

Lecture List

**M.A. (Semester I and II)
&
M.A. (Semester III & IV)**

Session :2025-26



**DEPARTMENT OF ECONOMICS
UNIVERSITY OF ALLAHABAD
ALLAHABAD-211002**

ECONOMIC CONVERSAZIONE

Prof. Kiran Singh
Patron & Head

Prof. Kiran Singh
President

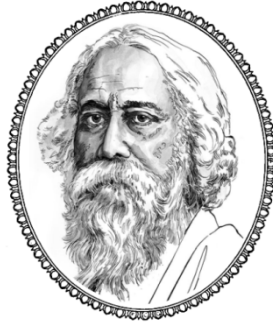
Dr. Shreedhar Satyakam
Treasurer

BUSY BEES

Prof. Kiran Singh
Patron & Head

Dr. D. N. Uraon
President

Dr. Garima Maurya
Treasurer



Heritage Building of the Department of Economics

The building of the Department of Economics carries a legacy of rich heritage. Since 1904 to 1922 it housed the famous Indian Press established by Chintamani Ghosh known as Caxton of Hindi world. The Indian Press published rich prose and poems in Bangla, Hindi, English and Urdu language.

Between 1909 and 1914, Indian Press published 87 books by Gurudev Rabindranath Tagore. In 1912 Tagore's immortal work 'Gitanjali' was printed in this Department which fetched him the grand Nobel Prize in Literature in 1913 and blazed him into world-wide glory.

In 1914 he visited the Indian Press for the second time. Rabindranath punctually reached the portals of the Indian Press at mid-day, and the poet, smiling as he was then, got down only to see the smiling Chintamani Babu, waiting to receive him personally. What a majestic scene of cordial embrace the one did the other! The press-employees, who had been especially permitted that day to stand and wait outside to have a glimpse of the Poet, were all speechless at this spectacle. The poet said first, 'Chintamani Babu! I have no words to thank you. I am simply overwhelmed....' At once quipped Chintamani Babu, "I have a request! Let us have the privilege to hear in camera your song in your voice."

To this the poet readily acceded and all went to the drawing-room of Chintamani Babu where a piano was kept. The poet rendered the music on the instrument and tuned the first song of his Gitanjali in his melodious voice :

*"Aamarmathanatokoreydaao hey
tomarcharandhulartaley..."*

DEPARTMENT OF ECONOMICS



Heads of the Department

S.N.	NAME	Year	
		From	To
1.	Prof. H. S. Jevons	1914	1923
2.	Prof. A. R. Burnett-Hurst	1923	1927
3.	Prof. C. D. Thompson	1927	1935
4.	Prof. S. K. Rudra	1936	1951
5.	Prof. N. S. Subba Rao	1942	1943
	(In leave vacancy)		
6.	Prof. J. K. Mehta	1951	1963
7.	Prof. P. C. Jain	1964	1977
8.	Prof. S. L. Parmar	1978	1979
9.	Prof. Mahesh Chand	1979	1981
10.	Prof. D. S. Kushwaha	1982	1989
11.	Prof. V. K. Anand	1990	1997
12.	Prof. P. N. Mehrotra	1997	2008
13.	Prof. Alka Agarwal	2008	2010
14.	Prof. U. S. Rai	2010	2012
15.	Prof. Jagdish Narayan	2012	2014
16.	Prof. Prahlad Kumar	2014	2016
17.	Prof. Manmohan Krishna	2016	2018
18.	Prof. G. C. Tripathi	2018	2020
19.	Prof. P. K. Ghosh	2020	2022
20.	Prof. Kiran Singh	2022	till date

Prof. Kiran Singh

Professor & Head

Incharge, Planning & Development Unit



Department of Economics

University of Allahabad

Prayagraj-211002

October 17, 2022

Dear Students,

The Department of Economics welcomes you in its fold. It was founded in the year 1914 as full fledged Post Graduate Department of the University under the able leadership of Prof. H. S. Jevons as its first Professor & Head of the Department. It is the oldest University Department of Economics in the country. In the last several decades, the Department has had the fortune of having on its faculty, or in its association, stalwarts, such as Prof. S. K. Rudra, Mr. B. P. Adarkar, Prof. J. K. Mehta, Prof. Vinod Dubey, Prof. P. C. Jain, Prof. Mahesh Chand, Prof. P. D. Hajela, Prof. R. K. Govil, Prof. G. D. Karwal, Prof. S. L. Parmar, Prof. Gautam Mathur, Prof. D. S. Kushwaha, Prof. A.D. Sharma, Prof. V. K. Anand, Prof. R. N. Lohkar, Prof. P. N. Mehrotra, Prof. Alka Agrawal, Prof. U.S. Rai, Prof. Jagdish Narayan, Prof. Prahlad Kumar, Prof. Manmohan Krishna, Prof. G.C. Tripathi and Prof. P.K. Ghosh.

Among the leading economists who have been associated with the Department and Faculty of Commerce namely, Prof. M.V. Mathur, Prof. J. K. Mehta, Prof. Gautam Mathur, and Prof. P. D. Hajela have also served as President of the Indian Economic Association. Prof. G.C. Tripathi, in the Centenary Year of Department had joined as Vice Chancellor of Banaras Hindu University, Varanasi in November 2014.

The Department has thirty two faculty positions. One post of Chair Professorship under the Planning and Development Unit, created by the Planning Commission, (now NITI Aayog) Govt. of India has also been added. At present, the Department has 1 Professors, 1 Associate Professor and 11 Assistant Professors.

The Department organizes teaching at Undergraduate and Post graduate levels. *The department has introduced CBCS System P.G. Level, effective from session 2015-16 and also thoroughly revised and updated syllabus effective from 2024-25 session.*

The Department is focusing research in areas of international trade, globalization, social sector problems including education, health, population studies besides monetary economics, agricultural economics, rural development, environmental studies, industrial economics etc.

Between 1991 to June, 2024 around 250 students have been awarded D.Phil./Ph.D. Degree while two student was awarded D.Litt. Degree.

In recent years, faculty members have availed Fellowships awarded by the Fulbright Trust, British Council, Association of Commonwealth Universities, USIA, IDPAD, and Osaka City University. A number of faculty members have visited USA, UK, Denmark, France, the Netherlands, Botswana, Russia, Bangladesh, Sri Lanka, Nigeria, South Africa, Japan, Singapore and Malaysia on Fellowship Programmes, conferences and employment assignments. Academic outcomes emerging from these endeavours have been published in various journals including the Economic and Political Weekly, The Indian Journal of Economics, the Quarterly Journal of Economics, the Journal of Peasant Studies and the Indian Economic Journal. Many books and articles have been published by well known publishers.

GoI Endowment for Planning & Development Unit, NITI AAYOG

The Department of Economics was selected by the Planning Commission, now known as NITI Aayog, Government of India, for the institution of a Chair in the Planning and Development Unit. The Department is among, the 12 academic centers, and the only in Uttar Pradesh, to have been selected for this distinction in 1996. Prof. Jean Dreze, an eminent development economist and former member of the Prime Minister's Economic Advisory Council was the Chair Professor in Honorary capacity in the Unit from July 2009 to June 2015. At present Prof. Manmohan Krishna is the Chair Professor. The unit has published monographs, conducted research projects, Outreach programmes and organized several lectures by leading economists and academicians and also held National Seminars / Workshops.

A monograph entitled “On the Economic Ideas of Professor J. K. Mehta : A Journey into the Interior of the Self” written by eminent economist Prof. D. K. Srivastava was published by the Planning and Development Unit in February 2022.

UGC’s Special Assistance Programme (SAP-III)

The Department of Economics was covered under the UGC Special Assistance Programme (SAP-III) since 2003-04 till the end of 12 Five Year Plan in 2017. It aimed at the capacity building for research and teaching of the teachers and research scholars. In the last five years, many academic programmes such as National Seminars/ Workshops and Lectures were organized under this programme. It also resulted in greater participation of teachers and research scholars in National/International

Conferences/ Seminars etc. outside Allahabad. Not only they presented their papers but these were also published in conference volumes/seminar proceedings/ edited books/ refereed journals.

UNCTAD India Programme

The Department is privileged to be selected by the UNCTAD India Programme for promoting and enhancing trade related research capacity in the country in the year 2007. To undertake relevant researches, two Post Doctoral and two Doctoral Fellows had been selected under the Programme. One International Seminar on “*Trade for Development: Issues and Concerns- A Developing Country's Perspectives*”, two brainstorming workshops on trade related issues and trade modeling, and one on STATA Statistical Software were held under the programme.

P.G. Diploma in Foreign Trade Practices & Procedures

The Department had launched U.G.C. approved employment -oriented and Self- Financing one year programme, Post Graduate Diploma in Foreign Trade Practices and Procedures in 2002-03. The students of the Diploma programme have got placements in leading Export Houses and established their own enterprises.

Student Activities and Counseling

The Department has a very old democratic tradition of student-teacher interaction through various associations such as Economics Research Association (ERA) (1970), Economic Conversation for M.A. Final students (1935), Busy Bees for M.A. Previous students (1934), Under Graduate Economics Association for B.A. Part III [अर्थचिन्तन], B.A. II [अर्थविमर्श] and B.A. I [अर्थसंवाद] students. These students' associations plan, organize and execute various educational activities at UG, PG and D.Phil. levels.

Each association has an executive body which includes elected student members to manage the activities of the Associations along with the teachers of the Department who act as President and Treasurer. Each student is provided with a well-planned course description relevant for his/her in the session. These associations also play an important role for career guidance/counseling of the students.

The activities of Economics Research Association include Pre-Doctoral seminars, paper presentations, special lectures, symposiums etc. The UG and PG Associations also organize symposiums and competitions like quiz, debate, essay competition, and academic excursions. *The Joint annual function of postgraduate students of Economics is one of the important social events of the Department and the University.*

The Departmental Library

The Department also has a well-stocked library, consisting of over 17,500 books and over 35 national and international journals. Besides grants from the University, the Departmental library is enriched by the contribution from UG, PG and D.Phil. students, Planning Commission endowment, SAP grant, UNCTAD India Programme etc. The library also receives around 40 Journals under the exchange basis through the Indian Journal of Economics. To modernize the library, e-Lab has been set up.

Central Internet Facility

The university has a central internet access facility at the J .K. Institute Annexe building in the Science faculty and all the students of the university can avail of it. The department also has an internet facility of its own. The systems in the Computer Lab of the Department are linked with the centralized on-line journal access facility. Important national as well as International Journals can be accessed through INFLIBNET and JSTOR. CMIE data based subscription and Indiatat have been added in 2015-16.

The Statistical/Computer Laboratory

The Department's Computer Lab has LCD projectors, Laptops, LaserJet printers, photocopier and reprographic machines for the benefit of the faculty and the research scholars. Four new statistical and trade modeling software namely GTAP, WITS, E-Views, Stata have been installed in the computer lab along with SPSS.

Azadi ka Amrit Mahotasav



Painting Competition	: Topic “Azadi ka Amrit Mahotasav”
Essay Competition	: Topic “Doubling Farmers’ Income”
Essay Competition	: Topic “Role of Youth in Environmental Protection and Women Empowerment”
Quiz Competition	: Topic “75 Years of Indian Economy”
Photo Competition	: Topic “Ganga: Through My Lens”
Photo Competition	: Topic “Poverty”
Cultural Presentation	: Poem, Songs and Motivational Speeches
Special Patriotic Lectures	: Topic “Know the Indian Armed Forces” (on 1971 War Victory, स्वर्णिम विजय दिवस)
	: Topic “Salute to Indian Armed Forces” (on कारगिल विजय दिवस)
Blood Donation Programme	: 75 units of Blood Donated by the students.
Plantation Programme	: Plantation of Saplings.

CENTENARY YEAR

The Department had celebrated its Centenary between July 2013 and June 2015. All the activities of the associations had been organised under the “Economics Department Centenary Year's Celebrations”. Besides organizing Refresher Courses, Research Methodology courses and invited Lectures, a number of National and International Seminars and Conferences were also organized by the Department in recent past under the aegis of SAP and Planning and Development Unit, in which a large number of delegates from India and abroad participated.

A two-day International Seminar on “Food Security in India: The Challenges Ahead” was organized on 8-9 March, 2014. A three-day National Conference on “Contemporary Global Economic Issues” was organized on 12-14 December, 2014.

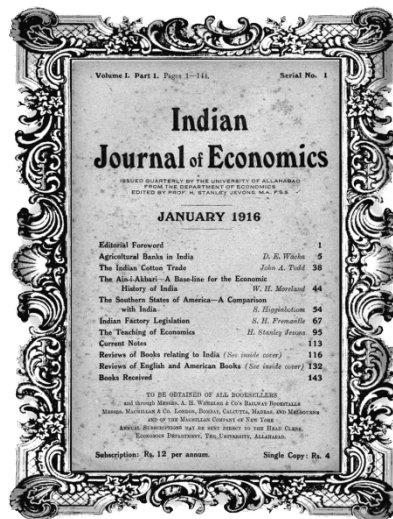


It is heartening to inform that the Department of Economics, in its Centenary Year named Departmental Library, Conference Hall and Computer Laboratory in memory of former teachers, in recognition of their contributions in the respective fields. **Prof. P.C. Jain Library** was inaugurated by Mr. H. R. Khan, Deputy Governor, Reserve Bank of India, Mumbai; **Prof. S. K. Rudra Conference Hall** by Prof. P. K. Bhargava, Formerly Emeritus Professor, Department of Economics, Banaras Hindu University, Varanasi; and **Prof. Mahesh Chand Computer Laboratory** by Prof. Shri Prakash, Dean, Research, BIMTECH, Greater Noida and formerly Senior Fellow, NUEPA, New Delhi on December 13, 2014.

Academic Programmes and Collaborations

In order to enrich its activities and improve quality of teaching and research, the Department has developed academic linkages with reputed national and international organizations. Efforts are also being made to have linkages with Indian Statistical Institute, Kolkata, Delhi, Bengaluru etc. The department has organized several webinars in the year 2020 in collaboration with national and International institutions including Indian Economic Association.

- A two-day National Seminar on “Towards a Green Future” was organized on 05-06 February, 2016.
- A two-day National Seminar on “Twenty Five Years of Economic Reform in India : The Path Ahead” was organized on 25-26 March 2017.
- A two-day National Conference on “Cashless Economy & Financial Inclusion in India : Issues and Challenges” was organized on 23-24 March, 2018 which was supported by NABARD and ICSSR.
- Under aegis of UGC-Human Resource Development Centre, University of Allahabad an online Refresher Course in Economics was organized by the Department of Economics from 25 September to 08 October 2021. The theme of the Refresher Course was “Post-Covid Indian Economy: The Path Ahead”.
- Under the aegis of the Planning and Development Unit of NITI Aayog, the Department of Economics organized a 5-Day Online Workshop on “Basic Econometrics: Tools and Techniques” from 27 to 31 January 2022.
- A two-day National Conference on “Indian Economy after 75th Year of Independence : Opportunities & Issues” was organized on 04-05 December 2022 in collaboration with Indian Economic Association sponsored by ICSSR.



The Indian Journal of Economics [IJE]

The Indian Journal of Economics was established by Prof. H. Stanley Jevons, First Head of the Department of Economics, University of Allahabad. The first Issue of the Journal appeared in January, 1916. This is the oldest surviving national Economics journal of the country and is being published on quarterly basis regularly since 1916.

The Journal is published with the three-fold object of providing a medium for the publication of articles on economic problems by authors of academic standing or authoritative positions, furnishing a convenient and compact vehicle for publication of original investigations and disseminating information about the economic activities of India and other countries. Its scope has been generally extended since then so as to cover every branch of economic science.

Since 1949 the Indian Journal of Economics disassociated itself with the Indian Economic Association but has continued with its uninterrupted publication till date, and has wide national and international circulations. During the past 100 years, the Journal has succeeded in developing many debates on various aspects of Economic Theory and Policy.

This Peer-reviewed Quarterly Journal has been listed in the UGC-Care List of Journals.

website : www.indianjournalofeconomics.com



Webinars / Lectures

The “Economists Speak”, was launched by Prof. P. K. Ghosh, the then Head, Department of Economics, University of Allahabad, for promoting student engagement and learning Online during lockdown and beyond. It connects distinguished economists, academicians and eminent scholars for dissemination of knowledge and sharing of ideas on various dimensions of economics & economy.

In this “Economists Speak” series, the First web session was organised on 11 May 2020. Prof. Sudhakar Panda, an alumnus of the Department of Economics, University of Allahabad and the present Vice-Chancellor of Birla Global University, Bhubaneswar, delivered his e-lecture on “Post Covid-19 Indian Economy: Challenges & Possibilities”.

The Second web session of “Economists Speak” was organised on 22 June 2020. Prof. Tahereh Alavi Hojjat, Chair & Professor of Economics DeSales University, Center Valley, Pennsylvania, United States delivered her e-lecture on “Reopening the Economy: Challenges and Opportunities”

The Third web session of “Economists Speak” was organised on 30 July 2020. Dr. Homagni Choudhury, Head of the Department of Economics at Kingston University in London delivered his e-lecture on “A tale of two Indias : Are the best leaving behind the rest ?”

The Fourth web session of “Economists Speak” was organised on 27 February 2021. Prof. P. K. Chaubey, Former Professor, IIPA New Delhi, IMS Lucknow & IGNOU, New Delhi delivered his e-lecture on “India's Strategy for Fighting COVID-19 Recession”.

The Fifth hybrid session of “Economists Speak” was organised on 27 October, 2021. Dr. Michael Debabrata Patra, Deputy Governor, Reserve Bank of India delivered his e-lecture on “India's Economic Growth : Challenges Ahead”.

A virtual discussion on “How to Publish Successfully ?” was jointly organized by the Bournemouth University, U.K. and the Department of Economics, University of Allahabad on 03 March 2022. The discussion on the topic took place between Prof. Sangeeta Khorana of Bournemouth University and Prof. Justin Paul of University of Puerto Rico, USA.

