Far-western University
Faculty of Humanities and Social Sciences Mahendranagar, Kanchanpur, Nepal
Master of Arts in Economics

Graduate Course Cycle of
Economics

	SEM I			SEM II
Subjects	Credit	Subjects		Credit
Microeconomics I	3	Microeconomics II		3
Macroeconomics I	3	Macroeconomics II		3
Mathematical Methods	3	Statistical Methods		3
Development Economics	3	International Trade & Development		3
Nepalese Economy	3	History of Economic Thought		3
	15			15
	SEM III			SEM IV
				Credit
Public Economics	3	Gov. Finance		3
Monetary Economics	3	Banking and Financial Institutions		3
Res. Method	3	Thesis		6
Optional (any two)	2x3=6	**Optional (Any two)**		2x3=6
Econometrics		Mathematical Economics		
Agriculture Economics		Env. & Natural Resource Economics		
Economic Demography		Labor & Human Resource Economics		
	15			18

<mark>Total Credit</mark>
<mark>15+15+15+18=   63</mark>

FAR WESTERN UNIVERSITY
Proposed Course Codes

M. A. Economics Ist Semester

Subjects	Credit	Sub. Code
1. Microeconomics I	3	ECO 511
2. Macroeconomics I	3	ECO 512
3. Mathematical Methods	3	ECO 513
4. Development Economics	3	ECO 514
5. Nepalese Economy	3	ECO 515
	15	

M. A. Economics IInd Semester

Subjects	Credit	Sub. Code
6. Microeconomics II	3	ECO 521
7. Macroeconomics II	3	ECO 522
8. Statistical Methods	3	ECO 523
9. International Trade & Development	3	ECO 524
10. History of Economic Thought	3	ECO 525
	15	

M. A. Economics IIIrd Semester

11. Public Economics	3	ECO 531
12. Monetary Economics	3	ECO 532
13. Research Methods	3	ECO 533
Optional (any two)	2x3=6	
14. Econometrics		ECO 534

15. Agriculture Economics		ECO 535
16. Economic Demography		ECO 536
	15	

M. A. Economics IV th Semester

17. Gov. Finance	3	ECO 541
18. Banking and Financial Institutions	3	ECO 542
19. Thesis	6	ECO 543
Optional (Any two)	2x3=6	
20. Mathematical Economics		ECO 544
21. Env. & Natural Resource Economics		ECO 545
22. Labor & Human Resource Economics		ECO 546
	18	

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Course Title: **Microeconomics I**
Course No.: ECO 511   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: First   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives: *This course intends to equip the students with the methods and tools to analyze the economic behavior of an individual unit by providing the advanced knowledge of microeconomic theories. It provides understanding of how individual economic agents like consumer and producer make decision in market. The students will have understating about how the different economics agents response and interact under various conditions*.

Unit I . Methodological concept
Equilibrium; stability of equilibrium; Analysis of equilibrium: static, dynamic, and comparative statics; Methods of science of economics- deductive, inductive, and hypothetico-deductive methods; Nature of economic laws and generalization; Importance of assumptions, hypothesis, and empiricism in economics.   (6 hours)

Unit II. Theory of consumer's behaviors

Consumer's preferences, indifferences curve and utility maximization, decomposition of price effect in to substitution and income effect(Slutsky and Hicks), and derivation of demand curve and Engel curve; revealed preference theory of utility analysis, consumer's surplus.   (8 hours)

Unit II. **Theory of production**

Short run production function: law of variable proportion; long run production functions: returns to scale, technological progress and production function, some commonly used production function in empirical economics: Cobb-Doughlus and Constant Elasticity of Subsitutions, their properties, producer's surplus   (6 hours)

Unit III. Theory of Cost and Revenue

Short run and long run cost functions and their relationship with production functions; modern cost functions; and revenue under different market structures.   (3 hours)

Unit IV. Perfect Competition

 Nature and meaning of perfectly competitive market, short run and long run equilibrium of firm and industry, imposition of taxes and equilibrium properties of long run (6 hours)

Unit V. Monopoly

Meaning of monopoly: pure vs. natural monopoly; Short run and long run equilibrium and capacity utilization of the firm; multi-plant firm and bilateral monopoly ,price discrimination under monopoly. (6 hours)

Unit VI. Monopolistic competition: Equilibrium of the firm: Equilibrium with new firms entering the industry, equilibrium with price competition and equilibrium with price competition and free entry.   (6 hours)

Unit VII. Classical Oligopoly: Non-collusive oligopoly: Cournot's duopoly model, Bertrand's duopoly model, Kinked-demand curve models. Collusive oligopoly: Cartels, price leadership and the basing-point price system.   (7 Hours)

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Course Title: **Macroeconomics I**
Course No.: ECO 512   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: First   Time per Period: 1 hour
Level: Graduate   Total Period: 48

 Course Objective:

This course intents to provide advanced knowledge on development of macroeconomic theories. Upon the completion of this course, students will be able to understand the analytical tools, theories and apply them in formulating macroeconomic policies.

Unit I: Basic Concepts   4
 Macroeconomic variables; Static Economic Models, Dynamic Economic Models; Aggregation and its Problems; Macroeconomic Policy Goals

Unit II: National Income Accounting   8
Key Concepts of National Income Accounting- Gross National Product, Gross Domestic Product, Net National Product, Saving and Investment, Circular Flow of Income; Measurement of National Income- Expenditure Approach, Income Approach and Value Added Approach.

Unit III: Classical Theory of Income, Employment and Money   8
Says Law of Market; Quantity Theory of Money; Complete Classical System; Policy Analysis in Classical System
Unit IV: Simple Keynesian Models   8
 Principle of Effective Demand; Equilibrium Level of Income and Multiplier Analysis in Two, Three and Four Sector Economy

Unit V: Keynesian Macro -System   10
Money in Keynesian System; Complete Keynesian System; Policy Effects in Complete Keynesian System; Introduction to IS-LM models, Policy Effects with IS-LM Models.

