New York.
- Henderson, R. and Quandt, R. Microeconomics Theory. McGraw Hill.
- Hirshleifer, J. (1976). Price Theory and Applications., Prentice Hall, NewDelhi.
- Jones, H. G. (1976). An Introduction to the Modern Theories of EconomicGrowth, Mc Grow Hill Koga-Kusha, Tokyo.
- Kamerschen, D.R. (Ed), (1969). Readings in Microeconomics, JohnWiley and Sons, New York.
- Kogiku, K. C. (1971). Microeconomics Models, Harper and Row, NewYork.
- Koutsoviannis, A. (1985). Modern Microeconomics, Macmillan, London.
- Koutsoviannis, A. (1986). Modern Microeconomics, Macmillan, London.
- Kreps, D.M. (1992). A Course in Micro Economic Theory., PrenticeHall of India, New Delhi.
- Layard P.R.G. and A.A. Wallers, Micro Economics Theory, McGraw-Hill, New York. R.D. Irwin and Co., Homewood, IL.
- Mishan, E.J. (1969). Welfare Economics: An Assessment, North-Holland, Amsterdam.
- Stigler, G. (1966), The Theory of Price, 3e, Macmillan Co., New York.
- Varian, H. (1978). Microeconomic Analysis, W.W. Nortion, New York.

DSC Course Code: MEC-12 ELEMENTARY MATHEMATICS FOR ECONOMICS

Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- understand the basic rules of matrix algebra and apply the same to solve mathematical models containing systems of simultaneous equations.
- understand and extend the techniques of differential calculus to compute values of variables etc.
- solve the differential and difference equations along with their economic applications to economic models.
- compute the consumer's surplus and producer's surplus by utilising the tools of integral calculus.
- apply linear programming and input-output model to analyse behaviour of economic agents.

Unit –I MATRICES AND DETERMINANTS

Their properties, addition, subtraction, and multiplication of matrices. Transpose of a Matrix. Some special forms of square matrices-Trace, Idempotent matrix, Sub-matrix of a matrix. Inverse of a matrix and solution of equations using both the inverse of a matrix and Cramer's rule. Rank of a Matrix (Numericals relating to inverse of a matrix and Cramer's rule should to be confined to matrix of order 3x3).

Unit-II DIFFERENTIATION

Derivatives: differentiations of functions of a single variable. Derivative of a composite function, Parametric function, logarithmic function, Exponential, and inverse functions. Concave and convex functions. Derivative of higher order. Partial Derivatives and total derivative Homogenous functions and Euler's Theorem. Maxima and Minima of functions of single variable. Profit maximization and cost minimization. Constrained optimization of function with two variables. Constrained utility maximization, constrained minimization, and the interpretation of the Lagrange multiplier.

Unit –III DIFFERENTIAL AND DIFFERENCE EQUATIONS

Introduction, non-linear and linear differential equations of the first order and first degree. Solutions of differential equations when variables are separable, homogenous equations and non-homogenous equations, exact differential equations and linear equations. Solution of linear differential equations of second with constant coefficient. Finite difference, difference equations. Solutions of homogeneous linear difference equation with constant coefficients, linear first-order difference equations, Linear second order difference equations with constant coefficients.

Application of differential and difference equations in economic models (dynamics of market price, Solow growth model, cob-web model, multiplier-accelerator interaction model, Domar growth model).

Unit –IV ANALYTIC GEOMETRY

Introduction of a Straight Line, section formula, the gradient of a straight in, the equation of a straight line in intercept form, two-point form. Circle: The general equation of a circle, Parabola: equation of a parabola, the points of intersection of line and a parabola. Equation of a rectangular hyperbola. Problems based on applications of analytic geometry in economics.

Integration of function of one variable by parts and substitution. Integration of logarithmic and exponential functions. Definite integral and area between two curves. Simple applications of integration to the relationship between marginal functions and total functions, Consumer's surplus and producer's surplus. Investment and capital formation and the present value of a continuous flow.

Unit-V THE INPUT-OUTPUT MODEL

Its assumptions, technological coefficient matrix, closed and open input –output model, the Hawkins-Simon conditions. Solving the input-output models both open and closed using the inverse matrix.

An Introduction to Linear Programming, Linear equations, slack variables. Feasible and basic solutions. Degeneracy. Solving the primal and Dual with simplex method. Interpretation of the linear programming results.

- Allen.R.G.D. Mathematical Analysis for Economists, MacMillan, India Limited, Delhi.
- Baumol, W.J., Economic theory and Operations Analysis, Prentice Hall, New Delhi
- Berchenhal Chris and Paul Grount, Mathematics for Modern
- Budniek, Applied Mathematics for Business economics and social Sciences, 2nd Ed., McGraw Hill.
- Burmeister, E., and R Dobell, Mathematical Theories of Economic Growth.
- Chiang Alpha C. Fundamental Methods of Mathematical Economic Analysis, McGraw-Hill Bank Company London.
- D. Bose, An Introduction to Mathematical Economics, Himkya Publishing House, Delhi.
- Dorfman, R., Linear Programming and Economic Analysis, McGraw
- Dowling. Mathematics for Economists, McGraw Hill Economics, Heritage Publishers, New Delhi.
- Hadley, G. Linear Programming, Narosa Publishing House, New Hill
- Mukherji Badal and V. Pandit. Mathematical Methods for Economic Analysis, Allied Publishers Pvt.Ltd., New Delhi.
- Nicholson. Mathematics for Business Economics, McGraw Hill. Prentice Hall of India, New Delhi.
- Yamane Taro, Mathematics for Economists: An Elementary Survey.

DSC Course Code: MEC-13 INTERNATIONAL ECONOMICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- explain theories of international trade and their applications.
- outline the impact of dynamic factors on international trade.
- analyse various policies and role of international organizations to international trade.
- illustrate balance of payment and explain determination of exchange rates.
- identify long and short run capital requirements of developing countries.
- discuss the role of financial institutions like IMF, ADB, IFC and IDA.

Unit-I

Need for a separate theory of international trade. Theories of international trade classical, Neo-classical, Heckscher-Ohlin and Factor price equalization theories. Empirical verification of Classical and Heckscher-Ohlin theories, Factors reversal and Leontief paradox. Emmanuel's theory of unequal exchange.

Unit-II

Impact of dynamic factors on international trade changes in tastes, technology, factor endowments. Rybeznski theorem and transportation costs. Derivation of offer curves-Marshall-Edgeworth, Mill and Meade. Terms of trade and measurement of gains from trade. Secular deterioration in the terms of trade of developing countries. Aid versus trade controversy.

Unit-III

Commercial Policy: Free trade versus protection. Theory of tariffs; partial effects and effects on income distribution. Stolpher-Samuelson theorem. Optimum tariff, nominal and effective tariffs, infant industry tariff. Quotas and other quantitative restrictions. State trading. Multiple exchange rates. Trade policies of developing countries. Theory of custom union –trade creation and trade diversion. The SAARC, NAFTA, BRICS, G8, EU and the WTO framework. The WTO's and the developing countries.

Unit-IV

International Monetary Theory: Balance of payments and its adjustment. Maintenance of internal balance-Elasticities and absorption approaches. Exchange rate determination and adjustments. Foreign trade multiplier. Foreign repercussions and stability problem. Flexible versus fixed exchange rate system.

Unit-V

Capital requirements of developing countries. Development of International Monetary system since the 1970s and its reform, international reserves and problems of liquidity, IMF and the SDRs, ADB, IFC, IDA Short-term

International finance-its nature and magnitude; its merits and demerits for the developing countries.