The Sixth web session of “Economists Speak” was organised on 20 April, 2022. Dr. Hippu Salk Kristle Nathan of Institute of Rural Management

(IRMA), Anand, Gujarat delivered his e-lecturer on “A New Approach to Assess Energy Poverty: An illustration from Urban Areas of Indian States”.

The Seventh web session of “Economists Speak” was organised on 30 April, 2022. Prof. S. R. Keshava of Department of Economics, Bangalore University delivered his e-lecturer on “Russia-Ukraine War : Impact on Indian Economy”.

To commemorate the World Environment Day, 2022 a web session was organized on 05 June 2022. Prof. Sudhakar Panda, Former Vice-Chancellor, Birla Global University, Bhubaneswar delivered a e-lecturer on “Environmental Protection for Sustainable Development” as eight lectures.

A virtual session was specially organized for the Research Scholars of economics perusing the Pre-Ph.D. Course Work. Prof. Sangeeta Khorana of Bournemouth University, U.K. and Adjunct Faculty of Department of Economics, University of Allahabad delivered her e-lecture on “How to do Research ?” on 21 September 2022.

The 9th session of the economist speak has been organized in the centenary auditorium of Department on 6th of February, 2024. The lecture was delivered by Prof. Nissar A. Barua (Guahati University) on the topic ‘Demographic dividend: India’s Opportunity Window’.

The 10th session of the economist speak has been organized in the centenary auditorium of Department on 1st September, 2023. The lecture was delivered by Dr Dhananjay Kumar (Industrial Economist of World Bank) on the topic ‘Reinventing Economics’.

The 11th session of the economist speak has been organized in the centenary auditorium of Department on 29th of February, 2024. The lecture was delivered by Prof. A. K. Gaur (BHU) on the topic ‘Path of Investment: Lessons from Domar Model’.

The 12th session of the economist speak has been organized in the centenary auditorium of Department on 29th of February, 2024. The lecture was delivered by Prof. J B Komaraiah (BHU) on the topic ‘Qualitative Research: Does it fit in economics in current scenario’.

The 13th session of the economist speak has been organized in the centenary auditorium of Department on 6th December, 2023. The lecture was delivered by Prof. Ashok Mittal (AMU) on the topic ‘Selection of research topic, process and techniques of writing PHD thesis’.

A special lecture on “Public Financial Management: Perspective and Prospects” was delivered by Prof. Dr. A. K. Sharan, Finance Officer, University of Allahabad, on 12th March 2024 in the S. K. Rudra Conference Hall, Department of Economics.



ALUMNI ASSOCIATION

With the purpose of connecting the former students of the department, the Alumni Association of the department of the Economics was established in the Centenary Year 2014. The Department has organized seven alumni meets so far in which various programmes were held. The Association confers three awards to deserving students and prestigious Prof. J. K. Mehta Award to the eminent alumnus. The Head of Department is ex-officio president of the association and Sri Sudhanshu Tiwari, Joint Commissioner, Industry, Prayagraj is its General Secretary at present. There are about 500 life members registered with the Alumni Association.

The Alumni Association organized a Webinar on “Future of Globalization in Post Covid Era” on 23rd May, 2020, in which Prof. Sangeeta Khorana of Bournemouth University, London, Dr. Vineet Srivastava, Director of Executive Assistant of Dy. Governor RBI and Mr. Dipak Kumar, IAS, Principal Secretary, Department of Environment, Forest & Climate Change, Bihar over the Panelists.

A virtual Panel Discussion on “POST COVID CARE” was organised by the Classic 86 batch under the aegis of Alumni Association on 22 May 2021. The Panellist included Dr. Rashmi Kant Mishra, Dr. Shishir Srivastava and Acharya Kaushal Kumar. Mr. Shishir Sandipan, Business Head, Alliance Insurance Brockers was the moderator of the panel discussion.

The Alumini Award Function was organised on 17 November, 2021. Dr. Michael Debabrata Patra, Deputy Governor, Reserve Bank of India graced the function as Chief Guest and delivered a Special Lecture on “India's Economic Growth : Challenges Ahead”.

On behalf of the Department, I welcome you and assure that your stay in the Department will be fruitful and opening new vistas of opportunities through proper guidance and counseling from your teachers. I believe that your relations with the Department of Economics will be rewarding and everlasting.

Prof. Kiran Singh
Head & Ex-officio President

J. K. Mehta Award for Excellence

Every Year in its Annual Meet the Association confers three award to deserving students and prestigious “J. K. Mehta Award for Excellence” to an eminent alumnus.



2016-17 : Prof. P. N. Mehrotra

2017-18 : Prof. G. C. Tripathi

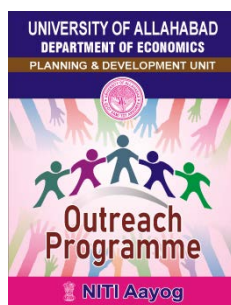
2018-19 : Prof. D. K. Srivastava

2019-20 : Prof. Sri Prakash

2020-21 : Prof. Sudhakar Panda

*“Nobody is bothered about an institution
more than its alumni”*

– N. R. Narayana Murthy



Outreach Programme

To rollout an outreach programme designed to help and encourage marginalized and disadvantaged members of the local community of nearby areas within the district.

The activities will especially focus on rural poor in general and girls and women in particular to make them empowered and active agents of change in the society.

Proposed Outreach Activities :-

- Adoption of a village.
- Health, Hygiene and Sanitation : Awareness and participation.
- Field training and workshop on Environmental conservation and promotion practices.
- Digital literacy and training in Computer Application.
- Promotion & awareness of financial inclusion of women.
- To conduct Nature camp for the Children.

Following outreach activities was conducted :

To promote awareness on various important issues including health and hygiene to village community in Tiwaripur Village of Prayagraj on 08 February 2022.

To promote awareness in Rural Areas under Planning and Development Unit of Department in Muar, Adharganj, Pratapgarh on 07 March 2023.

To promote mental health awareness and career counseling in Alamchand village, Kaushambi, on 16 February 2024.

To promote sustainable livelihood among rural households the department organised a One-day Outreach Programme on 7th March 2025 in Gram Panchayat Chibbbiya, Parhar Block, Bahadurpur District, Prayagraj.

The undergraduate students of the department conducted a survey on socio-economic aspect of Mahakumbh 2025 in February 2025.



Under the Centenary Year activities, in 2014 the Department of Economics had taken an environmental initiative –“**Eco-Green**” with a tag line **Think Green-Act Green**. The Department of Economics is the first in the University to launch such an effort in order to make the environment more clean.

The objective is to educate and involve the students in environmental issues. In this context the department has decided to observe the environmental calendar to commemorate important days relating to different environmental aspects. Prof. Prahlad Kumar was the first Patron of Eco-Green. Prof. P. K. Ghosh was the first Convener of Eco-Green. Prof. Kiran Singh, HoD is the current Patron.

OBJECTIVES – THINK GREEN

- Educating students and youngsters about environmental issues.
- To enhance the level of environmental awareness.
- To enhance the understanding of the relationship between human beings and the environment.
- Think differently about our interactions with the environment.
- Taking decisions that help the environment rather than harm it.
- To develop capabilities /skills to improve and protect the environment.
- To mobilize students’ participation for preservation and conservation of environment.
- Effective implementation of environment management and conservation programmes.
- To develop the habit in the students how to help in the protection of the environment by their simple and easy daily routine acts in the institution and at home.
- To observe the environment calendar.
- Inculcating a sense of responsibility and a pro-active citizenship.

ENVIRONMENT CALENDAR

February 02	–	World Wetlands Day
March 20	–	World Sparrow Day
March 21	–	World Forestry Day
March 22	–	World Water Day
April 22	–	Earth Day
May 22	–	World Biodiversity Day
June 05	–	World Environment Day
June 08	–	World Oceans Day
July 11	–	World Population Day
July 29	–	International Tiger Day
September 16	–	World Ozone Day
October 14	–	International E-waste Day
October 24	–	Freshwater Dolphin Day
December 11	–	World Mountain Day

ACTIVITIES – ACT GREEN

On these days, one or more of the following items on the specific issue can be organized –

- Hold a discussion.
- Organize a debate.
- Give a talk on the subject.
- Organize a JAM (Just a minute) competition.
- Arrange a film show.
- Organize a poster/ painting competition.
- Have a photograph competition.
- Organize a quiz.
- Arrange a wall display highlighting the occasion.
- Enact a play highlighting the issue.
- Read a poem or a quotation or both.
- “Hands-on” learning programmes like tree plantation, clean your neighborhood drive, caring for an animal, etc.

Pre-Ph.D. Course Work-2022

Pursuing a Ph.D. embarks entirely novel and difficult experience, but the researchers are lucky enough to be in a department where there is a great deal of support from different sources to help with issues and concepts. The Department has left no stone unturned to ensure an exciting and rewarding intellectual journey for the scholars. The Department organized the Third Pre-Ph.D. Course Work of a duration of 24 weeks from April to October 2022.

During the course work, multi-dimensional issues & contemporary methods of research were covered by the committed resource persons from India and abroad who worked very closely with the students for sharpening their quant skills. The course work was very focused on the long-term goals – not be carried away by publication targets alone, but paramount importance of quality of work and process of research & learning.

The course contained five modules, viz. Research Methods in Economics, Quantitative Techniques, Statistical Software & Computer Applications, Research and Publication Ethics, and Practical Work, Survey and Communication Skill. Each module was of 8 credits. The assessment of the course participants was done on the basis of two best out of three Internal Assessments and the End-Semester Examination with the weightage of 40 per cent and 60 per cent respectively.

This Pre-Ph.D. Course Work was attended by 29 research scholars of the Department of Economics and the constituent colleges of the University of Allahabad.

This well-designed course work will certainly help the scholars for outstanding research output with publications in top journals and they will also do exceptionally well in their areas of research as well as their careers.

Prof. Kiran Singh, Head and Prof. P. K. Ghosh was the Course Coordinator. Dr. Pradeep Kumar Singh was the Co-Coordinator of the Course.

M. A. Economics

Ordinances and Regulations For M.A. Economics Degree Programme

Preamble

The present course in Economics has been designed to reflect the changes in the economic environment of India and the Global economy. It is an effort in the direction of making the Department of Economics as a world class academic and research institution. The Department plans to encourage research studies and, undertake consultancy project on contemporary Indian and global Issues. The Department wishes to play an important role in economic decision making, policy formulation and implementation of the programmes & schemes of both Centre & State Governments.

Ordinances

1. The Degree of Master of Arts in Economics

The University of Allahabad may confer the Degree of Master of Arts on such candidates who, being eligible for admission to the M.A. Degree Programme, have received regular instruction in the prescribed courses of study, passed successfully relevant examinations and being otherwise suitable by virtue of their character, have fulfilled such other conditions as may be laid down from time to time by the appropriate authorities.

2. The Curriculum and Duration of Studies

A. (i) The Curriculum of study for the M.A. Degree shall comprise of the courses set out in Annexure B.

(ii) The Departmental Committee shall prescribe the detailed content of various courses of study, if required before the beginning of each session. The Departmental Committee can make changes in the optional papers/subjects, subjects to the availability of teaching facility/faculty.

B. The Curriculum of study for the M.A. Degree shall be spread over Four Semesters.

3. Requirement for Admission

A. Registration:

(i) Candidates for M.A. Degree shall first be admitted to the First Semester upon the reopening of the University after summer vacation every year.

(ii) **Subsequent Registration:** A candidate, who fails to

prosecute a regular course of study during any of the Second, Third and Fourth Semesters may be registered in the appropriate Term of any subsequent Year to the Semester concerned but within such time as enables him, to complete the study of all Semesters comprising M.A. Degree Programme within a maximum period of four years from the date of his/her registration for the First Semester.

B. Minimum Qualification for Admission

- (i) Admission to the M.A. Degree Programme of study shall be open to those candidates who have passed the Three Year Graduate Degree Examination of this University or such Examination of any other University or Institution after Graduation under 10+2+3 pattern as recognised by the University.
- (ii) Special Eligibility Clause for admission in M.A. Economics Programme Admission in M.A. Economics is also open to Special Category of Non Subject students:
 - A. The students who pass Bachelors Degree with Mathematics or Statistics as one of the subjects up to B.A. III are also eligible for admission in M.A. Economics Programme.
 - B. Students who opt Economics up to B.A. II are also eligible for admission in M.A. Economics Programme.
- (iii) The University of Allahabad shall conduct Postgraduate Admission Test (PGAT) for each academic session. Admission shall be made according to merit in the M.A. (Economics) Admission Test subject to the fulfillment of eligibility requirement as determined by the University and availability of seats in M.A.(Economics) Programme.

C. Conditions of Admission:

- (i) No application for registration to the First Semester shall be entertained unless it is accompanied by:
 - (a) A duly certified transcript of scholastic record of the candidate, commencing from the High School or equivalent Examinations.
 - (b) Original Transfer Certificate of a candidate who has been a regular student in any Institution at any time prior to making application for registration in the Faculty of Commerce and,

- (c) Original Migration Certificate if the candidate is not enrolled in this University or, if enrolled, his enrollment has been cancelled. Provided that if a candidate is unable to produce any of the documents other than the marks-sheet of the Graduate Examination, at the time of seeking admission in the Faculty of Commerce before Admission Committee, he shall undertake to submit them within one month or within such further period as the University authorities may prescribe; and the admission, if any, of such candidate shall, until the submission of the aforesaid documents, be deemed to be provisional.
- (ii) Candidate shall give also a written undertaking to the effect that:
 - (a) He/She shall exclusively devote his/her time to the study of courses prescribed for M.A. Degree and in particular he/she shall not offer any other course leading to a degree of any description whatsoever, nor shall he/she undertake any remunerative work, though with the prior permission of the Faculty, he/she may join certificate or Diploma course in any foreign language.
 - (b) He/She shall abide by the provisions of the University of Allahabad Act, Statutes, Ordinances, Regulations and Rules that are framed or may be framed there under and the orders of the Officers and Authorities of the University and the Faculty of Commerce from time to time.

4. Fees

The students pursuing the M.A. Degree Programme of Study shall have to pay fee as may be prescribed by the University from time to time.

- 5.** The Course of study, scheme of examination, result and promotion are covered in the Regulations, and are given below.

REGULATIONS

1. M.A. Economics programme has been divided in four semesters in two years. This is a full time course of study. The odd semester would run between July to December and even semester between January to June. Two consecutive/one (odd + one even) semesters constitute one academic year.
2. There will be eighteen papers/courses in all in the whole programme. Besides, there would also be one course on **Dissertation/Project work & Viva-Voce** in the Second Semester and one on **Dissertation/Project work & Viva-Voce** in the Fourth Semester.
3. The course has two components- core-courses and elective courses. There are fourteen core-courses and four elective courses besides two compulsory/ core- courses on Dissertation and Viva-Voce, & Project work and Viva-Voce.
4. Each course has equal weightage. Each course will have 100 marks or 4 credits, as the case may be.
5. All the courses in First Semester and Second Semester are core-courses and compulsory to all students. In Semesters Third and Fourth, there are three core/compulsory courses each. There are Five elective groups which have 5-6 courses each. The students will be required to opt any two groups out of five elective groups. Again, from each group, students shall have to opt two courses from each of the two Elective Groups. One course from each group shall be studied in Semester III, and the other one, in Semester IV. Core courses have numbers ranging from ECO 501 to ECO 516 while Elective courses range from ECO 551 to ECO 596 in five Elective groups.
6. In the beginning of the Semester III, the Department would announce the available Elective Groups/Courses in the Elective Group to the students for the current session. The choice of elective group/course in the semester will be limited to those announced by the Department. Because of infrastructural and faculty limitations, the department may put a cap on the number of students in an elective group/course.

Scheme of Examination

1. The evaluation scheme of examination consists of two parts: Internal Assessment & Semester End examination. Internal assessment includes assignments, presentations, Seminars, quizzes, case studies, Viva, Unit test, group activity/discussion etc. The internal assessment will contribute 40% and the Semester end examination will contribute 60% to the total marks. This shall apply to both types of examination

system, i.e., Semester-wise examination and choice based credit system (CBCS) based examination. (Note: The ratio of internal assessment and semester end Examination will be the same as determined by the University.)

2. There shall be continuous assessment of the students in each course. The Course instructor shall hold two internal assessments. Out of these two the best would be considered.
3. In the case of the Semester examination, there shall be no binding on the number of external paper-setters/examiners, though in the case of CBCS/CBSS system, generally the course-instructor shall be the paper-setter and examiner. However, the core courses ECQ-510 and ECO-516 comprising "Dissertation & Viva-Voce" and "Project Work & Viva-Voce" respectively will be evaluated/examined by Board/s consisting of one external examiner and one internal examiner who shall be the Chairman of the Board. The marks of dissertation / Project Work and Viva-Voce shall be divided in the ratio of 60 : 40 respectively, and would be judged separately.
4. The duration of end-semester examination for each course will be 3 Hours.

