

Intrilligator, M.D., 1978, *Econometric Methods, Techniques and Applications*, Prentice Hall, New Jersey.

Johnston, J. and J. Di Nardo, 1997, *Econometric Methods*, McGraw Hill.

Johnston, J., 1991, *Econometric Methods*, McGraw Hill, London. Koutsoyiannis, A., 1977, *Theory of Econometrics*, Macmillan, London.

Maddala, G.S., 1997, *Econometrics*, McGraw Hill, New York.

Pindyck and Rubinfeld, 1976, *Econometric Models and Economic Forecasts*, McGraw Hill, Tokyo.

Ramanathan, R., 2002, *Introductory Econometrics with Applications*, South Western Cengage Learning, New Delhi.

Theil, H., 1971, *Principles of Econometrics*, J. Wiley, New York.

Theil, H., 1981, *Introduction to Econometrics*, Prentice Hall, New Delhi.

DE 531: Statistics for Economists II

Credits:3

Aims and Objectives

The aim and objective of the course is to develop students' knowledge and skills in applying statistical techniques in better analyzing economic data and information so that they could deal with related academic and professional matters well.

Course Outline

Unit 1: Analysis of Time Series and Index Number

The concept of time series; components of time series; measurement of trend and seasonal variations; index number - concepts and definition, types (Laspeyre's, Paasche's, Fisher's and chain index numbers); problems in construction; characteristics and criteria of a good index number; cost of living index; wholesale price index; human development index (HDI), PI (poverty index); gender empowerment index (GEI), human happiness index (HHI).

Unit 2: Probability Theory and Distribution

Random variables - discrete and continuous; mathematical expectations with theorems; productivity distribution - types (binomial, Poisson, normal), definition, properties, uses, and illustrations - Chebyshev's inequality and the central limit theorem.

Unit 3: Theory of Estimation

Estimator, estimation and estimate - point and interval estimates; reliability of estimates - sampling variance and mean; square error; properties of good estimator; Cramer - Rao inequality; methods of estimation-Least squares, method of moments, maximum likelihood method - Neyman - Pearson theory.

Unit 4: Multivariate Analysis

Partial and multiple correlation and regression; discriminant analysis, factor analysis, cluster analysis, multiple classification analysis.

Unit 5: Statistical Packages for Economic Analysis and Research

SPSSX, STRATA and so on and their fundamental features; creating a new data file: opening a data file - inserting rows and columns; editing data; saving a data file; assigning variable names and value tables; importing data from word processor - Excel, Foxpro. and so on; merging data files; adding cases and variables.

References:

Agarwal, Y.P., 1988, *Statistical Methods: Concepts, Applications and Computations*. Sterling Publishers, New Delhi.

Blalock, H.M., 1981, *Social Statistics*, McGraw Hill, London.

Croxtan, F. et al., 1975, *Applied General Statistics*, Prentice Hall, New Delhi.

Edward A.L., 1954, Statistical Methods for the Behavioural Sciences, Rinehart and Grewal, P.S., 1990, Methods of Statistical Analysis, Sterling Publishers, New Delhi. Garrett, E., 1950, Statistical Methods for Research Worker, Hafner Publishing, New York. Gupta C.B., 2005, An Introduction to Statistical Methods, Vikas Publishers, New Delhi. Gupta, S.C., 2000, Fundamentals of Statistics, Himalaya Publishing House, Mumbai. Gupta, S.P., 2005, Statistical Methods, Chand and Company, New Delhi. Mansfield, E., 1980, Statistical for Business and Economics, Norton and Company, New York. Walker, H.M. and J. Lev, 1980, Statistical Inference, Holt, New York.

DE 532: Econometrics II

Credits:3

Aim and Objective

This course offers students the knowledge, skill and techniques in advanced econometrics that will enable them to apply these in explaining their arguments and presentations in more concrete and empirical manner and thus support carry out high-quality economic research and acquire and accomplish rewarding professional tasks.

Course Outline

Unit 1: Simultaneous and Single Equation Methods

Introduction structural form, reduced form, recursive form and final form models; simultaneous equation bias and inconsistency of OLS estimators; identification problem order and rank conditions of identification; estimation of simultaneous equation model - single equation model: indirect least squares (ILS); instrumental variable (IV); 2SLS and their properties, K-class estimators, limited information maximum likelihood (LIML) and least variance ratio (LVR).

Unit 2: Simultaneous Equation Method and Some Applications

Seemingly unrelated regression equations; system estimators: 3SLS, FIML; Klein's model and Klein' Goldberger model; simultaneous equation models in production function.