- American Economic Association (1970). Reading in the Theory of International Trade, George Allen and Unwin, London.
- American Economic Association, (1968), Readings in International Economics, Allen and Unwin, London.
- Bhagwati, J. (1968). Theory and Practice of Commercial Policy, Princeton University Press, New York.
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- Brown, W.B. and J.S. Hegendorn, (1994). International Economics: Theory and Context. Addison Wesley Publishing Co., New York.
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- Chacholiades, M. (1978). International Monetary Theory and Policy, McGraw Hill, New York.
- Clement, M.O., R.P. Fister and K. Rothwell, (1967), Theoretical Issues in International Economics, Constable Publication, London
- Ellsworth, P.T. and Clarke Leith, (1975), The International Economics, Richard D. Irwing Inc., Homewood.
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- Heller, R. (1974). International Monetary Economics, Prentice Hall India, New Delhi.
- Kindelberger, C.P., (1976), International Economics, R.D. Irwin, Homewood.
- Lipsay, R.G. (1970). The Theory of Customs Union, Wiedenford and Necolson, London.
- Machiup. F. (1970). International Monetary Economics, George Allen and Unwin, London.
- Meade, J. E. (1968). Theories of International Economic Policy, Vol. II, Oxford University Press, London.
- Meade, J.E. (1970) Theory of International Economic Policy, Vol. I. E.L.B. S. London.
- Meier, G. M. (1968) The International Economics of Development, Harper and Row, New Delhi.
- Meier, G.M. (1970). Leading Issues in Economics Development, Oxford University Press, Delhi.
- Meier. G.M. (1982) Problems of a World Monetary Order, 2 e Oxford University Press, New York.
- Mundell, R. (1968) International Economics, Macmillan, New York.
- Robson, P. (Ed) (1979). International Economic Integration, Penguin, Harmondsworth.
- Roy. P. N. (1986). International Trade Theory and Practice, Willy Eastern Limited, New Delhi.
- Salvatore, D. (1987). International economics, 2/e, Macmillan, New York
- Scammell, W.M. (1975), International Monetary Policy, Bretton wood and Alter, MacMillen, London.
- Sodersten, B., (1980), International Economics, 2nd Edition, Macmillian, London.

DSC Course Code: MEC-14 LABOUR ECONOMICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- examine various factors affecting demand and supply of labour.
- explain unemployment as a source of human capital.
- illustrate wage rate determination in different sectors of the economy.
- classify various methods of the settlement of industrial disputes.
- evaluate the govt. labour policies for the socio-economic upliftment of labour.

Unit – 1 Labour Market

Nature and characteristics of labour markets in developing economics like India. Paradigms of labour market – classical, neo-classical and dualistic; Analysis of demand and supply forces, Demand for labour relating to choose of technology. Supply of labour in relation to growth of labour force. Labour force participation rates.

Unit – II Employment

Employment and development relationship Importance of full employment in the context of poverty in the developing countries. Unemployment – concept and measures. Causes of unemployment, Issues relating to employment rationalization, technological change and modernization. Rural unemployment and educated unemployment. Planning of Human capital.

Unit – III Wage Determination

Various classical, neo-classical and bargaining theories of wage determination. Various concepts of minimum wages and fair living. Problems of implementation of minimum wages. Wage determination by sectors — Urban and Rural, organized and unorganized. Wage and inflation. Productivity and wage relationship. Profit sharing schemes. Causes of wage differentials in terms of firm, industry, occupation and region.

Unit – IV Industrial Relations and Trade Unions

Industrialization and emergence of trade unionism. Growth, structure and pattern of trade unionism. Achievements and failures of trade union movement. Determinants of industrial disputes. Steps to achieve industrial peace. Methods of settlement of industrial disputes: collective bargaining, conciliation, arbitration and labour participation in management.

Unit - V State and Labour in India

Increasing role of State in labour matters. Labour policy of the Government. Social Security and Legislative Measures adopted for Socio-economic upliftment of

labour. Social security measures for organized visa-vis unorganized sector of labour. Important labour legislations (industrial dispute act), trade unions act, factories act and employees state insurance act. Problems of rural labour. Government policy towards rural labour and women and child labour. Evaluation of recent employment policy in India.

- Bellante, D. and M. Jackson, (1983). Labour Economics, McGraw-Hill, New York.
- Das, N. (1960). Unemployment Full Employment and India, Asia publishing House, Bombay.
- Deshpande, L. K. & J. C. Sandersara, eds. (1970). Wage Policy and wage determination in India. Bombay University Press, Bombay.
- Deshpandey, I. K., P. K. Employment Policy in a Developing Economy, Vol. I & II, Macmillan, London.
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- Hicks, J. R. (1932). The Theory of Wages Clarendon Press, Oxford.
- Jolly, R. Etal, Eds (1973). Third World Employment: Problems and Strategy, Penguin, Harmondsworth.
- Kannapoo, S. (1983). Employment Problems and Urban Labour Markets In Developing Nations, University of Michigan, Ann Arbor, Michigan.
- Lester, R. A. (1964). Economics of Labour; 2/e Macmillan, New York.
- Madan, B. K. (1977). The Real Wages of Industrial Labour in India. Management Development Institute, New Delhi.
- Memoria, C. B. (1966), Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad.
- McConnel, C. R. and S. L. Brue (1986). Contemporary Labour Economics, McGraw-Hill, New York.
- McCormick, B. & Smith Eds. (1969). The Structure of Labour Markets, Harper and Brothers, New York.
- Myres, C. A. (1958). Industrial Relations in India. Asia Publishing House, Bombay.
- Punekar, S. D. (1978). Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay.
- Ramaswamy, E.A. & U. Ramaswamy (1978). Industrial Relations in India, Macmillan, Delhi.
- Ramaswamy, F. A. & U. Ramaswamy, (1981). Industry and Labour; Oxford University Press, New Delhi.
- Rees, A. (1962), Economics of Trade unions, J. Nisbet and Company, Digswell.
- Rees, A. (1973). Economics of Work and Pay, Harper and Row New York.
- Sen, A. R. (1975). Employment, Technology and Development. Oxford, University Press, Delhi.
- Singh, V. R. ed. (1970), Industrial Labour in India, Popular Prakashan, Bombay.
- Thakur Dalip S. (1986). Poverty, Inequality and Unemployment in Rural India. B. R. Publishing Corporation, New Delhi.
- Turner, H. A. (1965). Wage Trends, Wage Policies and collective Bargaining, Cambridge University Press, Cambridge.
- Vaid, K. N. (1970), Labour Welfare in India, Centre for Industrial Relations, Delhi.

AECC Code: MEA-15 DATA MANAGEMENT AND PRESENTATION USING MICROSOFT EXCEL

Course Credits: 2

Course Outcomes

By the end of this laboratory based hands-on practical training course, students will be able to:

- handle data and solve basic algebraic problems using Excel.
- use different logical and statistical functions in Excel to compute descriptive statistics of a univariate and multivariate data set.
- present data using different types of graphs Using solver in excel student will be able to solve linear equation system and LPP and NLPP.

Unit I

Basics of Microsoft Excel: Opening of Excel File-Workbook and worksheet-Rename of the workbook and worksheet. Brief history of Excel workbook-Advantages and disadvantages of the use of excel for statistical analysis. Location of heading/title bar- menu bar, tool bar- Formulae and function- formula space-cell-cell formatting- data entry-data clearing-copy-cut-paste, paste special – paste value-paste formula-paste transpose of the data set.