Session 2023-24

M. A. ECONOMICS
(Based on CBSS)

PAPER CODE

ECO-501-Core- 4 Credits
ECO-502-Core- 4 Credits
ECO-503-Core- 4 Credits
ECO-504-Core- 4 Credits
ECO-505-Core- 4 Credits

Semester-I

Micro Economics - I
Macro Economics - I
Statistical Methods & Sampling
Monetary Economics
International Economics

PAPER CODE

ECO-506-Core- 4 Credits
ECO-507-Core- 4 Credits
ECO-508-Core- 4 Credits
ECO-509-Core- 4 Credits

ECO-510-Core- 4 Credits

Semester-II

Micro Economics - II
Macro Economics - II
Public Finance
Elements of Mathematical Economics &
Econometrics
Dissertation/Project Work & Viva-Voce

PAPER CODE

ECO-511-Core- 4 Credits
ECO-512-Core- 4 Credits
ECO-513-Core- 4 Credits
ECO-
ECO-

Semester-III

India's Economic Policy-I
Growth Economics
Financial Institutions & Markets
Elective Group-I
Elective Group-II

PAPER CODE

ECO-514-Core- 4 Credits
ECO-515-Core- 4 Credits
ECO-
ECO-
ECO-516-Core- 4 Credits

Semester -IV

India's Economic Policy-II
Development Economics
Elective Group-I
Elective Group-II
Dissertation/Project Work & Viva-Voce

ELECTIVE GROUPS

GROUP-I : ECO-550 (INTERNATIONAL TRADE ISSUES & FINANCIAL INSTITUTIONS)

Eco-551-Core	(4 Credits)	International Trade & Institutions
Eco-552-Core	(4 Credits)	International Financial Issues
Eco-553-Core	(4 Credits)	Regional Economic Cooperation (Semester-III)
Eco-554-Core	(4 Credits)	India's Foreign Trade (Semester-IV)
Eco-555-Core	(4 Credits)	International Trade Laws

GROUP-II : ECO-560 (AGRICULTURAL & INDUSTRIAL ECONOMICS)

Eco-561-Core	(4 Credits)	Economics of Agriculture (Semester-III)
Eco-562-Core	(4 Credits)	Indian Agriculture: Institutions and Issues
Eco-563-Core	(4 Credits)	Rural Development
Eco-564-Core	(4 Credits)	Economics of Industry & Industrial Organization
Eco-565-Core	(4 Credits)	Industry & Development (Semester-IV)
Eco-566-Core	(4 Credits)	Economics of Infrastructure & Transport

GROUP-III : ECO-570 (DEVELOPMENT ECONOMICS)

Eco-571-Core	(4 Credits)	Population Studies (Semester-III)
Eco-572-Core	(4 Credits)	Demography (Semester-IV)
Eco-573-Core	(4 Credits)	Economics of Education and Health/Economics of Human Resources
Eco-574-Core	(4 Credits)	Social Sector and Development Issues
Eco-575-Core	(4 Credits)	Gender Economics

GROUP-IV : ECO-580 (PUBLIC POLICY)

Eco-581-Core	(4 Credits)	Public Economics (Semester-IV)
Eco-582-Core	(4 Credits)	Resource & Energy Economics
Eco-583-Core	(4 Credits)	Environmental Economics (Semester-III)
Eco-584-Core	(4 Credits)	Environmental Issues & Institutions
Eco-585-Core	(4 Credits)	Economics and Law

GROUP- V : ECO-590 (QUANTITATIVE ECONOMICS)

Eco-591-Core	(4 Credits)	Advanced Econometrics (Semester-III)
Eco-592-Core	(4 Credits)	Time Series Analysis & Computer Application (Semester-IV)
Eco-593-Core	(4 Credits)	Financial Econometrics
Eco-594-Core	(4 Credits)	Linear Economics
Eco-595-Core	(4 Credits)	Applied Econometrics
Eco-596-Core	(4 Credits)	Operations Research

(Note :The papers highlighted in bold letters are currently available in the Elective Groups in Semester-III and Semester-IV.)

SEMESTER - I

ECO-501

MICROECONOMICS -I

Unit –I

12 lectures

Uses of Indifference Curve - Empirical Theory of Demand. Demand for Consumer Durables; Linear Expenditure Systems- Analysis of Uncertainty in Consumer Behaviour, Some application of Individual choice under risk and uncertainty. Von Neumann Morgenstern theorem.

Unit –II

12 lectures

Production Function- Homogeneous Production Function: C.D. Production Function, C.E.S. and V.E.S. Production Function, Non-homogeneous and Homothetic production functions and Its Application, Technical Progress and Techniques of Production, Derivation of cost function from the Production function-Modern approach to the theory of costs, Investment decisions and Present Value rule and its Application

Unit –III

12 lectures

Pigouvian Welfare Economics; Pareto Optimal Conditions; Value judgement; Social welfare function; Compensation Principle, Theory of Second Best — Arrow's impossibility theorem; Amartya Sen on Arrow's Impossibility theorem some possibilities- the utilitarian form, Rawls' Theory of justice, Equity-efficiency trade off.

Unit –IV

12 lectures

Partial and General Equilibrium; Existence, Uniqueness and Stability of Equilibrium- Concept of Excess Demand and Excess Price, Equilibrium in Lagged Market Model - Walrasian General Equilibrium, Input-Output Analysis& Its Application.

Reading List :-

- Andreu Mas-Colell Michael D. Whinston & Jerry R. Green: Microeconomics theory, Oxford University Press, New York
- Choudhury Kalyanjit: Modern Microeconomics, Pragati Publication, Part-1&2
- David M. Kreps: A course in Microeconomics theory, Princeton University Press

Semester-I

- Geoffrey A. Jehle, Philip J. Reny; Advance Microeconomics theory, Prentice Hall 3rd edition.
- Hal R. Varian : Microeconomic Analysis, W. W. Norton & Company 3rd edition
- Henderson, James M. & Quandt, Richard E.: Microeconomic Theory: A Mathematical Approach, McGraw-Hill, 1st Edition,
- Hugh Gravelly & Ray Rees: Microeconomics, Prentice Hall, 3rd edition.
- Koutsoyiannis. Modern microeconomics. Springer.
- N. Gregory Mankiw : Principles of Microeconomic, South-Western Pub; 7th edition
- Nicholson & Snyder : Microeconomics Theory: Basic principles and extensions, 11th edition.

ECO-502 MACRO ECONOMICS -I

Unit I : National Income Accounting and Recent Theoretical Developments 12 lectures

Macroeconomic Comparative Statics and Dynamics, Deflator, Output Gap, NAIRU, Sacrifice Ratio, Induced Output and Inflation, Development in Social Accounting Matrices, Flow of Funds Accounts (Open and Closed Economy), Environmental Accounting, Indian System of National Accounts.

Unit II :

Micro Foundations of Macroeconomic Relationships 12 lectures

Consumption Puzzle, Friedman, Ando-Modigliani approach towards Consumption Function, Representative Household Consumption and Savings Decisions with Inter-temporal Choices and Random Walk. Investment theories: Neo-Classical Theory of Investment, Optimal Capital Stock, Tobin's-Q, Savings and Investment under Uncertainty, Volatility in Consumption, Saving and Investment.

Unit III :

National Income Determination in Short & Long Run 12 lectures

IS-LM Model under Fixed and Flexible Prices, Fiscal and Monetary Policy: Multiplier Effect, Interactions and Relative Effectiveness. Three Sector Model, Adaptive Expectations in the AD-AS Model, Monetarist & Natural Rate Hypothesis.

Unit IV : Open Economy Macroeconomics **12 lectures**

Foreign Trade Multiplier, Twin Deficit and policy implications, IS-LM-BP Model and its variants, Swan Model of Internal and External imbalances, Developments in Open Economy Macroeconomics after Monetarists, Six Major Puzzles in International Macroeconomics, Capital Mobility and Capital Controls for a Small and Large Open Economy

Reading List:

- Bradford DeLong and Martha Olney, Macroeconomics, McGraw Hill, USA.
- Frederic S. Mishkin, Macroeconomics: Policy & Practice, Pearson Education, UK.
- G. Mankiw, Macroeconomics (International Edition), Worth Publishers, USA.
- Jordi Gali, Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications, Princeton University Press, USA.
- Neva Goodwin, Jonathan Harris, Julie Nelson, Pratistha Joshi Rajkarnikar, Brian Roach, Mariano Torras, Macroeconomics in Context, Taylor & Francis, UK.
- Richard Lipsey and Alec Chrystal, Macroeconomics, International Edition, OUP, UK.
- Richard Startz, Rudi Dornbusch, and Stanley Fischer, Macroeconomics, McGraw Hill, USA.

ECO-503
STATISTICAL METHODS & SAMPLING

Unit I : **12 lectures**

Correlation: Simple, Multiple and Partial Correlation, Regression Analysis: Simple Linear Regression & Introduction of Multiple Regressions, Theory of Attributes: Association & Consistency of Data.

Unit II : **12 lectures**

Probability Theory: Addition & Multiplication Theorems, Conditional Probability, Bayes Theorem; Random Variables: Mathematical Expectation; Theoretical Probability Distributions: Binomial, Poisson, & Normal Distributions (Without Proofs) and their Goodness of Fit.

Unit III : **12 lectures**

Sampling Theory: Population and Sample, Parameter and Statistic, Objectives of Sampling, Types of Sampling; Testing of Significance: Hypotheses Testing, Type I & Type II Errors, Level of Significance, Confidence Level, Critical Region, Interpretation of P-Value, One-tailed and Two-tailed Tests; Sampling Distribution- Standard Error.

Unit IV :

12 lectures

Estimation-Point and Interval Estimates of Mean, Characteristics of Good Estimator, Large Sample Tests: Distribution of Sample Mean, Sample Proportion & Chi-square Test. Small Sample Tests: Testing of Hypothesis of Mean, Variance, Correlation Coefficient, and Regression Coefficient etc. based on Z, t, Chi-square & F-Tests.

Readings List:

- A.L. Nagar & R.K. Das : Basic Statistics, Oxford University Press
- Anderson, D. R., Sweeney, D. J., Williams, T. A., Camm, J. D., & Cochran, J. J.. Essentials of Statistics for Business and Economics. Boston: Cengage Learning.
- Bluman, A. G., Elementary Statistics: A step by step approach: A brief version (No. 519.5 B585E.). McGraw-Hill.
- Croxton, F. E., & Cowden, D. J.. Applied General Statistics. (2nd ed.). New Delhi: Prentice Hall of India Private Limited.
- Freund, J. E., & Perles, B. M.. Modern Elementary Statistics. (12th ed.). New Jersey: Prentice Hall.
- Gupta, S. C.. Fundamentals of statistics (pp. 18-1). New Delhi: Himalaya Publishing House.
- Gupta, S. C., & Kapoor, V. K.. Fundamentals of mathematical statistics. Sultan Chand & Sons.
- Larsen, R. J., & Marx, M. L.. An Introduction to Mathematical Statistics and its Applications. (5th ed.). New Jersey: Prentice Hall.
- Robert V. Hogg, Joseph W. McKean & Allen T. Craig : Introduction to Mathematical Statistics, Pearson.
- Thomas H. Wonnacott & Ronald J. Wonnacott : Introductory Statistics for Business and Economics, John Wiley & Sons Publisher
- Ya- Lun Chou : Statistical Analysis, Continuum International Publishing Group Ltd.

ECO-504
MONETARY ECONOMICS

Unit I : Money Supply

12 lectures

Money: Concept and Functions

Money Supply: Concepts and Monetary Aggregates Theory of Money Supply; High Powered Money and Money Multiplier; Budget Deficits and Money Supply Determinants of Supply of Money; RBI Approach, Indian Financial System

Unit II : Post-Keynesian Demand for Money

12 lectures

Demand for Money; Overview of Keynes's Liquidity Preference Approach

Concept of Neutrality of Money and Money Illusion

Pigoue Effect and Patinkin's Real Balance Effect

Crisis in Keynesian Economics and the Revival of Monetarism-Theory of

Demand - M. Friedman

Comparison of Keynesian and Monetarist Approach

Demand for Money in Underdeveloped Countries

Unit III : Development in the Theory of Demand for Money

12 lectures

Approaches of Baumol and Tobin, Turvey Approach.

Liquidity Approach - Reddick Committee Report and Gurley-Shaw Thesis

Role of Technology in Monetary Development- Pesic and Siwek Approach

Unit IV : Theory of Inflation and Monetary Policy

12 lectures

Philips Curve and its Modifications: Tobin, Samuelson and Solow.

The Natural Rate of Unemployment and Stagflation, Adaptive Expectations and Rational Expectations - Expectation Augmented Approach: Friedman-Phelps and Lucas.

Semester-I

Reading List :-

- Ahuja, H. L. Macroeconomics (New)
- Chakravarty, S.C., Report of the Committee to Review the Working of the Monetary System, Reserve Bank of India, Bombay.
- D'souza Errol, Macroeconomics: Person Publication, New Delhi.
- Friedman, M., the Theory of Consumption Function, Princeton University Press, Princeton.
- Gupta, Suraj B, Monetary Planning for India, Oxford University Press, Delhi.
- Gurley, J. and E.S. Shaw, Money in a Theory of Finance, Brookings Institution, Washington.
- Gordon, R. and S. G. Harris, Macroeconomics, Addison Wesley, Massachusetts.
- India - A Central Banker's Perspective, UBSPD, New Delhi.
- Jha, R. (1999), Contemporary Macroeconomic Theory and Policy, New Age International (P) Ltd., New Delhi.
- Johnson, H. G. and Nobay A. R., Issues in Monetary Economics, Oxford University Press, Delhi.
- Keynes, J.M., the General Theory of Employment, Interest and Money, Macmillan, London.
- Mankiw, N.G. and D. Romer (Eds.), New Keynesian Economics, (2 Vols.), MIT Press, Cambridge.
- Mithani, D. M., Money Banking and International Trade.
- Paul, R. R., Monetary Economics.
- Patinkin, D., Money, Interest and Prices, Harper and Row, New York.
- Reddy, Y. V., A Review of Monetary and Financial Sector Reforms in
- Shapiro, E. , Macroeconomic Analysis, Galgotia Publications, New Delhi.
- Sheffrin, S. M., Rational Expectations, Cambridge University Press, Cambridge.

ECO-505 INTERNATIONAL ECONOMICS

Unit I :

12 lectures

Modern Theory of Trade: Heckscher-Ohlin Theorem, Factor Price Equalization Theorem, Stolper-Samuelson and Rybczynski Theorem; New Theories of International Trade: Kravis Theory of Availability, Linder's Theory of Volume of Trade, and Posner's Imitation Gap Theory.

Unit II :

12 lectures

Intra-Industry Trade: The Neo-Heckscher-Ohlin Model, Neo-Chamberlin Model, Neo-Hotelling Model, and The Brander-Krugman Model. Measurement of Intra-Industry Trade(Bela Balassa Index, Grubel-Llyod Index etc.), Michael Porter's Theory of International Trade.

Unit III :

12 lectures

Commercial policy: Effects of Tariffs and Quota Effective Rate of Protection; Effects of other Non-Tariff Barriers: Dumping, Subsidies, VERs, QERs. Strategic trade policy, The Metzler Paradox. The Theory of Custom Unions.

Unit IV :

12 lectures

Overview of the Balance of Payments, Monetary Approach to Balance of Payments; Adjustment and Equilibrium in Balance of Payments, Effects of Devaluation: The Elasticity Approach, The Absorption Approach; Direct and Portfolio Investments. Foreign Exchange Markets and Exchange Rate, Spot and Forward Rates, Theories of Optimum Currency Area.

Reading List

- Bo Sodersten & Geoffrey Reed, International Economics, MacMillan Press Limited, Hampshire & London.
- P. Salvatore, International Economics, New York, John Wiley.
- Francis Cherunilam, International Economics, Tata McGraw Hill Publishing Company Ltd., New Delhi.
- H. G. Mannur, International Economics, Vikash Publishing House, New Delhi.
- M .C. Vaish & Sudama Singh, International Economics, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
- Paul R. Krugman & Maurice Obstfeld, International Economics (Theory & Policy)
- Addison Wesley Longman, Pearson Education, Indian Branch, New Delhi.
- P. Kenen, International Economics, Cambridge Publication, New Delhi.
- S. Kindleberger, International Economics, Traveller Book Sell, New Delhi.

SEMESTER - II

ECO-506 MICROECONOMICS-II

Unit I : 12 Lectures

Alternative to Profit Maximization, Managerial theories of the Firm: Baumol's Sales Revenue Maximization, Williamson's Model of Managerial Discretion - Marris Model of Managerial Enterprise, Limit Price Theory-Bains, Labini, Modgiliani, Behavioristic Theory -Cyert, Moses Average Cost Pricing Principle, Shadow Prices and their Uses.

Unit II : 12 Lectures

Factor Pricing: in Imperfect Competition: Collective Bargaining. Imperfections in Labour Market and Wage; Review of Keynesian and Loanable Fund Theory of Interest, Hicks- Hansen Co-ordination. Theory of Profit: Shackle Approach, Mehta Approach.

Unit III : 12 Lectures

Intertemporal Choice and Markets with Asymmetric Information, the Information Problem. Asymmetric Information and the Market Failure, Measures to Solve the problem of Adverse Selection, Moral Hazard and Allocative Inefficiency, Principal Agent Problem, Bounded Rationality.

Unit IV : 12 Lectures

Theory of Games and Strategic Behaviour. Cooperative and Non-cooperative Games. The Prisoners Dilemma Oligopoly Theory. The Nash Equilibrium, Neuman- Morgenstern's Game Theory, Mixed Strategy, Strategic Moves, Entry Deterrence Iterated Elimination of Dominated Series, Two Persons Zero Sum Game.

Reading List:

- Hal R. Varian : Microeconomic Analysis, W. W. Norton & Company 3rd edition
- Nicholson & Snyder : Microeconomics Theory: Basic principles and extensions, 11th edition.
- Andreu Mas-Colell Michael D. Whinston & Jerry R. Green : Microeconomics theory, Oxford University Press, New York
- David M. Kreps : A course in Microeconomics theory, Princeton University Press
- Geoffrey A. Jehle, Philip J. Reny; Advance Microeconomics theory, Prentice Hall 3rd edition.

Semester-II

- Hugh Gravelly & Ray Rees : Microeconomics, Prentice Hall, 3rd edition.
- Koutsoyiannis, A., Modern microeconomics. Springer.
- Henderson, James M. & Quandt, Richard E. : Microeconomic Theory: A Mathematical Approach, McGraw-Hill, 1st Edition,
- Choudhury Kalyanjit : Modern Microeconomics, Pragati Publication, Part-1&2

ECO-507 MACRO ECONOMICS-II

Unit I : Trade Cycles and Stabilization Policies **12 lectures**

Time Series Decomposition and Business Cycles, Measurement of Waves, Oscillations & Amplitude in Cycles, Multiplier-Accelerator Interaction Theory, Kaldor-Kalecki Theory, Short and Long Run Cyclical Adjustments and Stabilization.

Unit II : New Classical Macroeconomics and Real Business Cycles **12 lectures**

Rational Expectation, Lucas Aggregate Supply & Critique, Incomplete Information Model, Real Business Cycles and Supply side shocks, Endogenous Business Cycles, Persistence of Output Fluctuations, and Global Financial crisis.