Unit 3: Models of Discrete Choice

Discrete choice models; latent regression; random utility models; bivariate and multivariate probit models; logit model for multiple choices.

Unit 4: Time Series Analysis

Stationary-credit roots and co-integration; Dickey-Fuller test, Engle-Granger test, random walk model; forecasting with ARIMA modeling, Box-Jenkin's methodology, vector auto- regression (VAR); problems with VAR modeling; applications; panel data techniques – random coefficients model, fix effects model, random effect model.

References:

Bridge, J.L., 1971, Applied Econometrics, N. Holland Publishing Company. Chow, GC., 1983, Econometrics, McGraw Hill, New York. Green, W., 2000, Econometric Analysis, Prentice Hall, New Delhi. Gujarati, D.N., 1995, Basic Econometrics, McGraw Hill, New Delhi. Hall, New Jersey. Intrilligator, M.D., 1978, Econometric Methods, Techniques and Applications, Prentice Hall, New Jersey. Johnston, J., 1991, Econometric Methods, McGraw Hill, London. Johnston, J., 1991, Econometric Methods, McGraw Hill, London. Judges, GH., Lütkepohl and Lee, 1994, The Theory and Practice of Econometrics, John Wiley. Kmenta, J., 1997, Elements of Econometrics, University of Michigan Press, New York. Koutsoyiannis, A., 1977, Theory of Econometrics, Macmillan, London. Ramanathan, R., 2002, Introductory Econometrics with Applications, South Western Cengage Learning, New Delhi. Theil, H., 1971, Principles of Econometrics, John Wiley & Sons.

DE 533: Research Methodology and Report Writing

Credits:3

Aim and Objective

This course deals with the major concepts and methods used in economic empirical research and will thus help the students carry out their research work for their academic pursuit as well as in their professional life in the future.

Course Outline

Unit 1: The Fundamental Concepts and Needs

Problems of research in social sciences; objectives and types of research; formulation of a research problem; components of a research design; importance of research in social sciences.

Unit 2: Collection of Data and Information

Primary and secondary data; methods of primary data collection: direct personal investigation, indirect oral investigation, information received through local agents and correspondents, mailed questionnaire; secondary data: sources, limitations of secondary data; precautions needed in using secondary data.

Unit 3: Processing and Analysis of Data and Information

Editing, coding, classification, objects, rules, tabulation; preparation of a statistical table; requisites of a good table; types of data tables: format of a simple one-way table; three-way table.

Unit 4: Hypothesis Testing

Definition, characteristics and source of hypothesis; importance of hypothesis; problems in formulating hypothesis; prerequisites for the testing of hypothesis; testing of hypothesis; statistical hypothesis - simple, composite and null hypothesis; types of error in testing hypothesis; level of significance.

Unit 5: Report Writing

Reporting-requirements and mechanics of thesis writing; citation; references/bibliography; format; layout; the role of a computer in research and reporting; important sources of secondary data for research.

References:

- Baker, T.L., 1999, Doing Social Research, McGraw Hill, New Delhi.
Bhandarkar P.L. and T.S. Wilkinson, 1999, Methodology and Techniques of Social Research, Himalayan Publishing House, Mumbai.
Chambers, R., 1985, "Shortcut Method of Gathering Information for Rural Development Project," in M. Cernea (ed.) Putting People First, Oxford University Press, New Delhi.
Gupta, S.P., 1987, Statistical Methods, S. Chand and Sons, New Delhi.
Kothari, C.R., 2001, Research Methodology: Methods and Techniques, Wishwa Prakashan, New Delhi.
McCracken, J.A. et al., 1990, An Introduction to Rapid Rural Appraisal for Agricultural Development, Winrock International.
Wolf, H.K. and P.R. Pant, 1979, A Handbook of Social Science Research and Thesis Writing, Tribhuvan University, Kathmandu.

DE534: Practical Workshop and Field-based Study cum Seminar III

Credits:3

Aim and Objective

This course intends to impart students with practical knowledge, exposure and experience relating to various dimensions of the subject of development economics. The aim is to enhance their analytical and presentation skills, knowledge base and confidence level essential to work effectively in their academic and professional life.

Course Conduct Pattern

Time Allocation and Schedule

This course will occupy a total of four hours every working week for its classroom discussion part. Depending upon the availability of time and suitability, the four-hour period time could be used either in a single day or divided in four separate sessions of one hour on any four days of the working week.