Unit II

Data Management: Data transformation: arithmetic operation- addition, subtraction, multiplication, log transformation, exponential, squaring and square root, indices. Use of 'If' function- nested if, sum, sum if, count, countifcountifs, average if, text to numeric and numeric to text using if function, max, min, large value of the data set, concatenate. Sort - ascending and descending, A-Z, sort row wise /column wise. Filter of the data set and create sub sample- filter according to text filter data according to numeric values or conditions, saving the filtered data in separate worksheet. Lookup functions. Descriptive Statistics: (i) Univariate Data: Measures of Central Tendency: mean, median, mode, Trim mean, geometric mean, harmonic mean, Measures of Dispersion: Range, quartile deviation, SD, CV, Gini coefficient, Moments and Order statistics: skewness, kurtosis, rank and percentile (ii) Multivariate Data: Covariance and correlation matrix, partial correlation, rank correlation. Graphical Presentation of Data: Different types of charts and their applications, Scatter diagram and Curve fitting

Suggested Readings:

- Abbott Martin Lee, Understanding Educational Statistics Using Microsoft Excel and SPSS John Wiley & Sons, Inc. 2011.
- Bal Guruswamy E.: Computer oriented statistical and numerical methods.
 Macmillan.
- Carver Robert H. and Jane Gradwohl Nash, Doing Data Analysis with SPSS, Cengage Learning.

- George Darren and Paul Mallery, SPSS for windows Step by Step, A simple guide and Reference, Pearson Education.
- Levine David M., David F. Stephan, Timothy C. Krehbiel and Mark L. Berenson, Statistics for Managers Using Microsoft Excel, 5ed, Prentice Hall, Pearson 2008.
- Mathew Johan: Numerical Methods, P-III.
- Schmuller Joseph, Statistical Analysis with Excel for Dummies 3RD EDITION, John Wiley & Sons, Inc. 2013.
- Whigham David, Business Data Analysis Using Excel, OUP 2007.

DSC Course Code: MEC-21 MACRO-ECONOMICS

Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- discuss the classical viewpoint about income, output and employment determination and explain various macroeconomic theories of consumer behaviour.
- distinguish between Keynesian and post Keynesian views regarding the income, output and employment.
- understand Money market and related concepts.
- explain various macro-economic growth models elaborate stabilisation policies.

Unit-I

Micro Foundations of Macro Economics. The basic classical model of income and employment determination. The basic Keynesian model; equilibrium in product and money markets. Multiplier process and the different concepts of multiplier; balanced budget theorem. Macro-Economic Theories of Consumption: Keynesian theory; Relative income, Permanent income, and Life cycle income hypotheses. Pigou effect and real balance effect on consumption demand.

Unit-II

Macro-Economic Theories of Investment: The Keynesian Post-Keynesian, New-Keynesian, and the financial theory of investment determination. Lags in investment. Portfolio disequilibrium and the transmission mechanism. The Demand for Money; The classical, Keynesian and Post-Keynesian approaches.

Unit-III

The supply of Money and Definitions of Money Supply: Inside and outside money, the neutrality of money Equilibrium in money market. The classical and Keynesian dichotomies and their resolution by Patinkin's real balance effect and through IS-LM model respectively. Keynesian and post Keynesian theories of rate of interest.

Unit-IV

Growth Models: Harrod-Domar model; Neo – classical model; Golden rule of accumulation; Optimal growth turnpikes. Theories of Trade Cycles: Multiplier-Accelerator interaction model, Kaldor and Hicks' models. Determination of General Price Level; Classical and Keynesian approaches. Theories of Inflation; Demand – pull and cost-push inflation; short and long-run Phillips's curve analysis; The Keynesian, the monetarist and the rational expectations analysis.

Unit-V

Keynesian and monetarist perspectives on monetary, fiscal and income policies. Stabilisation policies: Rules Discretion: lagged effects of policies and role of expectations. Crowding out effect and government budget constraint. Rational expectations and effectiveness of stabilisation policies.

- Aeernogl V. (2019), Macroeconomics, Anamika Pub.& Dis. (P) Ltd.
- Altug S. (2003), Dynamic Macroeconomic Analysis, Cambridge Publishers.
- Bronson, W.H., (1985). Macro-Economic Theory and Policy, Universal Book Stall, New Delhi.
- Chakravarty, S. (1985). Report of the Reserve Bank of India Committee to Review the Monetary System, Reserve Bank of India,
- Dornbusch, R. and S. Fischer (1987). Macroeconomic, 4ed. McGraw-Hill Kogakusha, Tokyo.
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- Edmond, M.R. (1983), Macroeconomics: Theory and Policy, Prentice Hall of India, New Delhi.
- Evans, M.K. (1960), Macroeconomic Activity. Harper and Row. New York.
- Goyal A. (2017), Macroeconomics and Markets, Routledge Publishers.
- Gupta, S.B. (1983). Monetary Economics, S. Chand & Co, Delhi.
- Hall, R.E. and J.B. Tayler (1986). Tayler (1986). Macroeconomics, W. W. Norton New York.
- Jones, H.G. (1976). An Introduction in Modern Theories of Economic Growth, McGraw Hill Kogaku Sha Tokyo.
- Kotwal, O.P. (1987). Theories of Inflation. A critical Survey. Tata McGraw-Hill publishing Co. New Delhi.
- Laidler, D. (1972), Demand for Money Theory and Evidence, Allied Publishers, New Delhi.
- Lipschitz. (2019), Macroeconomics for Professionals, 1st Edition, Cambridge Publishers.
- McConnell, C.R. and H.C. Gupta (1987), Introduction to Macro Economics, Tata-McGraw Hill, Delhi.
- Roy (2012), Economics of Macro Issues, PEA Publishers.
- Scarfe, B.L. (1977). Cycles, Growth and inflation, McGraw Hill, New York.
- Sen, A.K. (Ed.) (1970), Growth Economics, Penguin. Harmondsworth.
- Shapiro, Edward (1984), Macroeconomic Analysis, Galgotia Publication, New Delhi
- Surrey, M. J.C. ed. (1976). Macroeconomic Themes, Oxford University Press, Oxford.
- Tumandar, P.N. (1972), Investment: Theories and Evidence, McMillion, London.
- Turnovsky, S.J. (1977). Macroeconomic Analysis and Stabilisation Policy. Cambridge University Press, Cambridge.

DSC Course Code: MEC-22 BASIC STATISTICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- acquire and apply statistical techniques in the empirical analysis of economic relationships.
- understand and infer from the process of data collection and various sampling methods.
- construct and interpret index numbers for economic variables. Measure and evaluate components of time series.
- apply, solve and prove various probability theorems using appropriate probability distributions.
- understand, explain, solve and apply hypothesis testing and selection of appropriate techniques for testing hypotheses.

Unit: I

Measure of Central Tendency, Dispersion, Skewness and Kurtosis. Correlation; Meaning and methods of measuring correlation, Karl Pearson's method, Spearman's Rank Correlation coefficient, Limitations of Correlation analysis. Linear Regression; relation between correlation coefficient and regression coefficients, Fitting of regression equations, Standard error of estimates.

Unit: II

The General Linear Regression Model

An Introduction to the matrix formulation and solution of the general linear regression Model. Solution for a model with one dependent and two independent variables. Prediction for simple regression models of demand, supply, production and cost. Multiple and partial correlations and regressions. Relationship between the measures of multiple correlation and measures of partial correlation, Beta coefficients.

Unit III

Elements of Probability Theory

The Concept of Probability Distribution and a Density function. Mathematical expectation, Binomial distribution, the Normal distribution, Some properties of the normal distribution. Sampling and sample designs: simple random sampling, stratified random sampling, systematic sampling and cluster sampling. Large samples. Tests of significance. Limitation of sampling; procedure of testing hypothesis: Region of acceptance and rejection, two tailed and one tailed tests, Type I and Type II errors. Non-Parametric Tests: The sign test, rank sum test, the Mann-Whitney U test, advantages and limitations of non-parametric tests.

