2-Year M. Sc Economics Curriculum and Syllabus, TIU, WB
Fourth Semester

Course Code	Course Title	Contact Hrs. / Week			Credit
		L	T	P	
TIU-PEM-T200	Urban Economics	3	1		3
TIU-PEM-T202	Health Economics	3	1		3
TIU-PEM-T204	Operation Research/Development Finance	3	1		3
TIU-PEM-T206	Special Paper	3	1		3
TIU-PEM-L200	Econometric Application Lab			3	3
TIU-PEM-L202	Computer Lab and Application (Web page design, introduction to Python)			3	3
TIU-PEN-S200	CASD	3			3
TIU-PEM-P200	Project Work and Viva	2			2
Total Credit					23

Urban Economics

1. Urbanization and Urban Development
   a. Concept and definition of 'Urban'
   b. Evolution of Urban Settlement – economic perspective
   c. Global urbanization – transformation and prospects
   d. Urbanization in India – patterns and process, regional variation

2. Urban Economics – Theoretical Exposition
   a. Location Theory
   b. Theory of Residential Location – Concentric Zone, Multi-Nuclei and Bid-rent models
   c. Urban in the Region – Losch and Christaller; Urban Hierarchy and City Size Distribution; Theory of Optimum City Size
   d. Urban land market – Gradient analysis
   e. Urban and Regional Growth Theories

3. Urban Planning and Governance
   a. Urban Planning – needs, institutions
   b. Urban Governance – decentralization and participatory democracy
   c. Urban Infrastructure and Finance
   d. Urban Transport
   e. Urban Environment and Ecology

Suggested Readings
1. Dimitrou, T.H., (ed) (2013), Transport Planning for Third World Cities, Routledge Revivals, March
2. Button, K.J., Transport Economics, Edward Elgar Publishing Company, March, 2013
3. Gupta, S, Passenger Transport Subsidy in West Bengal: Use and Misuse, Manak Publications Private limited, New Delhi, 2007
4. Levy, Contemporary Urban Planning, Prentice Hall: New York, March, 2012
5. Reports of WBPCB, CPCB
6. State of Environmental Report, 2009, Delhi
7. Cities Alliance, (2007), Washington, (http://www.citiesalliance.org/index.html)
8. Rodney R White, (1998), Urban Environmental Management, John Wiley: New York
9. C. J. Barrow, (1996), Environment and Social Impact Assessment -An introduction, Arnold: New York
10. Documents related to Urban Planning and Policy of Government of India and different Urban Development Authorities.

Health Economics

(A) Economic Development and Health
1. Overview and Scope of Health Economics
2. Concept of Equity and Efficiency in Health Economics
3. Difference between Health and Health care
4. Gender and Health-Women's Health; Reproductive years; Old age- Women's Mental Health
5. Provision of Public Health: Political Economy of State intervention in Health- Preventive and Remedial care in Public Health
6. Private provision in Health and the Globalization- Experience in different developed and developing countries
7. India's Experience in Health Status- Public and Private Expenditure in Health

(B) Market for Medical Care
1. Providers of Medical Care: Insurance- uncertainty and moral hazard, private insurance, Social insurance.
2. Indian Health market: Utilization and efficiency in Indian health care facilities- Expenditure on private care- Alternative Systems of medicine

Suggested Readings
1. Cuyler A J and J P Newhouse (ed) (2000): "Handbook of Health Economics", Elsevier. Several articles.
2. Morris, S, Devlin, N, Parkin, D, and Spencer, A. (2012) *Economic Analysis in Healthcare*, Wiley.
3. Zweifel P, Breyer F, Kifmann M. (2009) *Health Economics*. Second Edition. Springer.
4. Das Gupta Monica, Lincon Chen and TN Srinivasan (1995): "Women‟s Health in India: Risk and Vulnerability", OUP.
5. Das Gupta Monica, Lincon Chen and TN Srinivasan (1996): "Health, Poverty and Development in India". OUP.
6. Berman and Khan ME (1993): "Paying for India's Health Care". Sage. New Delhi.

7. Mc Kinley (1984): "Issues in Political Economy of Health". Tavistock. London.

8. Qadeer Imrana et al (2001): "Public Health and the Poverty of Reforms." Sage.

9. Weisbrod Burton (1991): "The Health Care Quadrilemma: An Essay on Technical Change, Insurance, Quality of care and Cost Containment". Journal of Economic Literature.