Discourse, Deliberations and Output

Upon completion of a few hours of introductory sessions, the students will be asked to compile a set of statistical figures (data) on the major economic development indicators (e.g. education, health, per capita income) of Nepal, based on relevant publications of the Central Bureau of Statistics (CBS), and compare with similar sets of searched data for the neighbouring country India. Those data sets will have to be interpreted to prepare write-up. Each student will submit to the instructor one such output each week, two days prior to the forthcoming classroom discussion/seminar. The submitted materials must be the s respective students' individual work not tallying with the ones submitted by others in the class. In case of collision the concerned students will be asked to submit another work confirming independent work.

The students will put their respective materials in presentation formats - preferably power- point ones - for presentations before the class. Each presentation will entail a brief question- answer/discussion. All materials submitted will be compile and made available as references for the students and others interested in the subjects.

Short Visits and Guest Lectures

One or two brief field visits could also be arranged now and then in lieu of the respective day's classroom presentation session provided there are relevant cases to be observed in proximate locations for the students and instructor to make comfortable and amicable visit. Such visits would require students to make their individual notes for presentation and submission in the following classroom discussion session. The instructor could also decide to and arrange one or two guest lecture sessions in lieu of regular sessions depending upon the availability of guest lecturers to make relevant and interesting presentations.

Field-based Study

Towards the end of the semester in which this course is offered, the students will make a study visit to one or just a few locations in proximity to each other in a prosperous area of India. They will make observation of the area(s) and the various economic development activities and situations around those places and prepare notes for presentation in written and report (presentation) format individually. Arrangements will be tried for deliberations of key informants /knowledgeable persons/executives belonging to the visited economic enterprise/establishment/ environment. Submission and presentation of the study report will take place soon after the completion of the trip.

Assessment/Evaluation

The instructor in charge will allocate appropriate percentage of marks to each of the major activities required and record performance scores for individual student, thus coming up with the final scores based on the overall evaluation of each of the students.

DE 535A: Human Dimensions of Development

Credits:3

Aim and Objective

The objective of this course is to familiarize the students with the changing overall concept and meaning of and trend in development, with emphases to its vital facets, the human dimensions. The aim is to raise the students' ability to choose and apply in their academic and professional undertakings the appropriate developmental approaches and ways suitable to the needs and potentials of the country and people, and thus contribute to achieving desirable developmental outcomes.

Course Outline

Unit 1: Introduction and Importance of Development

How and why development is different and much more than change? economic growth gross domestic product (GDP), gross national product (GNP), per capita income (PCI), F per capita GNP and economic progress (consideration of Gini Coefficient/Lorenz Curve). C

Unit 2: Meaning/ Concepts and Perspectives on Development

Overview of development history - developmental expectations and achievements in the I ancient age (e.g., the Vedic period), the medieval age (especially 16-18th centuries), and the modern times (since the 1950s, in particular); overview of the evolution of development thought in terms of - the goals of development (from GDP to sustainable development), macroeconomic growth theory (Harrod-Domar model, Solow's growth model, and the new growth theory), capital accumulation (physical capital to social capital), state and market (market failures to institutional failures), government interventions (programming and planning to government-market complementarity, policy reform ("poor because poor" to "get institutions right")); early concepts (after World War II) - high national income (with market economy and specialized society), i.e., the general structure and growth of national economy (production, consumption, sale), the reasons for and drawbacks of this concern; new concepts (since 1960s, but mainly since 1990s) - concern with mankind humanity/people/human wellbeing, and thus man-centred.

Unit 3: Objectives of Development and Development as a Multidimensional Process

Availability and distribution of basic requirements of life; rise in the living level; expansion of economic and social choices; improvement in the quality of life (better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom, and richer cultural life).

Unit 4: The Major Measures of Human Dimensions (Core Values) of Development

Basic needs (sustenance); self-esteem; capabilities; freedoms versus unfreedoms; wellbeing governance and its impact on the quality of growth and development; corruption versus human wellbeing; economy-welfare interplay; growth versus the environment; development and the environment-rural development and the environment, urban development and the environment, (population, resources, and the environment), affects of the environment on human health and productivity; human development-economic growth linkage: environmental sustainability; population growth and the quality of life.

Unit 5: Contexts and Developmental Implications of Social and Spatial Disparities

The major types of regions/communities and the distribution of main resources, services. developmental factors (food, clothing, health, education, roads, and so on); ethnicity and religion in development; gender and human development; gender inequality; women development; poverty (features, causes, forms-income poverty, capability/human poverty absolute, relative); poverty and the environment; poverty and so on, magnitudes alleviation.