Unit IV

Tests of Significance

Standard error of the mean, Student's "t" distribution and its properties, Use of the "t" distribution to test hypothesis of the population means. Chi Square: general features of Chi Square (χ^2), chi square as a test of goodness of fit, chi square as a test of independence. Contingency table and Yate's correction for continuity, testing homogeneity of several independent estimates of population variance. Analysis of variance; meaning, assumptions and techniques of analysis of variance, one way and two-way analysis of variance problem. Inter relationship between "t", Chi square and F tests.

Unit V

Analysis of Time Series

Meaning and components of time series, Methods of estimating trend – the semi average method, the moving average method and the least squares method. Fitting of straight line, second- and third-degree equations. Fitting of the modified exponential curve, Gompertz curve and the logistic curve. Measurement of Seasonal, Cyclical and irregular variations.

Index numbers: Meaning, problems in construction of index numbers. Classification of index numbers, unweighted price index numbers, relative of aggregate method and average of price relatives, Weighted price index numbers: Laspeyre's, Paasche's and Fisher's ideal index numbers. Time reversal test and factor reversal test and chain-based index numbers. Uses and limitations of index numbers.

- Cochran, William G., (1977), Sampling Techniques, 3rd edition, Wiley Eastern Limited, New Delhi.
- Croxton F.E., D.J. Cowden and Sidney Klein, (), Applied General Statistics, Prentice Hall of Indian, New Delhi.
- Gujarati Damodar., (), Basic Econometrics, Second Edition, L.R. Klein.
- Nagar A.L. and R.K. Das, (), Basic Statistics, Oxford University Press, New Delhi.
- Snedecar George and W.G. Chockrane, (), Statistical Methods. Oxford & IBH, New Delhi.
- Spiegel, Murray R., (1982), Probability and Statistics, SI (metric) edition, Schaum's Outline Series, McGraw Hill Book Company, New York.
- Walker H.M. and J. Lev. (1953). Statistical Inference, Holt, Rime hart and Winston, Oxford and IBH Publishing Company, Calcutta.
- Yamane Taro, (), Statistics, Harper International.

DSC Course Code: MEC-23 MONEY AND BANKING Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- understand the concept of money and various approaches related to money.
- explain the functioning of money and capital markets, process of credit creation, role of NBFCs etc.
- interpret demand and supply of money, money multiplier and its determinants and role of RBI.
- analyse the working of monetary policy.
- summarize the role of national and international financial institutions.

Unit - 1

Basic Concepts: Different approaches to the definition of money; Types, role and functions of money inside money and outside money; Measures of Money supply. Traditional quantity theory of money Fisher's equation of exchange; Cambridge cash balance approach; Keynes reformulation of quantity theory of money; Modern quantity theory; Friedman's approach.

Unit – II

Theory of Commercial and Central Banking: Money markets and capital markets; commercial banks. Theories of commercial banking; Process of credit creation; non-bank financial intermediaries (NBFI's); Objectives and role of central banks in economic development; The currency and credit schools; Quantitative and qualitative methods of credit-controls. Review of Narsimham committee report (1991 & 1998 Reports), Digitalisation of Indian Banking system.

Unit – III

The Theories of Demand and Supply of Money: Theories of demand for money; Classical Keynesian and Monetarist. Theories of money supply; The H' Theory of money Supply; Money multiplier process and its determinants; Commercial banks and the money multiplier; Factors affecting 'H' RBI analysis of money supply; Control of the money stock; Money stock and interest rates; monetary equilibrium: money in equilibrium and non-equilibrium states; Neutrality of money. Demonetization: concept, logic, impact.

Unit - IV

Principles of Monetary Policy: Monetary Policy: Its meaning, objectives, framework, targets and indicators of monetary policy; Transmission mechanism of monetary. Policy; Restrictive Vs. accommodating monetary policy; Need and effectiveness of monetary policy; Lags in monetary policy; Role of monetary policy in developing countries; Monetary and credit planning; Monetarist and Keynesian views on monetary policy.

Unit - V

Indian Money Market and International Financial Institutions: India and NBARD. Reserve Bank of India (RBI); Its working, functions, performance and role in the economic development of India; RBI's monetary policy; International Financial Institutions IMF, IBRD (World Bank), Asian Development Bank (ADB). International Development Association (IDA).

- Chandlar, L. V. and S. N. Goldfield (1977). Economics of Money & Banking, 7/e, Harpar and Row, New York.
- Chick, V. (1977). The Theory of Monetary Policy, 2/e, Basil Blackwell, Oxford.
- Culbertson, J. M. (1971). Macro-Economic Theory and Stabilization Policy, McGraw-=Hill, New York.
- Friedman, M. (Ed.) (1956). Studies in the Quantity Theory of Money, University of Chicago Press, Chicago.
- Gibson, W. E. and G. Kaufman, (Ed.) (1975). Monetary Economics, 2/e, Tata McGraw-Hill, Delhi.
- Gibson, W. E. and G. Kaufman, (Ed.) (19750. Monetary Economics, 2/e, Tata McGraw-Hill, New Delhi.
- Gibson, W. E. and G. Kaufman, (Ed.) (19750. Monetary Economics: Readings on current Issues, 2/e, Tata McGraw-Hill, New Delhi.
- Gupta, S. B. (1979). Monetary Planning for India, Oxford University Press, Delhi.
- Gupta, S. B. (1983). Monetary Economics, 2/e, S. Chand & Co., New Delhi.
- Harris, L. (1985). Monetary Theory, McGraw-Hill, New York, Goodhart, C. (1977). Money Information & Uncertainty, 2/e, Macmillan, London.
- Laidler, d. (1977). Demand for Money, 2/e., Dun-Donnely, New York.
- Mitra, S. (Ed.) (1970). Money and Banking, Random House, New York.
- Mitra, S. (Ed.) (1970). Money and Banking, Random House, New York.
- Radcliffe Committee (1959). Report of the Committee on the Working of the monetary System. Macmillan, London.
- Reserve Bank of India (1977). Money Supply: Concepts Compilation and Analysis, RBI Bulletin, January, Bombay.
- Savors, R. S. (1978). Modern Banking, 7/e, Oxford University Press, Delhi.

DSC Course Code: MEC-24 HISTORY OF ECONOMIC THOUGHT Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- trace the evolution of the subject matter of economics starting with mercantilists.
- draw inferences about the relevance of classical economics, socialist economic thoughts, historical critiques and Marx in the present context.
- demonstrate the relevance of neo-classical economics and identify contribution of Austrian School.
- explain and interpret Keynesian and Post Keynesian Economics.
- understand basic Indian economic thought.

Unit – I

Mercantilism: Main Principles. Theory of economic development; Views of Keynes, Petty, Hume and Cantillon on Mercantilism: Physiocracy: Natural Order, Agriculture and Product net, social classes. *Tableau Economique*.

Unit – II

The Classical Period: Economic Thought of Adam Smith, David Ricardo, and J. S. Mill with special reference to their views on value, distribution international trade and economic development; Malthus theory of population; Says law of market. Ricardo Malthus controversy on Say's law of market.

Unit – III

Socialistic Economic Thought: Socialist critique of classical economic thought with special references to the views of Saint Simon, Sirmondi and Proudhan. The Historical critics of Classicism, Karl Marx method of Economic analysis. Marx analysis of economic crises. Transformation Problem.

Unit – IV

The Neo-Classical Period: Similarity and differences between classical and neoclassical thought; The Marginal Revolution with special reference to the contribution of the Austrian School, Leon Walras, Jevons, Wickshell and Marshall.

Unit - V

Post Marshalling Development in Economic Theory: Contribution of Joan Robinson, E. H. Chamberlin; J. M. Keynes and Post Keynesian developments in economic theory.