Unit VI: **Recent Development in Macroeconomics   10**
Monetarist's Approach - Proposition, Fiscal and monetary policy in Monetarism; **New Classical Macroeconomics**- Concept of Rational Expectation, Output and Employment Determination, Policy Implications; Introduction to **Real Business Cycle Theory.**

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Branson, W.H. (1983). *Macroeconomic theories and policy* (2nd ed.). New Delhi: All India
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    Company.

Froyen, R. T.(2003). *Macroeconomics: Theories and policies*, (7th ed.) New Delhi:
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Course Title: **Mathematical Methods**
Course No.: ECO 513   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: First   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives

This course intends to acquaint the students with mathematical tools used in economics

Unit I: Basic Concepts   6

Basic concept on Logarithms**; D**ifferentiation- Single and Multivariate; Function; Integration; Concept of Sets;Concept of Vectors.

Unit II: Optimization   8

Optimization: Constraint and unconstraintoptimization and their applications in production, cost and profit analysis

Unit III: Game theory   8

Concepts of Game theory; Pay off matrix; Saddle point; Mixed strategy; Dominant strategy Value of game under pure and mixed strategy.

Unit IV: Difference and Differential Equations   9

Difference and Differential Equations of first and second order with constant coefficients, constant term, and variable term

Unit V: Linear Programming   9

Graphic method; Simplex method; Duality theorems

Unit VI: Input-Output Analysis   8

Closed and open input-output model; Concept of Dynamic Input-output model.

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Course Title: **Development Economics**
Course No.: ECO 514   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: First   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives
The objective of this course is to provide analytical knowledge about development economics making familiar with relevant development theories, policies and strategies of economic development. After completion of the course student will be able to apply this knowledge in to development practices.

Unit 1. Introduction to Development   TH 5
Conceptualizing development; Historical perspectives on development; Dimensions of development; Economic growth, development and Justice; Obstacle to growth and development

Unit 2. Theories of Growth and Development   TH11
Schultz Theory of Transformation of agriculture; Lewis Theory of Unlimited supply of labour; Harrod-Domar Growth model; Rostow Stages of Economic growth; Balanced vs. Unbalanced Theory of growth; New Development Paradigm

Unit 3. Factors Affecting the Development   TH11
Financing of Economic Development; Dimensions of Human Resource Development; Natural Resources, biodiversity, climate change and development; Technology and Development; Values, Institutions (Civil Society, NGOs, Private Sector) and Development; Capital formation; Foreign Trade; Foreign Direct Investment

Unit 4. Policy Issues in Development-Domestic and International   TH13
Measuring Poverty and Inequality and development; Unemployment: Types, measurement and consequences of unemployment; Liberalization, Globalization and Role of State in Development; The Debt Crisis: Challenges on stability and development; Impacts of liberalization and globalization on growth and equity

Unit 5. Planning System and Implementation   TH 8
Concept and Ideology of Planning: Planning in Socialist, Capitalist and Mixed Economies; Types of planning: Periodic and Perspective Planning, Local Development Planning, Regional Development Planning; Project Planning: Growth Pole and Growth Centre; Capital-Output Ratio: Estimation and Use of Capital-Output Ratio; Stage and Components of Project Appraisal; Criteria and Use of Cost-Benefit Analysis

References

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Course Title: **Nepalese Economics**
Course No.: ECO 515   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: I   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives
The objective of this course is to provide basic knowledge of various facets of Nepalese economy to analysis the status, efforts and policies of economic development in Nepal.

Unit 1. Current Status of Nepalese Economy and Comparison to SAARC Nations TH4
Structure of Nepalese economy: Rural vs. Urban, Formal vs. Informal, Subsistence vs. Commercial; Macroeconomic indicators of Nepal in comparison to SAARC nations; Major challenges of Nepalese Economy

Unit 2. Foundation of Nepalese Economy   TH6
Agriculture: Status, Problem and Prospect; Natural resources and bio-diversity: Status, problem and prospect; Population and human resources: Status, problem and prospect

Unit 3. Sectoral Development   TH12
Primary sector: Status Problem and Prospect; Secondary sector: Status, Problem and Prospect; Territory sector: Status, Problem and Prospect; Infrastructure (Physical and Social): Status, Problem and Prospect

Unit 4. Fiscal policy and Resources Mobilization   TH8
Trend of Government revenue, expenditure, resources gap and mitigation of resource gap; Fiscal Federalism; Resources Mobilization; Recent fiscal policy (Federal government)

Unit 5. Monetary Policy and Financial System Development   TH4
Status of financial development in Nepal; Role of NRB in economic development; Recent monetary policy

Unit 6. Major Issues of Nepalese economy   TH4
Relevancy of self reliance and balanced interdependent economy; Poverty, inequality and development; Foreign employment and remittances; Political economy of growth vs. distribution

Unit 7. Public Enterprises in Nepal   TH4
Status of public enterprises in Nepal; Critical assessment of privatization in Nepal

Unit 8: Globalization and International Linkages   TH4
Globalization; WTO and Nepal; FDI and technology transfer;
Foreign trade with neighboring countries

References

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World Bank (various issues). Country strategy paper. Kathmandu: World bank

Suggestions for Supplementary Readings
Various government agencies publish the documents according to their objectives. Most of the documents are available on web sites and would be useful for update information. So it is suggested to follow the government websites.