Operation Research

1. Linear Programming Problems: Introduction, Mathematical formulation, graphical method of solution, simplex method, Duality in linear programming problems, dual simplex method, sensitivity analysis, transportation and assignment problems, Traveling salesman Problem.

2. Game Theory: Introduction, two-person zero-sum games, Maximin- Minimax principle, Dominance property.

3. Any two of the following:

   a. CPM & PERT: Project scheduling, critical path calculations.

   b. Queueing Theory: Basic structure of queuing systems, Roles of the Poisson and exponential distributions, Classification of queues, Basic results of M/M/1: FIFO systems, Extension to multi-server queues.

   c. Transportation Problem

   d. Assignment Problem

   e. Integer programming Problem

   f. Simulation

Suggested Readings

1. Taha. H.A, operation Research: An Introduction, McMilan publishing Co., 1982. 7 th ed.

2. Ravindran A, Philips D.T & Solbery. J.J, Operations Research: Principles and practice, John Wiley & Sons, New York, 1987.

3. Frank S. Budnick, Dennis Mcleavey and Richard Mojena, Principles of Operations Research for Management. All India Traveler Book seller, Delhi.

4. Gillet. B. E., Introduction to Operations Research - A Computer oriented algorithmic approach, McGraw Hill, 1987.

5. Joseph. G. Ecker & Michael Kupper Schimd, Introduction to operations Research, John Wiley & Sons, 1988.

6. Hillier.F.S & Liberman.G.J, operation Research, Second Edition, Holden Day Inc, 1974.

7. Kanti Swarup, Gupta. P. K. & Man Mohan, Operations Research, S. Chand & Sons.

International Trade (Special Paper-1)

1. The theory of tariff
   a. tariff in a partial equilibrium framework: tariff and protection; revenue effect of tariff; deadweight loss from tariff ; Terms of trade, country-size and welfare.
   b. tariff in a general equilibrium framework: tariff and welfare, optimal tariff, maximum revenue tariff, Metzler's Paradox, equivalence between export and import tax. Tariff and income distribution: short run and long run effects of a tariff, the political economy of protection. Retaliation and tariff battle: high tariff Nash equilibrium, Effective rate of protection.

   c. Trade policy with domestic distortions • Non-optimality of free trade, optimal trade policy and the theory of the second best • The infant industry argument.

   d. International Political Economy: WTO and the non-tariff barriers. • Trade and environment • Trade, labor standards and human rights.

   e. Basic Accounting: • Balance of Payments Accounts • National Income Accounting in Open Economy • Money Accounting.

   f. Internal and External Balance: • Role of Devaluation & Commercial Policies in a Simple Keynesian Model • Extension to intermediate Goods & Non-traded Goods • The Dependent Economy Model K. Capital Mobility • Stabilization policies under Fixed Exchange Rate • Stabilization Policies under Flexible Exchange Rates • Expectations & Exchange Rate Dynamics.

   Suggested Readings:
   1. Jones, R. International Trade: Essays in theory, North Holland, 1979
   2. Bhagwati, et al. Lectures on international trade, MIT press, 1998
   3. Krugman, P.R., Rethinking International Trade, MIT Press, 1994
   4. Helpman and Krugman, Trade Policy and Market Structure, MIT Press, 1989
   5. Corden, M. Theory of Protection

Econometric Application Lab-

Computer Lab and Application

   1. Data Types, Variables, Basic Input -output Operations, Basic Operators, Printing "hello World", Installation of Jupyter Notebook/Spyder, Python literals, Operators, Variables.

2. Conditional Statements-If, If- else, Nested if-else.

3. Looping- For, While, Nested loops.

4. Control Statements, Break, Continue.

5. String Manipulation, Accessing Strings, Basic Operations, String slices, Function and Methods.

6. Lists- Accessing list, Operations, Working with lists, Function and Methods.

7. Tuple- Accessing tuples, Operations, Working Functions and Methods.

8. Dictionaries- Accessing values in dictionaries, working with dictionaries, Properties, Functions.

9: Functions-Defining a function, calling a function, Types of functions, Function Arguments Anonymous functions.

CASD

1. Preparing and delivering speeches; Steve Jobs – Commencement address (12 June 2005).

2. Hearing and Listening; Good Listening Skills.

3. Interview skills.