Unit III : New Keynesian Theories of Business Cycles and Unemployment **12 lectures**

Incomplete Nominal Adjustments, Nominal and Real Rigidities, Real Non-Walrasian Theories, Coordination Failures, Multiple Equilibrium, Staggered Wage-Price Theory, The Efficiency Wage Model, Insider-Outsider Model, Hysteresis, Search and Matching Models.

Unit IV : Macroeconomic Policy Issues **12 lectures**

Objectives, Targets, Instruments & Transmission Mechanisms of Fiscal and Monetary Policy, Gradualism vs. Shock Therapy, Rules vs Discretion, Dynamic Inconsistency Problem, Inflation Targeting Vs Monetary Targeting, Taylor Rule, Blinder-Solow Hypothesis, Dynamic Approaches to Fiscal & Monetary Policy.

Semester-II

Reading List:

- Richard T Froyen, Macroeconomics: Theories and Policies, Pearson Publications, UK.
- David Romer, Advanced Macroeconomics, McGraw Hill Publications, USA.
- Oliver J Blanchard and Stanley Fischer, Lectures on macroeconomics, MIT Press, USA.
- Mankiw, N. G. and D. Romer, New Keynesian Economics, (2 Vols.), MIT Press, USA.
- Frederic S. Mishkin, Macroeconomics: Policy & Practice, Pearson Education, UK.
- Paul Davidson, Post Keynesian Macroeconomic Theory, Second Edition: A Foundation for Successful Economic Policies for the Twenty-First Century, Edward Elgar Publishing, UK.
- Marc Lavoie, Introduction to Post-Keynesian Economics, Palgrave Macmillan, UK.
- Neva Goodwin, Jonathan Harris, Julie Nelson, Pratistha Joshi Raj karnikar, Brian Roach, Mariano Torras, Macroeconomics in Context, Taylor & Francis, UK..

ECO-508 PUBLIC FINANCE

Unit I : Economic Rationale of Government Activity 12 lectures

The Economic Role of Government – Allocation, Distribution, and Stabilization; Market Failure: Public Goods and Externalities, Public Goods and the Free Rider Problem, Market Failure and the Government Intervention

Optimal Provision of Public Goods – The Samuelson Model, The Nash Equilibrium Approach, The Lindahl Equilibrium An Introduction to Normative and Positive Public Choice Theories .

Unit II : Theories of Taxation and Public Expenditure 12 lectures

Types of Taxation; Measuring the Fairness of a Tax System, Haig-Simons comprehensive income definition and deviations due to Ability-to Pay considerations and Taxable Capacity, The Benefit Principle of Taxation – Bowen Model, Taxation and the trade-offs between equity and efficiency; Optimal Taxation – Ramsey Taxation and the Inverse Elasticity Rule, Incidence of Taxation in a General Equilibrium Model – the Herberger Model, Theories of Public Expenditure – Wagner’s Law of Increasing State Activities, Wiseman-Peacock Hypothesis, and Colin Clark’s Critical Limit Hypothesis.

Unit III : Fiscal Policy and Deficit Finance

12 lectures

Fiscal Policy and stabilization, built-in-flexibility, The Compensatory Finance Approach, Measurement and Macroeconomic Impact of Deficits, Fiscal Deficit and Public Debt, Classical Theories of Public Debt- Pay-as-You-Use, and Pay-as-You-Go Finance; Ricardian Equivalence Burden of the Public Debt- Learner's view, Intergenerational Equity; Overlapping Generations Model

Unit IV : Fiscal Federalism

12 lectures

Rationale of Fiscal Federalism, Principles of Fiscal Federalism, Optimal Provision of Club Goods and Local Public Goods – the Tiebout Hypothesis and Decentralisation, Case Study of India: Role of Finance Commission; Intergovernmental Grants; Goods and Services Tax in India.

Reading List

- Atkinson A and J Stiglitz : Lectures in Public Economics, MC Graw Hill
- Bailey, S.J. : Public Sector Economics, Macmillan .
- Boadway R and Bruce : Welfare Economics-Basil Black well Oxford
- Duff L. : Government and Market, Orient Longman, New Delhi.
- D.C Muller : Public Choice. Cambridge University Press.
- Friedman A. : Welfare Economics and Social Choice Theory. Martins Nighoff, Boston.
- J. E. Stiglitz : Economics of Public Sector, Norton
- Jha R. : Modern Public Economics, Routledge, London
- Lekhi, R K., Public Finance, Kalyani Publishers, Ludhiana, Latest Edition.
- Lal S. N., Problem of Public Borrowing in India. McGraw Hill Book Company, New York.
- Meier, G. M. and Rauch : Leading Issues in economic development, OUP
- Mishan, E. J. : Introduction to Normative Economics, OUP.
- Quick, J and R. Sapanick : Introduction to General Equilibrium theory and Welfare Economics, Mc Graw Hill, New York
- R Goode Govt., Finance in Developing Countries, Tata McGraw Hill.
- R Comes and T. Sandler : The Theory of Externalities Public Goods and Club Goods, Cambridge University Press.
- Rosa, S. Harve, Public Finance, Irwin Publications in Economics, USA.
- Richard A. Musgrave : Public Finance in Theory and Practice, McGraw Hill Book Company, New York
- Singh, S. K. : Public Finance in Developed and Developing Countries, S. Chand and Company Ltd, New Delhi.

ECO-509
ELEMENTS OF MATHEMATICAL
ECONOMICS & ECONOMETRICS

Unit I : **12 lectures**

Matrices: Types & Mathematical Operation, Determinants: Minors, Cofactors and Inverse of Matrices, Solution of Simultaneous Equations using Inverse and Cramer's Rule; Rank of Matrix Economic Application of Matrices & Determinants: Input-Output Analysis, Linear Programming: Optimization of Economic Problems (Primal, Dual, Graphic Method)

Unit II : **12 lectures**

Partial Differentiation first and higher order Derivatives, Maxima & Minima of a function of two variables, Total Derivatives, Economic Applications of Partial Differentiation: Production function analysis, Utility Analysis, Demand Analysis, Constrained optimization with Lagrange's Multiplier, Total Derivatives.

Unit III : **12 lectures**

Integral Calculus: Rules of Integration, Indefinite and Definite Integrals, Application of Integration in Finding Total Functions of Economic Variables from Marginal Functions; Consumer's and Producer's Surplus;

Differential Equations: First-order and systems of first-order differential equations; Difference Equation; First order, Steady State of Equilibrium & path of Equilibrium, Cobweb Model

Unit IV : **12 lectures**

Econometrics: Use and Importance of econometrics; Methodology of econometric research; The Nature and Sources of Data for Economic Analysis; Data- Further Issues: Stationary of Data, Transformation of Data, Simple Linear regression model: Assumptions and Estimation of parameter OLS method. Gauss Markov Theorem, Blue Property, goodness of fit; Explanation of R^2 and adjusted R^2 , Regression versus correlation, Properties of the OLS estimator.

Reading List:

- Allen, R.G.D : Mathematical Analysis for Economists, Macmillan and Company Limited.
- Chiang, A.C. : Fundamental Methods of Mathematical Economics, McGraw Hill Education.
- Dorfman, R, Samuelson, P.A. and Solow, R. : Linear Programming and Economic Analysis, Dover Publications, INC, New York

Semester-II

- Gujarati, D. N. : Basic Econometrics (IInd Edition), New Delhi, McGraw- Hill.
- Koutsoyiannis, A. : Theory of Econometrics (IInd Edition), London, The Macmillan Press.
- Krishna, K. L., : Econometric Applications in India, New Delhi, Oxford University Press.
- Kamenta, J. : Elements of Econometrics, New York, University of Michigan Press.
- Lange, Oscar : Introduction to Econometrics, Pergamon Press
- Mehta B. C. & Madnani G.M. K. : Econometrics, CBS Publishers & Distributors.
- Mehta, B.C., Mathematical Economics: Microeconomic Models.
- Maddala, G.S. (Ed.), Econometrics Method and Applications, (2 vols.) U. K.; Alders Hot.
- Yamane, T. : Mathematics for Economists, Literary Licensing, LLC.

SEMESTER - III

ECO-511 INDIA'S ECONOMIC POLICY-I

Unit I : Economic Policy

12 lectures

Economic Policy- Instruments, Targets- Fixed and Flexible, Economic Policy and Planning, State vs. Markets Debate, Political Economy of Indian Development, Ingredients of Good Governance, Livelihood Protection and Social Security Measures, Structural Changes in Indian Economy since Economic Reforms, Issues Confronting Indian Economic Policy

Unit II : Agricultural Policy of India

12 lectures

An Overview of Agricultural Policy of India, New Agricultural Policy, Persistence of Crisis in Indian Agriculture, Strategy for reforms in Agriculture, Agricultural Price Policy of India, Public Distribution System in India, Food Security in India

Unit III : Industrial Policy of India

12 lectures

An Overview of Industrial Policy of India, New Industrial Policy, Strategy for Rapid Industrial Growth, Strategy for Developing Manufacturing Sector, Industrial Revolution 4.0,
Public Sector in India, Micro, Small and Medium Enterprises in India

Unit IV : Environmental Issues and Energy Security

12 lectures

Environmental Issues in India, Development of Environmental Policy in India, Development of Energy Policy in India, Green Energy Transition in India, Energy Security in India – Issues, Strategy and Challenges.

Reading list

- Acocella, Nicola, Economic Policy in the Age of Globalisation, Cambridge University Press.
- Acharya, S.S. and Chaudhari, D.P., Indian Agricultural Policy at the Crossroads: Priorities and Agenda, Rawat Publications.
- Beder, Sharon, Environmental Principles and Policies: An Interdisciplinary Introduction, Routledge.
- Chand, Ramesh, India's Agricultural Challenges: Reflections on Policy, Technology and Other Issues
- Ghosh, Amitabh, The Great Derangement: Climate Change and the Unthinkable, Penguin.

Semester-III

- Guha, Ramchandra, Environmentalism: A Global History, Penguin Random House.
- Habib, Irfan, Man and Environment, Tulika Books.
- Hashim, H.R., Chalapati Rao, K.S., Ranganathan KV. and Murthy, M.R., (eds), India's Industrial Development and Globalisation
- Majumdar, N.A. and Kapila, Uma, Indian Agriculture in the New Millennium
- Rangarajan, Mahesh, Environmental Issues in India, Pearson Education.
- Rosencranz, Armin, Shyam, Divan, Environmental Law and Policy in India, OUP.
- Satyanarayana, J., The New Industrial Policy and Its Impact on India's Industrial Economy
- Sen, A.K, On Ethics and Economics, Oxford India Paperbacks.
- Swaminathan, M.S. , Sustainable Agriculture: Towards An Evergreen Revolution, Konark Publishers.
- Tinbergen, J., Economic Policy, Principles and Design, Elsevier Science Publishing Co.
- Tinbergen, J., On the Theory of Economic Policy, Hassell Street Press.
- Vyas, V.S., India's Agrarian Structure, Economic Policies and Sustainable Development, Academic Foundation.

ECO-512 GROWTH ECONOMICS

Unit I : Economic Growth-Classical to Modern Approaches12 lectures

Economic Growth-Stylized Facts, Correlates, Uniqueness and Existence, Introduction to Theoretical Approaches of Economic Growth: Classical to New Keynesian, Marxist vs. Schumpeter's theory of capitalistic development, Structural Change, Institutional Approach, Political Economy of Economic Growth.

Unit II : Post Keynesian Growth Theories 12 lectures

Harrod Dynamics, Nicholas Kaldor, James Meade, Joan Robinson, Kaleckian Approach, Indian Growth Models-Mahalanobis, Macroeconomic Consistency Model.

Unit III : Neo Classical Growth and Technical Progress 12 lectures

Measurement of Growth and Solow Residual, Technical Progress in Macro Production Function, forms of Technical Progress, Solow-Swan Model with and without Technical Progress, Golden Rule of Capital Accumulation, Theory of Convergence and Divergence.

Unit – IV

Endogenous Growth Theories

12 lectures

Endogenous Growth Models, A K Model, Lucas Model of Human Capital, Romer Model of Endogenous Innovation, Introduction of Infinite Horizon Model, Basics of Overlapping-Generations (Diamond) Model, Introduction of Stochastic Growth Model.

Reading List

- Robert J. Barro and Xavier Sala-i-Martin: Economic Growth, MIT Press, USA
- H.G. Jones, An Introduction to Modern Theories of Economic Growth, McGraw-Hill, USA
- Charles I. Jones, Introduction to Economic Growth, W.W. Norton & Company, USA.
- David Romer, Advanced Macroeconomics, McGraw-Hill, USA.
- Stiglitz & Uzawa, Readings in Modern theory of Economic Growth, MIT Press, USA.
- Sen, A K, Growth Economics, Penguin Books, India.
- Lucio Baccaro, Diminishing Returns: the new Politics of Growth and Stagnation, OUP, UK.
- C. Panico & N. Salvadori, Post Keynesian Theory of Growth and Distribution, Edward Elgar Publishing, UK

ECO-513

FINANCIAL INSTITUTIONS & MARKETS

Unit 1 : Financial System

12 lectures

Structure and functions, Indicators of Financial Development; Financial Intermediaries: Role and Challenges; Risk and Uncertainty in Financial Assets: Types of Risk, Risk Return Trade Off; Financial System and Economic Development

Unit II : Financial Institution in India

12 lectures

Commercial Bank & Cooperative Bank: Evaluation of Performance, Reforms and Challenges, Role and Challenges of Development Banks (NABARD, IFCI, EXIM Bank, SIDBI, SFC), RBI – As a Regulatory authority, Monetary Policy (Recent Development, Issues & Challenges). Non-Banking Financial Institutions (LIC & Mutual Fund): Nature, Significance & Regulations in India; Banking Development and Current Technological Innovations, Financial Inclusion in India.

Unit III : Financial Markets

12 lectures

Money Market: Role, Functions & Instruments, Government Securities Market.

Capital Market: Primary and Secondary Market in India (Structure and Functions).

Financial Instruments: Concepts and Development; Securities (Bond, Debenture, Equities) and Share Price Indices.

Unit IV : Market Regulation

12 lectures

SEBI: Functions, Roles and Challenges. Derivatives: Types, Uses and Pricing, Concept of Hedgers, Speculators, Arbitrageurs. Globalization and Financial Market: Role of FDI and FPI

Reading List

- Bhole, L.M., Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.
- Bharati Pathak, The Indian Financial System: Pearson Education Publication New Delhi
- Bhole, L.M., Indian Financial System, Chugh Publications, Allahabad.
- Chandra, P., Financial Markets, (4th Edition), Tata McGraw Hill, New Delhi.
- Gupta, S.B., Monetary Economics, S. Chand & Company, New Delhi.
- Gupta, L.C. (Ed.), India's Financial Markets and Institutions, Society for Capital Research and Development, Delhi. Hanson, J.A. and S.
- Kathuria (Eds.), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
- Harker, P.T. and S.A. Zenios (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.
- Johnson, H.J.: Financial Institutions and Markets, McGraw Hill, New York.
- Khan, M.Y.: Indian Financial System, Tata McGraw Hill, New Delhi.
- H.R. Machiraju: Indian Financial Systems, Vikas Publishing House, New Delhi.
- J.A., The Theory of Financial Markets and Institution, North Holland, Amsterdam.
- Rangaranjan, C., Indian Economics: Essays on Money and Finance, UBS Publication, New Delhi.
- RBI- Report of The Committee to Review the Working of the Monetary system (Chakravarty Committee), Bombay.
- RBI Working Papers, Bulletin and Reports.

SEMESTER - IV

ECO-514 INDIA'S ECONOMIC POLICY-II

Unit I : Monetary Policy

12 lectures

Role and objectives in Developing Countries, Instruments of Monetary Policy, Inflation Targeting as a Nominal Anchor of Monetary Policy in India – Experience and Issues, Monetary Policy of India Pre and Post Economic Reform; Monetary Policy and Inflation in India, Conduction of Monetary Policy in recent Years.

Unit II : Commercial Policy

12 lectures

India's Balance of Payments pre and post reforms, India's Foreign Trade Policy, Foreign Capital and India, Foreign Exchange Policy of India-FERA and FEMA, Recent India's Foreign Trade Policy: Key Objectives, Pillars and Salient Features.

Unit III : India's Population Policy.

12 lectures

Demographic Structure of India, Occupational Structure of India's Population, India's Population Policy, Main Features of Recent Census in India; Human Resource and Economic Development, Demographic Dividend and nature of Population Problems in India.

Unit IV : Poverty and Unemployment

12 lectures

Concept and Measurement of Inequality, Meaning of Inclusive Growth, Policy Agenda for Inclusive Growth. Employment and Unemployment- Labour Force and Work Force Participation Rates, Dimensions of Unemployment, Employment Policy Framework. Concept and Measurement of Poverty. Social Infrastructure- Significance and its role in Economic Development.

Reading List:

- Amartya Sen, Development as Freedom, Oxford University Press.
- Amartya Sen, Collective Choice and Social Welfare on Economic Inequality, Oxford University Press.
- Amartya Sen, Poverty and Famine: An Essay on Entitlement and Deprivation, Oxford University Press.
- Amartya Sen and Jean Dreze, India Economic Development and Social Opportunity, Oxford University Press.

Semester-IV

- Amartya Sen, Resources, Values and Development, Oxford University Press.
- Meier and Rauch, Leading Issues in Economic Development, Oxford University Press.
- Y Hayami and Y Godo, Development Economics, From Poverty to the Wealth of Nations (3rd Edition), Oxford University Press.

ECO-515 DEVELOPMENT ECONOMICS

Unit I : 12 lectures

The Concept of Economic Development - Narrower Approach to the Broader Approach of Development, Sen's Entitlement and Capability Approach, Measurement Index of Development: HDI, IHDI, Underdevelopment as Coordination Failure - O Ring Model, Centre-Periphery Model

Unit II : 12 lectures

Population as Promoting and Retarding factor for Development, Microeconomic Household theory of Fertility, Conceptual Debate over Poverty and Inequality- Measurement Issues, MPI, Education and Health as Joint Venture for Development, Gender – the Concerning Issue for Development, Environmental Issues in Development

Unit III : 12 lectures

Dual Economy and Development, Rural-Urban Linkages, Migration and Urban Unemployment, Characteristics of Informal Sector, Informal Labour Market, Social Network and informal Labour Market, Internal and External Source of Finance for Development, Microfinance-Issues and challenges, External Aid, FDI and MNCs Activities.