Unit 6: Attaining the Overall Integrated Human Development

Qualities effecting human development/underdevelopment; endogenous development: sustainable development

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Meier, GM. and J.E. Stiglitz (eds.), *Frontiers of Development Economics: The Future in Perspective*, Oxford University Press, New York.

Development: Special Reference to Nepal," *Regional Development Studies*, vol. 3, Winter, Ojha, E.R., 1997b, "Regional Development and Disparity in the Context of Overall 1996/97, United Nations Centre for Regional Development, Nagoya, Japan, pp. 27-56. Ojha, E.R., 1998a, "Development Trends: Some Observations," *The Rising Nepal*, Thursday, 15 January 2000, p. 4.

Ojha, E.R., 1998b, "Development Trends: Which Way Would We Wade?," *The Rising Nepal*, Friday, 1 May 2000, p. 4.

Ojha, E.R., 2000a, "Vikaas Ra Vikaar", (in Nepali), i.e., "Development and Defect," Kantipur, Kathmandu, Wednesday, 18 Phalgun 2056 B.S. (1 March 2000), p. 6.

Pant, Y.P. and S.C. Jain, 1980, *Regional Imbalances and Process of Regional Development in Nepal*, Development Publishers, Delhi.

- Prapannacharya, S., 2054 B.S., *Vedama Ke Chha?*, (in Nepali), i.e., *What Does the Veda Contain?*, Sajha Prakashan, Kathmandu.

Sen, A., 2000, *Development As Freedom*, Oxford University Press, New York. *The Economist*, 2002, "Roots of Development," *The Economist*, October. UNDP/N, *Nepal Human Development Report*, various years/issues.

Wade, R., 2001, "Global Inequality: Winner and Losers," *The Economist*, April.

DE 535B: Economics of Growth and Development

Credits:3

Aims and Objectives

Dealing chiefly with the theories of economic growth and development along with the social and institutional aspects of development and the importance of agriculture and industry in economic development, this course will enhance students' competence and confidence in understanding and dealing with matters relating to economic growth and development in the society they live and work in.

Course Outline

Unit 1: Basic concepts of Economic Growth and Development

Economic growth and development; factors affecting economic growth: capitals, labor and technology; growth models - Harrod and Domar model, neoclassical growth models; Solow growth model; Robinson's growth model; the Cambridge criticism of neoclassical analysis of growth.

Unit 2: Social and Institutional Aspects of Development

Concept of poverty; types of poverty (absolute, relative, income, human); measuring poverty; measuring growth, development and disparity-gross domestic product, per capita income, inequality of life; human resource development; population growth pattern and problems; theory of demographic transition; population as a limit to growth.

Unit 3: Theories of Development

Classical theories of development - Adam Smith, David Ricardo, T.R. Malthus and J.S. Mill; Karl Marx and development of capitalist economy; theory of social change; surplus value and profit; Schumpeter and capitalistic development and innovation.

Unit 4: Approaches to Development

Theories of economic growth and development; vicious circle of poverty; circular unlimited supply of labour; big push, balanced and unbalanced growth; critical minimum effort thesis; low income equilibrium trap; Ranis and Fei model – dualism.

Unit 5: Sectoral Linkages and Development

Sectoral linkages-agriculture, industry, service; terms of trade among agriculture, industry and service; choice of technique and investment criteria; appropriate technology

References:

- Adelman, I., 1961, Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Behrman, S. and T.N. Srinivasan, 1995, Handbook of Development Economics, Volume 3, Elsevier, Amsterdam.
- Brown, M., 1996, On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Massachusetts.
- Chakravarti, S., 1982, Alternative Approaches to the Theory of Economic Growth, Oxford University Press, New Delhi.
- Dasgupta, P., 1993, An Enquiry Into Wellbeing and Destitution, Clarendon Press, Oxford
- Ghatak, S., 1986, An Introduction to Development Economics, Allen and Unwin, London
- Gillis, M. et al., 1992, Economics of Development, W.W. Norton, New York.
- Gimmell, N., 1987, Surveys in Development Economics, Blackwell, Oxford.
- Hayami, Y., 1997, Development Economics, Oxford University Press, New York.
- Higgins, B., 1959, Economic Development, W.W. Norton, New York.
- Hogendorn, J., 1996, Economic Development, Addison Wesley, New York.
- Kahkonen, S. and M. Olson, 2000, A New Institutional Approach to Economic Development, Vistaar, New Delhi.
- Kindleberger, C.P., 1977, Economic Development, McGraw Hill, New York.
- Meier, GM., 1995, Leading Issues in Economic Development, Oxford University Press, New Delhi.
- Myint, H., 1965, The Economics of Underdeveloped Countries, Praeger, New York.
- Sen, A.K. (ed.), 1990, Growth Economics, Penguin, Harmondsworth.
- Solow, R.M., 2000, Growth Theory: An Exposition, Oxford University Press, Oxford.
- Thirlwall, A.P., 1999, Growth and Development, MacMillan, London.
- Todaro, M.P. and S. Smith, 2008, Economic Development, Pearson, New Delhi.

DE 535C: The Economy of Nepal**Credits:3****Aim and Objective**

The aim and objective of this course are to enhance the knowledge level of the students about the various facets of the economy of Nepal and enable them to assess the actual status of the economy. The major aspects covered include the agricultural, services and industrial sectors, including the issues of poverty and its alleviation along with changes caused from international institutions and influences.

Course Outline**Unit 1: Economic Development and Its Determinants**

Approaches to economic development and its measurement; sustainable development; the role of the state, market and other institutions; indicators of economic development; development indexes such as the human development index (HDI), and the gender development index (GDI).

Unit 2: Development Planning Processes and Practices in Nepal

Planning-meaning, types, initiation/origin; periodic plans and their fundamental features; programming and budgeting (financing); targets and achievements, successes and failures of periodic plans.

Unit 3: Demographical and Regional Features and Situations

Regions (developmental, and ecological) and their basic characteristic; development and disparity situation (including poverty and deprivation); rural-urban and highland-lowland migration situation/trend and impacts; urbanization process and outcomes.

Unit 4: Agriculture, Industry and Service Sectors

Land distribution, types, and features; land reform needs, efforts and situation; agricultural pattern and production, market and price situation by regions; problems and prospects in Nepalese agriculture; Technological changes in agriculture; industrial sector status; types of industrial enterprises; industrial development scenario (problems and prospects); industrial policy; private and public sector enterprises and their performance situation.

Unit 5: Economic Reforms

Rationale of internal and external reforms; globalization of the Nepalese economy; accession to WTO membership and its impacts on the different sectors of the economy; financial sector reforms - fiscal reforms.

References:

CBS, Statistical Pocket Books, and other relevant publications, (various periods). Daniwala, M.L., 1999, Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.

MOF, Economic Survey, and other relevant publications of Ministry of Finance (MoF), Kathmandu.

NPC, Periodic Plan documents and other relevant publications of National Planning Commission (NPC), Kathmandu.

NRB, Various relevant publications of Nepal Rastra Bank (NRB), Kathmandu.

S Ojha, E.R., 2003, Vikaasko Sankshiapta Vivechana: Vishesh Sandharva Sudoorpashchim Nepalko, (in Nepali), i.e., A Brief Discussion on Development: Special Context of Far- Western Nepal), Bhrikutee Academic Publications, Kathmandu.

Pandey, D.R., 1999, Nepal's Failed Development: Reflection on the Mission and the Maladies, Nepal South Asia Centre, Kathmandu.

DE 535D: Environmental Economics

Credits:3

Aim and Objective

The intent of the course is to get students acquainted with the theories of welfare economics with focus on environment and related issues such as environmental protection, the problems of pollution and measures to mitigate them and the relationship between economy and the environment. The knowledge and understanding thus gained would better equip students to undertake related research and other related tasks.

Course Outline

Unit 1: Basic Environmental Concepts and Issues

Concepts of and linkage among ecology, ecosystem, and the environment; the material balance approach; principles of uncertainty, irreversibility, inter-temporal efficiency and inter-generational equity; environment-development trade-offs versus complementarities; environmental costs of economic growth; limits to growth; environmental Kuznets curve.

Unit 2: Welfare Economics and the Environment

Pareto optimality and competitive equilibrium; fundamental theories of welfare economics; externalities and market inefficiency; property rights and externalities.

Unit 3: The Theory of Environmental Policy

Pigouvian taxes and subsidies; marketable pollution permits and mixed instruments (charges and fees), Coase's bargaining solution and collective action; environmental institutions and grassroots movements; global environmental externalities and climatic change; tradable pollution permits and international carbon tax; trade and environment in the WTO regime.

Unit 4: Environmental and Natural Resource Related Problems in Nepal

Mechanism for environment regulation and protection of forest resources in the country; environmental laws and their implementation; forest policy, plans, programmes and projects; people's participation in the management of common pool resources such as forest lands; the rationale and benefits of social forestry.

Unit 5: Environmental Pollution

Definitions and types of pollution; causes and effects of pollution; methods of pollution control-industrial pollution and measures to control it.