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Course Title: **Microeconomics II**
Course No.: ECO 521   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: II   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives: *This course intents to broaden student's understanding of microeconomics covering more and advanced topics like factor pricing, general equilibrium analysis , welfare economics, consumer's choices under uncertainty, market failure and game theory. After the completion of course, students will be able to apply these microeconomic tools in decision making.*

Unit I: Factor Pricing   10

Factor pricing in perfectly competitive markets- Demand for labour, supply of labour and Determination of factor price; Factor pricing in imperfectly competitive markets- Monopolistic power in product market, Monopsonistic power in factor market, bilateral monopoly, Competitive buyer-firm versus monopoly union.

Unit II: General Equilibrium Theory   8

Interdependence in the economy; The Walrasian system; Existence, uniqueness and stability of an equilibrium; Equilibrium in 2x2x2 model (consumption, production and simultaneous equilibrium)

Unit III: Welfare Economics   8

Criteria of social welfare, maximization of social welfare, welfare maximization and perfect competition; Social justice and social optimum, capitalism, market failure and alternative economic systems; theory of the second best; externalities in production and consumption.

Unit IV: Market Failures   6

 Notion of market failures, Causes and consequences, asymmetric information; Adverse selection, Moral hazards, Insurance markets

Unit V: Choice under Uncertainty and over the Period   8

Uncertainty and information, Choice under uncertainty, Expected utility, NM utility index; Inter temporal choices- Nature of utility function, Budget constraints, Inter-temporal equilibrium, Comparative statistics (8 hours)

Concept of game- Players, Strategies, Pay-off matrix; Type of games-constant sum game, zero sum game and non-zero sum game; Solution of a game, Best response strategy in non-zero sum game, Nash Equilibrium; Prisoner's dilemma

References

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Course Title: **Macroeconomics II**
Course No.: ECO 522   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: II   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective

The objective of this course is to familiarize students with the advanced knowledge of macroeconomic analysis. Upon the completion of this course, students will be able to understand analytical tools of macroeconomics and apply them in analyzing economic models, theories and policies.

Unit I: Consumption Demand   .   6

Concept of short-run and long-run consumption function; Absolute income hypothesis, Relative income hypothesis, Permanent income hypothesis and Lifecycle hypotheses

Unit II Investment Demand   6

Basic Concepts; Factors affecting the investment demand; Criteria of investment decision-Present value, Internal rate of return and Payback period ; MEC and MEI schedules; Accelerator theory

Unit III: Growth Theories   9

Basic Concepts, Harrod Model, Domar Model, Solow Model, and Overview of New Growth Theory

Unit IV: Business Cycles Theories   6

Kaldor Model, Schumpeter Model, Samuelson Model and Hicks Model

Unit V: Macroeconomic Stabilization   6

Concepts, Economic Disturbances, Role of monetary and fiscal policy for macroeconomic stabilization, Lags effects of monetary and fiscal policies, Activist policy, Rules vs. Discretions,

Unit VI: Market Failure   4

 Meaning of market failure, Implications of market failure in macroeconomic policies; Government intervention

Unit VII: Macro Distribution Theories   **5**

Ricardo, Kalecki and Kaldor models; Policy implications

Unit VIII. Open Economy Aspects   **6**

Market for foreign exchange, Devaluation and depreciation, Real and nominal exchange rate, Factors affecting the exchange rate, Introduction to Mundel- Fleming model

REFERENCES

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Course Title: **Statistical Methods**

Course No.: ECO 523   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: II   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives

This course intends to equip the students with statistical tools used in economics and economic analysis. After completion of the course student will be able to apply the tools in economic research.

Unit I:Probability and Distributionsfunctions   10

Introduction of Probability; Conditional Probability and Baye's Theorem; Random Variable and Mathematical Expectation (Discrete and Continuous); Probability Distribution and Density Functions; Distribution Functions: Normal, Binomial and Poisson

Unit II: Sampling Methods and Distributions   10

Concept of Sampling; population Vs. sampling; Probability and Non-probability Sampling, sampling Techniques and Design; Sampling and Non-sampling errors; sampling Distributions of Means and Proportions, Standard errors; Determination of Sample Size

Unit III: Theory of Estimation   8

Concept of Parameter and Statistic; Point and Interval Estimation; Properties of good estimators; Estimation Method: Ordinary Least Squares (OLS) Method and Maximum Likelihood (ML) Method.

Unit IV: Hypothesis Testing   10

Formulation of Statistical Hypotheses (Null and Alternative); Types of Errors (Type I and Type II); Confidence Interval and Level of Significance; Hypothesis Testing (z, t, F and Chi-square tests)

Unit V: Correlation and Regression   10

Correlation Coefficients (Simple, Partial and Multiple Correlations); Simple and Multiple Regressions using least squares method; Interpretation of Regression Coefficients; StandardError of Estimate; Test of significances of the regression Coefficients; Coefficient of determination. F–test and Analysis of Variance(ANOVA).

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Course Title: **International Trade and Development**

Course No.: ECO 524   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: II   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives

The objective of the course is to familiarize students with concepts and theories of international trade and it's linkage with development. After the completion of this course also enable students to understand linkage between trade and development, institutions involved in facilitating international trade; and emergence and issues of globalization.