Introduction to Indian economic thought: Economic ideas of Kautilya, Thiruvalluvar, BR Ambedkar, Mahatma Gandhi, JL Nehru, VKRV Rao and Amartya K. Sen.

Note:

Special instructions to paper setter: While setting question(s) out of Indian economic thought (Unit - V) care must be taken to set questions to test basic knowledge of candidate w.r.t Indian economic thought.

- Backhouse. R. (1985). A History of Modern Economic Analysis, Basil Blackwell, Oxford.
- Blaug, M. (1988). Economic Theory in Retrospect, 3/e; Cambridge University Press Cambridge.
- Brue Stanley, The History of Economic Thought.
- Dantawala, M.L., (1964), "Economic Ideology of Jawaharlal Nehru", *EPW*, Special Number, July 1964, pp. 1209 1211.
- Dasgupta, A. K. (1985). Epochs of Economic Theory, Oxford University
- Eakelund R. B. and R. Rebert (1983). A History of Economic Theory and Method, 2e, McGraw-Hill, New York.
- Gary, A. and A. E. Thompson (1980). The Development of Economic Doctrines, 2e Longman Group, London.
- Gide. C. and G. Rist, (1956). A History of Economic Doctrines, 2e, George Harrop and company, London.

 Press, Delhi.
- Rima, I. (1978). Development of Economic Analysis, 3e, R. D. Irwin, Homewood.
- Roll, E., (1973). A History of Economic Thought, Faber, London.
- Schumpeter, J. A. (1954). History of Economic Analysis, Oxford University Press, New York.

AECC Code: MEA-25 EVALUATING CONTEMPORARY ECONOMIC ISSUES Course Credits: 2

Course Outcomes

The course proposes to develop the capacity of students to analyse and appreciate contemporary economic issues and policy pronouncements. The course will start with an introduction to the basic principles of report writing. Subsequent modules will involve inter-active lectures, group discussions, and group presentations.

By the end of the course student will be able to present their analysis in the form of a written report.

Unit I

Guidance for project writing: Identifying the topic, Review of Literature, Writing Project Report – Referencing Styles and use of referencing software.

Unit II

Analysing economics in the news Writing article about contemporary economic event (National &/or Global) using knowledge of economic theory, Analysis of contemporary Indian Economic Data and Policies Economic survey, budget, annual policy data, RBI, Monthly Economic Data - Ministry of Finance.

Suggested Readings:

- Economic and Social Classification of the Budget, available at http://finmin.nic.in/reports/FunClass201415.pdf.
- Finance Commission Report http://finmin.nic.in
- http://www.unionbudget.nic.in
- Mukherjee Pranab (2012), "Budget Making", in K. Basu and A. Maertens (eds), The New Oxford Companion to Economics in India, OUP.
- The Economists, https://www.economist.com/
- The Key to Budget Documents, Budget At A Glance, Macroeconomic Framework Statement, Medium Term Fiscal Policy Statement and Fiscal Policy Strategy Statement, all available at indiabudget.nic.in.

DSC Course Code: MEC-31 AGRICULTURAL ECONOMICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- develop the understanding of the interdependence between agriculture and industrial development.
- make use of agriculture production functions, identify and solve risk and uncertainty in agriculture.
- understand and build models for India's agricultural development.
- evaluate Agricultural policies in lieu of their effectiveness.
- compare and contrast the traditional and modern sources of agricultural finance.

Unit-I

Nature and scope of agricultural economics. Role of agriculture in economic development. Interdependence between agriculture and industrial development. Systems of farming Farm size and productivity debate. Land reforms in India.

Unit-II

Agricultural production functions. Input output relationships; factor-factor relationships and product-product relationships. Measures of farm efficiency. Risk and uncertainty in agriculture.

Unit-III

Models of agricultural development (Lewis, Fei-Ranis, Jorgenson, Mellor, Schultz, and Boserup. Modals). Technological change and new agricultural strategy (green revolution) in India, Agro-climatic zonal planning in India.

Unit-IV

Agricultural price policy in India. Criteria to fix agricultural prices. Intersectoral terms of trade. Measures to increase marketable surplus. Functions of agricultural marketing. Efficiency criteria for agricultural marketing. Problems of Indian agricultural marketing. Measures to improve the efficiency of agricultural marketing in India.

Unit-V

Importance of agricultural finance. Source of agricultural finance, Defects of rural money lending system. Problems of agricultural cooperative societies. Government policy for agricultural credit. Problems and suggestions to improve agricultural finance. Causes of rural indebtedness. Measures to reduce rural indebtedness. Objective and impact of integrated rural development programme. Resource mobilisation from agricultural sector.

- Acharya S.S. & N.L. Agrawal (1987). Agricultural Marketing in India, Oxford & IBH, New Delhi.
- Bishop, C.E. & W. D. Toussaint (1958). Agricultural Economic Analysis John Wiley and sons, New York.
- Dehrman, J.R. (1968). Supply Response in Under-Developed Agriculture, North-Holland, Publishing Co., Amsterdam.
- Dole J.P., V.J. Rhodes & J. F. West (1968). Economics of Agricultural Production, Markets and Policy Richard D. Irwin, Homewood.
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DSC Course Code: MEC 32 GENDER ECONOMICS Course Credits: 5

Course Outcomes

Upon completion of the course students will be able to:

- Describe and critically discuss how incorporating the gender dimension influences economic development and how economic development also impacts the gender discourse.
- Understand gender inequalities that exist in many spheres of the economy and how they become an obstacle to development.
- The feminist economics project tries to overcome these limitations of mainstream economic theory
- Develop an understanding of theory on feminist economics and the challenges it poses to theories of economic development and therefore to raise new questions in economics along with exploring different ways in which questions can be answered.
- Thoroughly understand common economic problems in developing and developed countries and how they affect different groups in society.
- Know and be able to work out and interpret different measures and indicators of gender and development and eliminate restricting standards.
- Develop competence to assess different development/economic policy measures from a theoretical and empirical perspective through a gender lens.

Unit I

Concept of Gender and human development. Gender disaggregated data/gender statistics. From Women in Development to Gender and Development. Gender Inequality. Capability approaches. Perspectives on men and masculinities in economic development. Relationship between economic growth and gender equality, empowerment (emphasis on economic empowerment). Indicators of economic inequalities. Third gender and development: substance and indicators. Demographic changes and gender status. Gender interpretation of causes of demographic shift in birth rates. Child sex preferences and secondary sex ratio. Gender differences in mortality: concept and factors - biological, environment, discrimination and behavioural (lifestyle) factors. Socio-economic differences in mortality.

Unit II

Subject and methods of gender economics. Feminist economic critique of mainstream economics and alternatives. Feminist perspectives on economic methods and arguments. Neoliberal economic policies, international trade and investment. Trade, feminization and international gender wage inequality. Gender effects on macroeconomic theory and instability. Globalization of the world

economy and gender status: concepts such as feminization of poverty and multidimensional poverty. Women's contribution to GDP.

Unit III

Conceptualizing Women's Work: Productive/Reproductive Work and Formal/Informal work. Estimating Women's Work, Indian and International Debates. Issues in Participation; Occupations; Women and Globalization; Globalization and Economic Change; International Division of Labour.

Gender inequality in the labour market: entry into and exit from the labour market, careers, wages, skills training. Inequality and discrimination. Factors in wage disparities. Gender dimension of employment of youth and older persons.

Unit IV

Household economics: theoretical concepts and gender critique. Gender critique of the neo-Marxist approach. Gender critique of neo-classic household theory. The gender contract, negotiation models within families. Distribution of time: work in the labour market, work in the household, leisure time. Distribution of incomes (expenditures) in the household: inter-generational and gender aspect. Distribution of resources and decision-making mechanisms in households. Investments in human capital at household level and the sex factor. Accumulation of human capital over a life cycle. Household factors (reproductive, productive, structural, income-based, power-related) and employment of household members. Gender based marital and age-dependent migration.