Unit IV : 12 lectures

Re-Examining Development: Market, State, Institution and Globalization, Role of State, Determinants of Democracy, Elementary Idea of Political Economy of Development, Rent Seeking and Government Failure, Government Failure and Corruption.

Reading List:

- Debraj Ray : Development Economics, Oxford University Press.
- Partha Dasgupta : Economics, A Very Short Introduction, Oxford University Press.
- Abhijit Banerjee, Roland Benabou and Dilip Mookerjee (2006): Understanding Poverty, Oxford University Press.

Semester-IV

- Amartya Sen : Development as Freedom, OUP.
- Daron Acemoglu and James Robinson : Economic Origins of Dictatorship and Democracy, Cambridge University Press.
- Robert Putnam : Making Democracy Work: Civic Traditions in Modern Italy, Princeton University Press.
- Todaro, Michael P and Stephen C Smith : Economic Development, 8 th Edition, Pearson.
- Thirlwall, A P : Economics of Development, 9th Edition, Palgrave Macmillan

Elective Groups

GROUP-I (International Trade Issues & Financial Institutions)

ECO-551- International Trade & Institutions (Elective -4 Credits)

Unit-I

12 lectures

International Trade and Financial Institutions, Prior to Bretton-Woods, The Bretton-Woods Era, IMP. Development in the International Monetary System after 1971. International Reserves and Problems of Liquidity in Present Context. International Monetary Agreement.

Unit-II

12 lectures

Development Institutions: IBRD, IFC, MIGA. Modern Regional Banks: Asian Development Bank, BRICS, SAARC.

Unit-III

12 lectures

Trade and Development: General Agreement on Tariffs & Trade (GATT) and UNCTAD, Agreement of WTO.

Unit-IV

12 lectures

GATT 1994: Agreement on Agriculture, Agreement on Dumping and Countervailing Duties, SPSS. General Agreement on Trade in Services (GATS), TRIPS, TRIMS, Future of WTO, WTO and India.

Reading List-

- Bo Sodersten & Geoffrey Reed, International Economics, MacMillan Press Limited, Hampshire & London.
- D. Salvatore, International Economics, New York, John Wiley.
- Francis Cherunilam, International Economics, Tata McGraw Hill Publishing Company Ltd., New Delhi.
- H. G. Mannur, International Economics, Vikash Publishing House, New Delhi.
- M. C. Vaish & Sudama Singh, International Economics, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
- Paul R. Krugman & Maurice Obstfeld, International Economics (Theory & Policy), Addison Wesley Longman, Pearson Education, Indian Branch, New Delhi.
- Rana & Verma, International Economics, Vishal Publishing Co., Jalandhar, India.
- S. Kindleberger, International Economics, Traveller Book Sell, New Delhi.

Elective Groups

GROUP-I (International Trade Issues & Financial Institutions)

ECO-552- International Financial Issues (Elective -4 Credits)

Unit-I

12 lectures

Globalization, History and Development, Globalization and Development Strategies, International Migration, Globalization and Economic Development. New Developments and Policy Challenges.

Unit-II

12 lectures

From Miracle to Crisis: East Asia, Global Financial Crisis, Origin of Global Recession, The Sub-Prime Crisis and the World Economy, Revival of the Global Economy, Sovereign Debt: Euro Crisis, Crisis in (Portugal, Ireland, Italy, Spain & Greece) PIIGS, Global Financial Crisis and Sustainability of Growth. Future Prospects in Context of Indian Economy.

Unit-III

12 lectures

Financial Flows, Size and Structure of Multinationals, Foreign Direct Investments, Merger and Acquisitions. Flow of Foreign Capital in Less Developed Countries: Form, Advantages and Disadvantages. Euro Currency Market and International Bond Market.

Unit-IV

12 lectures

International Monetary Regulations: BASEL Norms, Law and Economics. International Trade and Money Regulations and India.

Reading List-

- Department of Economic Affairs, Ministry of Finance, Gol, Economic Survey, Various Issues, General Manager, Government of India Press, Minto Road, New Delhi.
- Joshi, V. & Little, I. M. D., India's Economic Reforms (1991-2001), Oxford India Paperbacks, New Delhi.
- Kapila, U., India's Economic Development Since 1947, Academic Foundation, New Delhi.
- Marrewijk, C. V., International Economics-Theory, Applications, and Policy, Oxford University Press, New Delhi.
- Nayyar, D., Trade and Globalization, Oxford Collected Essays, Oxford University Press, New Delhi.
- Parthapratiim Pal, International Trade and India, Oxford University Press, New Delhi.

Elective Group-I

- Srinivasan, T. N., Growth, Sustainability, and India's Economic Reforms, Oxford University Press, New Delhi.
- Sundaram, N. M., Global Finance Capital on Rampage, AdhyayanaPrakashana, Kamataka.

Elective Groups

GROUP-I (International Trade Issues & Financial Institutions)

ECO-553- Regional Economic Cooperation (Elective - 4 Credits)

Unit-I **12 lectures**

Regional Economic Cooperation: Importance & Scope, Types: Economic, Monetary, Trade, etc. Bilateral Trade Agreement, Zipf's Law and Gravity Equation, Revealed Comparative Advantage Model.

Unit-II **12 lectures**

Preferential Trading: Free Trade Agreements: Definition, Scope and Importance, SAFTA, NAFTA, ASEAN.

Unit-III **12 lectures**

Preferential Trading, Economic Integration and Regional Groupings. Theories of Customs Union: Partial Equilibrium Approach, The General Equilibrium Approach, The Viner Model, The Vanek Model and The Lipsey Model.

European Union, India and European Union.

Unit-IV **12 lectures**

India and Future of Regional Economic Cooperation: APEC. Pressure Group Combination and International Negotiations : G-20 and G-33. New International Economic Order, North-South Debate, Non-Aligned Movement.

Reading List-

- Bo Sodersten & Geoffrey Reed, International Economics, MacMillan Press Limited, Hampshire & London.
- D. Salvatore, International Economics, New York, John Wiley.
- H. G. Mannur, International Economics, Vikash Publishing House, New Delhi.
- Kushwaha G. S., Regional Economic Cooperation in South East Asia.
- M. C. Vaish & Sudama Singh, International Economics, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.

Elective Group-I

- Marrewijk, C. V., International Economics-Theory, Applications, and Policy, Oxford University Press, New Delhi.
- Nayyar, D., Trade and Globalization, Oxford Collected Essays, Oxford University Press, New Delhi.
- Nayyar, D. (ed.), Trade and Industrialization, Oxford University Press, New Delhi.
- Rana & Verma, International Economics, Vishal Publishing Co., Jalandhar, India.
- Rizvi Syed, SAARC-Challenges Ahead, Kilaso Books, New Delhi.
- S. Kindleberger, International Economics, Traveller Book Sell, New Delhi.

Elective Groups

GROUP-I (International Trade Issues & Financial Institutions)

ECO-554-India's Foreign Trade (Elective-4 Credits)

Unit-I

12 lectures

Trading in changing world: Views of Hicks, G. Haberler, Prebisch Singer, Caimcross, Gunnar Myrdal. Thinkers of Dependency Theory: Samir Amin, Emanuel. Agrhari, Paul Baran

Unit-II

12 lectures

India's Balance of Payments: Trends and Magnitude During the Plans (1951 to 1990 and 1991 Onwards). India's Foreign Trade: Composition and Direction during Plans Period. Sources and Nature of Trade Data in India. ITC (HS).

Unit-III

12 lectures

India's Foreign Trade Policy during Plans (1951 to 1990 and 1991 Onwards)- Institutional infrastructure for Export Promotion, EXIM Bank, ECGC, Export Promotion Council and Boards. STC, ITPO, FTZs, SEZs, EOUs, Deemed Exports.

Unit-IV

12 lectures

Exchange Rate Management in India: FERA, FEMA, Issues of Full Convertibility, Use of Derivatives in Forex Management.

Reading List-

- Dutt & Sundharam, Indian Economy, S. Chand & Company Pvt. Ltd., Ramnagar, New Delhi.
- Economic Survey, Department of Economic Affairs, Ministry of Finance, GoI, Various Issues, General Manager, Government of India Press, Minto Road, New Delhi.

Elective Group-I

- Kapila, U., India's Economic Reform, Academic Foundation, New Delhi.
- Meier Gerald, M., Leading Issues in Economic Development (Third Edition), Oxford University Press, New York.
- Ministry of Commerce-Govt. of India, Foreign Trade Policies Yearly, Vol. I and Vol. II.
- Misra & Puri, Indian Economy, Himalaya Publishing House, New Delhi.
- Nair, Deepak, India's Export Potential.
- Nayyar, D., Trade and Globalization, Oxford Collected Essays, Oxford University Press, New Delhi.
- Stiglitz, J. E. & Charlton, A., Fair Trade for All-How Trade can Promote Development, Oxford University Press, New Delhi.

Elective Groups

Group-II (Agricultural & Industrial Economics)

ECO-561- Economics of Agriculture (Elective -4 Credits)

Unit 1: Agriculture and Economic Development 12 lectures

Nature and scope of agriculture economics, Role of agriculture in a developing economy, Traditional Agriculture and its modernization, Theories of agriculture development (Lewis, Ranis and Fie, Jorgenson)

Unit 2: Agriculture Production and Productivity 12 lectures

Agriculture production; Production Function Analysis in Agriculture, Productivity; meaning and factors effecting agricultural productivity, farm size and Productivity, farm management; Principle of factor substitution (least cost combination, resource use efficiency)

Unit 3: Agricultural Marketing and Price 12 lectures

Definition of Marketing, Need for efficient marketing system, Present system of Indian Agriculture Marketing, Government measures to improve Indian agriculture marketing, Agriculture policy: Need and Objectives, Issues of Minimum Support Price in India

Unit 4: Agriculture and External Sector 12 lectures

Commodity Agreements, Globalization of Indian economy and its impact on Indian Agriculture, World Trade Organization Agreement on Agriculture, Sustainable Agriculture and food security.

Reading List

- Beattie BR & Taylor CR. : The Economics of Production. John Wiley & Sons
- Sankayan P.L., Introduction to Farm Management. Tata Mc Graw Hill.
- Sadhu, A.N. Singh A. : Fundamentals of Agricultural Economics, Himalaya Publishing House
- Soni, R.N. : Leading Issues in Agriculture Economics, Vishal Publishing house.
- Mellor, J.W. : The Economics of Agriculture Development. Cornell University Press.
- Dandekar, V.M.: The Indian Economy 1947-92, Vol.1, Agriculture, Sage Publications.
- Bilgrami, S.A.R. : An Introduction to Agricultural Economics, Himalaya Publishing House.

Elective Group-II

- Tyagi, B.P.: Agricultural Economics and Rural Development, Prakash Nath & Co. Meerut
- Dantwala, M.L. (Ed.) : Indian Agriculture Development since Independence, New Delhi
- John B & Richard T. Woodward : Introduction to Agriculture Economics, 7th Edition, Published by Pearson.
- Pathak H, Mishra J.P. and Mohapatra T. : Indian Agriculture after Independence, Indian Council of Agricultural Research, New Delhi.

Elective Groups

GROUP-II (Cultural & Industrial Economics)

ECO-562- Indian Agriculture: Institutions and Issues (Elective - 4 Credits)

Unit I: India's Agricultural Development since Independence.

12 lectures

Recent Trends in Agricultural Growth in India.

Inter-Regional Variations in Growth of Output and Productivity.

Cropping Pattern Shifts.

Agricultural Policy: Price, Subsidy and Taxation.

Role of Public Investment and Capital Formation in Indian Agriculture.

Sustainable Agriculture and Food Security.

Unit II: Agricultural Finance and Credit Institutions: The Problems of Rural Indebtedness.

12 lectures

Importance of Institutional and Non -Institutional Finance.

Commercial Banks, RRB'S, NABARD, RBI, SHG Linkage Programme.

Rural Infrastructure Development Fund, Cooperative Credit System.

Private Money Lenders. Defects of Money Lending System.

Regulation of Money Lending

Unit III: Agricultural Marketing: Introduction

12 lectures

Definitions of Marketing Need for Efficient Marketing System.

Present System of Indian Agricultural Marketing.

Government Measures to Improve Indian Agricultural Marketing;

Elective Group-II

Unit IV: Major Issues in Indian Agriculture: Land Reforms and Land Policy. **12 lectures**

Agricultural Taxation.

Under -Taxed Hypothesis in Indian Agriculture

Agricultural Prices and Price Policy.

Contract Farming; Issues in Agricultural Labour.

Crop Insurance in India.

WTO and Indian Agriculture.

Elective Groups

GROUP-II (Agricultural & Industrial Economics)

ECO-563- Rural Development(Elective - 4 Credits)

Unit I: **12 lectures**

Concept, Scope ,Objectives and Importance of Rural Development
Aspects of Rural Development: Rural Infrastructure-Roads, Irrigation, Electricity, Housing, Sanitation Facilities, Communication Link, Education, Health and Family Welfare, HDI in rural India. Importance of IT in Rural India.

Rural Industrialization and Agro- based Industries, Development of Rural Entrepreneurship.

Unit II: **12 lectures**

Problems of Rural Development; Rural Unemployment.

Magnitude of the Problems, Causes and Remedies, Status of Women and Gender bias. Women Empowerment.

Causes of Rural Migration and Solutions.

Rural Poverty, various measurements, Causes and Remedies. Problems of Inequality in Rural India.

Unit III: **12 lectures**

Review of Rural Development Administration and Panchayati Raj Institutions.

The Panchayat Raj System, Functions of Panchayati Raj System, Sources of Income for Panchayat.

Importance of Peoples Participation, Role of Voluntary Agencies in Rural Development and Micro-Level Planning.

Elective Group-II

Unit IV:

12 lectures

Livestock Enterprises in India.

Fisheries, Sources, Fisheries Development Programme.

Animal Husbandry - Trends in Live Stock Population, Livestock Development Programmes.

Study of Floriculture and Horticulture of India and Its Potential in International Trade in the Future.

A Brief Outline of Experiences of Rural Development in BRICS Nations.

Elective Groups

GROUP-II (Agricultural & Industrial Economics)

ECO-564- Economics of Industry & Industrial Organization (Elective -4 Credits)

Unit I :

12 lectures

Introduction

Significance of Industrial Economics, Structure of Firms, Industrial Profile Private Sector, Public Sector, Large, Medium & Small Scale Industries, Village Industries; Role and Problems of Industries, Liberalization, Deregulation and Disinvestment Policy, Impact of Globalization on Industries since 1990, Industrial Integration, Industrial Combinations - Causes, Mergers &

Amalgamations, Effects of Industrial Monopoly.

Unit 2 :

12 lectures

Industrial Organization and Theories of Industrial Location and Investment Decisions:

Concepts and Determinants of Market Structure, Market Conduct, and Market Performance - Interrelationships Among Structure, Conduct and Performance; Factors Influencing Location of Industries; Theories of Industrial Location; Weber, Sargent Florence; Industrial Imbalance, Causes and Measures, Herfindahl Index.

Methods of Evaluating Investment Expenditure - Social Cost Benefit

Analysis - Balancing Private and Social Returns - Assessment of Financial

Soundness - Sources of Finance- Ratio analysis-Sensitivity Analysis

Unit 3: Industrial Productivity & Efficiency and Problems of Selected Indian Industries **12 lectures**

Productivity - Norms and Measurement, Factors Affecting Productivity and Capacity Utilization

Importance of Productivity in the Competitive Environment, Measures Required for Improving Productivity and Efficiency.

Unit 4: Industrial Finance **12 lectures**

Meaning, Scope, Importance of Industrial Finance, Sources of Industrial Finance: Private, Public and Co-operative Sector -Shares, Debentures, Bonds,

Deposits, Loan etc. Methods of Disinvestment; Foreign Capital: Need for Foreign Capital, Governments Policy towards Foreign Capital. Direct Investment,

Foreign Institutional Investment, Euro Issues, GDR, ADR, External Commercial Borrowings.

Reading List :-

- Alhuwalia I.J. (1985), Industrial Growth in India, Oxford University Press New Delhi .
- Barthwal RR (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi.
- Cherunilam, F. (1994), Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
- Desai, B. (1999), Industrial Economics in India (3rd Edition), Himalaya Publishing House, Mumbai.
- Divine, P.J. and RM. Jones et. al.(1976), An Introduction to Industrial Economics, George, Allen and Unwin Ltd., London.
- Government of India, Economic Survey (Annual).
- Hay D. and D.J. Morris (1979) Industrial Economics Theory and Evidence, O U P, New Delhi.
- Reserve Bank of India, Report on Currency and Finance (Annual)
- Singh, A and A.N. Sandhu (1988), Industrial Economics, Himalaya Publishing House, Bombay.

Elective Groups

GROUP-II (Agricultural & Industrial Economics)

ECO-565- Industry and Development (Elective -4 Credits)

Unit 1 : Historical Development of Industry 12 lectures

Theoretical perspectives of role of Industry in Economic Development, Evolution of Industrialization. Phases of Industrialization: Pre and Post World War Era, contribution of industrial development for growth and development problems. Role of Agriculture in Industrial Development.

Unit 2: Globalization and Industrial Development 12 lectures

Industrial Globalization: Meaning and Scope. Industrial development of selected nations: USA, Germany, Japan, Korea, China and other Emerging Regions: Rationale and Impact. Industrial Location : Determinants & Theories of Industrial Location: Weber, Sargent Florence. Problem of regional imbalance. Decentralization of Industries.

Unit 3: Indian Industrialization: Issues and Policies 12 lectures

Changing Approach of Industrial Policies. Debate between Public and Private sector Economy. Medium & Small Scale Industries in India: Role, Issues and Challenges, Role of Government in promotion of MSME. Industrial finance and credit mechanism. Eco-Industrial Development in India: Meaning, objectives and Pathways.