Course Content

Unit I: Concept and Theories of International Trade   10

Concept of Trade: Export and Import; Concept of Balance of Payment, Causes of disequilibrium, Ways to correct BOP disequilibrium; Theories of International Trade-Mercantilism, Absolute and Comparative Advantage, Factor-Endowment (Heckscher-Ohlin Theory) and Leontief Paradox, Gains from Trade and Terms of Trade; Use of Tarrifs (Custom & domestic duties); Quotas and other specific measures and its implication to International Trade; Non Tariffs Barriers and Measures

Unit II: International Trade and Development   15

Trade and Economic Growth; Export led economic growth hypothesis; Import substitution, Linkage between Trade and poverty reduction, International trade and technology transfer; Mobility of capital; Role of trade in reducing poverty, Experiences of poverty reduction in China & India, International trade and implication to Agriculture sector, Small and Medium industries, Trade in Services, Migration and Remittances, Trade and Environment; Trade and Infrastructure, Aid for Trade

Unit III: Foreign Direct Investment and Multinational Firms   8

Concept of FDI, Need for FDI- Saving-Investment Gap; Export-Import Gap, Technology Transfer; Form and mode of FDI; Emergence of Multinational companies and their implication to domestic Industries; Private Sector Development and FDI; Foreign Portfolio Investment

Unit IV: Institution involved in international Trade and Development   10

Bretoonwoods system, GATT and WTO; Brief History, Rational, objectives and function of European Union (EU), North American Free Trade Agreement (NAFTA), South Asian Free Trade Aggrement (SAFTA); Structure, functioning, role of SAARC, BIMSTEC, ASEAN and BRICS in promoting trade

Unit V: Globalization and International Trade & Development   5 hrs
Concept of Globalization, Emergence of Globalization, Case against Globalization and protectionism; Regionalization and Bi-lateral trade, Special preferences for LDC, Global Financial Crisis of 2008 and implication to international trade; Brexit and its implication to international trade

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Course Title: **History of Economic Thought**
Course No.: ECO 525   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: First   Period per Week: 3
Semester: II   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives
This course intends to provide basic knowledge of economic thought. After the completion of this course students will be able to analyze ideas and thoughts of different school of thoughts.

Unit I Brief Introduction to Oriental and Occidental Economic Thought   7
Economic thought of Buddhism: Main ideas, critical evaluation; Hinduism: Main ideas, critical evaluation; Greek and Roman: Main ideas, critical evaluation

Unit II. Pre- classical Economic Ideas   7
Mercantilism: Economic ideas of Petty, Cantillon, Locke and Hume; Physiocracy: Natural order, primacy of agriculture, Social classes and circulation of wealth

Unit III. Classical Economic Ideas   14
Adam Smith: Division of labour, Theory of value and distribution, Economic growth and international trade; **David Ricardo:** Theory of value and distribution, Foreign trade, Economic development and theory of rent; **T.R. Malthus:** Theory of population, Theory of gluts; **J.S. Mill:** Leissez faire and protection; **J.B. Say:** Law of markets; Critical evaluation of classical ideas

Unit IV. Socialistic Economic Thought   12
Utopian socialism: Contribution of Saint Saimon, Sismondi, Robert Owen, Charls Fourier, Louis Blanc, Pierre Joseph Proudhon; Karl Marx: Main philosophy, theory of surplus value, Theory of development, The profit, Business cycle; Critical evaluation of Marxist economic idea.

Unit V. The Marginalists and Austrian School   8
Marginalism: Gossen, Jevons, Menger and Walras; The Austrian School: Wiser and Bohm-Bawerk: Theory of capital and distribution;

References
Bhatia, H. L. (1978). *History of economic thought*. New Delhi, Vikas Publishing House Pvt. Ltd.
Gide, C and Rist, C. (1978). *A history of economic thought*: Calcutta: Oxford University Press.
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Course Title: **Public Economics**
Course No.: ECO 531   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: III   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives
This course intends to acquaint the students with the basic knowledge of public economics, public good, public choice theory, public policy, public expenditure and public enterprises. After the completion of the course students will be able to evaluate public policy and take systematic policy decision for the growth and development.

Unit 1. Introduction   8
Role of Government in economy: Government as a tool for operationalising the planning process; Changing perspective: Government in a capitalist, socialist and mixed economy; Public and private sector: Cooperation and competition, private goods, public goods, and merit goods;

Unit 2. Market Failure   8
Market failure and government intervention: Supply of public goods and services; Issues related to market failure and the government intervention; Market failure and the theory of the second best; The role of state in allocation, distribution, regulation and stabilization; The changing role of the state in a globalizing world with special emphasis on global public goods; Public Sector Pricing; Pricing of Public Utilities.

Unit 3. Public Goods Social Choice Theory   12
Theory of private and public goods: Rivalry and exclusion, allocation of public and private goods, efficiency in public goods provision, market and Public goods; The principle of Maximum social advantage; Welfare economics: Pigovian and Paretian welfare analysis; Theory of second best: Social welfare function of Bergson; Social choice theory: Individual and social choice, differences and democratic choice of society, Kenneth J Arrows analysis of social choice; Normative and positive approaches (Musgravian and Buchanan models) to public choice: Group interest and group alliance; Public choice approach to bureaucracy;

Unit 4. Rationale for Public Policy   8
Allocation of resources: provision of public goods; voluntary exchange models; impossibility of decentralized provision of public goods (contributions of Samuelson and Musgrave); Demand-revealing schemes for Public goods; Theory of club goods; Uncertainly and expectations; Removing distributional inequalities and regional imbalances;

Unit 5. Public Expenditure   8
Wagner's law of increasing state activities; Wiseman-Peacock hypothesis; Pure theory of public expenditure; Structure and growth of public expenditure; Criteria for public investment; Social cost-benefit analysis-Project evaluation, Estimation of costs, discount rate; Reforms in expenditure budgeting; Progamme budgeting and zero base budgeting.

Unit 6. Public Enterprises   **4**

Public enterprises: Role of public enterprises in underdeveloped countries; Pricing principles of public enterprises; Public enterprises in liberalization era; Public enterprises and privatization

Books for Reference

Atkinson, A. & Stigltiz, J. (1980). *Lectures in public economic*. London: McGraw Hill,

Auerbach, A. J. and Feldstern M. (Eds) (1985). *Handbooks of public economics, Vol.1*. Amsterdam: North Holland.