Unit V

Gender policy: national, regional and global.

Practical policy solutions to the problem of gender inequality. Policies and strategies for reducing gender inequalities. Gender mainstreaming (including organizational mainstreaming), participatory approaches, gender budgeting, micro-credit. Welfare and Social Security Measures. Women in Planning and Social Policy.

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DSC Course Code: MEC -33 RESEARCH METHODOLOGY Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- Understand the scientific methods of research, research process and research design.
- Understand the sampling techniques and sampling procedures.
- Know the various methods of data collection, tools and techniques.
- Know the reliability and validity of measurement of scaling.
- Know the purpose of project proposal and project report.

Unit – I Scientific Methods of Research

Definition of research, assumptions, operations and aims of scientific research. The research process; conceptual, empirical and analytical phases of research. Essential criteria for scientific methods.

Research designs: observational Studies; descriptive, explanatory, exploratory and evaluative studies. Experimental studies; pre-test design, post-test design, follow-up or longitudinal design. Action research studies and panel studies.

Unit – II Methods of Data Collection:

Collection of primary data. Selection of appropriate method for data collection; interview schedule, questionnaire, case history and case study method. Tools of Data Collection: schedule and questionnaire, construction of schedule and questionnaire, qualities of a good schedule and questionnaire. Guidelines for successful interviewing.

Collection of secondary data - population (sex wise data) labour force, occupational, educational and vital statistics. Focus Group discussion (FGD), content analysis, social mapping, social networking and mystery client technique.

Unit – III Sampling Techniques

Complete enumeration versus sampling. Concept of Sampling unit, Sampling frame and sampling design. Sampling methods: simple random sampling, stratified sampling, Systematic sampling, cluster Sampling and purposive sampling. Multistage sampling in large-scale surveys, self- weighting designs, stratification in multistage sampling. Sampling and non-sampling errors, calculation of weights, sample size determination.

Unit – **IV** Measurement

Reliability and validity of measurement: Face, Content, Construct, convergent, concurrent and predictive validity. Scaling techniques: attitude scales, point scales, ranking scales, rating scales, limitations of attitude scales. Techniques of scale construction: Bogardus, Guttman, Likert, Semantic and Thurstone Scale.

Data collection, processing and analysis: editing, coding, data entry, validation and analysis.

Unit – **V** Writing Research Proposal and Report

Purpose of a proposal/report. Content of proposal/report: introductory section, methodology adopted, analysis and inferences, summary, Conclusion and recommendations. References/Bibliography, appendices, footnotes. Examples of some hypothetical proposals.

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- Edwards, Allen L. (1957), Techniques of Attitude Scale Construction, Appleton Century _ Crofts, New York.
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DSE Course Code: MEE-34 (i) ECONOMICS OF POPULATION Course Credits: 5

Course Outcomes

By the end of the course student will be able to:

- apply general awareness of the relationship between economics and population
- take part in analytical insights and knowledge population processes, structure and distribution
- examine and analyze gross and per capital output.
- identify plans development, policies and strategies of economic development.
- identify facts of economic push and pulls in the causation of population growth.
- analyse deep insights into economic inequalities.

Unit - I

Early theories of population (Malthus, Ricardo, Marx, J.M. Keynes and others). Effect of Pre- industrial technological and institutional changes on population. Demographic transition. The concept of optimum population.

Unit - II

Economic determinants of fertility: new household economics (Leibenstein theory and Gary Becker's Theory). Alternative economic approaches to fertility theory (Easterlin's and Caldwell's theories).

Unit – III

Cost and values of children and their effects on fertility, Supply of children and elements of uncertainty for the parents. economic determinants of Nuptiality (marriages and divorce), Gary Becker's model. Economic determinants of mortality.

Unit - IV

Economic determinants of migration (Regenstein's, Lee's and Todaro's Model). Economic consequences of population growth (General views of Malthus, Marx, Simon Kuznets). Economic consequences of population growth (Dual sector models of Lewis, Ranis Fei and Jorgenson's).

Unit - V

Effects of population growth on Savings and investment, population growth and Labour supply, population growth and distribution of income. Effects of population growth on educational and human capital input facilities. Economic consequences of slowing population growth and population decline. Policy issues related to population and economic growth.

- Agarwala, S. N. (1972). India's Population Problem, Tata McGraw Hill, Bombay.
- Bhende, A.A. and T. Kanitkar. Principles of Population Studies, Himalaya Publishing House, Bombay.
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- John C. Caldwell, Towards a Restatement of Demographic Transition Theory, Population and Development Review, Vol. 2, Nos. 3-4, September and December 1976, pp. 321-366.
- Registrar General of India, Census of India, Government of India, New Delhi.
- Shrivastava, O.S. (1983). A Textbook of Demography, Vikas Publishing House, New Delhi.
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- Shryock, H. Siegel, J.S. and Associates (1976). The Methods and Material of Demography, Academic Press, New York.
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- Weeks, J.R. (1978). Population: An Introduction to Concept and Issues. Wadsworth Publishing Co., Belmont, California.

DSE Course Code: MEE-34 (ii) ECONOMETRICS Course Credits: 5

Course Outcomes

By the end of the course student will be able to:

- estimate and interpret linear regression models
- examine the problems that arise when the assumptions of linear regression model are not valid.
- solve problems that results from violating the assumptions of linear regression model.
- dissect various concepts of econometrics such as autocorrelation, homoscedasticity, multicollinearity etc., which have very wide significance in economic relations.
- analyse tools of econometrics, econometric models and applying them in practice.

Unit - I

The Simple Linear Regression Model

Assumptions of ordinary Least Squares (OLS) method, Properties of OLS estimates. Assumption of normality and confidence intervals for the parameters. Tests of significance of the parameter estimates. Tests of hypotheses with parameter estimates, test of goodness of fit with R-square. Desirable properties of estimates. Prediction with a linear regression model. Proof of BLUE properties of estimates (Gauss-Markov theorem). Different types of variables (Dominant, proxy irrelevant and superfluous variables).

Unit - II

Extension of Linear Regression Model

General Linear regression Model and Analysis of Variance: general linear regression model. Extension of the linear regression model to non-linear relationships. Applications of analysis of variance and regression. Tests of restriction imposed on the relationship of two or more parameters. The Chow test. Specification errors and specification bias.

Unit - III

Violations of Assumptions of Linear Regression Model

The Problem of heteroscedasticity, its consequences and some methods to overcome the problem. Auto-correlation, its Sources, consequences and methods to solve the problem. The Durbin-Watson test. Consequences and tests for detection of multicollinearity. The Farrar-Glauber test. Methods to solve the

problem of multicollinearity. Errors in Variables: their consequences and solutions. Method of inverse least squares.

Unit – **IV** Dummy and Lagged Variables

Analysis with dummy variables as explanatory variables. Lagged variables and distributed lag models; The Koyck model, the adaptive expectation model, the Nerlovis partial adjustment model and the Almon scheme of polynomial lag. The method of instrumental variables. The method of maximum likelihood as applied to regression. The Cramer-Rao lower bound. Regression on dummy dependent variables. The linear probability and the Logit models.

Unit – **V** Identification and Simultaneous Equation Models

The Simultaneous equation bias. The problem of identification. Formal rules for identification and choice of econometric methods. Recursive models, Indirect Least Squares model. Two stage least squares (2SLS) and the method of Instrumental Variables.

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 3rd Edition, (First Indian Reprint 2007), Akash Press, New Delhi 20.