Unit 6: Global Environmental Problems and Related Efforts

Ozone layer depletion; green house effect; global warming; acid rain; desertification national and international policies, plans, programmes and projects for environment protection.

References:

Baumol, W.J. and W.E. Oates, 1988, The Theory of Environmental Policy, Cambridge University Press, Cambridge.

Baumol, W.J., The Theory of Environmental Policy, Cambridge University Press. Berman, P., Health Sector Reform in Developing Countries, Harvard Series on Population and International Health.

CBS, 2003, Handbook of Environmental Statistics, Central Bureau of Statistics (CBS) Kathmandu.

Field, B.C., 2000, Environmental Economics: An Introduction, McGraw Hill, Boston. R Fisher, A.C., 1981, Resource and Environmental Economics, Cambridge University Press Cambridge. N

Kolstad, C.D., 1999, Environmental Economics, Oxford University Press, New Delhi. A Ojha, E.R., 1999, Dynamics and Development of Highland Ecosystems: The Case of the Hills in Far-western Nepal, Walden Book House, Kathmandu.

Ojha, E.R., 2012, "Janaparyawaran Ra Digo Vikaasbaare Ek Peshagat Sandesh," (in Nepali), i.e., "A Professional Message on Human Environment and Sustainable Development," Janaparyawaran Sandesh, (= Human Environment Message), Year 1H Number 1, Dang, Shrawan - Bhadra 2069, pp. 11-12.

Pearce, D.W. and R. Turner, 1991, Economics of Natural Resource Use and Environment, John Hopkins Press, Baltimore.

Sankar, U., Environment Economics, Oxford University Press, New Delhi. Tietenberg, T., 1994, Environmental Economics and Policy, Harper Collins, New York.

DE 535E: Public Economics I

Credits:3

Aim and Objective

This course intends to offer students a thorough understanding of fiscal institutions with a careful analysis of the issues underlining budgetary policies in general and the Nepalese experience in particular. The aim is to equip students with the knowledge and understanding about crucial economic matters concerning the general public vis-à-vis the state.

Course Outline

Unit 1: Introductory Concepts in Public Economics

Role of the state in an organized society: changing perspectives in public and private sectors - cooperation or competition; the state/government as an agent for economic planning and development and as a tool to operationalize the planning process; private goods, public goods and merit goods; market failures - imperfections, decreasing costs. Un externalities; the theory of the second best.

Unit 2: Public Choice

Private and public mechanisms for allocating resources; problems in allocating resources; problems of preference revelation and aggregation of preferences; voting systems; Arrow's impossibility theorem.

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Unit 3: Rationale for Public Policy

Allocation of resources- provision of public goods; voluntary exchange models; Musgrave); demand - revealing schemes for public goods (contributions of Clarks, Groves impossibility of decentralized provision of public goods (contributions of Samuelson and Ledyard); Tiebout model; the theory of club goods; stabilization policy - Keynesian case for stabilization policy; uncertainty and expectations; social goals.

Unit 4: Public Expenditure

Wagner's law; Wiseman-Peacock hypothesis; structure and growth of public expenditure; criteria for public investment; cost-benefit analysis; project evaluation, estimation of costs; discount rate; reforms in expenditure budgeting; programme budgeting and zero-base budgeting.

Unit 5: Taxation

Theory of incidence; alternative concepts of incidence; allocate and equity aspects of individual taxes; benefit and ability to pay approaches; theory of optimal taxation; excess burden of taxes; trade off between equity and efficiency; the problem of double taxation.

References:

- Atkinsin, A.B. and J.E. Siglitz, 1980, Lectures on Public Economics, Tata McGraw Hill, New York.
- Auerbach, A.J. and M. Feldstern (eds.), 1985, Handbook of Public Economics, Vol. I, North Holland, Amsterdam.
- Buchanan, J.M., 1970, The Public Finances, Richard D. Irwin, Homewood.
- Goode, R., 1986, Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.
- Houghton, J.M., 1970, The Public Finance: Selected Readings, Penguin, Harmondsworth. Jha, R., 1998, Modern Public Economics, Rutledge, London.
- Menutt, P., 1996, The Economics Public Choice, Edward Elgar, London.
- Musgrave, R.A. and P.B. Musgrave, 1976, Public Finance in Theory and Practice, McGraw Hill, Tokyo.
- Musgrave, R.A., 1959, The Theory of Public Finance, McGraw Hill, Tokyo.
- Shome, P. (ed.), 1995, Tax Policy Handbook, International Monetary Fund, Washington D.C.
- Shoup, C.S., 1970, Public Finance, Aldine, Chicago.