Baumol, W. J. (Ed) (2001). *Welfare economics*. U. K.: Edward Elgar Publishing Ltd.

Boadway, R. (1984). *Public sector Economics*. London: 2nd Sub edition, Scott Foresman & Co.

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Goode, R. (1986). *Government finance in developing countries*. New Delhi: Tata McGraw Hill,

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Laffont, J. J. (1994). *Fundamentals of public economics*. Mass: MIT Press Cambridge.

Mundlel, S. (1999). *Public finance policy issues for India.* New Delhi: Oxford University Press.

Musgrave, R. A. (1959). *The theory of public finance.* Tokyo: McGraw Hill, Kogakhusa.

Nicholas, B. (Ed.) (2001). *Economic theory and the welfare state*. UK: Edward Elgar.

Singh, S.K. (1986). *Public finance in developed and developing countries*. New Delhi: S. Chand.

Wlbrich, H. (2003). *Public finance in theory and practice.* USA: Thomson Southwestern, Ohio

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Course Title: **Monetary Economics**
Course No.: ECO 532   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: III   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective: *The objective of this course is to familiarize the students on issues of monetary theories and role of monetary policy. After completion of this course, students will be able to analyze monetary theories, money demand, money supply, inflation, balance of payment and they will be able to take systematic policy decisions for growth and development.*

Unit - I: Introduction   5
Meaning, Types, Role and functions, Payment systems, Instruments and importance of E-payment system

Unit-II: Development of Monetary Theories   10
Classical and neo-classical theories, Keynesian approach, Real balance effect, Monetarist approach, and Rational expectation.

Unit-III: Theories of Money Demand and Money Supply   10
  a) **Money Demand:** Meaning, determinants of money demand, Money demand theories: Classical, Neo-classical, Keynesian, Baumol, Tobin, Friedman, and McKinnon.
  b) **Money Supply:** Meaning, determinants of money supply with the help of money multiplier, Major sources of High-powered money.

Unit-IV: Theories of Inflation   10
Concept, Classification and measurement of inflation, Theories: Classical, Neo-classical, Inflationary Gap, Phillips curve, Lipsey's version, Samulson – Solow modification, Friedman's approach, New classical approach to Phillips curve, Effects and Controlling measures,

Unit-V: Monetary Policy   6
Meaning and goals, Targets and indicators, Instruments, Monetary policy framework in Nepal.

Unit-VI: Balance of Payment (BoP)   7
Basic concept and accounts, Causes and correcting measures of BoP disequilibrium, Approaches to BoP: Elasticity, Absorption and Monetary Approach.

References

Ahuja, H. L. (1986). *Macroeconomics: Theory and policy*, New Delhi, S. Chand and
        Company Ltd, India.

Branson, W. H. (1983). *Macroeconomic theories and policy* (2nd ed.), New Delhi, All India Seller, India.

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Course Title: **Research Methods**
Course No.: ECO 533   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: III   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives *This course will familiarize students with need and scope of research in economics. It will also equip students with different type of research design and their application in social & behavioral science, learning about data collection method, techniques, tools and data analysis. After the completion of course, students will be able to write an academic research proposal and produce thesis.*

Unit I: Introduction   4

Introduction- Meaning & objectives of research in Economics, Types of research- Pure and applied, Quantitative and qualitative; Scope of and need for research in economics; Research process and different stages and steps of research

Unit II: Review of Literature   4

 Perceiving a research problem, Meaning and importance of review at different stages of research, Identifying relevant literature and their sources, writing review of literature

Unit III: Research Design and Types   8

Meaning of Research design, Function of research design; Difference between qualitative and quantitative research design; Types of social research designs- historical, experimental, exploratory, explanatory, descriptive, ex post facto, action, survey, field study, case study, time-series versus cross-sectional, Hypothesis setting.

Unit IV: Method of Data Collection   10

Sources of information- primary vs. secondary; Census and sample; Techniques of sampling- probability vs. non-probability, Method of primary data collection, Tool of data collection- Questionnaire, Qualitative method of data collection- Focused Group Discussion (FGD), Participatory rural appraisal (PRA), Key Informant Interviews (KII), In Depth Interviews, Tool of qualitative data collection

Unit V: Data Processing and Analysis   10

Data processing- data entry, editing, coding, and organization of data; Measurement scale of variables (nominal, ordinal, interval, and ratio), Data Analysis: uni-variate, bi-variate and

multi-variate, descriptive and inferential data analysis; Use of statistics and statistical tests in economic research

Unit VI: Writing Research Proposal   **4**

 Selection of topic; problem Identification, Objectives and Hypothesis of Research; Format and Components of research proposal, Writing a research proposal

Unit VII: Preparation of Research Report and Thesis   **6**

 Need of a research report; Procedure for preparing research report; Format of the report and thesis; Citation and referencing styles (including footnotes, quotations, references); Subject matter and organization of the report; Presentation of research report.

References

Babbie, E. (2004): *The practice of social research* (10th ed.). Belmont, CA: Wadsworth.

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Course Title: **Econometrics**

Course No.: ECO 534   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: III   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives:

The objective of this course is to familiarize the students with econometric methods and models. After completion of the course students will be able to apply econometrics in economic research.

Unit I: Basic Concept   6

Meaning of Econometrics; Estimators; Finite and infinite sample properties of estimators; Methods of estimation; Introduction to OLS, Maximum Likelihood (ML) and Methods of moments.

Unit II Simple Regression Model   8
Specification of Simple Regression Model, Estimation by OLS and ML methods, Statistical Inference of the Model, Properties of OLS and ML estimators, Interpreting the Results of Regression Analysis and Testing the Hypothesis using t and F test .