GE Course Code: MEG-35 (i) FUNDAMENTAL CONCEPTS IN ECONOMICS Course Credits: 4

Course Outcome

By the end of the course student will be able to:

- understand basic concepts of economics.
- understand the budget document.
- evaluate the performance of the Indian economy.
- identify and discuss national and global economic issues.

Unit - I

Definition of economics, nature of economic problem, Concepts and measurement of utility, law of diminishing marginal utility-its practical applications and importance Law of demand, elasticity of demand (price, income and cross)-Measurement, practical importance and applications. Law of supply, elasticity of supply and its practical applications.

Unit - II

Theory of Production: Stages of production function; Returns to factor proportions; Return to scale; Elasticity of substitution; Technical progress and production function; Cost and Revenue Analysis (traditional and modern theories of cost). Equilibrium of the firm-marginal analysis: Optimum factor combination and product combination. Meaning of market, types-Perfect, Monopoly, Oligopoly, Monopolistic (Main features only).

Unit - III

Concept of Gross Domestic Product, Gross National Product, National Income and Disposable Income. Aggregate demand and supply (Both open and closed economies) Basic concepts of inflation, deflation, stagflation, business cycles and Balance of Payment (with special reference to India's BOP). Reserve Bank of India (RBI); Its working, functions, performance and role in the economic development of India; RBI's monetary policy

Unit - IV

Growth and Structure of Indian Economy Since 1950. Growth of Indian economy since 1950. Trends in the nature and magnitude of poverty, inequality and unemployment. Trends in agricultural and industrial production and productivity. India's developmental pattern-Successes and failures.; India's engagement with International Financial Institutions IMF, IBRD (World Bank), Asian Development Bank (ADB). International Development Association (IDA).

SUGGESTED READINGS

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DSC Course Code: MEC-41 INDIAN ECONOMY Course Credits: 5

Course Outcomes

By the end of the course student will be able to:

- evaluate the evolution of Indian economy and identify key issues in development of Indian economy.
- dissect and examine sectoral development specifically agricultural and industrial development.
- interpret and elaborate financial sector and related policies.
- inspect and explain Indian economy in the context of India's foreign trade.
- evaluate the performance of Indian economy's development trajectory.

Unit - 1

Growth and Structure of Indian Economy Since 1950. Growth of Indian economy since 1950. Measures for raising economic growth. Trends in the nature and magnitude of poverty, inequality and unemployment. The unorganized Sector and its implications for the economy, Changes in occupational pattern, Demographic trends and economic development. Rate and trend in saving, investment and growth rate.

Unit - II

Growth of Agricultural, Industrial and Tertiary Sectors

Trends in agricultural production and productivity. Impact of liberalization in agricultural sector. Industrial Growth performance and problems. Industrial concentration; its nature and extent. Cottage and small-scale and MSME industries. Impact of liberalization and privatization on the industrial sector. Tertiarization of the Indian economy.

Unit – III

Money Supply, Inflation and Public Policies

Factors determining interest rates. Money supply and inflation in India. Financial sector reforms during 1990's. recent tax reforms. Growth and structure of subsidies in India. Macro-economic policies – fiscal policy, income policy and stabilization policy. Parallel economy and its implications.

Unit - IV

International Trade Policies

Composition and directions of India's foreign trade. Factors determining the balance of payment. Disequilibrium in the balance of payment. Causes, consequences and policy measure. India's policies towards foreign capital; collaboration, export promotion and import substitution. Exchange rate policy and the convertibility of Rupee.

Unit - V

Development Policies

India's planned development; Successes and failures. Policies for social justice (with special reference to the alleviation of poverty, inequality and unemployment). Food policy and public distribution system (PDS). Sectoral policies: Industrial and agrarian. Policies for liberalization and privatization.

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- Simha, S. L. N. (1974). Inflation in India, Vora and Co., Bombay.
- Thavaraj, M. J. K. (1978). Financial Management of the Government, S. Chand and Company, New Delhi.
- Wadhwa, C. (Ed.) Some Problems of India's Economic Policy, 2e, Tata McGraw-Hill, Publishing Company.

DSC Course Code: MEC-42 PUBLIC FINANCE Course Credits: 5

Course Outcomes

By the end of the course student will be able to:

- examine the concept of maximum social advantage, keeping in view market failure and free riders' problem.
- understand and make use of taxation system of India.
- outline the theories, concepts and meaning of public debt and public expenditure in India.
- interpret and elaborate classification of budget and fiscal policy for stability, growth and economic development.
- evaluate the growth and composition of statutory and non- statutory financial resources in India.

Unit – **1**

Principles of Public Finance

Principles of maximum Social Advantage. Role of public finance in the developing Economics. Fiscal economics: An overview. Of allocation, distribution and stabilization. Functions. Market failure. Public goods and externalities. Public goods and free-rider problem.

Unit -II

Principles of Taxation

Meaning and type of taxes; requirements of a good tax structure. Approaches to taxation: micro analysis of direct and indirect taxes; individual income tax, corporation income tax, sales tax including value-added tax, expenditure tax and Goods and service Tax. Incidence of taxes; nature of tax burden and principles of tax incidence. Theories and measures of tax incidence. Effects of taxes on work efforts, savings, investment, and growth. Trade-off between equity and efficiency. Taxable capacity.

Unit – III

Economics of Pubic Debt and Public Expenditure

Sources of public debt. Classical theory of public debt. Compensatory aspects of debt policy. Burden of public debt. Management of public debt. Growth of internal and external public debt. in India. Theories of growth of public expenditure. Pattern of public expenditure. Pure theory of public expenditure. Growth of public expenditure in India.

Unit - IV

Reforms in Budgeting System and Stabilization Polices

Performance and programming budgeting. Classification of budgets. Fiscal policy: traditional and modern views on fiscal policy. Instruments of fiscal policy; built-in-stabilizes and compensatory fiscal policy. Fiscal policy for stability and growth. Fiscal policy and economic development.

Unit - V

Fiscal Federalism: Role of fiscal federalism. Allocation, distribution, and stabilization in a federation. Union-state-local financial relations in India. Growth and composition of statutory and non-statutory financial transfers in India. Nature and extent of deficits in central and State budgets. Policy measures to correct fiscal imbalances. Economic analysis of recent union budgets.

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DSC Course Code: MEC-43 ECONOMICS OF DEVELOPMENT AND PLANNING Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- explain the concepts of economic growth, structural change and economic development.
- compare and contrast Classical, Marxian, Schumpeterian and other theories of economic development.
- analyse state intervention under LPG and evaluate and construct development plans using appropriate techniques.
- understand and evaluate development models.
- critically examine the policy debate around India's development trajectory.

Unit – I

Economic growth, development and sustainable economy. Various traditional and modern criteria and measure of development, Major features of structural change and economic development. Measurement of absolute poverty and income inequality. Growth and equality trade –off.

Unit – II

Classical, Marxian and Schumpeterian theories of economic development. Stages of economic growth (Rostow and Marx). Approaches to the theory of underdevelopment and development underdevelopment. The big-push theory; Critical minimum effort thesis, Low level equilibrium trap. Lewis and Ranis-Fei models of economic development.

Unit – III

Planning and the market mechanism State intervention vs. liberalization, and privatization debate. The core areas of State intervention under liberalization. Process of plan formulation. Investment criteria for plan projects, cost-benefit analysis. Determination of size, growth rate and priorities in planning. Use of input-output and linear programming techniques in planning.

Unit - IV

Models in economic planning: policy models, projection models and development planning models. Models underlying various Indian Plans: Harrod Domar model; Mahalanobis model, and the model underlying current Five Years Plan. Resource mobilization for planning: Domestic resources; mobilization of resources through fiscal measures and monetary regulation. Savings and inflationary finance. External resources-Dual gap analysis and foreign borrowings. Foreign borrowings v/s. foreign direct investment.

