

M.A. Economics (Two-Year) Programme

Regulations & Curriculum -2019

UGC-SAP- DRS-II Assisted
Department of Economics

**REGULATIONS FOR THE TWO-YEAR POST GRADUATE PROGRAMMES UNDER
CHOICE BASED CREDIT SYSTEM (CBCS)**

These Regulations are common to all the students admitted to the Two-Year Master's Programmes in the Faculties of Arts, Science, Indian Languages, Education, Marine Sciences, and Fine Arts from the academic year 2019-2020 onwards.

1. Definitions and Nomenclature

- 1.1 **University** refers to Annamalai University.
- 1.2 **Department** means any of the academic departments and academic centres at the University.
- 1.3 **Discipline** refers to the specialization or branch of knowledge taught and researched in higher education. For example, Botany is a discipline in the Natural Sciences, while Economics is a discipline in Social Sciences.
- 1.4 **Programme** encompasses the combination of courses and/or requirements leading to a Degree. For example, M.A., M.Sc.
- 1.5 **Course** is an individual subject in a programme. Each course may consist of Lectures/Tutorials/Laboratory work/Seminar/Project work/Experiential learning/ Report writing/viva-voce etc. Each course has a course title and is identified by a course code.
- 1.6 **Curriculum** encompasses the totality of student experiences that occur during the educational process.
- 1.7 **Syllabus** is an academic document that contains the complete information about an academic programme and defines responsibilities and outcomes. This includes course information, course objectives, policies, evaluation, grading, learning resources and course calendar.
- 1.8 **Academic Year** refers to the annual period of sessions of the University that comprises two consecutive semesters.
- 1.9 **Semester** is a half-year term that lasts for a minimum duration of 90 days. Each academic year is divided into two semesters.
- 1.10 **Choice Based Credit System** A mode of learning in higher education that enables a student to have the freedom to select his/her own choice of elective courses across various disciplines for completing the Degree programme.
- 1.11 **Core Course** is mandatory and an essential requirement to qualify for the Degree.
- 1.12 **Elective Course** is a course that a student can choose from a range of alternatives.
- 1.13 **Value-added Courses** are optional courses that complement the students' knowledge and skills and enhance their employability.
- 1.14 **Credit** refers to the quantum of course work in terms of number of class hours in a semester required for a programme. The credit value reflects the content and duration of a particular course in the curriculum.
- 1.15 **Credit Hour** refers to the number of class hours per week required for a course in a semester. It is used to calculate the credit value of a particular course.
- 1.16 **Programme Outcomes (POs)** are statements that describe crucial and essential knowledge, skills and attitudes that students are expected to achieve and can reliably manifest at the end of a programme.

1.17 Programme Specific Outcomes (PSOs) are statements that list what the graduate of a specific programme should be able to do at the end of the programme.

1.18 Learning Objectives also known as Course Objectives are statements that define the expected goal of a course in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction.

1.19 Course Outcomes (COs) are statements that describe what students should be able to achieve/demonstrate at the end of a course. They allow follow-up and measurement of learning objectives.

1.20 Grade Point Average (GPA) is the average of the grades acquired in various courses that a student has taken in a semester. The formula for computing GPA is given in section 11.3

1.21 Cumulative Grade Point Average (CGPA) is a measure of overall cumulative performance of a student over all the semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters.

1.22 Letter Grade is an index of the performance of a student in a particular course. Grades are denoted by the letters S, A, B, C, D, E, RA, and W.

2. Programmes Offered and Eligibility Criteria

The various PG Programmes offered by the University and the eligibility criteria for each of these programmes are detailed below.

Faculty of Arts	
Programme	Eligibility
M.A. Economics M.A. History M.A. Philosophy M.A. Political Science M.A. Population Studies M.A. Rural Development M.A. Sociology M.S.W. Master of Social Work	A Pass in Bachelor's Degree (10+2+3 pattern) in any subject including the Professional courses of this University or an examination of any other University accepted by the Syndicate as equivalent thereto.

2.1 In the case of SC/ST and Differently-abled candidates, a pass is the minimum qualification for all the above Programmes.

3. Reservation Policy

Admission to the various programmes will be strictly based on the reservation policy of the Government of Tamil Nadu.

4. Programme Duration

4.1 The Two Year Master's Programmes consist of two academic years.

4.2 Each academic year is divided into two semesters, the first being from July to November and the second from December to April.

4.3 Each semester will have 90 working days (18 weeks).

5 Programme Structure

5.1 The Two Year Master's Programme consists of Core Courses, Elective Courses (Departmental & Interdepartmental), and Project.

5.2 Core courses

5.2.1 These are a set of compulsory courses essential for each programme.

5.2.2 The core courses include both Theory (Core Theory) and Practical (Core Practical) courses.

5.3 Elective courses

5.3.1 **Departmental Electives (DEs)** are the Electives that students can choose from a range of Electives offered within the Department.

5.3.2 **Interdepartmental Electives (IDEs)** are Electives that students can choose from amongst the courses offered by other departments of the same faculty as well as by the departments of other faculties.

5.3.3 Students shall take a combination of both DEs and IDEs.

5.4 Experiential Learning

5.4.1 Experiential learning provides opportunities to students to connect principles of the discipline with real-life situations.

5.4.2 In-plant training/field trips/internships/industrial visits (as applicable) fall under this category.

5.4.3 Experiential learning is categorised as Core.

5.5 Project

5.5.1 Each student shall undertake a Project in the final semester.

5.5.2 The Head of the Department shall assign a Research Supervisor to the student.

5.5.3 The Research Supervisor shall assign a topic for research and monitor the progress of the student periodically.

5.5.4 Students who wish to undertake project work in recognised institutions/industry shall obtain prior permission from the University. The Research Supervisor will be from the host institute, while the Co-Supervisor shall be a faculty in the parent department.

5.6 Value added Courses (VACs)

5.6.1 Students may also opt to take Value added Courses beyond the minimum credits required for award of the Degree. VACs are outside the normal credit paradigm.

5.6.2 These courses impart employable and life skills. VACs are listed in the University website and in the Handbook on Interdepartmental Electives and VACs.

5.6.3 Each VAC carries 2 credits with 30 hours of instruction, of which 60% (18 hours) shall be Theory and 40% (12 hours) Practical.

5.6.4 Classes for a VAC are conducted beyond the regular class hours and preferably in the II and III Semesters.

5.7 Online Courses

5.7.1 The Heads of Departments shall facilitate enrolment of students in Massive Open Online Courses (MOOCs) platform such as SWAYAM to provide academic flexibility and enhance the academic career of students.

5.7.2 Students who successfully complete a course in the MOOCs platform shall be exempted from one elective course of the programme.

5.8 Credit Distribution

The credit distribution is organised as follows:

	Credits
Core Courses	65-75
Elective Courses	15
Project	6-8
Total (Minimum requirement for award of Degree)	90-95*

**Each Department shall fix the minimum required credits for award of the Degree within the prescribed range of 90-95 credits.*

5.9 Credit Assignment

Each course is assigned credits and credit hours on the following basis:

1 Credit is defined as

1 Lecture period of one hour per week over a semester

1 Tutorial period of one hour per week over a semester

1 Practical/Project period of two or three hours (depending on the discipline) per week over a semester.

6 Attendance

6.1 Each faculty handling a course shall be responsible for the maintenance of *Attendance and Assessment Record* for candidates who have registered for the course.

6.2 The Record shall contain details of the students' attendance, marks obtained in the Continuous Internal Assessment (CIA) Tests, Assignments and Seminars. In addition the Record shall also contain the organisation of lesson plan of the Course Instructor.

6.3 The record shall be submitted to the Head of the Department once a month for monitoring the attendance and syllabus coverage.

6.4 At the end of the semester, the record shall be duly signed by the Course Instructor and the Head of the Department and placed in safe custody for any future verification.

6.5 The Course Instructor shall intimate to the Head of the Department at least seven calendar days before the last instruction day in the semester about the attendance particulars of all students.

6.6 Each student shall have a minimum of 75% attendance in all the courses of the particular semester failing which he or she will not be permitted to write the End-Semester Examination. The student has to redo the semester in the next year.

6.7 Relaxation of attendance requirement up to 10% may be granted for valid reasons such as illness, representing the University in extracurricular activities and participation in NCC/NSS/YRC/RRC.

7 Mentor-Mentee System

7.1 To help the students in planning their course of study and for general advice on the academic programme, the Head of the Department will attach certain number of students to a member of the faculty who shall function as a Mentor throughout their period of study.

7.2 The Mentors will guide their mentees with the curriculum, monitor their progress, and provide intellectual and emotional support.

7.3 The Mentors shall also help their mentees to choose appropriate electives and value-added courses, apply for scholarships, undertake projects, prepare for competitive examinations such as NET/SET, GATE etc., attend campus interviews and participate in extracurricular activities.

8 Examinations

8.1 The examination system of the University is designed to systematically test the student's progress in class, laboratory and field work through Continuous Internal Assessment (CIA) Tests and End-Semester Examination (ESE).

8.2 There will be two CIA Tests and one ESE in each semester.

8.3 The Question Papers will be framed to test different levels of learning based on Bloom's taxonomy viz. Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation/Creativity.

8.4 Continuous Internal Assessment Tests

8.4.1 The CIA Tests shall be a combination of a variety of tools such as class tests, assignments, seminars, and viva-voce that would be suitable to the course. This requires an element of openness.