Unit 4: Industrial Relations, Industrial Disputes and Labour Problems 12 lectures

Competition commission of India and regulation of Indian Industries, Industrial Disputes: Reasons and Remedies. Industrial Relations in India: Issues and Challenges. Social Security Measures for Industrial labour: Objectives and Interventions. Industrial sickness in India: Evaluating Causes, Consequences and Prevention Strategies adopted.

Reading List:

- Ahluwalia, I.J. : Industrial Growth In India, Oxford University Press, New Delhi.
- Barthwal, R.R. : Industrial Economics, Wiley Eastern Ltd, New Delhi.
- Cherunmilan, F. : Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
- Desai, B. : Industrial Economy in India (3rd Edition), Himalaya Publishing House, Mumbai.
- Divine, P.J. and R.M. Jones et al. : An Introduction to Industrial Economics, George Allen and Unwin Ltd. London.

Elective Group-II

- Agarwal A.N. (2011): Indian Economy, S. Chand & Co., New Delhi.
- Jaspal Singh (2021): Industrial Development in India, Satyam Law International.
- Kuchhal, S.C. (1980): Industrial Economy of India(5th Edition), Chaitanya Publishing House, Allahabad.
- U.N. Industrial Development Organization (2020), Industrial Development Report, UNIDO, Vienna.
- Meyer and Nukula et.al (2012): Pathway to Eco Industrial Development in India: concept and cases, Deutsche Gesellschaft, International Zusammenarbeit (GIZ).
- Government of India, Economic Survey ; Ministry Of Finance, Department of Economic Affairs, Economic Division North Block, New Delhi.
- Reserve Bank of India, Report on Currency and Finance

Elective Groups

GROUP-II (Agricultural & Industrial Economics)

ECO-566- Economics of Infrastructure & Transport (Elective -4 Credits)

Unit I: Introduction to Infrastructure Economics: 12 lectures

Infrastructure and Economic Development - Infrastructure as a Public Good; Social and Physical infrastructure; Special Characteristics of Public Utilities.

The Peak Load, Off Load Problem, Dual Principle Controversy; Economics of Scale of Joint Supply; Marginal Cost Pricing vs. Other Methods of Pricing in Public Utilities; Cross Subsidization, Free Prices, Equity and Efficiency.

Role of the State in Infrastructure Provision - Need for Regulation in Present Period - Public Private Partnership. Planning for Infrastructure: The Development of Social and Physical Infrastructure Planning; Planning at Aggregate and Disaggregate Levels: Integrating Infrastructure Planning with the Large Planning Framework Exercise Infrastructure Planning in India - Process, Implementation and Experience.

Unit II: Transport Economics: 12 lectures

Characteristics of Demand and Supply in Transport Sector - The Structure of Transport Costs. Models of Freight and Passenger Demand. Principles of Pricing. Special Problems of Individuals Modes of Transport; Inter-Modal Condition in the Indian Situation - Location of Economic Activities. Indian Railways: Its Economics, Government Policies and Problems. Road, Water and Air Transport: Significance and Growth,

Elective Group-II

Problems and Policy Challenges, Privatization and Modernization Issues. Review of Selected Important Schemes of Rural and Urban Transportation in India.

Unit III: Energy, Electricity and Gas and Water Supply Economics

12 lectures

Energy Economics'-Primacy of Energy in the Process of Economic Development.

Factors Determining Energy Demand. Effects of Energy Shortages.

Energy conservation. Renewable and Non-conventional Sources of Energy.

Pricing Issues in Energy, Electricity, Gas and Water Supply. Challenges in the Provision of Services by the Public and Private Sector.

Unit IV: Infrastructure Financing and Regulation:

12 lectures

Conventional Methods of Financing Infrastructure - Scope for Private, Financing of Infrastructure - Reforms in Financing - Theory of Regulation, Deregulation and Privatization in Infrastructure. Approaches to Privatization of Infrastructure and Services and a Competition Policy- Evolution of Infrastructure Policy in India with Focus on Case Studies Regarding Different Modes. Regulatory Bodies for Infrastructure.

Reading List :-

- Boyle, G. . Renewable Energy 1996, Power for a Sustainable Future, Oxford University Press.
- Indian Council of Social Sciences Research (ICSSR) (1976), Economics of Infrastructure, Vol. VI, New Delhi.
- L N Dash (2008), Infrastructure Development and the Indian Economy, Regal Publications.
- National Council of Applied Economic Research (NCAER) (1996), India
- Infrastructure Report; Policy Implications for Growth and Welfare, NCAER, New Delhi.
- World Bank (1994): Infrastructure for Development, World Development Report, Washington D.C.
- 3 I Network: India Infrastructure Report, Delhi, OUP, Various Issues.

Elective Groups
GROUP-III (Development Economics)
ECO-571- Population Studies (Elective - 4 Credits)

Unit 1: Introduction to Population Studies: 12 lectures

Population Studies: Meaning & Importance. Relationship of other social sciences with Population studies. Impact of Population on Society & Culture. Components of population change. An overview of Pre-Malthusian and Malthusian views on Population growth.

Unit 2: Theories of Population Growth: 12 lectures

Biological Theories of Population: Thomas Doubleday's Diet Theory, Pearl and Reed's Logistic Curve Theory and others, Social and Economic Theories of Population: Dumont's theory of Social Capillarity, Optimum theory of population growth, Leibenstein's Motivational Theory of Population Growth, Demographic Transition Theory: Views of Notestien, Blacker, Coale and Hoover.

Unit 3: Indian Population Analysis: 12 lectures

Population composition in India: Inter-state variation in the size, composition and distribution of population. Demographic Dividend and Ageing Population: Concept, Importance and Challenges. Evolution and Development of Population Policies and Family Welfare Programs in India, Gender Planning in India: Gender and Development Indices, Gender Budgeting: Need & Importance.

Unit 4: Migration, Urbanization and Gender Planning: 12 lectures

Migration: Basic Concepts & Types of migration. Determinants and Consequences of migration. Theories of Migration: Everett lee's theory of migration, Duncan's theory, Standing's theory of Materialism, Urbanization: Meaning & Problems. Trend & Pattern of Urbanization in India.

Reading List

- Bhende, Asha A and Kanitkar, Tara. : Principles of Population Studies, Himalaya Publishing house, Mumbai
- Mishra B.D. : An Introduction to the study of Population, South Asian Publisher, Madras
- United Nations : Population of India, Country Monograph, Series No. 10, Economic and Social Commission for Asia and the Pacific.
- Bhatia, H.S. : Ageing and Society, The Arya's Book Centre Publishing house
- Weeks John : Population: An Introduction to Concepts and Issues, Wordsworth Learning, Singapore. 9th Edition.

Elective Group-III

- Gender Budgeting Handbook: Government of India, Ministry of Women and Child Development, October 2015.
- Krishnamurthy Srinivasan : Population concerns in India: Shifting trends, policies and programs, New Delhi, India: SAGE Publication India Pvt Ltd.
- Sharma Satish K. : Urbanization, Population and Environment, Rawat Publications
- Agasty P. Mahendra& Patra. N Rabi : Rural-Urban Migration: Theory, Determinants and Impacts, Abhijeet Publications.

Elective Groups

GROUP-III (Development Economics)

ECO-572-Demography (Elective- 4 Credits)

Unit I : Introduction to Demography & Fertility Analysis 12 lectures

Demography: Concept, Definition and Scope, Interrelation with other social sciences, Rates, Ratio & Proportion etc., Concepts & Implication in Demography, Fertility and Fecundity: Concepts & Measures: CBR, ASFR, GFR, TFR, GRR, NRR, Cohort rates and Coale indices. Trends and determinants of fertility in India.

Unit II : Mortality, Morbidity and Health 14 lectures

Mortality and Morbidity: Basic Concepts & Measures, CDR, IMR, NMR, MMR, etc. Trends and determinants of mortality in India with special reference to IMR and Maternal Mortality.

Life Tables: Basic concept of the Life Table, Types and forms of Life Tables: Simple and Abridged Life Table, Construction of Life Table. Model Life Tables: U.N. Model Life Table and Coale-Demeny Model Life Table.

Unit III : Nuptiality Analysis and Stabilization Model 10 lectures

Nuptiality Analysis: Concepts and Measurement, Population Projections, Age Pyramid: Views of Thompson and Lewis, Demographic Models: Stable and Stationary population model.

Unit IV : Sources of Demographic Data 12 lectures

Sources of Demographic Data: Census, Sampling, Vital Registration Methods, NFHS /SRS and DHS Demographic Profile of India & States, Analytical Study of National Nutritional Policy & Food and Nutrition position in India, Global Trends of Population Size & Growth: With special focus on SAARC and BRICS Nations.

Elective Group-III

Reading List:

- Becker, G. : An Economic Analysis of Fertility in Demographic Change and Economic Change in Developed Countries (edited by National Bureau of Economic Research), Princeton University Press, Princeton.
- Bouge, D.J. : Principles of Demography, John Wiley New York.
- Boserup, E. : Population and Technological Change, A Study of Long-Term Trends Chicago, University of Chicago Press
- Demena Melake : Population and Development, Ethiopia Public Health Training InitiativeUSAID5.
- Mahadevan, K. : Fertility and Mortality: Theory, Methodology and Empirical Issues, NewDelhi, SAGE publications.
- Chandana, R.C. : A Geography of Population Concepts, Determinants and Patterns.
- Coale, A. and E. Hoover : Population Growth and Economic Development in Low Income Countries, A Case Study of India's Prospects, Princeton University Press, Princeton.
- Srinivasan, K. : Basic Demographic Techniques and Applications, SAGE Publications, New Delhi.
- Thompson, W.S. and Lewis, D.T. : Population Problems, Tata McGraw Hills Publishing Co., New Delhi.
- Thomas T. and Haupt A. et al. : PRB's Population Handbook, Sixth edition.
- Shiva, A.K. and Panda Pradeep : Handbook of Population and Development in India, Oxford University Press, India.

Elective Groups

GROUP-III (Development Economics)

ECO-573- Economics of Education and Health (Elective - 4 Credits)

Unit 1:

12 lectures

Human Capital - Concept & Components, Historical Developments in the Human Capital Theory, Human Capital vs. Physical Capital, Human Capital and Human Development.

Definition and Scope of Economics of Education and Health, Education & Health as Consumption and Investment Goods, Education and Health as an Instrument of Economic Development, Eradication of Poverty, Unemployment and Inequality in Income Distribution, Education - Health as joint venture.

Elective Group-III

Unit 2:

12 lectures

Cost-Benefit Analysis in Education, Problems in the Measurement of Costs and Benefits in Education.

Demand and Supply of Education, Educational Planning in Developing Countries with Special Reference to India, Educational Planning and the Problem of Educated Unemployment and –Brain Drain, An Overview of Education Policies in India

Unit 3:

12 lectures

The Concept and Determinants of Health Care, Health, Poverty and Malnutrition, Health Care System and Infrastructure in India, Institutional Issues in Health Care Delivery.

Demand and Supply of Health Care, Health Planning and Management in Developing Countries with Special Reference to India, Resource Mobilization and Utilization of Health Care in India, An Overview of Health Policies in India

Unit 4:

12 lectures

Financing of Education and Health Programmes in India; Resource constraints, Expenditure on Health and Education during Post Reform Period, Pricing and Subsidies to Health and Education Sector, Inequalities in Health Care and Educational Attainment in India, A Brief Introduction of Surveys for Health and Education in India - DIES, NFHS

Implication of GATS for Education and Health Sector, Role of International Organizations- UNDP, WHO.

Reading List:

- Anthony J. Cuyler and Joseph P.(ed) (2000),Handbook of Health Economics, Newhouse, North-Holland, Elsevier Science.
- Blaug, Mark (1972) Introduction to Economics of Education. Penguin, London.
- Becker, G.S.(1974) Human Capital. 2nd Edn., NBER, New York
- Becker, Gray S. (1998), Human Capital and Poverty, Religion and Liberty Archive, Chicago, University of Chicago Press.
- Behrman, Jere R. (1990), Human Resource Led Development, Review of Issues and Development, New Delhi, India: ARTEP/ILO.
- Berman, P and M.E Khan (1989), Paying for India's Health Care. Sage Publications, New Delhi.
- Cohn, E and T. Gaske (1989), Economics of Education, Pergamon Press, London.
- Carrin, G. and C. Politi (1997), Poverty and Health: An Overview of the Basic Linkages and Public Policy Measures, Health Economics Technical Briefing Note, Task Force on Health Economics, WHO, Geneva, 38 PP.

Elective Group-III

- Clewar, Ann, and David Perkins. 1998, Economics for Health Care Management. London: Prentice Hall.
- Education for Development
- Folland, Sherman, Allen Goodman, and Miron Stano. 2001. The Economics of Health and Health Care. New York: Macmillan, Third Edition.
- Klarman, H.E. (1965): Economics of Health, Columbia University Press, New York.
- Panchamukhi, P.R.(1980), Economics of Health: A Trend Report, ICSSR Survey, Allied, New Delhi.
- Rice, Thomas. 1998, The Economics of Health Reconsidered. Chicago: Health Administration Press.
- Tilak. J.E.G.(1989), Economics of Inequality in Education, Sage, New Delhi.
- World Bank (1983), The World Development Report: Investing in Health, Oxford University Press, New York.

Elective Groups

GROUP-III (Development Economics)

ECO-574- Social Sector and Development Issues (Elective- 4 Credits)

Unit 1:

12 lectures

Alternative Concepts of Economic Development: Income-Based Approach and Capability-Based Approach, Measurement Issues for Development Human Development Index, Physical Quality of Life Index, Human Poverty Index, Gender Development Index, Multidimensional Poverty Index, Multidimensional Measures of Well Being, Development Experiences of Less Developed Countries in the Recent Past.

Social Sector - Concept and Issues, Role of Social Sector in Economic Development

Unit 2:

12 lectures

Poverty, Inequality and Income Distribution - Conceptual, Measurement & Identification Issues, Functional Effects & Issues (Kuznet's Inverted U-Hypothesis), Inequality as Constraint to Growth, Poverty and Under-Nutrition, Poverty as Capability Deprivation

Planning & Strategies to Eradication of Poverty, Inequality in Income Distribution for Developing Economies with Special Reference to India, An Overview of Poverty Eradication Policies in India.

Elective Group-III

Unit 3:

12 lectures

Unemployment and Migration - Concept, Measurement & Types, Linkages Between Unemployment and Poverty, Migration - Problem or Solution, Rural - Urban Wage Gap, Labour Market Discrimination, Informal Sector – Determinants of its Size, Linkage with Rest of Economy.

Planning & Strategies to Eradicate Unemployment for Developing Economies with Special Reference to India, An overview of Unemployment Eradication Policies in India.

Unit 4:

12 lectures

Social Infrastructure and Development - Concept & Identification Issues, Social Infrastructure Development in India - Health, Education, Drinking Water, Sanitation, Housing, Food Security, Social Security Schemes and Policies in India, Crime and Violence as an Obstacle in the Path of Development

Reading List:-

- A Banerjee, R. Benabou and D. Mookherjee (ed), Understanding Poverty, OUP
- Amit Bhaduri: Employment and Development, OUP
- Basu, Majumdar and Mitra (ed), Capital, Investment and Development,
- Essays in memory of Sukhamoy Chakravarty, OUP
- D Lal, The Poverty of Development Economics, OUP
- Francise Stewart, Technology and Under-development
- G Meier, Leading Issues in Economic Development (2nd, 3rd and 4th Editions), OUP.
- Ha-Joon Chang: Rethinking Development Economics, Anthem Press
- Kaushik Basu, Analytical Development Economics, The Less Developed Economy Revisited, OUP
- Kaushik Basu, The Less Developed Economy, A Critique of Contemporary Theory, OUP
- Meier and Rauch, Leading Issues in Economic Development (8th Editions), OUP
- P.Dasgupta, In Inquiry into Well Being and Destitution, OUP
- P. Svendberg, Poverty and Undernutrition, OUP
- R. Skarstein, Development Theory- A Guide to Some Unfashionable Perspectives, OUP.
- R T Gill, Economic Development: Past and Present (3rd Edition), Prentice Hall of India.
- Sen Amartya, Employment, Technology and Development, OUP

Elective Group-III

- Sen Amartya, Development as Freedom, OUP
- Sen Amartya, Poverty and Famine, Essay on Entitlement, OUP.
- S. Mehrotra and E. Delamonica, Eliminating Human Poverty, Orient Longman.
- T Addison, D. Hulme and R.Kanbur (ed): Poverty Dynamics, Interdisciplinary Perspective, OUP

Elective Groups

GROUP-III (Development Economics)

ECO-575- Gender Economics (Elective 4 Credits)

Unit- I: Basics of Gender Studies

12 lectures

Importance and Concepts of Women Studies, Economic Basis and Functioning of Patriarchy in Developed and LDCs, Particularly India; Gender bias in the Theories of Value, Distribution and Population.

Demography of Female Population: Age Structure, Mortality Rates, and Sex Ratio- Causes of Declining Sex Ratios and Fertility Rates, Women and their Access to Nutrition, Health, Education and Social Community Resources.

Unit- II: Work & Decision- Making

12 lectures

Concept of Women's Work, Valuation of Productive and Unproductive Work, Visible and Invisible Work, Paid and Unpaid Work, Economically Productive and Socially Productive Work, Female contribution to National Income. Factors Affecting Decision Making by Women, Property Rights, Access to and Control over Economic Resources, Assets. Power of Decision Making at Household & Community Level, Economic Status of Women with Reference to Work- Participation, Income, Health and Education.

Unit- III: Women, Labour Market & Technology

12 lectures

Factors Affecting Female Entry in Labour Market, Supply and Demand for Female Labour. Female Work Participation in Agriculture, Non-Agriculture Rural Activities, Informal Sector, Cottage and Small- Scale Industries, Organized Industry and Services Sector. Wage Differential and their Determinants in Female Activities.