Unit II Multiple Regression Model   6
Specification of the Model, Estimation by OLS method (Matrix Approach),
Variance -Covariance Matrix, Correlation Matrix, Partial Correlation Coefficients and Regression coefficients, Interpreting the results of Regression Analysis and Testing the Hypothesis using t and F test .

Unit III: Violation of OLS Assumptions   10
Heteroskedasticity: Nature, Consequences, Detection and Remedies,
Autocorrelation: Nature, Consequences, Detection and Remedies
Multicollinearity: Nature, Consequences, Detection and Remedies

Unit V: Regression on Dummy Variables   8
Use of Dummy Variables as Regressor, Dummy Variable Trap
Dummy Dependent Variables Models: Linear Probability Model, Logit Model and Probit Model

Unit VI: Time Series Analysis   5
Stationary and Non-stationary time series and their Implication for Regression Analysis
Unit Root Test: Dickey Fuller and Phillip Perron Test.

Unit VII: Forecasting   5
 Meaning and applications, Ex-ante and Ex-post Forecast, Conditional and Unconditional Forecasting

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Course Title: **Agriculture Economics**

Course No.: ECO 535   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: III   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective: This course deals with basic principles of agricultural economics including production economics, principles of supply and demand, world food situation, marketing and trade of agricultural products and farm inputs, agricultural finance and agricultural public policy to find out market solutions for agricultural problems. Students will develop analytical skills to evaluate agricultural production and agriculture policies in terms of their economic impacts and sustainable development.

Unit – I: Introduction to Agriculture Economics   5

Definition of agriculture; Role of agriculture in economic development; Structure of agriculture sector; Interrelationship between agriculture and industry; Agricultural development and poverty; Inputs used and Products of agriculture; Agricultural economics.

Unit-II: Agriculture Production Economics with One Variable Input   5

Production functions: Concept, Stages and Analysis; Profit maximization; Production with two Inputs; Maximization in the two-inputs case; Maximization subject to udget constraints

Unit-III: Agriculture Production Economics with Two Variable Inputs   5

Production; Profit maximization; Maximization subject to budget constraints

Unit-IV: Agriculture Production Functions   5

Cobb-Douglas production function; Spillman production function; Transcendental production function

Unit-V: Agriculture Marketing   5

Definition and functions; Special characteristics of agricultural products; Functional and institutional approaches to agricultural marketing; Price analysis of agricultural products; Costs of marketing food and agricultural products; Agricultural value chain

Unit-VI: Agricultural Financing   4

Sources of financing; Utilization of loan; Government regulations on agriculture financing; Risks and uncertainties in agriculture; Agricultural insurance; Banking and financial institutions act (BAFIA 2073); Role of credit in agricultural commercialization.

Unit-VII: Agriculture Policies   5

National agriculture policy; Agribusiness promotion policy; Agriculture perspective plan; Agriculture development strategy; agriculture in periodic plans

Unit-8: Land Reforms   5

Types of farm organization; Principle of land utilization; Tenancy and crop sharing; Green revolution; Land reforms measures; Performance traditional and modern agriculture; Problems and opportunity of small and marginal farmers

Unit-IX: Global Issues   5

Population growth; World food production trends; Labour migration as a form of service trade; UN classification of countries; Trade in agricultural products; Agreement on agriculture of World Trade Organization

Unit-X: Term paper and its presentation by students   4

Basic References

Colman, D. and Young, T. (1989). *Principles of agricultural economics: Markets and prices in less developed countries*. Cambridge: Cambridge University Press[1].

Cramer, G. L., Jensen, C. W. and Douglas, D. S. (2011). *Agricultural economics and agribusiness* (8th ed.), Indianapolis: John Wiley and Sons.

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Penson, J. B., Capps Jr. O, Rosson III, C. P. and Woodward, R. T. (2017).   *Introduction to agricultural economics* (7th ed.). Essex: Pearson.

Supplementary readings

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Seitz, W. D., Nelson, G. C. and Halcrow, S. G. (2009). Economics of resources, agriculture and food, (2nd ed.), Illinois: Waveland Pr Inc.

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Course Title: **Economic Demography**

Course No.: ECO 536	Full Marks: 100
Nature of the Course: Theory	Pass Marks: 50
Year: Second	Period per Week: 3
Semester: III	Time per Period: 1 hour
Level: Graduate	Total Period: 48

Course Objectives

The main objective of this course is to make the students aware of the importance of population in economic development, to acquaint the students on the quantitative and the qualitative aspects and characteristics of the population through various demographic techniques.

Unit I. Introduction to Demography   4
Demography: Introduction, scope, Components of population changes; Sources of population data: Censuses, Vital registration and Surveys

Unit II. Demographic Measurements   14   (a).
Population growth: Concept and causes, Natural increase and balancing equation, Arithmetic growth, Geometric growth, Exponential growth, Doubling time; (b). Nuptiality: Concept, Crude and general rates, Specific rates, Mean/median age of marriage, Singulate mean age at marriage; (c). Fertility and reproduction: Concept and determinants, Crude rates, Specific rates, Standardized rates; Cohort fertility, Total fertility rate, Gross reproduction rate, Net reproduction rate, Real cohort, Children ever born (CEB), Mean age of child bearing, Mean length of generation, Bongaart's fertility model; (d) Mortality: Crude death rates, Specific rates (age, sex, cause, case fatality, Standardized rates, Maternal mortality rate/ratio; Childhood mortality - Infant mortality (conventional and adjusted), Child mortality, Under-five mortality

Unit III: Theories of population   10
Malthusian theory of population; Neo-Malthusian theory of population; Optimum theory of population; The marxist theory; Theory of demographic transition; Reformulation of demographic transition theory, Threshold hypothesis; Theory of relative income

Unit IV. Population, Resources and Development   10
Relationship of Population, resources and development; Theories of resource constraints on economic growth, The Ricardo model; Carrying Capacity: Land, forest and water

Unit V. Migration, Urbanisation and Development   10
Migration: Introduction, factors affecting migration, Theories of migration, Migration and economic development; Urbanisation: Introduction, determinants and theories of urbanisation, urbanisation and economic development;.