Unit - V

India's Five-Year Plans: Objectives, strategies, achievements and constraints. Decentralized planning and people's participation. Saving-investment rates-trends and problems. The policy debate in the post liberalization period debate-general down sizing of the public sector and disinvestments in public sector undertaking MNCs Vs. Swadeshi movement benefits and pitfalls of globalization and international finance.

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DSE Course Code: MEE-44 (i) PG DISSERTATION Course Credits: 5

Course Outcomes

By the end of the course student will be able to:

- develop the ability to critically examine economic issues.
- use basic analytical tools.
- present arguments/findings logically.
- evaluate policies and strategies of economic development

Guidelines for PG Dissertation

Students are encouraged to undertake PG Dissertation work based on a combination of primary and secondary data/information.

1. Dissertation

- a) Each student will undertake an **individual** dissertation ideally of 60 -80 pages. It will be reported in on A4 size paper in Times New Roman Font. Font size: Main Heading =16; Subheading=14 & Text 12. Line spacing 1.5 and margins 1" top, bottom & right margin and 1.5" on left margin. Font size for tables/figures may be suitably adjusted. The dissertation is to be printed on both sides of the paper using mirror margins. **IMPORTANT:** A dissertation of less than 50 pages in this specified format will not be accepted for evaluation.
- b) The dissertation work will be carried out in consultation with the supervisor allotted to each student for the purpose.
- c) A seminar of the research proposal will be presented to the Department Council and Students to help finalize the topic & methodology and latest version of style sheet (APA/MLA etc) of the proposed study prior to its commencement.
- d) Pre submission seminar will be presented to the Department Council and only upon approval will the Dissertation be submitted for evaluation.
- **2. Dissertation:** will be as per APA/MLA/any other standard stylesheet to be specified at the time of Seminar presentation at 1c) above.

Chapter Scheme

- i) Introduction
- ii) Review of Literature
- iii) Research Methodology

IMPORTANT: At the time of Seminar [1c) above], in place of "Limitations", "Expected Outcome" will be reported.

- iv) Data Analysis & Findings
- v) -do-
- vi) Summary and Conclusion

References/Bibliography

Annexure (Annexure I will be the Questionnaire/Interview schedule).

NOTE: The number of Chapters pertaining to data analysis may vary in accordance with the objectives. Here Chapters iv, & v are shown as an example.

DSE Course Code: MEE-44 (ii) INDUSTRIAL ECONOMICS Course Credits: 5

Course Outcomes

By the end of the course, students will be able to:

- have the knowledge of different theories of international trade and their applications.
- to know about impact of dynamic factors on international trade.
- have the knowledge of various policies related to international trade besides, role of international trade organizations.
- attain the knowledge of balance of payment and determination of exchange rates
- have the knowledge of capital requirements of developing countries both in short and long run.
- have the knowledge of Financial institutions like IMF, ADB, IFC and IDA.

Unit - 1

Scope of industrial Economics. Organization of industry. Changing forms of industrial organization. Process of industrialization: Rationale, objectives, strategies and polices. Employment implications of industrialization. Appropriate industrial technology for LDSLs. Industrialization and economic development. Patterns and phases of industrial growth and changes in industrial structure. Environment pollution on (its types, sources and effects), Public goods and bads, unmarketed goods, externalities. Resource depletion, problem of social cost.

Unit - II

Theory of firm and pricing. Objectives of the firm: profit and non-profit maximizing models of the firm. Bais theory of limit pricing; Marginal cost versus full cost pricing; Allocation of costs in case of joint products; Welfare implications of monopoly pricing. Investment decision; conventional and modern approaches; risk, uncertainty and investment decision. Economic Evaluation of Environmental Resources Measuring environmental damage (Valuation Methodologies). Irreversibility and the optimal use of natural environments (irreversibility in economic processes, irreversible Decisions and exhaustible resources, irreversible investment and project evaluation, determining the discount rate, intergenerational transfers determining the discount rate, intergenerational transfers and uncertainty). Divergence between social cost and private and uncertainty.

Unit – III

Market structure, conduct and performance and interrelations among them. Industrial concentration: concepts and measurement; Extent, causes and likely effects of concentration. Analysis of diversification, Vertical integration and mergers in industry. Extent of monopoly and concentration in India; Public policy

towards industrial concentration and monopoly power in India. Environmental Management Models: Environmental control under uncertainty. Economics of pollution control. Economics of renewable resource harvesting (Optimal policies of fisheries, optimal rotating forest). Efficient allocation of renewable resources through time.

Unit – IV

Industrial location: Theories and factors affecting location; infrastructure for industrialization; Regional growth of industry in India. Tools of public policy. Indian policy for backward areas. Industrial finance in India. Role of term-leading institutions in industrial development of India. Indian capital market. Environmental costs of economic growth. Problems of rural and urban environmental planning. Resource management to fulfil environmental, social and economic objectives. Dilemma in environmental planning (poverty Vs. Environmental quality, social aspects, legal aspects, financial aspects).

Unit - V

Issues in Indian industry: Phases of industrial growth and changes in industrial structure India. Public sector rationale and organization; Public sector pricing policies. The question of efficiency in the context of special constraints; Overall performance of public sector in India. The concept of joint-sector in India. The problems of industrial sickness; Capacity utilization. Foreign collaborations; Multinationals in Indian joint ventures aboard. The recent liberalization trends. Large versus small scale industry debate in India. Policies for Environmental Planning, Role of voluntary organizations. People's participation in environmental management, Resource conservation (conserving soils, protecting forests, materials substitution, product life extension. Recycling materials conservation.

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GE Course Code: MEG-45 ECONOMY OF HIMACHAL PRADESH Course Credits: 4

Course Outcomes

By the end of the course student will be able to:

- To understand the various socio-economics issues of the economy of Himachal Pradesh
- To examine the problems and prospects of agricultural and horticultural activities of Himachal Pradesh.
- To know the industrial, power, labour welfare and skill development issues related to the Himachal Economy.
- To analyse the role infrastructural and tourism in the economic development of the Himachal Pradesh

Unit I

Features of Himachal Pradesh Economy: Resource endowment - Land, Water, Minerals, Forests, Demographic Trends, Human Development Index. Trends in State income – Structural growth before and after reforms, Sources of State Finances. Targets and Achievements of Plans, Budget. Growth trends in GSDP.

Unit II

Agriculture and Horticulture of Himachal Pradesh: Role of Agriculture and Horticulture in State Domestic Product Cropping pattern, Productivity and yield of major crops, Agricultural marketing, Agricultural finance, Marginalization and Agricultural Diversification in Himachal Pradesh. Trends in Fruit and vegetable Production and Productivity. Critical evaluation of government policies on agriculture and horticulture sector.

Unit III

Industrial and Power Sector of Himachal Pradesh: Trends and patterns in industrial growth, large scale and MSME industries in Himachal Pradesh, Labour Welfare measures and skill development programmes. Trends in hydro power generation in Himachal Pradesh. Environmental issues related to Industrialization and power projects in Himachal Pradesh.

Unit IV

Infrastructure and Tourism of Himachal Pradesh: Transport: road, rail and air. Banking, Housing, Social Welfare, Education and health programmes of the State Government. Role of Tourism in the economic development of Himachal Pradesh. Spillover effect of tourism development.

Unit V

Himachal as a model for hill development. Successes and pitfalls of planned development in Himachal Pradesh. Resource mobilization for this special category

state. Growth potential and possibilities of rural modernization. Gender dimension of human capital formation in Himachal Pradesh.

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