Impact of Technological Development and Modernization on Women's Work Participation - Agriculture, Non- Agriculture Rural Activities, Small

Elective Group-III

and Cottage Industries, Formal and Informal Sectors. Role of New Technology for Women Empowerment-Call Centres, BPO,KPO, Telemarketing etc.

Unit IV: Gender Planning and Social Security **12 lectures**

Gender and Development Indices, Mainstreaming Gender into Development Policies, Gender- Planning Techniques, Gender Budgeting, Gender Sensitive Governance.

Social Security of Women: Entitlements, Access to Credit and Insurance Markets. Role of Voluntary Organizations &Self Help Groups in Providing Social Security, Schemes for Safety Net for Women in India, Affirmative Action for Women and Improvement in their Economic and Social Status.

Reading List :-

- Ahmed, I. (Ed.) (1985), Technology and Rural Women: Conceptual and Empirical Issues, George Allen & Unwin, London.
- Agnihotri, S.B. (2000), Sex ratio in Indian Population: A Fresh Exploration, Sage Publications, New Delhi.
- Amsden, A. H. (Ed.) (1980), The Economics of Women and Work, Penguin, Harmondsworth.
- Boserup E. (1970), Women's Role in Economic Development, George Allen and Unwin, London.
- Buvinic M. and M.A. Lycette (1989), Women, Poverty and Development in the Third World', in Lewis J.P. (Ed.), Strengthening the Poor: What Have We Learnt, OECD.
- Dantwala, M.L., H. Sethi and P. Visaria (1998), Social Change Through Voluntary Action, Sage Publication, New Delhi.
- Government of India (1974), Towards Equality- Report of the Committee on the Status of Women in India, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Gulati, S. C. (1998), Fertility in India: An Econometric Analysis of a Metropolis, Sage Publications, New Delhi.
- Jhabwala, R and R. K. Subramanya (2000) (Eds.), The Unorganized Sector: Work Security and Social Protection, Sage Publications, New Delhi.
- Krishnaraj, M, RM. Sudarshan and A. Shariff (1999), Gender, Population and Development, Oxford University Press, New Delhi.
- MHRD, GOI (1987), Shram Shakti: Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector, Ministry of Human Resource Development, New Delhi.
- Narasimhan, S. (1999), Empowering Women: An Alternative Strategy from Rural India, Sage Publications, New Delhi.

Elective Group-III

- Papola, T.S. and A.N. Sharma (Eds.) (1999), *Gender and Employment in India*, Vikas Publishing House New Delhi.
- Redcliff, N. and E. Mingione, (Eds.) (1985), *Beyond Employment: Household, Gender and Subsistence*, Basil Blackwell, Oxford.
- Schultz, T.P. (1988), 'Education Investments and Returns' in Chenery, H.B.
- and T.N. Srinivasan, *The Handbook of Development Economies*, North Holland, New York.
- Seth, M. (2000), *Women and Development: The Indian Experience*, Sage Publication, New Delhi.
- Sinha, A. K. (2008), *New Dimensions of Women Empowerment*, Deep & Deep Publications Pvt. Ltd., New Delhi.
- Srinivasan, K. (1998), *Basic Demographic Techniques and Applications*, Sage Publications, New Delhi.
- Wazir, R (2000), *The Gender Gap in Basic Education: NGOs as Change Agents*, Sage Publications, New Delhi.

Elective Groups

GROUP-IV (Public Policy)

ECO-581- Public Economics (Elective - 4 Credits)

Unit I : Concept & Evolution

12 lectures

Concept & Scope of Public Economics; The Concept of Welfare state; Public Choice; Fiscal Policy for growth, development, and stabilization; State vs Market; Role of States in regulating markets – Classical vs Keynesian Approach .

Unit II : Tax and Expenditure

12 lectures

Taxation in a Federal system: assignment issues, vertical and horizontal imbalances and externalities, evolution of tax structures, tax evasion and avoidance; Laffer curve analysis; Determining optimal size of government, financing of public expenditure.

Structure and pattern of tax and expenditure in India; Taxes of Union, States and Local Bodies; Tax and Expenditure Reforms in India.

Unit III : Budget System and Policy

12 lectures

Budgetary Policy: Balanced vs unbalanced budget, budget as an instrument of economic policy; Budget Process in India- Components, Formulation and Enactment, Types and Effects of Deficits; Macroeconomic Effects of Deficit Financing; ; Evolution of Fiscal Policy in India since 1991; Rule-Based Fiscal Policy Regime (FRBM Act); Fiscal Consolidation in India.

Unit IV : Indian Fiscal Federalism

12 lectures

Public Finance in a Multilevel Fiscal System- Federal finance and cooperative federalism; Evolution of Centre-State Financial Relations in India; Fiscal Transfer System in India – Role of Finance Commissions; Intergovernmental Transfers - Rationale and Issues.

Reading List:

- Atkinson, A. and Stiglitz, J., Lectures in Public Economics, McGraw Hill.
- Aurebach, A. and Feldstein, M., Handbook of Public Economics, Vol. 3, North Holland.
- Boadway, Public Sector Economics, Cambridge University Press.
- Hillman A. L., Public Finance and Public Policy, Cambridge University Press.

Elective Group-IV

- Jha, R., Modern Public Economics, Routledge, London.
- Lakdawala, D.T., Union-State Financial Relations, Lalvani Publishing House, Bombay.
- Om Praksh : Public Economics, Vishal Publishing Co.

Elective Groups

GROUP-IV(Public Policy)

ECO-582-Resource & Energy Economics(Elective - 4 Credits)

Unit I : Natural Resources **12 lectures**

Types & Classification of Natural Resources

Measurement of Natural Resources

Management and Conservation of Natural Resources

Unit II : Natural Resource Scarcity **12 lectures**

Factors of Resource Scarcity

Detection & Indicators of Resource Scarcity

Evidence of Resource Scarcity

Unit III : Energy: Introduction & Background **12 lectures**

Review of the Basics of Supply, Demand & Price Formation in Competitive Markets .

Energy Demand: Short Run and Long Run Price and Income Elasticities

Energy Supply & Economics of Depletable Resources.

Unit IV : Energy Security **12 lectures**

World Oil Market & Energy Security

Risk Management, Future Market & Derivatives

Energy Efficiency Policies

Reading List:

- Bhattacharya, S., Energy Economics: Concepts, Issues, Market & Governance, Springer Verlag Limited, London.
- Deffeyes, K., Hubbert Peak: The Impending World of Oil Shortage, Princeton, N.J. Princeton University Press.
- Hotelling, H., The Economics of Exhaustible Resources.
- Pindyck, R., and D. Rubinfeld, Microeconomics, Prentice Hall.
- Tietenberg, Torn, Environmental & Natural Resource Economics, Pearson Education, Singapore.

Elective Groups

GROUP-IV (Public Policy)

ECO-583- Environmental Economics (Elective - 4 Credits)

Unit I : Introduction

10 lectures

Environmental Economics - Concepts and Dimensions; Environmental Ethics - Human values and Environmental problems – Issues and Challenges; Economy-environment interaction; Environment as a Public Good; Common Property Resources, Coase Theorem; Circular Flow Model; Material Balance Model.

Unit II : Environment vs Development

12 lectures

Relation between development and environmental stress; Assimilative Capacity of Natural Environment; The Optimum level of pollution; Environmental Kuznet's curve hypothesis; Concept of sustainable development; Indicators of sustainability; Environmental accounting; Green GDP.

Unit III : Theoretical Solution to Environmental Problems

14 lectures

Command and Control Approach- Liability Law, Emission Standard, Property Rights;

Market Approach- Pollution Tax, Pollution Subsidy, Deposit/Refund System, Pollution Permit Trading System; Economic Environmental Valuation Approach- Concept of Environmental values, Willingness to Pay and Willingness to Accept, The Contingent Valuation Method, The Hedonic Pricing Method, The Cost Benefit Analysis

Unit IV: Environmental Regulation

12 lectures

Rationale for regulation; Risk and Uncertainty in Environment Regulations; Environmental Regulations in Developed and Developing Countries; Review of Environmental Legislation in India; Global efforts towards Environmental Protection – Recent initiatives.

Reading List:

- Bhattacharya, Rabindra N., Environmental Economics – An Indian Perspective, Oxford University Press, New Delhi.
- Eugene, T., Environmental Economics, Vrinda Publishers, New Delhi.
- Grafton, Q., Adamowicz, W., Dupont, D., Nelson, H., Hill, R.J., Renzetti, S., The Economics of Environment and Natural Resources, Wiley-Blackwell.

Elective Group-IV

- Hanley, N., J.F. Shogren, and B. White : Environmental Economics: In Theory and Practice, Oxford University Press.
- Hanley, N. and E. B. Barbier : Pricing Nature: Cost-Benefit Analysis and Environmental Policy, Edward Elgar.
- Hussen, Ahmad M., Principles of Environmental Economics, Routledge, London.
- Johansson, P.-O. : Cost-benefit analysis of environmental change, Cambridge University Press.
- Kolstad, C. : Intermediate Environmental Economics, Oxford University Press, (2nd Edition)
- Kolstad, C. : Environmental Economics, Oxford University Press.
- Perman, Roger, Yue Ma, Michael Common, David Maddison, James Mcgilvray : Natural Resource and Environmental Economics – 4th Edition, Pearson.
- Prato, T. : Natural Resource and Environmental Economics, Wiley-Blackwell.
- Sankar, Ulagnathan, Environmental Economics, Oxford University Press, New Delhi.
- Thomas and Callan, Environmental Economics, Thomson South-Western, New Delhi.

Elective Groups

GROUP-IV (Public Policy)

ECO-584- Environmental Issues & Institutions (Elective -4 Credits)

Unit -I

12 lectures

Environmental Issues and Challenges

Domestic Environmental Issues

Air, Water and Soil Pollution

Natural Resource Depletion

Deforestation

Global Environmental Issues

Global Warming

Greenhouse Gas Emissions

Ozone Depletion

Climate Change

Unit -II

14 lectures

Global Environmental Institution and Summits

International Union for Conservation of Nature

United Nations Environment Programme

Elective Group-IV

United Nations Framework Convention on Climate Change
UN Conferences on Human Environment
UN Conferences on Sustainable Development
World Commission on Environment and Development
Major Environmental Institutions and Reports
A Brief Outline of Important Conventions - Ramsar Convention on Wetlands,
UN Convention to Combat Desertification, Rotterdam Convention on Hazardous Chemicals and Pesticides in International Trade Stockholm Convention on Persistent Organic Pollutant, Nagoya Protocol on Biological Diversity, Cartagena Protocol on Bio-safety.
A Brief Outline of - Agenda 21, Clean Development Mechanism, Environment Performance Index & Green Climate Fund

Unit-III

12 lectures

India's Environmental Institutional Structure

Ministry of Environment, Forests and Climate Change
Central Pollution Control Board
State Pollution Control Board
Pollution Control Unit
National Green Tribunal
National Ganga River Basin Authority

Unit-IV

10 lectures

Environmental Policy in India

Environmental Laws in India
National Environmental Policy
State Environmental Policy
National Action Plan of Climate Change
Environmental Initiatives in India

Reading List:

- Mohanty, S. K , Environmental and Pollution Laws, Universal Law Publishers Co., New Delhi
- Sankar, Ulagnathan, Environmental Economics, Oxford University Press, New Delhi
- Speth, J. G. & Haas, P.H , Global Environmental Governance, Pearson Longman, New Delhi

Elective Groups

GROUP-IV Public Policy

ECO-585- Economics and Law (Elective - 4 Credits)

Unit I : Land, Agricultural and Industrial Law **12 lectures**

Land Acquisition Act, 1894 & Amendments
Agriculture Produce Marketing Committee Acts
Consumer Protection Act, 1986
M.R.T.P. Act, 1969
Competition Act, 2002

Unit II : Financial Sector **12 lectures**

RBI Act, 1934
Banking Regulation Act, 1949
Companies Act, 1956
Income Tax Act, 1961
SEBI Act, 1992
IRDA Act, 1999
FRBM Act, 2003

Unit III : Environmental Law **12 lectures**

The Environmental (Protection) Act, 1986
The Hazardous Wastes (Management and Handling) Rules, 1989
The Noise Pollution (Regulation and Control) Rules, 2000
The Water (Prevention and Control of Pollution) Act, 1974
The Air (Prevention and Control of Pollution) Act, 1981
The National Environmental Tribunal Act, 1995
The Forest (Conservation) Act, 1980
The Wild Life (Protection] Act, 1972

Unit IV : Intellectual Property Law **12 lectures**

Indian Copyright Act, 1957
Indian Patent Act, 1970
Industrial Design Act, 1996
Geographical Indication of Goods (Regulation and Protection) Act, 1999
Trade Mark Act, 1999

Elective Groups

GROUP- V (Quantitative Economics)

ECO-591- Advanced Econometrics (Elective - 4 Credits)

Unit-I

12 lectures

Introduction to the steps in econometric analysis; simple and multiple linear regression models; estimation using Ordinary Least Squares (OLS); classical assumptions of the linear regression model; hypothesis testing – t-test and F-test; confidence intervals and confidence limits for parameter estimates; analysis of variance (ANOVA) in regression; specification errors and measurement errors – sources, implications, and remedies; distinction between the problem of estimation and the problem of inference; application of regression techniques using empirical data; testing for structural or parameter stability in regression models – the Chow Test.

Unit-II

12 lectures

Autocorrelation: Nature, identification, consequences and remedial steps for autocorrelation problems, Heteroscedasticity: Nature, identification, consequences and remedial steps for Heteroscedasticity problems, Multicollinearity: Nature, identification, consequences and remedial steps.

Unit-III

12 lectures

Dummy variables: Concept and Uses; ANOVA and ANCOVA models; Limited dependent variable models: LPM, LOGIT, PROBIT, TOBIT

Unit-IV

12 lectures

Lag: Concept and importance in Economics; Distribution lag model: Koyck's transformation; Estimation of single regression equation with lags. Panel and Pooled data: Introduction and advantages of using panel data, Balanced and unbalanced panel, Fixed and Random effect model, Hausman test, Introduction to static and dynamic panel.

Reading List:

- Mehta P. C. And Madnani G.M. K. : Introduction to Econometrics Principles and Applications, CBS Publishers & Distributors.
- Gujarati, D. N., Basic Econometrics (IInd Edition), New Delhi, McGraw-Hill.
- Koutsoyiannis, A. : Theory of Econometrics (IInd Edition), London, the Macmillan Press.

Elective Group-V

- Maddala, G.S. (Ed.) : Econometrics Method and Applications, (2 vols.) U. K.; Alders Hot.
- Krishna, K. L., : Econometric Applications in India, New Delhi, Oxford University Press.
- Kamenta, J. : Elements of Econometrics, New York, University of Michigan Press.
- Sen, A.: Poverty: An Ordinal Approach to Measurement, Econometrica.
- Baltagi, B.H. : Econometrics, Springer Berlin Heidelberg
- Chow, G.C. : Econometrics, McGraw-Hill Book Company
- Dhrymes, P.J.: Econometrics — Statistical Foundations and Applications.
- Dougherty, C. : Introduction to Econometrics, OUP Oxford.
- Goldberger, A.S. : Introductory Econometrics, Harvard University Press.
- Intriligator, M.D. : Econometric Methods, Techniques and Applications, Prentice-Hall
- Hamonda, O.F. and J.C.R. Roley : Time Series Model, Causality and Exogeneity
- J. Johnston : Econometric Methods, 3rd Edition, McGraw-Hill/Irwin; 4th edition
- Klein, L.R. : Introduction to Econometrics, Greenwood Press.
- Theil, H. : Introduction to Econometrics, Prentice-Hall
- Greene W.H. : Econometric Analysis, 4th edition, Pearson Education

Elective Groups

GROUP- V (Quantitative Economics)

ECO-592- Time Series Analysis & Computer Application (Elective - 4 Credits)

Unit-I

12 lectures

Introduction to the concept and importance of time series analysis; univariate time series modelling – Autoregressive (AR), Moving Average (MA), and Autoregressive Integrated Moving Average (ARIMA) processes; properties and behaviour of time series models. Discussion of autocorrelation function (ACF) and partial autocorrelation function (PACF) for model identification. Understanding deterministic and stochastic trends; distinction between stationary and non-stationary data series – concept, types, and detection methods. Explanation of spurious regression and the necessity of stationarity in time series analysis. Unit root testing techniques including random walk models, Dickey-Fuller test, Augmented Dickey-Fuller (ADF) test, and Phillips-Peron (PP) test. Overview of seasonality and the treatment of structural breaks in time series data.

Unit-II**12 lectures**

Modelling with stationary time series using the Vector Auto regression (VAR) model; interpretation through impulse response functions and variance decomposition; forecasting with VAR models. Testing for causality using the Granger Causality test. Modelling with non-stationary time series; concept and significance of cointegration; Johansen cointegration test; introduction to the error correction model (ECM) for integrating short-run and long-run dynamics.

Unit-III**14 lectures**

Simultaneous equation model: Problems of estimation of parameters of simultaneous equation model. Identification problems: Rank and Order condition for identification, Indirect Least Squares Method of Estimation. Instrumental variables, two stage least squares methods of estimation, three stage least squares methods of estimation.

Maximum likelihood estimation method: Full information method, Partial information method.

Unit-IV- Computer Application:**10 lectures**

Introduction to statistical software packages; MS-Excel, SPSS, E-views; Data handling process, Computer application in time series analysis and its importance.

Reading List

- Mehta P. C. And Madnani G.M. K. : Introduction to Econometrics Principles and Applications, CBS Publishers & Distributors.
- Gujarati, D. N. , Basic Econometrics (IInd Edition), New Delhi, McGraw-Hill.
- Koutsoyiannis, A. : Theory of Econometrics (IInd Edition), London, the Macmillan Press.
- Maddala, G.S. (Ed.) : Econometrics Method and Applications, (2 vols.) U. K.; Alders Hot.
- Krishna, K. L., Econometric Applications in India, New Delhi, Oxford University Press.
- Kamanta, J. : Elements of Econometrics, New York, University of Michigan Press.
- Sen, A.: Poverty: An Ordinal Approach to Measurement, Econometrica.
- Baltagi, B.H. : Econometrics, Springer Berlin Heidelberg.
- Chow, G.C. : Econometrics, McGraw-Hill Book Company.
- Dhrymes, P.J. : Econometrics — Statistical Foundations and Applications.
- Dougherty C. : Introduction to Econometrics, OUP Oxford.
- Goldberger, A.S. : Introductory Econometrics, Harvard University Press.

Elective Group-V

- Intrilligator, M.D. : Econometric Methods, Techniques and Applications, Prentice-Hall.
- Hamonda, O.F. and J.C.R. Roley: Time Series Model, Causality and Exogeneity.
- J. Johnston : Econometric Methods, 3rd Edition, McGraw-Hill/Irwin; 4th edition
- Klein, L.R. : Introduction to Econometrics, Greenwood Press.
- Theil, H. : Introduction to Econometrics, Prentice-Hall.
- Greene W.H. : Econometric Analysis, 4th edition, Pearson Education
- Mannual book on SPSS for computer applications.
- Mannual book on MS-Excel.
- Mannual book of e-views.

Elective Groups

GROUP-V (Quantitative Economics)

ECO-593- Financial Econometrics (Elective - 4 Credits)

Unit-I

12 lectures

Basic Financial Terms, Concepts and Their Evaluation: Financial Securities- Zero Coupon Bond, Fixed Interest, Index Linked Securities etc.; The Time Value of Money; Nominal Vs. Real Interest, Deflationary Conditions; Accumulating Factors, Force of Interest, Compound Interest Functions; Time Series Econometrics and Time Series Analysis and Their Application.

Stationary Time Series Model: Autocorrelation and Partial Autocorrelation, Auto Regressive and Moving Average Models, Conditions for Stationary and Invertible Process, Box-Jenkins Approach, Forecasting, Permanent Versus Temporary Abruption, Simple Exponential Smoothing and Choice of Parameter, Seasonal Models with Trend, Seasonal Decomposition; Test of Causality- G.C. Test.

Unit-II

14 lectures

Non-stationary Time Series and Volatility: Integrated Process and Random Walk, Engle Granger Method and Johansen Test, Error Correction Model, Vector Auto Regressive Model, Impulse Response Function, Variance Decomposition, Forecasting; Volatility Clustering, Leverage Effect, ARCH Model, GARCH Model and its Various Extension, Multivariate GARCH Modeling, Forecasting.

Elective Group-V

Annuities and Equation of Value: Discounting and Accumulation: Discrete and Continuous Cash Flows; Level Annuities, Deferred and Increasing/Decreasing Annuities, Equation of Value and Yield on Transaction, Probability of Cash Flows, Higher Discount, Loan Schedules; Consumer Credit: Flat Rate and APRs.

Unit-III

10 lectures

Capital Budgeting Techniques and Compound Interest Problems: Introduction to Financial Statement, Assessing Financial Performance, Net Present Value, Internal Rate of Return, Payback Period; Projects with Different Lives; Money and Time Weighted Rate of Return; Fixed Interest Securities, Uncertain Income Securities, Equities, Valuing a loan with Allowance for Capital Gains and indexation.

Unit-IV

12 lectures

Arbitrage, Forward Contracts, and Term Structure of Interest: Rationale for no Arbitrage Assumption; Forward Contracts, Calculating the Forward Price for a Security with known dividend yield; Hedging, Fixed Cash Income; Discrete Time and Continuous Time Rates; Continuous Time Spot Rates and Forward Rates; Instantaneous Forward Rates; Term Structure of Interest Rates; Yield Curve; Yields to Maturity; Convexity and Immunization; Interest Rate Risk. Government Bills: Corporate Debt, Debentures, Unsecured Loan Stocks, Eurobonds, Certificates of Deposit, Convertibles, Property, Derivatives, Future, Range of Futures, Clearing House, Margin, Bond Futures, Short Interest Futures, Stock Index Futures etc.

Reading List:

- Coelli, T., D. S. Prasada Rao, and G. E. Battese, *An Introduction to Efficiency and Productivity Analysis*, Kluwer Academic Publishers.
- Baxter, M. and A. L. Rennie, *Financial Calculus*, Cambridge University Press.
- Enders, W., *Applied Econometric Time Series*, second edition, John Wiley and Sons, 2006.
- Greene, W.H. *Econometric Analysis*, fifth edition, Pearson Education Inc.
- Hamilton, J. D., *Time Series Analysis*, Princeton University Press, 1994
- Karatzas, L. and S.E. Shreve, *Methods of Mathematical Finance*, Springer.
- Martin, P.G. and B. Michael, *Applied Financial Mathematics*, Prentice Hall.
- Ross, S.M., *An Introduction to Mathematical Finance*, Cambridge University Press, Norton, London.

Elective Group-V

Watsham, T.J. and Perramore, K., *Quantitative Methods in Finance*, International Thomson Business Press.

Wooldridge, J. M., *Econometric Analysis of Cross Section and Panel Data*, MIT Press.

Elective Groups

GROUP-V (Quantitative Economics)

ECO-594- Linear Economics (Elective - 4 Credits)

Unit-I

12 lectures

Linear Economics: Meaning and Constraints of Linear Economics, Importance of Linear Economics.

Tools of Linear Economics:

- A. Determinants: Types of Determinants, Minor, Co-factors and Other Operations of Determinants.
- B. Matrices: Types of Matrices, Other Operations of Matrices Namely Addition, Sub-straction, Multiplication, and Division, Transpose, Rank and Inverse of Matrices.

Unit-II

12 lectures

Linear Simultaneous Equation System; Conversion of Linear Simultaneous Equation into Matrix Form; Solution of Linear Simultaneous Equation System via Determinants and Matrix Method; Linear Supply Model, Linear Cost Model, Linear Saving Model, Linear Investment Model and Linear Inventory Model etc. based on more than one Explanatory Variables.

Problems of Simultaneous Equations Model:

- (a) Related to Identification
- (b) Related to Estimation
- (c) Structural Models; Reduced form Model & Recursive Models, Difference their Conversions

Unit-III

10 lectures

Input-Output Model: Basic Features and Types, Open and Closed Static Input-Output Model for Three and More than Three Sectors, Open and Closed Dynamic Input-Output Model for Two and Three Sectors.

Unit-IV

14 lectures

General Linear Programming Problems and Its Matrix Conversion, Simplex Method, Degeneracy Surplus and Slack Variables and Their Use in Solving Linear Programming Problems, Interpretation of Input-Output Model, Hawkins-Simon Conditions, Samuelson's Substitution Theorem.

Game Theory: Meaning and Types, Pay-off Matrix of ' $M \times M$ ', Saddle Point. Solution and Linear Programming Equivalence to Game Theory.

Applications of Game Theory for Domestic & Global Economic Problems.

Reading List :-

- Allen, R.G.D, Mathematical Analysis for Economists.
- Archibald, G. and Lipsey, R.G., Introduction to Mathematical Treatment of Economics.
- Dixit, Optimization in Economic Theory, OUP.
- A First Course in Optimization, Sundaram, OUP.
- Baumol, W.J., Economic Theory and Operations Analysis.
- Basic Linear Algebra - T. S. Blyth and E. F. Robertson; Springer.
- Bolton and Dewatripont, *Contract Theory*, the MIT Press.
- Chiang, A.C., Fundamental Methods of Mathematical Economics.
- Dorfman, P. Samuelson and R. Solow, Linear Programming and Economic Analysis.
- Fudenberg and Tirole, *Game Theory*, the MIT Press.
- Hadley, Linear Programming, Addison-Wesley Pub Co.
- Intriligator, Mathematical Optimization and Economic Theory.
- K. Sydsaeter, P Hammond, Mathematics for economic analysis, Pearson Education.
- Laffont and Martimort: *Theory of Incentives, The Principal Agent Model*, Princeton University Press.
- Mehta B. C. And Madnani G.M. K., Mathematics for Economists, Latest Edition.
- Mathematical Programming, F. S. Hillier and G. J. Liberman (available in the Departmental Library)
- Osborne, Martin J., *An Introduction to Game Theory*, the MIT
- Simon and Blume, Mathematics for Economists, Norton and Company.
- Yamane, T., Mathematics for Economists.

Elective Groups
GROUP-V (Quantitative Economics)
ECO-595- Applied Econometrics (Elective - 4 Credits)

Unit-I **12 lectures**

Estimation of P Keynesian Aggregate Consumption Function.
Estimation of Alternative Consumption Function: Duesenbury, Kuznets,
Hanson, Milton Freidman and Life Cycle

Unit-II **12 lectures**

Estimation of Demand and Supply Function.
Estimation of Demand Investment Function- Micro and Macro.
Estimation of Aggregate Saving Function.

Unit-III **12 lectures**

Estimation of Simultaneous Equation Models.
Particularly Supply/Demand Models and IS-LM Model.
Estimation of Aggregate;
Tax Function
Import Function and
c- Export Function

Unit-IV **12 lectures**

Estimation of Production Function
Short-run and Long-run Production Function
Cobb-Douglas Production Function and CES Production Function.

Reading List:

- Baltagi, B.H., Econometrics.
- Chow, G.C., Econometrics.
- Dhrymes, P.J., Econometrics Statistical Foundations and Applications.
- Dongherty, C., Introduction to Econometrics.
- Goldberger, A.S., Introductory Econometrics.
- Gujarati, D. N., Basic Econometrics (IInd Edition), New Delhi, McGraw-Hill.
- Greene W.H., Econometric Analysis, 4th edition, Pearson Education.
- Hamonda, O.F. and J.C.R. Roley: Time Series Model, Causality and Exogeneity
Intrilligator, M.D., Econometric Methods, Techniques and Applications.
- Intrilligator, M.D., Econometric Methods, Techniques and Applications.
- J. Johnston, Econometric Methods, 3rd Edition, McGraw-Hill /Irwin; 4th edition.

Elective Group-V

- Klein, L.R., Introduction to Econometrics. Mehta P. C. and Madnani G. M. K, Econometrics, Latest Edition.
- Koutsoyiannis, A., Theory of Econometrics (IInd Edition), London, the Macmillan Press.
- Krishna, K L., Econometric Applications in India, New Delhi, Oxford University Press.
- Kamenta, J., Elements of Econometrics, New York, University of Michigan Press.
- Maddala, G.S. (Ed.) (1993), Econometrics Method and Applications, (2 Vols.) U. K; Alders Hot.
- Sen, A., Poverty: An Ordinal Approach to Measurement, Econometrica.
- Theil, H., Introduction to Econometrics.
- Theil, H., Principles of Econometrics.

Elective Groups

GROUP-V (Quantitative Economics)

ECO-596- Operations Research (Elective - 4 Credits)

Unit-I

12 lectures

Concept and Operational Definitions, Phases of O.R., Models and Modelling in O.R., O.R. Techniques, Relevance of O.R. in Business Decisions, Uses and Limitations of O.R.; Linear Programming: Problem Formulation, Graphical Solution, Simplex Method, Duality Concept, Post-Optimality Analysis, Transportation Model.

Unit-II

12 lectures

Project Management: Comparison of PERT/CPM, Assumption of PERT/CPM, Algorithms of PERT/CPM Techniques, Network Analysis, Fundamental of Network Model, Three-estimate Approach of PERT, Resource Leveling and Time-cost Trade-off Analysis, Project Control, GERT, LOB.

Inventory Control Model: Deterministic Inventory Control Models. Simulation Techniques: Operational Definitions, The Nature of Simulation; Systems, Models and Simulation; Motivation, Limitations and Pitfalls; Monte-Carlo Simulation Technique.

Unit-III

12 lectures

Decision Theory: Basic Structure and Components of Decision, Decision Criteria, Decision Tree. Game Theory: Theory of Two-person, Zero-sum-Game; Mixed Strategies, Theory of Two-person, Non-zero-sum-game, Solution Method of Game.

Elective Group-V

Queueing Theory: Basic Characteristics, Queueing Models: M1M1System, MIMIC System, M/EK/1 System.

Sequencing Models: Classification, Assumptions, Sequencing Problems: Jobs through Two Machines, n Jobs through Three Machines, Two Jobs through M-Machines, n Jobs through M-Machines.

Unit-IV

12 lectures

Replacement, Maintenance, and Reliability Problems.

Information Theory: Entropy- A Measure of Uncertainty.

Integer Programming: Cutting Plane Algorithm, Branch and Bound Algorithm.

Non-Linear Programming: Khun-Tucker Conditions, Quadratic Programming.

Reading List:

- Ackoff, Russell L., and Maurice W. Sasieni, *Fundamental of Operations Research*, New York.
- Budnick, Frank S. D. Mcleavery and R. Mojena, *Principal of Operations Research for Management*, Richard D. Irwin Inc., Homewood, Illinois.
- Hiller, Frederick S. and Gerald Liberman, *Operations Research*, CBS Publishers, New Delhi.
- Mustafi, C.K., *Operations Research: Method and Practice*, New Age International, New Delhi.
- Sen, Rathindra P., *Operations Research: Algorithms and Applications*, PHI Learning Pvt., Ltd., New Delhi, (Third Print).
- Swamp, Kanti, P.K. Gupta and M. Mohan, *Tracts in Operations Research*, Sultan Chand & Sons, New Delhi.
- Taha, H.A., *Operations Research 1999, An Introduction*, Prentice-Hall of India, New Delhi,
- Wagner, H.M., *Principles of Operations Research with Applications to Managerial Decision*, Prentice-Hall of India, New Delhi.

BUSY-BEES ASSOCIATION

M.A. (Semesters I & II), 2024-25

‘Busy-Bees Association’ for M.A. (Previous) students was formed in 1934 to act as a platform for the personality development and academic interaction among the P.G. students. The Association manages its academic activities through its Executive body which comprises of two teachers as its President and Treasurer and eight elected members from amongst of the students.

Patron : **Prof. Kiran Singh**, Head

President : **Dr. Dharmnath Uraon**

Treasurer : **Dr. Garima Maurya**

Master of Ceremonies : Shraddha Srivastava

Joint Master of Ceremonies : Divyansh Verma

Members : Ayush Dutt Verma, Rahul Kumar, Shreya Singh, Nishita Tiwari, Alok Kr. Tripathi, Anita Maurya, Gajendra Prasad, Ankush Kumar

Activities :-

<i>Essay Competition</i>	
1 st Prize	Mahima Pandey
2 nd Prize	Rachit Murti
3 rd Prize	Shalini
Consolation	Raj Shekhar Pandey
Consolation	Ashish Yadav

<i>Symposium Competition</i>	
1 st Prize	Rima Gupta
2 nd Prize	Ayush Dutt Verma
3 rd Prize	Shaury Tripathi
3 rd Prize	Tripti Yadav
Consolation	Stuti Jaiswal
Consolation	Nilesh Giri

<i>Story Writing Competition</i>	
1 st Prize	Adivi Kushwaha
2 nd Prize	Nitesh Yadav
3 rd Prize	Ashish Yadav

<i>Poster/Slogan Competition</i>	
1 st Prize	Arpita Singh
2 nd Prize	Tripti Yadav
3 rd Prize	Afreen Jahan
Consolation	Priyas Tripathi
Consolation	Avinash Kr. Tiwari

ECONOMIC CONVERSAZIONE

M.A. (Semesters III& IV), 2024-25

‘Economic Conversazione’ for M.A (Final) students was formed in 1935 to act as platform for the personality development and academic interaction among the P.G. students. The Association manages its academic activities through its Executive Body which comprises of two teachers as its President and Treasurer and eight elected members from amongst the students.

Patron : **Prof. Kiran Singh**, Head
President : **Mr. Javed Akhtar**
Treasurer : **Dr. Shreedhar Satyakam**

Master of Ceremonies : Ashutosh Singh
Joint Master of Ceremonies : Rudranshi Mishra
Members : Ragini Pathak, Medhavi Sahu, Nivedita Sharma, Piyush Tripathi, Sankalp Verma, Akash Kumar

Activities :-

ECON-VISION 2025		ECON-SNAP 2025	
<i>Essay Competition</i>		<i>Photo Competition</i>	
1 st Prize	Piyush Tripathi	1 st Prize	Meeta Pandey
2 nd Prize	Nivedita Sharma	2 nd Prize	Udai Shankar Gupta
3 rd Prize	Ashutosh Singh	3 rd Prize	Sankalp Verma
Consolation	Sonam Dwivedi	Consolation	Aanchal Gaur
Consolation	Komal Agrahari	Consolation	Akash Kumar

DEPARTMENT OF ECONOMICS

Faculty Members

1. Chaturvedi, Bhartendu K.	Asso. Professor	M.A., Ph.D.	Microeconomics, Macroeconomics, Development Economics,
2. Gupta, Rekha	Asst. Professor	M.A., Ph.D.	Development & Planning, Environmental Economics
3. Jain, Swati	Asst. Professor	M.A., D.Phil.	Macro Economics, Public Finance
4. Karimullah	Asst. Professor	M.A., D.Phil.	Mathematical Statistics, Monetary Economics, Econometrics
5. Maurya, Garima	Asst. Professor	M.A., D.Phil.	Development Economics, Econometrics
6. Pandey, Aditi	Asst. Professor	M.A., D.Phil.	Financial Markets
7. Pandey, Sumedha	Asst. Professor	M.A., D.Phil.	Public Economics
8. Sahoo, Manoranjan	Asst. Professor	M.A., Ph.D.	Macroeconomics
9. Satyakam, Shreedhar	Asst. Professor	M.A., D.Phil.	Econometrics, Mathematical Statistics, Environmental Economics
10. Singh, Kiran	Professor & Head	M.A., D.Phil.	Agricultural Economics, Industrial Economics
11. Singh, Pradeep K.	Asst. Professor	M.A., D.Phil.	International Economics, India's Economic Policy, Globalization Studies
12. Srivastava, Pooja	Asst. Professor	M.A., Ph.D.	Econometrics, Mathematical Economics, Indian Economic Policy
13. Uraon, Dharmnath	Asst. Professor	M.A., Ph.D.	Mathematical Economics, Mathematical Statistics & Banking Theory

NITI Aayog Chair Professor

- Prof. Jean Drèze 2009 – 2015
- Prof. Manmohan Krishna 2022 – 2025