References

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Far-western University
Faculty of Humanities and Social Sciences
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Master of Arts in Economics

Course Title: **Government Finance**

Course No.: ECO 541

Nature of the Course: Theory

Year: Second

Semester: **IV**

Level: Graduate

Full Marks: 100

Pass Marks: 50

Period per Week: 3

Time per Period: 1 hour

Total Period: 48

Course Objectives

This course intends to make familiar about the government role in the economy, to provide knowledge of government finance and its theories.

Unit 1: Evolution of Government Role in the Economy   6

Role of government: Pre-classical period, Classical and neoclassical Period, Keynesian and post Keynesian, market economy, Globalization and liberalization, Post-liberalisation: Global financial crisis 2007 and great depression 2008/09

Unit 2: Government Expenditure and Revenue   8

Theories of Government Expenditure: Pareto Optimality and Samuelson's Pure theory of public expenditure, Political electoral theory, Interest group or dominant class coalition theory

Unit 3. Government Revenue   10

Government Revenue: Tax revenue and its types; Principles of taxation (ability to pay and benefit Principle); Burden of tax (Marshal Joseph-Hicks); Responsiveness and Productivity of tax yield; Elasticity and Buoyancy of Taxation; Tax Estimation, tax reform and Tax design; Non- tax revenue

Unit 4: Public debt   6

Public debt: Types and role in the economy; Public debt management: Principles and Techniques; Public debt and economic stabilisation; Debt policy and economy; The debt trap

Unit 5:Fiscal policy   6

Evolution of fiscal policy; Objectives, nature and techniques of fiscal policy; Types of Fiscal policy: Anti inflationary and Counter-cyclical; Instruments and effectiveness of fiscal policy in underdeveloped countries

Unit 6: Budget and budget formulation   6

Budget: Budget formulation process; Reform in budgeting: Programme budgeting, Performance budgeting, Zero based budgeting, Planning-programming-budgeting system,

Unit 7: Fiscal federalism   6

Review of fiscal decentralization; Fiscal Federalism: Concept, Evolution, Types, Theories; Fiscal federalism: International experiences (India and USA); Inter-governmental fiscal transfer, Fiscal federalism in Nepal

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Course Title: **Banking and Financial Institutions**
Course No.: ECO 542   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: IV   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective: The objective of the course is to acquaint the students with banking and financial institutions; financial- instruments and market; financial sector reforms; financial stability; and international monetary institutions. After the completion of the course students will be able to understand the working of financial system and take systematic policy decisions for financial system stability, economic growth and development.

Unit - 1: Introduction to Banks and Financial Institutions   9
    Meaning and classification of financial institutions
    Central bank: Functions and role for economic development
    Commercial bank: functions
    Development banks: functions
    Finance companies: functions
    Microfinance financial institutions: functions
    Non-bank financial institutions (Insurance companies, Provident fund, Nutual fund):
        functions
    Cooperatives: functions

Unit – II: Financial Instruments and Financial Market: 8
    a) **Financial Instruments (Assets):** Meaning and Types (Deposits, Treasury bill and
        Bond, Debentures, Commercial Paper, Mutual Fund Paper, Derivative Instruments.
        and Stock.
    b) **Financial Market:** Meaning and Classification **(**Unorganized and Organized, Money
        and Capitalt, Primary and Secondary, Spot and Derivative, Treasury Bill and Bond
        Market, Commercial Paper Market, Call money market, Foreign Exchange Market,
        and Stock Market)

Unit-III: Credit and Financial System   4
    Meaning of credit, Classification and sources;
    Credit creation and credit control mechanism
    Role of financial system in economic growth and developmen.

Unit - IV: Stock Market   6
    Meaning and classification
    Major indicators of stock market development, Stock exchange indices,
    Causality between stock market development and economic growth,
    Stock market in Nepal.

Unit - V: Risk of Financial Institutions and their Management   7
    Meaning and types of risk (Market risk: Interest rate risk and Exchange rate risk),
    Credit risk, Liquidity risk, and Operational risk), Management of these risks

Unit -VI: Financial System in Nepal 8

Financial liberalization, Financial sector reforms in Nepal (2002 – 2011);
Merger and acquation of financial institutions;
Acts and bylaws governing financial institutions (NRB Act, NRB directives of risk management, Banking crime and punishment act, BAFIA) in Nepal, Regulations of financial institutions

Unit – VII: International Monetary Institutions 6

International Monetary fund (IMF): Origion, goals, functions
The World Bank: Origion, goals, and functions
Asian Development Bank (ADB): Origion, goals, and functions
Asian Infrastructure Investment Bank (AIIB): Origin, goals, and functions.

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Course Title: **Mathematical Economics**

Course No.: ECO 544   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: IV   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective

Course objective: *The objective of this course is to educate the students with the use of mathematical tools in economic analysis and to make them able to understand and interpret the results. After completion of the course student will be able to apply these mathematical tools in economic research.*

Unit I: Theory of Consumers Behavior   11

Utility maximization; Consumers demand functions (ordinary demand function, Compensated demand function; Choice of utility index; Substitution and income effect (The Slutsky equation); Envelope theorem: Roy's identity; Shepherd's lemma and Duality.

Unit I I: Basic Concepts on: **2**

Vector space; Convex sets; and Concave functions.

Unit III: Theory of Production   7

Linearly homogeneous production function Cobb Douglas production function, CES (Constant Elasticity of Substitution) production function; Derivation of cost functions from Cobb- Douglas and CES production functions; Relationship between C-D function and CES production function.