DE 535F: Economics of Social Sector

Credits:3

Aim and Objective

The course intends to raise students' understanding about the important economic implications of the major dimensions of the social sector and thus appreciate the importance of the social sector in economic growth and development. These insights will strengthen the students' motivation and capacity to work for social sector advancement for economic prosperity and personal wellbeing and gratification.

Course Outline

Unit 1: Economics of Education

Human capital versus physical capital; components of human capital; education and economic growth and development; expenditure on education; demand for education- private demand and social demand; cost of education - expenditure on education, private and social costs; direct, indirect, private and social benefits of education.

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Unit 2: Educational Planning and Financing

Cost-benefit analysis; production function models; manpower requirement approach and input-output models; educational financing-resource mobilization and utilization; pricing subsidies and socioeconomic effects of educational financing.

Unit 3: Health Economics

Concepts, definition and components of health economics; measures of health status; grid healthcare markets; demand for healthcare; market for health insurance; supply-side considerations; the market for healthcare professionals and hospital services.

Unit 4: Public Policy on Health and Developmental Dimensions

Public policy in healthcare delivery - role of the state; health dimension of development - poverty and malnutrition; theory of production of healthcare; inequalities in health class, gender and regional perspectives.

References:

- Baru, R.V., 1998, Private Health Care in India: Social Characteristics and Trends, Sage, New Delhi.*
Becker, G.S., 1974, Human Capital, National Bureau of Economic Research, New York.
Berman, P. (ed.), 1995, Health Sector Reform in Developing Countries: Making Health Inte Development Sustainable, Harvard Series on Population and International Health, Boston.
Berman, P. and M.E. Khan, 1993, Paying for India's Health Care, Sage, New Delhi.
Blaug, M., 1972, Introduction to Economics of Education, Penguin, London.
Cohen, E. and T. Gaske, 1989, Economics of Education, Pergamon Press, London.
Klarman, H.E., 1965, The Economics of Health, Columbia University Press, New York.
McMohan, W.W., 1999, Education and Development: Measuring the Social Benefits, Oxford University Press.
Ojha, E.R. 2004, "Durgam Kshetra Vikaasko Apriharyataa Ra Aadhaarharoo," (in Nepali), CB i.c., "Indispensability and Bases of Rural Area Development," Durgam Raashtriya Maasik, Ka Yr. 1, No. 1, 15 Baishaakh - 15 Jeshtha 2061, Kathmandu, pp. 11-12.
Psacharopoulos, G. (ed.), 1987, Economics of Education: Research and Studies, Pergamon M Press, Oxford.
Tilak, J.B.G., 1994, Education for Development in Asia, Sage, New Delhi. Vaizoy, 1962, Economics of Education, Faber and Faber, London. WB, 1993, The World Development Report, 1993: Investing in Health, Oxford University Press, New York.
Woodhall, M., 1992, Cost-Benefit Analysis in Educational Planning, UNESCO, Paris.

DE 535G: Agricultural Economics

Credits:3

Aim and Objective

The objective of this course is to impart students a thorough understanding of issues In relating to economic matters associated with the agricultural sector of the economy. This will help students hone up their skills and ability to deal with relevant subject matter for R PR their specialized study and research as well as in professional undertakings, especially in D a predominantly agricultural country such as Nepal.

Course Outline

Unit 1: Agriculture and Economic Development

Nature and scope of agriculture; traditional agriculture versus modern agriculture; role of agriculture in economic development; interdependence among agriculture, industry service sectors; agricultural development, poverty and the environment.

Unit 2: Resource Use and Rural Infrastructure for Agriculture

Use of land, water and energy; rural transport, communication, banking, extension services rural social infrastructure; education and health facilities; awareness and information dissemination.

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Unit 3: Agricultural Production and Productivity

Agricultural production; resource use and efficiency; factor combination and resource substitution; inter regional variations in growth of output and productivity; change trend in cropping patterns; farm budgeting and cost concepts; resource use efficiency in traditional agriculture; technical change; labor availability and absorption; gender issues in agricultural enterprises.

Unit 4: Agricultural Marketing Situation in Nepal

State policy for agricultural marketing; agricultural markets and marketing efficiency; regulated Versus unregulated agricultural markets; marketed and marketable surplus; trends in agricultural prices; state policy in agricultural marketing - warehousing, prices, taxation and crop insurance; terms of trade between agricultural and non-agricultural prices; need for state intervention in agricultural sector.

Unit 5: Agriculture and Globalization

International trade in agricultural commodities; the role and impacts of the World Trade Organization (WTO) in Nepalese agricultural sector; issues relating to liberalization of domestic and international trade in agriculture.

References:

Bhaduri, A., 1984, The Economic Structure of Backward Agriculture, Macmillan, New Delhi.

Bilgrami, S.A.R., 1996, Agricultural Economics, Himalayas Publishing, New Delhi. CBS, Agriculture related statistical publications of Central Bureau of Statistics (CBS), Kathmandu.

MOF, Economic Surveys, various issues of Ministry of Finance (MoF), Kathmandu. Mosher, A.T., 1969, Getting Agriculture Moving: Essentials for Development and Modernization, Agricultural Development Council (ADC) / Frederick A. Praeger, New York.

NRB, Reports on the agricultural sector, by Nepal Rastra Bank (NRB), Kathmandu. Ojha, E.R., 1997, Agricultural Terracing: Development Perspectives, Ratna Pustak, Kathmandu.

Ojha, E.R., 2001, "Vishwabhari Garai-gara," ("Agricultural Terraces All Around the World"), a photographic essay/feature, Nepal Samaacharpatra, a Nepali daily, Kathmandu, Sunday, 26 Chaitra 2057 (8 April), p. gha.

Ojha, E.R., 2012, "Vikaas Ra Nirmaan: Antarsambandha, Aparihaaryataa Ra Aadhaarshilaa," (in Nepali), i.e., "Development and Construction: Interrelationship, Indispensability, and Bedrock," Nirmana Drishti, (in Nepali), i.e., Construction Vision, Pp. 9-12.

Rao, C.H. and H. Rao, 1975, Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.

Saini, GR., 1979, Farm Size, Resource Use Efficiency and Income Distribution, Allied Publishers, New Delhi.

DE 535H: Energy Economics

Credits:3

Aim and Objective

This course deals with economic issues relating to energy and would thus develop the students' knowledge, motivation and confidence to engage in the energy sector and This course deals with economic issues relating to energy and would thus develop the contribute to economic development while also alleviating environmental maladies.

Course Outline

Unit 1: Fundamental Aspects of Energy Economics

Natural resources - classification, importance, role in economic growth and development energy resources - types and classification; properties of energy; forms of energy emergence, nature and scope of energy economics; energy indicators; the relation of energy with other major sectors of the economy and society.

Unit 2: Energy and Development Relationship

Role of energy in economic development; energy intensity and energy elasticity - national and international comparison - low, middle and high-income economies; role of international institutions and cooperation in energy sector - OPEC, OIAPEC, IEA, and the World Bank.

Unit 3: Energy and the Environment

Energy crisis causes, consequences, remedial measures; environmental crisis consequences and remedial measures; impacts of energy consumption and production on the environment with illustrations; role of energy and environmental economists in solving energy and environmental crisis.

Unit 4: Energy Conservation and Management

Energy planning and conservation - meaning, objectives and importance; energy management-meaning, objectives and importance; recent developments in energy concepts and practices - energy auditing; energy accounting; energy pricing and taxes; the role of economists in promoting sustainable energy use and management.

Unit 5: Energy Profile of Nepal

The energy sector - organizational structure; energy supply pattern and situation (coal, lignite, oil, gas and powers - hydro, nuclear, thermal); energy demand (in agriculture, industry, service sectors, and domestic and transport sectors); renewable energy sources and technology (solar, wind, biogas, biomass, geothermal, OTEC, tidal, wave hydrogen, fuel cell, bio-diesel); renewable energy programs; state policies, programmes and schemes for energy, and imminent issues in the energy sector in Nepal.

References:

- Agarwal, S.K., 1985, Environment and Natural Resources Economics, Scott Foresman & Company, London.
Common, M., 1996, Environmental and Resource Economics, Longman, London. Eden, R., 1981, Energy Economics: Growth, Resources and Policies, Cambridge University Press, London.
Karpagam, M., 1991, Environmental Economics, Sterling, New Delhi.
Kirk, D., 1982, Schumacher on Energy, Abacus, London.
Kneese. A.V. and J.L. Sweeny, 1993, Handbook of Natural Resource and Energy economics, North Holland.
Munasinghe, M. and P. Meier, 1993, Energy Policy and Modeling, Cambridge University Press, London.
Pearct, D. et al., 1990, Sustainable Development: Economics and Environment in the Third World, Earthscan Publications, London.
Rao, H., 1990, Rural Energy Crises: A Diagnostic Analysis, Ashish Publishing House New Delhi.

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