8.4.2 The students are to be informed in advance about the assessment procedures.

8.4.3 The pattern of question paper will be decided by the respective faculty.

8.4.4 CIA Test-I will cover the syllabus of the first two units while CIA Test-II will cover the last three units.

8.4.5 CIA Tests will be for two to three hours duration depending on the quantum of syllabus.

8.4.6 A student cannot repeat the CIA Test-I and CIA Test-II. However, if for any valid reason, the student is unable to attend the test, the prerogative of arranging a special test lies with the teacher in consultation with the Head of the Department.

8.5 End Semester Examinations (ESE)

8.5.1 The ESE for the first/third semester will be conducted in November and for the second/fourth semester in May.

8.5.2 A candidate who does not pass the examination in any course(s) of the first, second and third semesters will be permitted to reappear in such course(s) that will be held in April and November in the subsequent semester/year.

8.5.3 The ESE will be of three hours duration and will cover the entire syllabus of the course.

9 Evaluation

9.1 Marks Distribution

9.1.1. Each course, both Theory and Practical as well as Project/Internship/Field work/In-plant training shall be evaluated for a maximum of 100 marks.

9.1.2 For the theory courses, CIA Tests will carry 25% and the ESE 75% of the marks.

9.1.3 For the Practical courses, the CIA Tests will constitute 40% and the ESE 60% of the marks.

9.2. Assessment of CIA Tests

9.2.1 For the CIA Tests, the assessment will be done by the Course Instructor

9.2.2 For the Theory Courses, the break-up of marks shall be as follows:

	Marks
Test-I & Test-II	15
Seminar	05
Assignment	05
Total	25

9.2.3 For the Practical Courses (wherever applicable), the break-up of marks shall be as follows:

	Marks
Test-I	15
Test-II	15
Viva-voce and Record	10
Total	40

9.3 Assessment of End-Semester Examinations

9.3.1 Evaluation for the ESE is done by both External and Internal examiners (Double Evaluation).

9.3.2 In case of a discrepancy of more than 10% between the two examiners in awarding marks, third evaluation will be resorted to.

9.4 Assessment of Project/Dissertation

9.4.1 The Project Report/Dissertation shall be submitted as per the guidelines laid down by the University.

9.4.2 The Project Work/Dissertation shall carry a maximum of 100 marks.

9.4.3 CIA for Project will consist of a Review of literature survey, experimentation/field work, attendance etc.

9.4.4 The Project Report evaluation and viva-voce will be conducted by a committee constituted by the Head of the Department.

9.4.5 The Project Evaluation Committee will comprise the Head of the Department, Project Supervisor, and a senior faculty.

9.4.6 The marks shall be distributed as follows:

Continuous Internal Assessment (25 Marks)		End Semester Examination (75 Marks)	
Review-I 10	Review-II: 15	Project / Dissertation Evaluation	Viva-voce
		50	25

9.5 Assessment of Value-added Courses

9.5.1 Assessment of VACs shall be internal.

9.5.2 Two CIA Tests shall be conducted during the semester by the Department(s) offering VAC.

9.5.3 A committee consisting of the Head of the Department, faculty handling the course and a senior faculty member shall monitor the evaluation process.

9.5.4 The grades obtained in VACs will not be included for calculating the GPA.

9.6 Passing Minimum

9.6.1 A student is declared to have passed in each course if he/she secures not less than 40% marks in the ESE and not less than 50% marks in aggregate taking CIA and ESE marks together.

9.6.4 A candidate who has not secured a minimum of 50% of marks in a course (CIA + ESE) shall reappear for the course in the next semester/year.

10. Conferment of the Master's Degree

A candidate who has secured a minimum of 50% marks in all courses prescribed in the programme and earned the minimum required credits shall be considered to have passed the Master's Programme.

11. Marks and Grading

11.1 The performance of students in each course is evaluated in terms Grade Point (GP).

11.2 The sum total performance in each semester is rated by Grade Point Average (GPA) while Cumulative Grade Point Average (CGPA) indicates the Average Grade Point obtained for all the courses completed from the first semester to the current semester.

11.3 The GPA is calculated by the formula

$$GPA = \frac{\sum_{G=1}^G G_G G_G}{\sum_{G=1}^G G_G}$$

where, G_G is the Credit earned for the Course G in any semester;

G_G is the Grade Point obtained by the student for the Course G and

G is the number of Courses passed in that semester.

11.4 **CGPA** is the Weighted Average Grade Point of all the Courses passed starting from the first semester to the current semester.

$$CGPA = \frac{\sum_{G=1}^G G_G \sum_{G=1}^G G_G G_G}{\sum_{G=1}^G G_G \sum_{G=1}^G G_G}$$

where, G_G is the Credit earned for the Course G in any semester;

G_G is the Grade Point obtained by the student for the Course G and

G is the number of Courses passed in that semester.

G is the number of semesters

11.5 Evaluation of the performance of the student will be rated as shown in the Table.

Letter Grade	Grade Points	Marks %
S	10	90 and above
A	9	80-89
B	8	70-79
C	7	60-69
D	6	55-59

E	5	50-54
RA	0	Less than 50
W	0	Withdrawn from the examination

11.6 Classification of Results. The successful candidates are classified as follows:

- 11.6.1 For **First Class with Distinction:** Candidates who have passed all the courses prescribed in the Programme *in the first attempt* with a CGPA of 8.25 or above within the programme duration. Candidates who have withdrawn from the End Semester Examinations are still eligible for First Class with Distinction (*See Section 12 for details*).
- 11.6.2 For **First Class:** Candidates who have passed all the courses with a CGPA of 6.5 or above.
- 11.6.3 For **Second Class:** Candidates who have passed all the courses with a CGPA between 5.0 and less than 6.5.
- 11.6.4 Candidates who obtain highest marks in all examinations at the first appearance alone will be considered for University Rank.

11.7 Course-Wise Letter Grades

- 11.7.1 The percentage of marks obtained by a candidate in a course will be indicated in a letter grade.
- 11.7.2 A student is considered to have completed a course successfully and earned the credits if he/she secures an overall letter grade other than RA.
- 11.7.3 A course successfully completed cannot be repeated for the purpose of improving the Grade Point.
- 11.7.4 A letter grade RA indicates that the candidate shall reappear for that course. The RA Grade once awarded stays in the grade card of the student and is not deleted even when he/she completes the course successfully later. The grade acquired later by the student will be indicated in the grade sheet of the Odd/Even semester in which the candidate has appeared for clearance of the arrears.
- 11.7.5 If a student secures RA grade in the Project Work/Field Work/Practical Work/Dissertation, he/she shall improve it and resubmit if it involves only rewriting/ incorporating the clarifications suggested by the evaluators or he/she can re-register and carry out the same in the subsequent semesters for evaluation.

12. Provision for Withdrawal from the End Semester Examination

- 12.1 The letter grade W indicates that a candidate has withdrawn from the examination.
- 12.2 A candidate is permitted to withdraw from appearing in the ESE for one course or courses in **ANY ONE** of the semesters **ONLY** for exigencies deemed valid by the University authorities.
- 12.3 **Permission for withdrawal from the examination shall be granted only once during the entire duration of the programme.**
- 12.3 Application for withdrawal shall be considered **only** if the student has registered for the course(s), and fulfilled the requirements for attendance and CIA tests.
- 12.4 The application for withdrawal shall be made ten days prior to the commencement of the examination and duly approved by the Controller of Examinations. Notwithstanding the mandatory prerequisite of ten days notice, due consideration will be given under extraordinary circumstances.

- 12.5** Withdrawal is **not** granted for arrear examinations of courses in previous semesters and for the final semester examinations.
- 12.6** Candidates who have been granted permission to withdraw from the examination shall reappear for the course(s) when the course(s) are offered next.
- 12.7** Withdrawal shall not be taken into account as an appearance for the examination when considering the eligibility of the candidate to qualify for First Class with Distinction.
- 13. Academic misconduct**
Any action that results in an unfair academic advantage/interference with the functioning of the academic community constitutes academic misconduct. This includes but is not limited to cheating, plagiarism, altering academic documents, fabrication/falsification of data, submitting the work of another student, interfering with other students' work, removing/defacing library or computer resources, stealing other students' notes/assignments, and electronically interfering with other students'/University's intellectual property. Since many of these acts may be committed unintentionally due to lack of awareness, students shall be sensitised on issues of academic integrity and ethics.
- 14. Transitory Regulations**
Wherever there has been a change of syllabi, examinations based on the existing syllabus will be conducted for two consecutive years after implementation of the new syllabus in order to enable the students to clear the arrears. Beyond that, the students will have to take up their examinations in equivalent subjects, as per the new syllabus, on the recommendation of the Head of the Department concerned.
- 15.** *Notwithstanding anything contained in the above pages as Rules and Regulations governing the Two Year Master's Programmes at Annamalai University, the Syndicate is vested with the powers to revise them from time to time on the recommendations of the Academic Council.*

Department of Economics
M.A. ECONOMICS (Two Year) Programme
Programme Code: 014
Programme Structure

(For students admitted from the academic year 2019-2020)

Course Code	Course Title		Hours/Week			Marks		
			L	P	C	CIA	ESE	Total
Semester - I								
19ECOC101	Core 1:	Advanced Microeconomics	5		5	25	75	100
19ECOC102	Core 2:	Advanced Macroeconomics	5		5	25	75	100
19ECOC103	Core3:	Advanced Public finance	5		5	25	75	100
19ECOC104	Core4:	Research Methodology	4		4	25	75	100
19ECOE105	D.Elective 1:	Urban Economics	4		4	25	75	100
	D.Elective 2:	Gender Economics	4			25	75	100
					23			
Semester - II								
19ECOC201	Core5:	Mathematics for Economics	5		5	25	75	100
19ECOC202	Core6:	Monetary Economics	5		5	25	75	100
19ECOC203	Core7:	Environmental Economics	5		5	25	75	100
19ECOC204	D.Elective 3:	Regional Economics	4		4	25	75	100
	D.Elective 4:	Labour Economics						
19ECOX205	Elective 1:	Inter Department Elective	3		3	25	75	100
					22			
Semester - III								
19ECOC301	Core8:	International Trade and Finance	5		5	25	75	100
19ECOC302	Core9:	Econometric Methods	5		5	25	75	100
19ECOC303	Core10:	Computer Application in Economics		5	5	25	75	100
19ECOE304	D.Elective 5:	Globalisation and Development	4		4	25	75	100
	D.Elective 6:	Economics of Education	4					
19ECOX305	Elective 2:	Inter Department Elective	3		3	25	75	100
19SOSC306	Core11:	Soft Skills	3		3	25	75	100
					25			
Semester - IV								
19ECOC401	Core12:	Indian Economic Development and Policy	5		5	25	75	100
19ECOC402	Core13:	Health Economics	5		5	25	75	100
19ECOC403	Core14:	Economics of Climate Change	4		4	25	75	100
19ECOE404	D.Elective 7:	Modern Economic Development	4		4	25	75	100
	D.Elective 8:	Economics of Infrastructure						
19ECOP405	Core15:	Project Work			5	25	75	100
					23			
					93			
Total Credits								
Value Added Courses								

M.A. ECONOMICS Two Years Programme

Elective

#	Course Title	Credits Details
1	Mandatory Core code	71
2	Department Elective Code	16
3	Inter Department Elective Code	6

Elective Courses

Department Electives (DE)

S.No	Course Code	Course Title	Hours/week			Marks		
			L	P	C	CIA	ESE	Total
1	19ECOE-105 (1)	Urban Economics	4	0	4	25	75	100
2	19ECOE-105 (2)	Gender Economics	4	0	4	25	75	100
3	19ECOE204(3)	Regional Economics	4	0	4	25	75	100
4	19ECOE204(4)	Labour Economics	4	0	4	25	75	100
5	19ECOE304(5)	Globalization and Development	4	0	4	25	75	100
6	19ECOE304(6)	Economics of Education	4	0	4	25	75	100
7	19ECOE404(7)	Modern Economic Development	4	0	4	25	75	100
8	19ECOE404(8)	Economics of Infrastructure	4	0	4	25	75	100

PROGRAMME OUTCOMES FOR ARTS FACULTY

- PO1:** *Critical thinking*
- PO2:** *Cultivating Cognitive skills required in the job market*
- PO3:** *Effective Communication*
- PO4:** *Familiarity with ICT to thrive in the information age*
- PO5:** *Cultivating aptitude for research*
- PO6:** *Respect for alternate view-points including those conflicting with one's own perspectives*
- PO7:** *Ability to work individually and as members in a team*
- PO8:** *Upholding ethical standards*
- PO9:** *Acting local while thinking global*
- PO10:** *Commitment to gender equality*
- PO11:** *Commitment to Sustainable development*
- PO12:** *Lifelong learning*

III (A) PROGRAMME SPECIFIC OUTCOMES

(M.A. Economics Two Year Programme)

At the completion of the programme the students will be able to

PSO1: *Apply economic reasoning to study social life*

PSO2: *Interpret data about the economy*

PSO3: *Understand the role of theories in economic inquiry*

PSO4: *Evaluate economic policies from different perspectives*

PSO5: *Carry out a research project and communicate the insights effectively*

Learning Objectives (LO):

1. To equip the students in micro economic theories with graphic illustrations.
2. To develop the skills of application of the principles to the real world problems.

Unit -1: Market Theories–I

1. Perfect competition – Short run and long run equilibrium of the firm and industry – Price and output determination – Optimum firm.
2. Monopoly – Short run and long run equilibrium - Price discrimination, monopoly control, and regulation – Contestable Market.
3. Monopolistic competition–Chamberlin Model- selling costs - Excess capacity.

Unit -2: Market Theories–II

1. Oligopoly – Non-collusive Models - Cournot - Bertrand – Chamberlin – Edgeworth – Sweezy - Stackelberg
2. Oligopoly - Collusive Models - Cartels and mergers - Price leadership - Base point price system
3. Monopsony – Price and output determination – Workable competition.

Unit -3: Alternative Theories of Firm

1. Duopoly price game-dominant strategy-Nash Equilibrium
2. Full cost pricing rule - Bain's limit pricing theory - Sylos-Labini Model
3. Input-output model-linear programming applications in decision making

Unit -4: Distribution Theories

1. Neo-classical approach – Marginal productivity theory; Product exhaustion theorem; Hick's technical progress.
2. Modern theory of distribution – Factor Pricing in imperfect product and factor markets.
3. Determination of Wages – Labour supply and wage determination – Role of trade unions and collective bargaining

Unit –5: Welfare Economics

1. Concept of Welfare Economics- role of value and judgment
2. Pareto optimality theory – Scitovsky double criterion theory –Arrow's theory of social choice
3. Amartya Sen on Arrow's impossibility theorem

Text Books

1. Ahuja H.L (2017) *Advanced Economic Theory* (Sultan Chand Co., New Delhi).
2. Hal R. Varian (2004), *Intermediate Micro Economics* (East-West Press: New Delhi).
3. Ruffin Roy. J (1992) *Intermediate Micro Economics* (Harper & Collins Publishers- New York).
4. Sundaram K.P.M. and Vaish M.C. (2004), *Micro Economic Theory* (S.Chand

Supplementary Readings

1. Koutsiyannis A. (1985) *Modern Micro Economics*, (Macmillan- London).
2. Ferguson C.E. (1986) *Micro Economic Theory*, (Homewood, U.S.A).
3. Salvatore, Dominick (2016), *Micro Economic Theory* (Tata Mcgraw Hill-New Delhi).
4. Watson (1975) *Price Theory and its uses*, (Scientific Book Company , Calcutta).

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the economic principles that underpin modern economics
- CO2:** Have a basic understanding of the way budget constrained individuals make optimising choices and the way resources are allocated in private markets
- CO3:** Understand the role of different trading arrangements in markets and their impact on prices and the quantities traded
- CO4:** Use basic economic principles to evaluate the effects of government interventions and other exogenous changes in markets
- CO5:** Evaluate the Pareto optimum and social welfare functions

Learning Objectives (LO):

1. To equip the students in macroeconomic theories and policies.
2. To develop the application skills of the principles to the real world problems.

Unit-1: Investment Function

1. Factors determining Investment Demand
2. Marginal Efficiency of capital and interest rate - Marginal Efficiency of Investment and uncertainty
3. Theory of Multiplier- Principles of Accelerator-The interaction between Multiplier and accelerator

Unit-2: General Equilibrium

1. Goods market and Money market
2. The equilibrium in real sector-Equilibrium in monetary sector
3. General equilibrium-shift in IS and LM Curves

Unit-3: New Classical Macroeconomics

1. Rational expectation theory
2. The inflation –employment- trade off, Philips curve
3. Mundell Fleming model

Unit – 4: Theories of trade cycle

1. Concept and Phases of trade cycle
2. Innovation theory- Kaldor theory and Hicks's theories of business cycle
3. Samuelson's theory of business cycle

Unit-5: Macroeconomic Policy

1. Macro Economic policy- objectives
2. Instruments-fiscal policy and monetary policy
3. Macroeconomic policy and sustainable growth

Text Books

1. AHUJA H.L.[2017] *Macro Economics S.Chand & Company ,New Delhi ISBN-13:9789385401350*
2. *Jhingan M.L., [2017]. Macro Economic Theory [Konark Publishers Pvt.Ltd., Chennai].*
3. *Vaish M.C.,[2015] Macro Economics Theory, Vikas Publishing House Pvt.Ltd., New Delhi.*

Supplementary Readings

1. W. H. Branson (2005) *Macro Economics Theory and Policy*, 3rd Edition , East West Press Pvt Ltd, New Delhi.
2. Frederic S. Mishkin, (2016) *Macro Economics Policy and Practice*, 2nd Edition, Pearson Education, London, UK.
3. David Romer, (2011) *Advanced Macro Economics*, 4th Edition, Mcgraw Hill Education, USA.
4. Thomas R. Michal, Asoke K. Ghosh ((2009) *Macro Economic Theory*, PHI Learning Pvt Ltd., New Delhi.

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the Macroeconomic problems in an economy
- CO2:** Analyse the difference between classical and Keynesian approach
- CO3:** Formulate strategies to maintain effective demand
- CO4:** Appreciate consumption pattern and consumption behavior
- CO5:** Formulate the Macroeconomic Policy and Development

Learning Objectives (LO):

1. To make the students appreciate relative roles of Government and market in resource allocation from a theoretical perspective.
2. To teach the students the working of the fiscal policy with emphasis on tax structure, debt management in the context of federal setup.

Unit – 1: Introduction

1. Role of public finance - Major Fiscal functions.
2. Private and Public goods – Mixed goods – Merit goods- Social goods-Market failure Public goods and externalities.

Unit – 2: Public Expenditure

1. Theories of Public Expenditure – Musgrave – Wagner - Peacock Wiseman– Growth of Public Expenditure – Canons and Evaluation of Public Expenditure.

Unit – 3: Taxation and Public Debt

1. Direct and Indirect taxation – Canons and Principles of Taxation – Theory of optimal taxation – modern theory of incidence.
2. Classification and Sources of public debt – Burden of public debt – Principles of public debt – Methods of repayment of public debt – Compensatory aspects of public debt policy.

Unit – 4: Fiscal Policy and Fiscal Federalism

1. Objectives and Instruments of Fiscal policy – Compensatory Fiscal policy – Fiscal policy for Economic stability and growth– Effectiveness of fiscal policy.
2. Fiscal federalism – Role of finance commission – Principles – Recommendations of the latest Finance Commission – Transfer of resources from Union and States and States to Local Bodies.

Unit – 5: Indian Public Finance

1. Financial Autonomy in India – Tax Reform proposals of Kelkar Committee.
2. Tax structure and Working of Fiscal federalism in India – Resource transfer from union to State– Value Added Tax – MVAT- goods and service Tax (GST)
3. Fiscal consolidation in India since 2001-2002 – Fiscal responsibilities of central and state.
4. Central and State government Budgets – Issues of fiscal deficit
5. Fiscal policy and Economic downturn : Fiscal correction versus additional Stimulus

Text Books

1. Roshan H.S. Hayer . T. (2008) Public Finance MC Graw Hill Education, New Delhi
2. Singh S.K.(2017) , Public Finance in theory and Practice (S.Chand & Co) New Delhi

Supplementary Readings

1. Kelkar V .(2002), “Indian Tax Reform Report of a Survey” .Ministry of Finance.
2. Lekha C (2008) “ Analysing the Raguram Rajan Committee Report on Finance Sector Reforms” EPW 43 (25): 11-14 June -21-27.
3. Shankara Acharya (2006) “30 years of Tax Reform in India” EPW (April)
4. Richard A Musgrave and Peggy B. Musgrave (1989). Public Finance in Theory and Practice [New Delhi]

Course Outcome

At the end of course, the students will be able to

- CO1:** Understand the role of Government in Economic Activities
- CO2:** Estimate the design of the tax structure using the concept of efficiency and equity
- CO3:** Demonstrate how the level of Government Expenditure is determine
- CO4:** Evaluate the methods of public debt and deficit
- CO5:** Calculate the financial relationship between the state and central

Semester-I

19ECOC104: Research Methodology

Credits:4

Hours: 4

Learning Objectives (LO):

1. To make the students identify and understand the overall process of designing a research study from its inception to its report.
2. To make the familiar with ethical issues in educational research.

Unit-1: Introduction

1. Meaning and Objectives of research-significance of research-Research Methods Vs Methodology-scientific Method-Criteria of Good research
2. Research Problems-Components needs and technique of defining research problems
3. Types of research: Descriptive, Analytical, Fundamental, Applied, Quantitative, Qualitative, Conceptual, Empirical –Survey method, Case study method, Action Research
4. Research design:Types and Characteristics of a good research design.

Unit-2: Theory & Hypothesis

1. Role of theory in research
2. Hypothesis-Importance of a Research hypothesis- Sources of hypothesis-Qualities of a good hypothesis- Hypothesis testing.

Unit-3: Collection of Data

1. Methods of collecting primary data –Self Administered questionnaire -Interview Surveys-
2. Telephone Surveys- Schedules.
3. Characteristics of a good questionnaire
4. Important sources of secondary data: Census, NSS, CSO,RBI, World Bank
5. Precaution in using secondary data

Unit-4: Sampling Design

1. Types of Population-Need for sampling-criteria for relating a sampling procedure
2. Methods of selecting a sample-Probability and Non Probability sampling methods-Determination of Sample size- Characteristics of a good sample design.

Unit-5: Mechanics of thesis writing

1. Significance of report writing-Types of research report
2. Format of a thesis
3. Importance of organization of literature review -Bibliographical citation procedure
4. Ethics in Research

Textbook

1. Earl R.Babbie (2010) The practice of Social Research. 12th edition, Wads Worth Cengage Learning
2. Ranjit Kumar (2018) Research Methodology 4th edition Sage Publication

Supplementary Readings

- 1 Kothari C.R.(2004) Research Methodology, 2nd edition,New age International publications
- 2 R.Panneerselvam (2005) Research Methodology Prentice Gall of Private Limited,New Delhi
- 3 Louis Cohen, Lawrence Manion and Keith Morrison (2007)., Research methods in Education, six edition Roughage, New York

Course Outcomes

At the end of course, the students will be able to

- CO1:** Differentiate Research methods from Research Methodology
- CO2:** Evaluate the qualities of a good hypothesis
- CO3:** Understand the methods of primary data and secondary data
- CO4:** Analyse probability sampling and non probability sampling methods
- CO5:** Formulate a thesis with well organize literature review

Semester- I

**19ECOE105-1: Urban Economics
[DE-1]**

Credits:4

Hours: 4

Learning Objectives (LO):

The study of urban economics is intended

1. To make the students understand the economic factors and forces underlying the process of urbanisation.
2. To develop students skill to examine the economic aspects or urban problems.
3. To provide insights into the formation of effective urban policies.

Unit-1: The process of Urbanisation

1. Definition of Urban Area- causes of urbanisation.
2. Theories of urban structure and urban growth-Concentric Zone Theory-Central Place Theory-Urban base theory.
3. Features of urbanization in Developing countries.

Unit-2: Rural-Urban migration

1. Theories of Rural- Urban migration-Rosent's Law, Lewis-Fei Ranis Model, Lee's Theory.
2. Concept of informal sector and its role in economic development.
3. Factors affecting migration-Economic Factors-Push and Pull factors Social and other factors.

Unit-3: Problems of Urbanisation

1. Urban Transportation.
2. Slums, Housing and Urban Renewal.
3. Urban Water supply and Public Health.
4. Urban Financial Problems.

Unit-4: Urbanisation in India

1. 21st Century Urbanisation in India-Growth of Urban Population.
2. Urbanisation without labour absorption in India.

Unit-5: Urban Development Policy in India

1. Policies and Programmes under the plans- Integrated Development of small and medium towns.
2. Urban development and Housing Policy.
3. Measures to control urban growth-Decentralisation industry-Growth Centres-Satellite towns.

Text Books

1. Ashish Bose (1989) India's Urbanisation 1901-2001 (New Delhi, Tata McGraw Hill Co.)
2. Francis Cherunillam (2016) Urbanisation in Developing Countries (Bombay, Himalaya Publishing House)
3. Ghanshyam Shah, (2016) Urban Economics (Sage Publications, New Delhi)

Supplementary Readings

1. Brian A and Ravinder Singh, (edited) (1995) Housing the Urban poor, Policy and Practice in Developing Countries, (Sage Publications, New Delhi)
2. Fred Durr, The Urban Economy (London, Index Educational Publishers) 1971.
3. Harris Tordon (1973), Introduction to urban Economic Analysis and policy (New York).

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the theories of urbanisation
- CO2:** Appreciate the economic and social factors causing migration from rural to urban
- CO3:** Evaluate the problems of urbanisation
- CO4:** Formulate the policies for integrated development of towns
- CO5:** Analyse the measures of decentralization industry-growth centre's, installing Satellite towns.

Learning Objectives (LO):

1. To make the students understand the demographic aspects of gender and their role in family
2. To enable students understand the role played by women in rural sector, urban sector and the empowerment of women

Unit -1: Demographic Aspects of Gender

1. Women Studies vs Gender studies – Sex vs Gender –
2. Gender Inequalities – Amartya Sen’s view on gender inequalities-missing women

Unit -2: Gender and Family

1. Women and the household – Women’s paid work and the family – decision making power –bargaining power
2. Domestic role of women – Valuing women’s work – Time allocation of Women’s work

Unit –3: Gender and Employment

1. Theories of Labour market -Wage differentials in the labour market – male and female productivity differences – Demand and supply factors
2. Emergence of women entrepreneurship – Women’s Education and Employment – Rural and Urban Employment opportunities

Unit –4: Gender and Empowerment

1. Economic empowerment – Poverty eradication – HDI - GDI – GEM- Social empowerment –Education, Health and Nutrition.
2. Political Empowerment – Membership in Panchayat Raj Institution, Co-operative institution – Legislature Assemblies in Parliament - Cultural Empowerment

Unit –5: Gender Technology and Environment

1. Gender and development indices; Mainstreaming gender into development policies
2. Gender planning techniques; Gender sensitive governance; Paradigm shifts from women’s well being to Women’s empowerment
3. Democratic decentralization (Panchayats) and women’s empowerment in India

Text Books

1. Mukesh Easwaran (2014) Why Gender Matters in Economics, Princeton University Press, USA
2. March C., Smyth, I., Mukhopadhyay, M. (2005). A Guide to Gender Analysis Framework OXFAM.
3. Taslikaan (2007). A Conceptual Framework for Gender and Development Studies: From Welfare to Empowerment

Supplementary Readings

1. UNDP (2018) Human Development Report, Oxford University Press, New York.
2. World Economic Forum (2018) The Global Gender Gap Report, The World Bank india.
3. Kapsos .S, Silberman. A and Bourmpoula. E(2014) Why is female Labour force participation declining so sharply in india ? ILO Research Paper No 10 Geneva. International Labour organization. Retrained 15th july 2015 from http://www.ilo.org/global/research_papers/wcms250977/and-en/index.htm google scholar

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the types and causes of gender inequalities
- CO2:** Evaluate Women's paid work and unpaid work at household
- CO3:** Appreciate theories of labour market and its impact on wage discrimination
- CO4:** Apply gender empowerment measures and formulate a new index for measuring empowerment of women
- CO5:** Analyse women's role in environmental safety and women's role in technological world

(Resolved that in Quantitative Papers, at least 50 percentages of Questions must be asked to solve problems in view of increasing Numerical and application skills)

Learning Objectives (LO):

1. To equip the students with the knowledge of mathematical techniques
2. To train the students with the applications of mathematics in economics

Unit-1: Differentiation

1. Functions of two or more variables – First and second order simple and partial derivatives – Total differential – Partial elasticity values and growth rates.
2. Economic applications of partial derivatives – Marginal utility – Marginal rate of substitution – Marginal productivity – Marginal rate of technical substitution – Input elasticities – Elasticity of substitution – Euler's theorem.
3. Properties of homogenous production function – Cobb – Douglas and CES function.

Unit -2: Optimization in Economics

1. First and second order conditions for maximum and minimum of $Y = f(X)$ and $Z = f(X, Y)$.
2. Maximum revenue – Minimum average cost – Maximum profit of a firm.
3. Monopoly with tax and price discrimination – Duopoly and game theory.

Unit –3: Constrained Optimization

1. Lagrange's multiplier method - First and Second Order Conditions
2. Consumer equilibrium – Slutsky equation.
3. Producer equilibrium – Least cost combination of inputs – Expansion path – Minimizing cost with output constraint – Maximizing profit with output constraints.

Unit –4: Applications of Integration

1. Basic rules and methods of integration
2. Deriving total from marginal values – Consumer's surplus and producer's surplus

Unit –5: Dynamic Analysis

1. First order differential equations – Harrod Domar and Solow growth models – Capital expansion model.
2. Linear and exact difference equations – Cob-Web model

Text Books

1. Chiang, A.C. (2011). *Fundamental methods of Mathematical Economics* [McGraw-Hill, New Delhi]
2. Metha and Madnani (2017). *Mathematics for Economists* [Laxminarain Agarwal Educational Publishers, New Delhi]

Supplementary Readings

1. Renshaw, Georf(2012), *Maths for Economics*, Oxford University Press, UK

Course Outcome

At the end of course, the students will be able to

- CO1:** Demonstrate economic applications of partial and total derivatives
- CO2:** Distinguish between types of integral calculus and understand their applications in economics
- CO3:** Appreciate different orders of differential equations and their uses in economic analysis
- CO4:** Understand the role of difference equations in economics
- CO5:** Become a critical reader of literature concerning empirical analyses

Learning Objectives (LO):

To equip the students with basic theories of monetary economics

1. To make the students understand the role of financial institutions in a developing economy
2. To educate the students to understand the working of monetary policies in India

Unit – 1: Demand for Money

1. Quantity theories of money – Fisher and Cambridge
2. Keynesian monetary theory
3. James Tobin's portfolio analysis of money demand
4. Don Patinkin's Integration– Real Balance Effect
5. Milton Friedman's reformulated quantity theory

Unit – 2: Supply of Money

1. Types and determinants of money supply – money multiplier
2. Theories of interest rate – classical – Keynes – Hicks – Hansen.

Unit – 3: Money and Capital Market

1. Significance and functions of Money market and capital market
2. Role of financial intermediaries – Effects of financial intermediation
3. Non-banking financial institutions – Gurley and Shaw theory

Unit – 4: Banking

1. Functions of Commercial banks - Credit creation – process and limitations
2. Role of Commercial banks after nationalization – after reforms
3. Role of RBI – Regulation of money supply and credit
4. Narashimham Committee Reports– 1991 and 1998
5. Raguram Rajan Committee Report -2007

Unit – 5: Monetary Policy

1. Objectives and Instruments of Monetary policy– Limitations of monetary policy
2. Monetarism and Keynesianism – Comparison - Supply side policies

Text Books

1. Vaish, M.C. (2014). *Money, Banking and International Trade* [New Age International, New Delhi]
2. Mithani D. M. *Monetary Economics 2015 "A Course in Monetary Theory"* Somaiya Publication New Delhi

Supplementary Readings

1. Gupta, R.D. (1995). *Keynes and Post Keynesian Economics* [Kalyani Publishers, New Delhi]
2. Harry Johnson (1977) *Essays in Monetary Economics* (George Allen Unwin)
3. Basu S.K. (2008) *Recent Banking Development* [Chand and Co., New Delhi]

Course Outcomes

At the end of course, the students will be able to

CO1: Understand the function of money

CO2: Formulate the strategies for effective functioning of demand and supply of money

CO3: Appreciate the role of monetary policy in controlling inflation

CO4: Evaluate the priority lending business of commercial banks

CO5: Appreciate the role of public sector banks as banker to government

Learning Objectives (LO):**In this course students will**

1. Learn about environment-economy linkage
2. Learn about the economic roots of environmental damage
3. Become acquainted with environmental valuation

Unit – 1: Economy and the Environment

1. The interaction between the economic system and the environmental system – The services provided by the environmental system to the economic system – The Material Balance model.
2. Market and Environment : Public goods, externalités, absence of property rights.
3. “Government failure” and environmental damage.

Unit – 2: Environmental Policy

1. The socially efficient level of emissions: the concept of optimum pollution.
2. Criteria for evaluating environmental control policies.
3. Command – and-control-policy.
4. “Market based instruments: Pollution taxes, tradable permits, subsidies, cap-and-trade
5. Property rights to internalize externalities: The Coase Theorem.

Unit – 3: Environmental Valuation

1. Importance of environmental valuation
2. Cost-Benefit analysis
3. The categories of environmental value.
4. Methods of environmental valuation: Revealed preference methods: Hedonic pricing method, travel cost method:-State preference approach; Contingent Valuation method.

Unit – 4: Natural Resource Economics

1. Types of natural resources.
2. Non-renewable resources a) the McKelvey classification b) Allocating Non-renewable resources : The Hotelling Theorem.
3. Renewable resources – a) Forests: Frontier model and immiserisation models of deforestation; Consequences of deforestation; b) Water: Efficient allocation of sustainable yield”; - Water: Efficient allocation of surface and ground water.
4. Common Property Resources (CPRs) – Characteristics of CPRs -Dissipation of Hotelling rents (“tragedy of the commons”) - Ostrom’s “design principles” for sustainable local CPR governance.

Unit – 5: Economic Growth and Sustainable Development

1. Growth and the environment: The environmental Kuznets curve.
2. Sustainable Development: a) weak sustainability and strong sustainability b) The “Hartwick rule” c) “green national accounts”, genuine savings
3. Poverty and environmental degradation
4. Economics of Climate Change: a) economic impact of climate change b) Climate Change Policy: mitigation and adaptation c) International action for climate change.

Text Books

1. *Environmental Economics : An Introduction* by Barry C. Field ad Martha K. Field (New York:McGraw-Hill, 2017)
2. *Introduction to Environmental Economics (2001)* by Nick Hanley, J.F.Shogren, and Ben White (London:Oxford University Press,2001)

Supplementary Reading

For Unit 4

1. Natural Resource Economics: An Introduction Barry C Field (London: McGraw Hill, 2001)

Course Outcomes

At the end of course, the students will be able to

- CO1:** Appreciate the resource flow between the economic system and the environmental system.
- CO2:** Apply economic concepts to understand the cause of the different types of environmental damage
- CO3:** Measure the economic costs of environmental damage and the benefits of enhancing environmental quality
- CO4:** Understand the use of market based instruments to control: environmental damage
- CO5:** Analyse the situation between economic growth and sustainable development

Learning Objectives (LO):

1. To teach the theories of regional development from a multidimensional perspective.
2. To make the students understand the policies of regional development.

Unit – 1: Introduction

1. Objectives and scope of regional economic analysis.
2. Regional economic problems – Causes.
3. Economics of Geography – Krugman – Endogenous growth (Lucas and Romer)

Unit – 2: Regional Economic Theories – I

1. Theories of Regional Economic Development – Cumulative Causation (Perroux, Myrdal, Hirschman)
2. Export base theory, Central place theory (Christaller), Sector theory (Colin Kuznets), Stages theory (Rostow).

Unit – 3: Regional Economic Theories – II

1. Theories of Location – Weber's and Florence
2. Migration and Regional Development – Todaro Model
3. Three dimensions of Regional Development – Density, Distance and Economic Divisions.

Unit – 4: Regional Disparities

1. Regional Disparities – Interstate variations of poverty and unemployment
2. Comparative analysis of industrial development in different stages
3. Agricultural development in different stages.

Unit – 5: Regional Planning

1. Regional imbalances and Financial Institutions in India – Inter-state disparity
2. Problems of developing the backward areas – Regional Planning in India.
3. Micro level plans – Special Economic Zone

Text Books

1. Anitakumari (2016), *Balance and Regional Development in India: Issues and policies*, (New Century Publications) .
2. Mishra J and Chakadar Sinha (2014), *Planning and Regional Development in India* (Guarav Publishing House, Jalandhar).
3. Mishra R.P (2012), *Regional Development Planning In India* (Vikas, New Delhi).

Supplementary Reading

1. Friedman, J and W. Alonso Edited (1984) *Regional Development and Planning: A Reader*, (MIT Press, Cambridge).
2. Isard. W (1986), *Methods of Regional Analysis*, (MIT Press, Cambridge).
3. Myrdal G. (1986) *Economic Theory and Under developed Regions*, (Vora, Bombay).
4. Richardson (2011), *Elements of Regional Economics*, (Penguin Books).
5. World Development Report (2009) *Reshaping Economic Geography* (World Bank).

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the Regional economy and the economic activities at regional level.
CO2: Evaluate the dimensions of regional issues on national development
CO3: Appreciate the implications of economic policy on backward regions
CO4: Evaluate the role played by growth poles on neighboring regions
CO5: To Analyse the problems of developing backward areas

Learning Objectives (LO):

1. To familiarize the students with the problems of labour and the stress and strains developed in Industrial economy.
2. To develop the analytical skills of the students identifying the problems of labour and settlement of industrial disputes and evaluate the conditions of Industrial relation.

Unit-1: Introduction

1. Concept of Labour and Labour Economics-Labour Problems.
2. Labour Market – Demand and Supply of Labour – Characteristics of labour market in India.
3. Recruitment Procedure and Employment Exchange.

Unit-2: Organisation of Industrial Labour

1. Role and functions of Trade Union
2. Theories of Trade Unionism (i) Webbs (ii) KarlMarx (iii) Gandhi
3. Trade Union Movement in India-Recent Trends-Justifications of Strikes and Lockouts.

Unit-3: Industrial Disputes and International Labour Organisations(ILO)

1. Industrial Disputes: Causes and Consequences
2. Industrial Disputes in India
3. ILO Purposes-Constitution-Functions-ILO and India.

Unit-4: Industrial Relation

1. Need for Industrial Relation Machinery-Preventive and Curative methods-Collective Bargaining, Arbitration and Adjudications.
2. Industrial Democracy, concept of Workers participation in management
3. Role of State in Industrial Relations.

Unit-5: Labour Welfare

1. Labour Welfare concept, significance, classification, Principles and programmes.
2. Concept of Labour in India; Factory Act ,Labour Welfare Legislation in India.

Text Books

1. Tyagi P.B (2016) Labour Economics and Social Welfare,(Jaiprakash Nath & Co. Merut)
2. Perre Cahur, Stephane Carcillo and andre zylberberg,Labour Economics, PHI Learning Delhi, 2nd Edition 2014

Supplementary Reading

1. Baholiwal T.N. (1981) Economics of Labour and Industrial Relations,(Sahitya Bhawan, Agra)
2. Giri V.V (1985) Labour Problems in Indian Industry (Asia Publish House, Bombay)
3. Peter Solane Paul Latreille and Nigel Oleary, Modern Labour Economics, Routledge London 1st Ed.2013

Course Outcomes

At the end of course, the students will be able to

- CO1:** Perform supply and demand analysis in the labour market.
CO2: Analyze the effect of labour unions
CO3: Explain the analyse the determinants of wages
CO4: Show what causes changes in the productivity of labour
CO5: Understand Labour welfare legislations in India

Learning Objectives (LO):

1. To familiarize the students with trade theories and modern institutions.
2. To develop analytical skill of the students for identifying international economic problems and the complexities in international trade and policy

Unit – 1: Pure Theory Of International Trade

1. Comparative Cost Theory - Refinements of Comparative Cost Theory.
2. Modern Theory of Factor Endowments – Heckscher-Ohlin and Leontief Paradox.
3. Factors Intensity Reversal: The Stolper-Samuelson Theorem and the Rybezynski Theorem.

Unit-2: Recent Theories Of International Trade

1. Karvi's Theory of Availability – Lindar's Theory of Volume of Trade and demand pattern.
2. Posner's Technological Gap Theory – Vernon's Product Cycle Theory - Kenen's Human capital theory
3. Intra- Industry Trade – Economies of scale- Imperfect Competition and International Trade.

Unit-3: Balance Of Payments Policies

1. BOP Disequilibrium – Adjustment Mechanism: Elasticity Approach, Absorption approach and Monetary Approach
2. Expenditure changing monetary and fiscal policy – Monetary and Fiscal policies for internal and external balance: The Swan Model and Mundallian Model
3. Expenditure Switching Policies and Expenditure Reducing Policies – Foreign Trade Multiplier

Unit-4: Foreign Aid and Mncs.

1. Foreign Aid - Types of Foreign aid – Advantages and Disadvantages – Factors determining foreign aid -
2. Foreign Investment – Foreign Direct investment – Types of FDI – FDI Policy of India.
3. Multinational Corporations – Features of Multinational Corporations - Advantages and Limitations of MNCs.

Unit-5: Managing Foreign Exchange Risk

1. Foreign exchange risk - Types of exchange rate risk - Transaction risk, Translation risk, Economic risk.
2. Measurement of Exchange Rate Risk - value-at-risk (VaR) model. Methods of managing foreign exchange risk.
3. Forward contracts, Money market hedges, Currency futures, Currency Options, Currency swaps.

Textbooks:

1. Francis Cherunillam(2017),International Economics(Tata McGraw Hill,NewDelhi)
2. Paul Krugman and Maurice 2013 *International Economics: Theory and Policy* (Pearson New Delhi)

Supplementary Reading:

1. J.N. Bhagwati 2003) *Free Trade Today* (New Delhi: Oxford University Press, ,
2. Jeff Madura 2011 *International Financial Management* (Mason, Ohio: Southwestern Cengage Learning,
3. Sarno, L , Taylor M.P & Jeffrey A. (2002), *The Economics of Exchange Rates* (Cambridge University Press, Frankel)

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand the role of comparative advantage in trade and gains from trade
- CO2:** Formulate the theory of volume of trade and strategies of trade
- CO3:** Evaluate the role of balance of payments policies aimed at encouraging trade
- CO4:** Appreciate the foreign aid and MNCs in Development of International Trade
- CO5:** Demonstrate the managing foreign exchange risk and currency options

(Resolved that in Quantitative Papers, at least 50 percentages of Questions must be asked to solve problems in view of increasing Numerical and application skills)

Learning Objectives (LO):

1. To teach the students important applications of econometric tools
2. To familiarize the students with econometric model building

Unit-1: Dynamic Econometric Model

1. Auto-regressive model – Distributed lag model – Koyck's partial adjustment.
2. Adaptive expectation – Almon model.

Unit -2: Dummy Variables

1. Meaning and uses of dummy variables – Seasonal Analysis – Dummy independent and dependent variables.
2. Probit, Logit and Tobit models.

Unit –3: Simultaneous Equation Model

1. Structural model – Reduced form model – Recursive model – Simultaneity bias.
2. Identification problem – Rules for identification and choice of econometric methods.

Unit –4: Simultaneous Equation Methods

1. Reduced form method (or) indirect least squares method of estimation – Methods of instrumental variables.
2. Two stage least squares method – Generalized least squares.

Unit –5: Introduction to Time Series Econometrics:

1. Stochastic Process - Stationary and Non Stationary stochastic process-Unit root stochastic process.
2. Trend stationary and difference stationary stochastic process-Integrated stochastic process - Properties.
3. Unit root tests - Cointegration - Economic Applications.

Text Books

1. Gujarathi, D.N. (2012). *Text Book of Econometrics* [McGraw-Hill, New Delhi]
2. Koutsyiannis, A. (2002). *Theory of Econometrics*[MacMillan, London]
3. Madnani, G.M.K. (2009). *Introduction to Econometrics* [Oxford IBH Pub. Co., New Delhi]

Supplementary Reading

1. Klein, L.R. (2001). *An Introduction to Econometrics* [Prentice Hall, New Delhi]
2. Lange, O. (2001). *An Introduction to Econometrics* [MacMillan, New York]
- 3.. Madalla, G. (2006). *Econometric Methods* [McGraw-Hill, New Delhi]

Course Outcomes

At the end of course, the students will be able to

- CO1:** Differentiate dynamic economic models
- CO2:** Demonstrate the meaning and uses of dummy variables and features of Quality Response models
- CO3:** Have familiar with the types of simultaneous equation model and methods and their significance
- CO4:** Appreciate the types of stochastic processes and its properties in time series econometrics
- CO5:** Become a critical reader of literature concerning empirical analyses

Learning Objectives (LO):

To equip skill in applying statistical tools to Economics using computers

Unit-1: Text Management with MS-WORD

Creating new Documents –Document template – Typing Text – Editing Text – Insert Text – Go to, Find, and Replace text or word - Formatting of Text – Format painter – Cut and Paste utility - Copying Document/text in the same or Different file or Document – Drag and drop of typed text- creating tables – using auto correct, dictionary thesaurus.

Unit-2: Managing Data Base

EXCEL: The typical worksheet or spread sheet – cell and their properties – formatting cell – text, numbers, currency, accounting, date, time, percentage, scientific – formats. Formula: using arithmetic and relational operators in a worksheet -Advanced Formulas: sum, count, Average, Max, Min, Product -Using auto format

Unit-3: Graphs and Charts

1. Bar diagrams, pie charts, Area,
2. Building Line Diagrams, Histograms, Scatter plots
3. Frequency Graphs, Ogive, Lorenz curve
4. Time Series

Unit- 4: Data Analysis-I

1. Naming variables - Coding and Recoding of data - Arithmetic calculations with in variables
2. Descriptive Statistics: Frequencies, Descriptive, Explore, Cross Tabulation
3. Compare Means: One sample T- test, Independent Sample T – test, paired sample T test, One way ANOVA
4. Correlation: Bivariate, Partial,
5. Regression: Linear, Curve Estimation, Multiple Regression

Unit-5: Data Analysis-II

1. Classification: K-means cluster, Hierarchical cluster, Discriminates function
2. Non-parametric Test: Chi-square, Bi-nomial
3. Time Series – Exponential Smoothing, Auto regression, Seasonal Decomposition

Text Books

1. Andy Field (2000). *Discovering Statistics Using SPSS for Windows – Advanced Techniques for the Beginner* [Sage Publications, New Delhi]
2. Dr.K.Dhanasekaran (2010) Computer Applications in Economics First Edition ISBN978-81-8281-296-3
3. Darren George Paul Mallery SPSS for Windows step by step Sixth Edition

Course Outcomes

At the end of course, the students will be able to

- CO1:** Able to do text processing i.e., formatting, page setting proofing through MS Word
- CO2:** Organize data sets using MS excel
- CO3:** Apply statistical tools through functions installed, and capable of incorporating their own functions in MS Excel
- CO4:** Create Graph using MS Excel
- CO5:** Build master table to organize data collected through primary survey and analyse them through SPSS

Learning Objectives (LO):

Globalisation is one of the most importance topics in development economics. No country can be immune from the process of globalization and this applied to India as well. In this paper we will learn about the facets of globalization.

Unit-1: The process of globalization

1. Definition of globalization
2. Features of contemporary globalization
3. Globalization and the nations states

Unit-2: Drives of globalization: Trade

1. Trade flows in global economy
2. Trade as engine of growth
3. Free Trade Vs protectionists policies in development

Unit-3: Drives of globalization: FDI and cost of Transport

1. Characteristics of Multi Nation Corporation
2. Implication of intrafarm trade
3. Alternative perspective of Role of FDI in Developing Countries
4. Declining transport cost and globalization of production process

Unit-4: Globalization and human development- 1

1. Globalization and employment
2. Impact of globalization human well being
3. Globalization and environmental quality

Unit-5: Globalization and human development - 2

1. Globalization and poverty
2. Globalization and Income distribution
3. Case studies globalization and human development in East Asia, India and China

Text Book

1. Dani Rodrik (New York:ww.Norton,2011) Chapter 1,3,7,11
2. In Detense of Globalization by Jagesh Bhagwati (oxford: Oxford University Press,2004) Chapters 5,7,11,12,16

Supplementary Reading

1. The Great Convengence: Information Technology and the New Globalization by Richard Baldwin (boston:Harvard University Press,2016)
2. The Globotics upheaved Globalization Robotics and the Future of Work, by Richard Baldwin (Boston : 2019)

Course Outcome

At the end of course, the students will be able to

CO1: Understand the process and features of Globalization

CO2: Demonstrate the trade flows and growth in global economy

CO3: Formulate the perspective FDI and globalization of production process

CO4: Analyse the impact of human development and environment analyzing

CO5: Evaluate the case studies of globalization and human development in other countries

Learning Objectives (LO):

1. To enable the learners to develop an understanding of planning, financing and cost of education.
2. Develop and understanding of the link between the educational system and economic development.
3. Develop an understanding of educational problems in the context of economic concepts, theories and techniques.

Unit 1: Introduction

1. Meaning, definition, scope and importance of Economics of Education - Relationship between education and the economic development
2. Education: as consumption and as individual, social and national investment
3. Spill over effects of education

Unit 2: Costs of Education

1. Direct and Indirect costs
2. Private cost, Social cost and Opportunity cost –
3. Unit cost of Education

Unit 3: Pricing and Financing of Education

1. Micro and Macro aspects of pricing of education
2. Sources of finance for education: private, public, fees, donations,- Endowments and grants.
3. Government's role in financing education at different levels with special reference to higher education.

Unit 4: Measurement of Contribution of Education to Economic Growth

1. Cost-Benefit Analysis in Education
2. Cost Effectiveness Analysis in Education
3. Other Approaches: Correlation Approach- Residual approach- Manpower Forecasting Approach- Wage-differential Approach.

Unit 5: Education, Equity and Income Distribution

1. Educational equity measures (a) the equal opportunity criterion (b) the cost – benefit criterion, and (c) the ability to pay criterion- Education as a determinant of income variance,
2. Tools to assess the equity and income distribution- The Gini coefficient, the Lorenz curve.

Text books

1. Dominic j. Brewer & Patric j.McEwan(2014), "Economics of Education", Elsevier Limited,U.K
2. Samuel A (2013) The Economics of Education Strategic Book Publishing & Rights
3. Eric H.F.2006 Hand book of "The Economics of Education" Sanfrancisco (Singapore) Tokyo

Supplementary Reading

1. Garg V. P. (1985) The Cost Analysis in higher Education New Delhio, Metropolitan Book Co. Pvt Ltd.
2. Shriprakash and Chowdhurty S. Expenditure on Education, Theory, Models and Growth, New Delhi: NIEPA (2005)

Course Outcomes:

At the end of course, the students will be able to

- CO1:** Demonstrate the meaning, scope and importance of economics of education
- CO2:** Understand the different types of costs of education, pricing of education and
- CO3:** Apply theories and tools of economics in education
- CO4:** Learn how to measure the contribution of education to economic growth through
- CO5:** Appreciate the application of economic tools and criteria in framing education policies

Learning Objectives (LO):

To train students in soft skills in order to enable them to be professionally competent.

Unit 1: Soft Skills and Personality Development

Soft Skills: Meaning and Importance - Hard Skills versus Soft Skills - Self Concept: Self Awareness, Self Development and Self Realisation – Power of Positive Attitude – Etiquette and Manners.

Types of Listening, Effective Listening and Barriers to Listening – Assertive Communication.

Unit 2: Communication Skills

Oral Communication: Forms, Types of Speeches and Public Speaking – Presentation: Elements of Effective Presentation and Use of Visual Aids in Presentation.

Written Communication: Strategies of Writing – Business Letters: Form, Structure and Formats – Types of Business Letters – Memos – Agenda and Minutes.

Non-verbal Communication: Body Language and Proxemics.

Unit 3: Interpersonal Skills

Interpersonal Skills: Relationship Development and Maintenance and Transactional Analysis.

Conflict Resolution Skills: Levels of Conflict and Handling Conflict - Persuasion – Empathy – Managing Emotions – Negotiation: Types, Stages and Skills – Counselling Skills.

Unit 4: Employability Skills

Goal Setting – Career Planning – Corporate Skills – Group Discussion – Interview Skills – Types of Interview - Email Writing – Job Application – Cover Letter - Resume Preparation.

Unit 5: Professional Skills

Decision Making Skills – Problem Solving – Emotional Intelligence – Team Building Skills – Team Spirit – Time Management – Stress Management: Resolving Techniques.

Supplementary Reading

1. Ghosh, B.N. *Managing Soft Skills for Personality Development*. (Ed). New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.
2. Krishna Mohan and Meera Banerji. *Developing Communication Skills*. (2nd Edition). New Delhi: MacMillan Publishers India Ltd., 2009.
3. Neera Jain and Shoma Mukherji. *Effective Business Communication*. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.
4. Rao, M.S. *Soft Skills - Enhancing Employability: Connecting Campus with Corporate*. New Delhi: I.K International Publishing House Pvt. Ltd., 2011.
5. Ashraf Rizwi, M. *Effective Technical Communication*. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2010.
6. Bretag Tracey, Crossman Joanna and Bordia Sarbari. *Communication Skills*. New Delhi: Tata McGraw Hill Education Pvt. Ltd., 2012.

Learning Objectives (LO):

1. To make the students familiar with the issues in Indian economic development.
2. To give an insight into the functioning of the economy through macroeconomic policies and instruments.
3. To train the students with working of diverse economic policies in India.

Unit-1: Growth and Structural Change

1. Indian economy at Independence
2. The policy framework: statist policy, transition to market-oriented policy, role of erstwhile Planning Commission And NITI Ayog
3. Two phases of growth (1950-1980 and 1980 onwards), factors underlying turnaround
4. Structural change in Indian economy

Unit 2: Agricultural and Industrial Sectors

1. Performance of agricultural sector, factors determining agricultural growth
2. Factors underlying food inflation
3. Agricultural price policy and food security
4. Industrial Growth - Industrial growth before and after reforms - Dualism in Indian manufacturing
5. Issues in performance of public sector enterprises and privatisation

Unit-3: Fiscal Developments, Finance and External Sector

1. Expenditure trends
2. GST: rationale and impact
3. Evolution of the financial sector in post-liberalisation period
4. External sector performance: emergence of India as major exporter in services, performance of manufacturing sector

Unit-4: Poverty and Inequality

1. Measuring poverty in India: Selection of poverty lines
2. Poverty in pre and post liberalization periods
3. Impact of growth on poverty
4. PDS vs cash transfers, feasibility of universal basic income in India
5. Inequality in India in pre and post liberalization periods

Unit -5: Social Issues

1. Gender gap in India and trends in female labour force participation rates, factors determining female labour force participation
2. Employment : changing nature of employment in India, "jobless growth"
3. Labour in informal sector
4. India's demographic transition

Textbook

1. *Indian Economy Since Independence* Edited by Uma Kapila (New Delhi: Academic Foundation), Current 2017 Edition
2. Uma Kapila (2017) *Economic Development and Policy*, Academic Foundation, Gurugram, Haryana.
3. Bauer P.T. (2011) *Indian Economic Policy and Development*, Routledge , UK.
4. Anne O Kaueger (2002) *Economic Policy reforms and the Indian economy*, The university of Chicago, UK.

Supplementary Reading

Economic Survey 2018 and subsequent editions (Government of India: Ministry of Finance)

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand growth and structural change of Indian Economy at independence and policy frame work of planning commission
- CO2:** Evaluate Agricultural and industrial sector performance and growth
- CO3:** Estimate expenditure trends and GST impacts and financial sector before and past reforms
- CO4:** Inculcate poverty, poverty lines and poverty in pre and port liberalization periods
- CO5:** Analyse PDS, Gender gap, and changing nature of employment in India.

Learning Objectives (LO):

1. To teach the students the importance of health economics and the role of economics in the health care sector.
2. To teach the principles relating to economic value of human resources besides introducing concepts of health indicators.

Unit -1 - Health Economics – Basic Concepts

1. Definition and Dimensions of Health [WHO definition]
2. Meaning and Importance of Health Economics
3. Determinants of Health
4. Input and Output Indicators of Health

Unit -2 - Health and Development

1. Income and Health Linkages
2. Concept of Wellbeing – PQLI and HDI
3. Poverty and Health – Occupational Health Hazards
4. Fertility, Morbidity, Mortality and Life Expectancy
5. Nutrition and Health – Mal-nutrition – Under-nutrition

Unit -3 - Health as Investment

1. Economics of Public Health
2. Education and Health – Concept of Health Education
3. Capital Formation in Health Care

Unit -4 - Micro-Economics of Health Services

1. Demand for health services - Preference for health care and health cure - Income and Price effects
2. Physician as a price-discriminating monopolist
3. Health Production Function with Illustration

Unit -5 - Health in Developing Countries

1. Significance of Health in LDCs
2. Measuring the Burden of Disease - The Concepts DALY and QALYs
3. Challenges for the Future

Text Books

1. Guire A.M , Henderson J and Mooney G.(2016) The Economics of Health Care: An Introductory Text. [Routledge and Kegan Paul London and New York. PP. 9-30]
2. Asha A. and Tara K (2011). Principles of Population Studies [Himalaya Publishing House, New Delhi]
3. Park, K. (2015). Park's Text Book of Preventive and Social Medicine. 23rd edition. [M/s Banarsidas Bhanot Publishers, Jalalpur]
4. William Jack (1999). Principles of Health Economics for Developing Countries, WBI Development studies [The World Bank, Washington. D.C.]

Supplementary Reading

1. Government of India (2015). *National Health Policy*, New Delhi.
2. Somkid Kaewsonthi and Alan G. Harding (1993). *Micro Economic Analysis and Applications in the Health Sector, Students Guide* [The Centre for Health Economics Faculty of Economics, Chulalongkorn University]
3. WHO (1986). *South-East Asian Region. SEA/ACMR12/Agenda Item 13. Health Economic Research*. Prepared by Somkid Kaewsonthi [Chulalongkorn University, Bangkok. Thailand]
4. World Bank (2002). David H. Peters, et al. *Better Health Systems for India's Poor. Findings, Analysis and Options. Human Development Network. Health, Nutrition and Population Series* [The World Bank Washington]

Course Outcomes

At the end of course, the students will be able to

- CO1:** Appreciate the role played by primary health services in health delivery
- CO2:** Will be able to estimate doctors bed ratio
- CO3:** Calculate out of pocket expenditure of a patient
- CO4:** Evaluate the role played by health insurance policies in defraying cost of personal health care
- CO5:** Appreciate role of technology and cost of health care

Learning Objectives (LO):

To familiarize the students with the economic aspect of climate change

Unit-1: Introduction

1. The roots of climate change: greenhouse gas emissions and rising global temperature
2. Climate change and economic development: a) climate change –economy transmission mechanisms; b) impact of climate change on human well-being: known and uncertain impacts c) The “ tipping points” of dangerous climate change
3. Impact of climate change on developed and poor economies

Unit-2: Economic Policies for Climate change Mitigation

1. The need for climate change mitigation
2. Economic explanation of climate change: the concept of “market failure” and how it causes climate change
3. Using prices and markets for climate change mitigation: taxes, carbon emissions trading (‘cap-and-trade’) and regulations promoting green technology
4. Ethics of climate change : limits of cost-benefit analysis

Unit-3: Adapting to Climate Change

1. The case for Adaptation to climate change
2. Adaptive management of risk : managing physical, financial and social risks
3. International action and adaptation in developing nations

Unit-4: Natural Resources Management and Climate Change

1. The fundamentals for natural resource management
2. Economics of water use in context of climate change
3. Climate change and efficient management of agriculture and fisheries
4. Sustainable energy

Unit-5: Local and Global Action

1. Economic incentives for “climate smart” Individual action
2. The role of firms in climate change adaptation and mitigation
3. National and International policies for “climate smart” innovation and technology diffusion

Text & Supplementary Reading

1. Nicholas Stern (2010), *A Blueprint For A Safer Planet* London :Vintage Books
2. United Nations development Programme (2007) *Human Development Report 2007/2008: Fighting Climate Change* Available online <http://hdr.undp.org/en/reports/global/hdr2007-2008/>
3. The World Bank (2010) *World Development Report 2010: Development and Climate Change* Full text online : <http://econ.worldbank.org>

Course Outcome

At the end of course, the students will be able to

- CO1:** Understand the roots of climate change and its impact
- CO2:** Evaluate the Economic Policies for climate mitigation
- CO3:** Formulate the adaptation management in climate change
- CO4:** Demonstrate the natural resources management and climate change
- CO5:** Learning national and International policies for climate change

Learning Objectives (LO):

1. To compare the development performance of the Indian Economy with that of other major nations.
2. To train students in using economic reasoning to understand the development experience of different nations.

Unit – 1: Development Experience in India

1. Economic and Non-economic factors in India's Development.
2. Explaining "The Hindu rate of growth" in pre-liberalization period.
3. Economic reforms and high growth rate of Indian economy.

Unit – 2: Development Experience of China

1. The development of Chinese Economy under cultural revolution.
2. Economic reforms in China: Transformation of Chinese Economy and Impact of Global recession.
3. Strengths and weaknesses of development strategies of India and China: Dependence on Exports versus domestic market orientation.

Unit – 3: Development Experience of Japan

1. Meiji Restoration and emergence of modern Japanese Economy.
2. The factors underlying Japanese economic miracle: Export orientation, non-economic factors.
3. Impact of Asian economic crisis and Global recession on Japanese economy.

Unit – 4: The African Experience

1. The impact of colonialism on African economic development.
2. Economic factors underlying Africa's development performance: Geographical factors, political factors and absence of industrialization.
3. Future development prospects of African nations.

Unit –5: The Economic Development of the West

1. Economic factors behind Western economic prosperity: Property rights, human capital and knowledge.
2. The Industrial Revolution: Why it took place in the West.
3. Non-economic factors in Western Development: Marx Weber's "protestant ethic" theory of Capitalist development, Political structure and separation of church and state.
4. Lessons of Western Development experience for world countries.

Text Books

1. Xiaoming Huang (2013) Modern Economic Development in Japan and China, Palgrave Macmillan, UK , 1st Ed.
2. Hendri Bauget and Henk Van Der Meulen. Consumer Behavior and Economic growth in Modern economy, Routledge London and New York, 2014.
3. Joel Mokyr. (2017) A Culture of Growth, the Origins of Modern Economy, Princeton University Press, New Jersey.

Supplementary Reading

1. Jati sengupta. (2011) Understanding Economic growth, Modern Theory and Experience, Springer, New York.
2. E. Wayne Nafziger, (2006) Economic Development Cambridge University Press, Cambridge, UK.

Course Outcome

At the end of course, the students will be able to

- CO1:** Appreciate evaluate that culture can impact economic progress of a country
- CO2:** Able to appreciate varied political, social environment can determine economic progress
- CO3:** Appreciate geography can determine economic progress
- CO4:** Able to analyse economic progress of the countries / continents and their policies
- CO5:** Analyse the Economic factor behind western development experience for world countries

Learning Objectives (LO):

1. Infrastructure is a growing sector in the Indian economy. This course introduces the students to the various theoretical and policy dimensions of the economics of infrastructure in India.

Unit-1: Introduction

1. The role of infrastructure in development
2. infrastructure as a public good
3. Overview of infrastructure sector in India- Physical, Social and Financial
4. infrastructure policy in India , the shift towards Public Private Partnership

Unit-2: Regulation of Infrastructure

1. The need for regulating infrastructure-Principles of good regulation, regulatory strategies, regulatory institutions and enforcement of regulations.
2. Theories of regulation: a) public interest theories , b) private interest theories, c) institutionalist theories – Measuring efficiency in Infrastructure regulation
3. Methods of regulating quality-Regulation in context of globalization and international competition.

Unit-3: Competition and Pricing in Infrastructure Sector

1. Competition versus regulation in provision of infrastructure faculties- Competition and sector – specific regulation.
2. Creating competition in infrastructure industries- Public private partnerships for infrastructure development
3. Price setting in infrastructure sector, a) price setting for natural monopolies, b) rate of return price regulation, c) Price capping, d) peak load pricing

Unit-4: Economics of Transport Infrastructure

1. Competition in the transport sector , a) Creating a competitive transport sector , b) Competitive market forms, “ competition in the market” and “ competition for the market”
2. Private financing of transport infrastructure
3. Railway infrastructure. a) Alternative regulatory frameworks for railway infrastructure, b) price regulation in railway.
4. Road transport , a) creating competition in road transport , b) “ para –transit”
5. Highways infrastructure, a) alternate organizational structure for highways. B) Private participation and risk allocation.

Unit –5: Electricity, Telecommunication Infrastructure

1. Regulation of electricity sector, a) Economic rationale for regulating electricity sector , b) regulatory strategies and enforcement methods in electricity sector-Electricity pricing in India- Electricity act 2003.
2. Regulation of telecommunication sector, a) The need for and aims of telecom regulation- TRI, b) regulatory strategies and enforcement methods.
3. Theory and practice of universal telecommunications service in India.-Internet pricing strategies

Text Books

1. Dash L.N. (2007) Economics of Infrastructure, Regal publication, New Delhi.`
2. Arnold Picot, Massimo fiorio, Nico Grove and Johann Karanz. (2015) The Economics of Infrastructure Provisioning. The MIT Press, UK.

Supplementary Reading

1. India Infrastructure Report (OxfordUniversity Press, New Delhi)
2. Infrastructure Development Report (UNDP)
3. Kaushik Basu and A.Martean , Eds (2009) The oxford Companion to Economics , (New Delhi OUP)
4. Alvin s. Goodman and Makarand Hasfalk (2015) Infrastructure Planning Engineering and Economics, Mcgraw – Hill Education, USA.

Course Outcomes

At the end of course, the students will be able to

- CO1:** Understand key issues and problems with respect to regulation, governance and policies for the infrastructure sector
- CO2:** Understand and be able to apply key principles, concepts and tools relevant to the economic regulation of infrastructure industries
- CO3:** Be able to analyse different government policies for regulation and reform of the Infrastructure sector
- CO4:** Be able to explain the rationale for addressing economic regulation issues