Unit IV: Simultaneous Difference and Differential Equation System   5

Linear simultaneous difference and differential equation system; Dynamic input-output model.

Unit V: Economic Applications of Difference and Differential Equation   14

Cobb-Web Model, A market model with inventory, Adaptive expectation and market stability (Nerlove's) model , Harrod-Domar growth model, Solow growth model, A market model with price expectation, Samuelson's multiplier accelerator interaction model, Hick's multiplier accelerator interaction model; Inflation and unemployment models.

Unit VI: Optimum Control Theory 6

Nature of optimum control; Pontryagin's maximum principle; Alternative terminal condition; Economic applications: Life time utility maximization.

Unit VII: Basic Concepts on SAM and CGE Models 3

References

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Mahendranagar, Kanchanpur, Nepal
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Course Title: **Environmental and Natural Resource Economics**
Course No.: ECO 545   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: IV   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objectives: *This course deals with economic analyses of resource use and management to understand economic tradeoffs and incentives that influence behavior to address environmental challenges. For this, students will understand and analyze externalities in resource use, economic causes of environmental problems and their market solutions. Students will also develop analytical skills to evaluate policies of natural resource use in terms of their economic impacts and effectiveness in sustainable development.*

Unit-I: Introduction   5
Environmental economics; Resource economics; Ecological economics, Green economy; Bio-economy; Environmental economics in the international development community; Resource curse; Green accounting; Common property resources; Environmental Kuznets curve

Unit-II: Externalities and Market Failures   9
Welfare economics; Review of microeconomic concepts related to the function (or dysfunction) of markets; Market failures; Reasons of market failures; Externalities and environmental problems; Social costs of externalities; Factors affecting demand and supply of resources; Pareto optimum; Trade and the environment with pollution-haven hypothesis; Environmental and development issues that arise from market failures

Unit-III: Measuring Values, Benefits and Costs   7
Resource values as shadow prices; non-market valuation; Value of public goods; WTP versus WTA; Compensating variation and equivalent variation; Individual preferences and intertemporal choice; Social and private discounting (net present value, net future value, annualized values); Intra-generational social discounting; Inter-generational social discounting;

Unit-IV: Economics of Renewable Resources   6
Growth curves; Rate of exploitation; Coase's theorem; Costs and revenues; Extinction of species and biodiversity

Unit-V: Economics of Exhaustible Resources   **4**

Fundamental principle of exhaustible resources; Optimal resource use; Resource prices; Monopoly and the rate of extraction;

Unit-VI: Economic Activities, Natural Resources and their Conservation   5

Dependence on natural resources; Economic costs of resource damage; Economic incentives and natural resource management policy; Development and total economic value; Irreversibility and sustainability; Resource scarcity mitigation; Ecosystem services; Payment for ecosystem services

Unit-VII: Economics of Climate Change   **6**

Economics of climate change; Economics of adaptation to the climate change; Economics of mitigation of climate change; Carbon tax; Carbon trade; Comparison of cap and trade of carbon emissions

Unit-VIII: **Solutions to Resources Degradation and Environmental Problems**   **6**

International environmental agreements; Formal regulation of pollution; Informal regulation of pollution; Municipal environmental services; Polluters pay principle; Piguvian tax.

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Far-western University
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Master of Arts in Economics

Course Title: **Labour and Human Resource Economics**
Course No.: ECO 546   Full Marks: 100
Nature of the Course: Theory   Pass Marks: 50
Year: Second   Period per Week: 3
Semester: IV   Time per Period: 1 hour
Level: Graduate   Total Period: 48

Course Objective:
The course aims are to acquaint the students with the human development and labour relations. It shows the relationship with human development and labour relations in the economy

Unit 1. Introduction to Labour Economics   6
Evolution of labour economics, Relationship between labour economics and labour problems, Inter disciplinary character of labour economics, Changing dynamics of labour economics, Contemporary labour economics.

Unit 2. Labour Market   10
Labour market: Classical, Neo-classical and modern approaches to labour market; Organised and unorganised labour market; Labour market rigidity and flexibility; Changing nature of labour market under globalization; Global labour issues and International Labour Organisation (ILO); Labour market discrimination; Segment of labour market: Labour supply-Determinants of labour supply, Demand for labour- Labour demand and Marshall's rules of derived demand; Labour market equilibrium; Determinants of the demand for labour.

Unit 3. Wage and Productivity   6
Wage and economic development; Theories of wage (Classical, neo Classical and Modern), Relationship between wages, employment and productivity; Labour productivity: concept, measurement, determinants and measures to increase labour productivity; Wage differential and discrimination.

Un it 4. Human Capital   6
Human Capital Formation; Indicators, problems and issues, human capital formation in less developed countries; Human development index; Human resources and man power planning.

Unit 5: Concept and Indicators of Human Development   10
Concept and scope of human development; Components of human development; Approaches of human development; Human development indicators and its measurement; Human rights and human development; Human Capital Formation: Issues and problems of human capital formation in less developed countries; Human development index.

Unit 6: Theories of human development   6
Sigmund Freud's Psyco-analysis theory; Erik Erickson's psychological theory; Jean Piaget's cognitive development theory; John B. Watson and B. Skinner's classical and operant conditions theory; Albert Bandura's socio-cognitive learning; Karl Rogers theory of humanism;

Unit 7. Human Development and Labour Relations with respect to Nepal   4
Education, Health and Nutrition Policy; Employment Policy; Labour Policy

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Course Title: **Thesis**
Course No.: ECO 543   Full Marks:
Nature of the Course: Pass Marks:
Year: Second   Period per Week:
Semester: IV   Time per Period:
Level: Graduate   Total Period: