FACULTY OF ECONOMICS AND BUSINESS

SYLLABUS

FOR

B.Sc. (HONS. SCHOOL) ECONOMICS
(Under Credit Based Continuous Evaluation Grading System)

(SEMESTER: I–VI)
Examinations: 2015–16

GURU NANAK DEV UNIVERSITY AMRITSAR

B.Sc. (Honours School) Economics (Semester System)
(Under Credit Based Continuous Evaluation Grading System)

SCHEME OF COURSE

SEMESTER–I:		Credits
*ENL101	Communicative English	2
PBL121	Punjabi (Compulsory)	2
	OR	
PBL122	ਮੁੱਢਲੀ ਪੰਜਾਬੀ (Basic Punjabi)	
EOL102	Microeconomics–I	4
EOL103	Macroeconomics–I	4
EOL104	Mathematics for Economists–I	4
EOL105	Statistics–I	4
EOL106	Computer Fundamentals	4

SEMESTER–II:		Credits
* ENL151	Communicative English	2
PBL131	Punjabi (Compulsory) **OR**	2
PBL132	ਮੁੱਢਲੀ ਪੰਜਾਬੀ (Basic Punjabi)	
EOL108	Microeconomics–II	4
EOL109	Macroeconomics–II	4
EOL110	Mathematics for Economists–II	4
EOL111	Statistics–II	4
EOL112	Operating Systems	4

* The Syllabi of Papers are distributed (Minor–I, Minor–II and Major at central level)

B.Sc. (Honours School) Economics (Semester System)
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SCHEME OF COURSE

SEMESTER–III:		Credits
EOL201	Microeconomics–III	4
EOL202	Macroeconomics–III	4
EOL203	Mathematics for Economists–III	4
EOL204	Agricultural Economics	4
EOL205	Introduction to GUI Packages	4
*ESL220	Environmental Studies (Compulsory)	3

* Note: Credits of Paper Environmental Studies will not be added in the Grand Total.

SEMESTER–IV:		Credits
EOL209	Statistics–III	4
EOL210	Money and Banking	4
EOL211	Industrial Economics	4
EOL212	Labour Economics	4
EOL213	RDBMS (Relational Data Base and Management System)	4

B.Sc. (Honours School) Economics (Semester System)
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SCHEME OF COURSE

SEMESTER–V:		**Credits**
EOL301	Public Finance	5
EOL302	Indian Economy	5
EOL303	Economic History of India	5
EOL304	International Economics	5
EOL305	Econometrics	5
EOL306	SAD and Structure Programme	5

SEMESTER–VI:		**Credits**
EOL307	Regional Economics with Specia Reference to Punjab Economy	5
EOL308	Entrepreneural Development	5
EOL309	Development Economics	5
EOL310	Comparative Economic Systems	5
EOL311	Accounting and Financial Management	5
EOL312	Computer Networks and Internet Applications	5

B.Sc. (Honours School) Economics (Semester–I)
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ENL101: Communicative English

Time: 3 Hrs   **Credits: 02 (L=2,T=0,U=0)**

Objective: To introduce students to the skills and strategies of reading and writing by identifying organizational patterns, spotting classification systems and understanding associations between ideas. This course will prepare students to read a variety of texts and also to communicate more effectively through writing. The course will also pay special attention to vocabulary building.

Prescribed Text books:

1. *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.
2. *The Written Word* by Vandana R. Singh, Oxford University Press, New Delhi.

Course Contents:

1. Reading and Comprehension Skills:

Students will be required to read and comprehend the essays in Unit 1 and 2 of the book *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition. They will be required to answer the questions given after each essay.

2. Developing Vocabulary and using it in the Right Context:

The students will be required to master "Word List" and "Correct Usage of Commonly Used Words and Phrases" from the Chapter "Vocabulary" in the book *The Written Word.*

3. Writing Skills

Students will be required to learn "Report Writing" and "Letter Writing" as in the book *The Written Word.*

Students will be required to write long essays based on the prescribed text book *Making Connections: A Strategic Approach to Academic Reading.*

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Minor 1:

Syllabus to be covered:
1. Unit 1 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.
2. Report Writing from *TheWritten Word.*

Suggested Paper Pattern:

1. Report Writing (8 marks)
2. Short answer type questions from Unit 1 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)
3. Essay type question from Unit 1 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)

Minor 2:

Syllabus to be covered:

1. "Word List" from the Chapter "Vocabulary" in the book *The Written Word.*
2. Unit–2 from the book *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.

Suggested Paper Pattern:

1. Word List from the Chapter "Vocabulary" in the book *The Written Word* (8 marks)
2. Short answer type questions from Unit 2 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)
3. Essay type question from Unit 2 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)

Suggested Paper Pattern for Major Exam:

1. Letter Writing as prescribed in *The Written Word /*1 out of 2 (10 marks)
2. Short answer type questions from Unit 1,2 of *Making Connections: A Strategic Approach to Academic Reading* (14 marks)
3. "Word List" and "Correct Usage of Commonly Used Words and Phrases" from the Chapter "Vocabulary" present in the book *The Written Word.* (10 marks)
4. Essay type question from Unit 1,2 of *Making Connections: A Strategic Approach to Academic Reading* 1 out of 2 (8 marks)
5. Report Writing from *The Written Word* (8 marks)

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

PBL121   ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

Credits: 2–0–0

(I) 1. ਆਤਮ ਅਨਾਤਮ (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ:

(ੳ) ਗੁਰਮੁਖ ਸਿੰਘ ਮੁਸਾਫਿਰ   :   ਗਟਾਰ
(ਅ) ਸੁਜਾਨ ਸਿੰਘ   :   ਪਠਾਣ ਦੀ ਧੀ
(ੲ) ਕਰਤਾਰ ਸਿੰਘ ਦੁੱਗਲ   :   ਉੱਚੀ ਅੱਡੀ ਵਾਲੀ ਗੁਰਗਾਬੀ
(ਕਹਾਣੀ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ-ਕਲਾ, ਕਹਾਣੀਕਾਰ)

1. ਗੁਰਮੁਖੀ ਔਰਥੋਗਰਾਫੀ ਦੀ ਜੁਗਤ, (ਪੈਂਤੀ; ਮੁਹਾਰਨੀ; ਬਿੰਦੀ, ਟਿੱਪੀ ਤੇ ਅੱਧਕ); ਵਿਰਾਮ ਚਿੰਨ੍ਹ, ਸ਼ਬਦ ਜੋੜ (ਸੁਧ-ਅਸ਼ੁਧ)

(II) 1. ਆਤਮ ਅਨਾਤਮ (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ:

(ੳ) ਸੰਤੋਖ ਸਿੰਘ ਧੀਰ   :   ਸਾਂਝੀ ਕੰਧ
(ਅ) ਕੁਲਵੰਤ ਸਿੰਘ ਵਿਰਕ   :   ਉਜਾੜ
(ੲ) ਮਹਿੰਦਰ ਸਿੰਘ ਸਰਨਾ   :   ਜਥੇਦਾਰ ਮੁਕੰਦ ਸਿੰਘ
(ਕਹਾਣੀ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ-ਕਲਾ, ਕਹਾਣੀਕਾਰ)

2. ਲੇਖ ਰਚਨਾ (ਜੀਵਨੀ-ਪਰਕ, ਸਮਾਜਕ ਅਤੇ ਚਲੰਤ ਵਿਸ਼ਿਆਂ ਉੱਤੇ):
10 ਲੇਖ ਲਿਖਵਾਉਣੇ (ਕਲਾਸ ਵਿਚ ਅਤੇ ਘਰ ਲਈ ਅਭਿਆਸ)

(III) 1. ਆਤਮ ਅਨਾਤਮ (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਹਾਣੀਕਾਰ:

(ੳ) ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼   :   ਮਾੜਾ ਬੰਦਾ
(ਅ) ਗੁਲਜ਼ਾਰ ਸਿੰਘ ਸੰਧੂ   :   ਕੁਲੱਛਣੇ
(ੲ) ਮੋਹਨ ਭੰਡਾਰੀ   :   ਘੋਟਣਾ
(ਸ) ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ   :   ਦਲਦਲ
(ਕਹਾਣੀ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਹਾਣੀ-ਕਲਾ, ਕਹਾਣੀਕਾਰ)

2. ਪੈਰਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦੇਣਾ
(ਆਤਮ ਅਨਾਤਮ ਪੁਸਤਕ ਦੇ ਕਹਾਣੀ ਭਾਗ ਵਿੱਚੋਂ 15 ਪੈਰਿਆਂ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ)

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

PBL–122　　　　　　　　　ਮੁੱਢਲੀ ਪੰਜਾਬੀ
(In lieu of Punjabi Compulsory)
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ਪਾਠ–ਕ੍ਰਮ

1.　ਪੰਜਾਬੀ ਭਾਸ਼ਾ,
　　ਗੁਰਮੁਖੀ ਲਿਪੀ
　　ਗੁਰਮੁਖੀ ਲਿਪੀ : ਬਣਤਰ ਅਤੇ ਤਰਤੀਬ

2.　ਗੁਰਮੁਖੀ ਆਰਥੋਗ੍ਰਾਫੀ
　　ਸੂਰ ਬਣਤਰ ਅਤੇ ਉਚਾਰਨ
　　ਵਿਅੰਜਨ ਬਣਤਰ ਅਤੇ ਉਚਾਰਨ

3.　ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ
　　ਸਾਧਾਰਨ ਸ਼ਬਦ
　　ਇਕ ਉਚਾਰਖੰਡੀ ਸ਼ਬਦ

ਯੂਨਿਟ ਅਤੇ ਥੀਮ

1.　ਪੰਜਾਬੀ ਭਾਸ਼ਾ : ਨਾਮਕਰਣ ਅਤੇ ਸੰਖੇਪ ਜਾਣ ਪਛਾਣ, ਗੁਰਮੁਖੀ ਲਿਪੀ : ਨਾਮਕਰਣ, ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ; ਪੈਂਤੀ ਅੱਖਰੀ, ਅੱਖਰ ਕ੍ਰਮ, ਸੂਰ ਵਾਹਕ (ੳ ਅ ੲ), ਲਗਾਂ ਮਾਤਰਾਂ, ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣ, ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣ, ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ।

2.　ਗੁਰਮੁਖੀ ਆਰਥੋਗ੍ਰਾਫੀ ਅਤੇ ਉਚਾਰਨ; ਸੂਰਾਂ ਦੀ ਬਣਤਰ ਅਤੇ ਉਚਾਰਨ (ਲਘੁ–ਦੀਰਘ ਸੂਰ); ਸੂਰ ਅਤੇ ਲਗਾਂ ਮਾਤਰਾਂ; ਵਿਅੰਜਨਾਂ ਦੀ ਬਣਤਰ ਅਤੇ ਉਚਾਰਨ; ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣਾਂ (ਹ, ਰ, ਵ) ਦਾ ਉਚਾਰਨ ; ਲ ਅਤੇ ਲ਼ ਦਾ ਉਚਾਰਨ; ਭ, ਯ, ਢ, ੜ, ਘ ਦਾ ਉਚਾਰਨ; ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣਾਂ ਦਾ ਉਚਾਰਨ।

3.　ਪੰਜਾਬੀ ਸ਼ਬਦ–ਬਣਤਰ : ਸਾਧਾਰਨ ਸ਼ਬਦ; ਇਕੱਲਾ ਸੂਰ (ਜਿਵੇਂ ਆ); ਸੂਰ ਅਤੇ ਵਿਅੰਜਨ (ਜਿਵੇਂ ਆਰ); ਵਿਅੰਜਨ ਅਤੇ ਸੂਰ (ਜਿਵੇਂ ਪਾ); ਵਿਅੰਜਨ ਸੂਰ ਵਿਅੰਜਨ (ਜਿਵੇਂ ਪਾਰ); ਕੌਸ਼ਗਤ ਸ਼ਬਦ (ਜਿਵੇਂ ਘਰ, ਪੀ); ਵਿਆਕਰਣਕ ਸ਼ਬਦ (ਜਿਵੇਂ ਨੂੰ, ਨੇ); ਪੰਜਾਬੀ ਸ਼ਬਦ ਰਚਨਾ–1; ਲਿੰਗ–ਪੁਲਿੰਗ, ਇਕ ਵਚਨ–ਬਹੁ ਵਚਨ; ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ–1: ਖਾਣ–ਪੀਣ, ਸਾਕਾਦਾਰੀ, ਰੁੱਤਾਂ, ਮਹੀਨਿਆਂ, ਗਿਣਤੀ, ਮੌਸਮ ਆਦਿ ਨਾਲ ਸੰਬੰਧਿਤ।

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

EOL102   **Microeconomics – I**   **Credits: 4–0–0**

Minor–I

Basic problems of an economy. Demand and Supply functions – an introductory view of price formation. Role of time element in price formation.

Price, income and cross elasticities of demand; Elasticity of substitution and the relationship between price elasticity, income elasticity and elasticity of substitution, elasticity of supply.

Minor–II

Theories of demand; The classical utility approach, indifference curves approach, the revealed preference approach, consumer's surplus.

Theory of production: Production function, isoquants, returns to a factor and returns to scale and their compatibility.

Major (including Minor–I and Minor–II)

Elasticity of substitution; economies of scale; Cobb–Douglas production function; production function of a multi product firm.

Theory of Costs; Short and long period costs, traditional and modern theories of costs, derivation of cost function from production function.

Revenue analysis: Revenue curves and their mutual relationship.

Suggested Readings:
1. Koutsoyiannis, A.   :   Modern Microeconomics.

2. Lipsey, G.   :   An Introduction to Positive Economics.

3. Stonier & Hague   :   A text book of Economic Theory.

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

EOL103   **Macroeconomics – I**

Credits: 4–0–0
Minor–I
Basic Concepts: Micro Vs. Macroeconomics
Variables: Real and nominal; Induced and autonomous; Lagged and unlagged; ex–ante and ex–post; Model and Equations; Equality & identity; stock and flow; Static, Equilibrium and disequilibrium.
National Income: Definition: Productive Vs. Non–productive intermediate and final output; concepts of national income.

Minor–II
Measurement of National Income: Income, Output and Expenditure, Circular flow of income in two, three and four sectors economics.
National Accounts: Meaning, objectives and importance. Different methods of preparing national income accounts.
National income accounts in a four sector economy (double entry).
GNP and Welfare; Inter temporal and international comparisons of National income.

Major (including Minor–I and Minor–II)
Determination of Income and Employment.

Classical View: Labour Market; Product Market and Money Market.

Say's Law of Markets (Barter and a monetized economy).

Suggested Readings:

1.   Backerman,W   An Introduction to National Income Analysis, E.L.B.S., London, 1976. (Chapters 1 – 5).
2.   .Studenski,P.A   The Income of Nations, Part – 2, Theory and Methodology: Ch. 11, 16, Sections.
3.   Rao,V.K.R.V.   India's National Income, 1950 – 80, An Analysis of Economic Growth and change; Sage Publications, New Delhi, 1983, Chapters I and II.
4.   C.S.O.   National Accounts Statistics, Sources and Methods, April 1980.
5.   Shapiro, E.   Macroeconomic Analysis, Harcourt, New York (Second Edition) (Chapters, 1–6, 17).
6.   Peterson,W.C.   Income, Employment and Economic Growth Norton, New York, 1978.
7.   Ackley, G.   Macroeconomic Theory, Macmillan, New York, 1969 (Chapters 1, 2, 6)

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

EOL104   **Mathematics for Economists – I**

Credits: 4–0–0

Minor–I

Functions, limits and continuity differentiation, general theorems on differentiation, functions of functions rules, parametric equations, logarithmic and exponential functions, successive differentiations.

Economic application of simple differentiation.

Minor–II

Elements of Algebra; solutions of linear, quadratic simultaneous equations, A.P., G.P., H.P. series.

Permutations and combinations, Binomial theorem – positive integral index, any index.

Major (including Minor–I and Minor–II)

Trigonometry: Trigonometric ratios, T ratios of 30°, 45°, 60° and 90° T ratios of allied angles, multiple angles, submultiple angles, addition and subtraction formulae.

Suggested Readings:

Monga, G.S.   :   Mathematics and Statistics for Economists.

Allen, R.G.D. :   Mathematical Analysis for Economics.

Yamane, Taro : Mathematics for Economists.

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

EOL105   **Statistics – I**

Credits: 4–0–0

Minor–I

Definition: Scope and limitation of statistics. Tabulation and classification of data: discrete and continuous one – way and two – way frequency distribution.

Diagramatic and graphic presentation of data.

Measures of Central Tendency; definition, measure, properties merits and demerits.

Minor–II

Dispersion: Meaning, importance, absolute and relative measures of dispersion.

Correlation: meaning, measures, Karl Pearson's product moment and spearman's rank correlation.

Regression: Meaning, simple regression, least squares principle, properties of correlation and regression coefficients.

Major (including Minor–I and Minor–II)

Index Numbers: Meaning, scope and limitations, types, formulae, tests for the consistency of index numbers.

Indian Statistical System: A brief overview interpolation and Extraction, meaning, importance uses, assumption, methods of interpolation: graphic and algebraic merits and demerits.

Suggested Readings:

Gupta, S.C. :   Fundamentals of Statistics, Himalya Publishing House, 1981, Delhi.

Gupta, S.P. :   Statistical Methods, Sultan Chand and Sons, 1978, Delhi.

Gupta C.B. :   An Introduction to Statistical Methods, Vikas Publishing House, Delhi, 1957.

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

EOL106   **Computer Fundamentals**

Credits: 3–0–2

Minor–I

Elements of a Computer System.

What is a Computer?

Evolution of computers, their classification and limitations.

Uses of Computers in modern society (e.g. Weather Forecasting, Census, Oil Exploration,

Speech Recognition, Banking, Publishing, Accounting, Research etc.)

Characteristics of Desktop.

Characteristics of Portables / Laptops.

Introduction to Hardware, Software: System S/W, Operating System, Translators, Utilities and

Service Programme, Data base, DBMS.

Application Software (user and standard packages.)

Introduction to Programming Languages (C, Pascal, Fortan).

Input Output Devices.
Input Devices and Functions.
    Keyboard and teletypewriter terminals.
    Joystick
    Mouse
    Light Pen
    Magnetic Tapes and Cassettes.
    Magnetic Disks.
    Floppy and Winchester Disks
    Optical Mark Reader (OMR)
    Optical Character Reader (OCR)
    Magnetic Ink Character Reader (MICR)
    Punched Cards

B.Sc. (Honours School) Economics (Semester–I)
(Under Credit Based Continuous Evaluation Grading System)

Minor–II

Output Devices and Functions
Visual Display Units (Monitor)
Plotters
Printers
CTD

H/W Organisation of Desktop Computer.
Introduction to Hardware components.
CPU (Control Unit, ALU).
3.4 Memory
a)   RAM – Dynamic RAM, Static RAM.
b)   ROM – PROM, EPROM, EEPROM.
c)   Cache, Virtual, Extended and Expanded Memories.

3.5 **Secondary Memory (Storage Devices) with Details of FD, Cluster, FAT, Tracks.**
Floppy Disk
Hard Disk
DAT
Video or Optical Disk (CD ROM)
CTD

Major (including Minor–I and Minor–II)
Standardization of PC – Hardware Devices.

4.1 Disk Drives (1.2 MB, 1.44 MB, CTD, DAT, CD – ROM drives).
4.2 Power Supply and Distribution.
4.3 Monitors (VDU) – Pixels, Monitor Sizes, Mono, color, VGA, SVGA.
4.4 Printers – Impact and Non – Impact (Character, Line, Page).
4.5 Modems and its types.
5.   Data Representation.
6.   Introduction to Number Systems and Character Codes.

7.   Flow Charts.
8.   Introduction and Development of programs in QBASIC (Using File Handling).

Recommended Texts:
1.   Introduction to Computer Science by Francis Scheid.
2.   PC Complete by Sybex
3.   Computer Fundamental by S. Jain
4.   Introduction to Computer: Fundamentals of Computer Scienece by N. Subramaniam.
5.   Understanding Computers by Dinesh Kumar.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

ENL151   **Communicative English**

Time: 3Hrs

Credits: 02 (L=2,T=0,U=0)

Objectives: To equip students with the skill of reading and writing dexterously. By the end of the course the students will be skilled in the art of expressing their ideas in short and long compositions, noting information effectively and summarizing and abstracting more efficiently.

Prescribed Text books:
1. *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.
2. *The Written Word* by Vandana R. Singh, Oxford University Press, New Delhi.

Course Contents:

1. Reading and Comprehension Skills:

Students will be required to read and comprehend the essays in Unit 3 and 4 of the book *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition. They will be required to answer the questions given after each essay.

2. Writing Skills

Students will be required to learn Paragraph and Essay Writing and Note Making, Summarizing and Abstracting as in the book *The Written Word* by Vandana R. Singh, Oxford University Press, New Delhi.

Minor 1:

Syllabus to be covered:
1. Unit 3 from *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.
2. ABC of Good notes, Sub dividing your Notes and Summarizing and abstracting included in the Chapter "Note Making, Summarizing and Abstracting" from *The Written Word.*

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

Suggested Paper Pattern:
1. Theoretical questions based on ABC of Good notes, Sub dividing your Notes and Summarizing and abstracting included in the Chapter "Note Making, Summarizing and Abstracting" *The Written Word* (8 marks).
2. Short answer type questions from Unit 3 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks).
3. Essay type question from Unit 3 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks).

Minor 2:

Syllabus to be covered:

1. Abbreviations and Symbols and Note making in practice from the chapter "Note–Making, Summarizing and Abstracting in the book *The Written Word*

2. Unit–4 from the book *Making Connections: A Strategic Approach to Academic Reading* by Kenneth J. Pakenham, Second Edition.

Suggested Paper Pattern:

1. A practical question on Note making in practice "Note–Making, Summarizing and Abstracting" from the chapter the book *The Written Word* (8 marks)
2. Short answer type questions from Unit 4 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)
3. Essay type question from Unit 2 of *Making Connections: A Strategic Approach to Academic Reading* (6 marks)

Suggested Paper Pattern for Major Exam:

1. Practical Question on Paragraph and Essay Writing as prescribed in *The Written Word /*1 out of 2 (10 marks)

2. Short answer type questions from Unit 3,4 of *Making Connections: A Strategic Approach to Academic Reading* (16 marks)

3. Essay type question from Unit 3,4 of *Making Connections: A Strategic Approach to Academic Reading* 1 out of 2 (10 marks)

4. Practical Question on Note Making from *The Written Word* (8 marks)

5. Theoretical Question(s) based on the two chapters from the book *The Written Word* (6 marks)

B.Sc. (Honours School) Economics (Semester–II)
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PBL–131 ਪੰਜਾਬੀ ਲਾਜ਼ਮੀ

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ ਪੁਸਤਕਾਂ

Credits: 2–0–0

(I) 1. **ਆਤਮ ਅਨਾਤਮ** (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠਾਂ ਲਿਖੇ ਕਵੀ:

(ੳ) ਭਾਈ ਵੀਰ ਸਿੰਘ
(ਅ) ਪ੍ਰੋ: ਪੂਰਨ ਸਿੰਘ
(ੲ) ਪ੍ਰੋ: ਮੋਹਨ ਸਿੰਘ
(ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ, ਕਵੀ)

2. ਪੰਜਾਬੀ ਸ਼ਬਦ ਬਣਤਰ: ਧਾਤੂ/ਮੂਲ, ਵਧੇਤਰ (ਅਗੇਤਰ, ਪਿਛੇਤਰ, ਵਿਉਤਪਤ ਅਤੇ ਰੁਪਾਂਤਰੀ), ਸਮਾਸ ।

(II) 1. **ਆਤਮ ਅਨਾਤਮ** (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ:

(ੳ) ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ
(ਅ) ਡਾ. ਹਰਭਜਨ ਸਿੰਘ
(ੲ) ਸ਼ਿਵ ਕੁਮਾਰ ਬਟਾਲਵੀ
(ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ, ਕਵੀ)

2. **ਪੈਰ੍ਹਾ ਰਚਨਾ :** ਕਲਾਸ ਵਿੱਚ 10 ਵਿਸ਼ਿਆਂ (ਸਭਿਆਚਾਰਕ, ਧਾਰਮਿਕ ਅਤੇ ਰਾਜਨੀਤਕ) ਤੇ ਪੈਰ੍ਹਾ ਰਚਨਾ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ ।

(III) 1. **ਆਤਮ ਅਨਾਤਮ** (ਸੰਪ. ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ ਅਤੇ ਡਾ. ਸੁਹਿੰਦਰਬੀਰ ਸਿੰਘ, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ) ਵਿੱਚੋਂ ਹੇਠ ਲਿਖੇ ਕਵੀ:

(ੳ) ਡਾ. ਜਸਵੰਤ ਸਿੰਘ ਨੇਕੀ
(ਅ) ਡਾ. ਜਗਤਾਰ
(ੲ) ਡਾ. ਸੁਰਜੀਤ ਪਾਤਰ
(ਸ) ਪਾਸ਼
(ਕਵਿਤਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਕਾਵਿ-ਕਲਾ, ਕਵੀ)

2. ਮੁਹਾਵਰੇ ਤੇ ਅਖਾਣ (ਅਖਾਣ ਤੇ ਮੁਹਾਵਰਾ ਕੋਸ਼ ਵਿੱਚ) 200 ਮੁਹਾਵਰਿਆਂ ਅਤੇ 100 ਅਖਾਣਾਂ ਨੂੰ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਦੇ ਅਭਿਆਸ ਕਰਵਾਉਣੇ (ਕਲਾਸ ਵਿਚ ਤੇ ਘਰ ਲਈ) ।

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

PBL–132   **ਮੁੱਢਲੀ ਪੰਜਾਬੀ**

(In lieu of Punjabi Compulsory)

Credits:2–0–0

ਪਾਠ-ਕ੍ਰਮ

1.   ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ
      ਸੰਯੁਕਤ ਅਤੇ ਮਿਸ਼ਰਤ ਸ਼ਬਦ
      ਬਹੁ-ਉਚਾਰਖੰਡੀ ਸ਼ਬਦ

2.   ਪੰਜਾਬੀ ਵਾਕ-ਬਣਤਰ
      ਸਾਧਾਰਨ-ਵਾਕ : ਕਿਸਮਾਂ
      ਸੰਯੁਕਤ-ਵਾਕ : ਕਿਸਮਾਂ
      ਮਿਸ਼ਰਤ-ਵਾਕ : ਕਿਸਮਾਂ

3.   ਪ੍ਰਕਾਰਜੀ ਪੰਜਾਬੀ
      ਚਿੱਠੀ ਪੱਤਰ
      ਪੈਰ੍ਹਾ ਰਚਨਾ
      ਸੰਖੇਪ ਰਚਨਾ
      ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰੇ

ਯੂਨਿਟ ਅਤੇ ਥੀਮ

1.   ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ : ਸੰਯੁਕਤ ਸ਼ਬਦ; ਸਮਾਸੀ ਸ਼ਬਦ (ਜਿਵੇਂ ਲੋਕ ਸਭਾ); ਦੋਜਾਤੀ ਸ਼ਬਦ (ਜਿਵੇਂ ਕਾਲਾ ਸਿਆਹ); ਦੋਹਰੇ ਸ਼ਬਦ/ਦੁਹਰਰੁਕਤੀ (ਜਿਵੇਂ ਧੁੱਤੂ ਧਾੜੂ/ਭਰ ਭਰ), ਮਿਸ਼ਰਤ ਸ਼ਬਦਾਂ ਦੀ ਬਣਤਰ/ਸਿਰਜਨਾ; ਅਗੇਤਰਾਂ ਰਾਹੀਂ (ਜਿਵੇਂ ਉਪ ਭਾਸ਼ਾ), ਪਿਛੇਤਰਾਂ ਰਾਹੀਂ (ਜਿਵੇਂ ਰੰਗਲਾ), ਪੰਜਾਬੀ ਸ਼ਬਦ ਰਚਨਾ-2: ਪੜਨਾਵੀਂ ਰੂਪ, ਕਿਰਿਆ/ਸਹਾਇਕ ਕਿਰਿਆ ਦੇ ਰੂਪ; ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ-2: ਮਾਰਕੀਟ/ਬਾਜ਼ਾਰ, ਵਪਾਰ, ਧੰਦਿਆਂ ਨਾਲ ਸੰਬੰਧਿਤ।

2.   ਪੰਜਾਬੀ ਵਾਕ-ਬਣਤਰ : ਕਰਤਾ ਕਰਮ ਕਿਰਿਆ; ਸਾਧਾਰਨ ਵਾਕ, ਬਿਆਨੀਆ, ਪ੍ਰਸ਼ਨਵਾਚਕ, ਆਗਿਆਵਾਚਕ, ਸੰਯੁਕਤ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕਾਂ ਦੀਆਂ ਕਿਸਮਾਂ; ਸੁਤੰਤਰ ਅਤੇ ਅਧੀਨ ਉਪਵਾਕ; ਸਮਾਨ (ਤੇ/ਅਤੇ) ਅਤੇ ਅਧੀਨ (ਜੋ/ਕਿ) ਯੋਜਕਾਂ ਦੀ ਵਰਤੋਂ; ਪੰਜਾਬੀ ਵਾਕਾਂ ਦੀ ਵਰਤੋਂ : ਵਿਭਿੰਨ ਸਮਾਜਕ/ਸਭਿਆਚਾਰਕ ਪ੍ਰਸਥਿਤੀਆਂ ਦੇ ਅੰਤਰਗਤ; ਘਰ ਵਿਚ, ਬਾਜ਼ਾਰ ਵਿਚ, ਮੇਲੇ ਵਿਚ, ਸ਼ੋਪਿੰਗ ਮਾਲ/ਸਿਨਮੇ ਵਿਚ, ਵਿਆਹ ਵਿਚ, ਧਾਰਮਿਕ ਸਥਾਨਾਂ ਵਿਚ, ਦੋਸਤਾਂ ਨਾਲ ਆਦਿ।

3.   ਇਸ ਯੂਨਿਟ ਵਿਚ ਚਿੱਠੀ ਪੱਤਰ (ਨਿੱਜੀ/ਦਫ਼ਤਰੀ/ਵਪਾਰਕ), ਪੈਰਾ ਰਚਨਾ, ਸੰਖੇਪ ਰਚਨਾ ਅਤੇ ਅਖਾਣ ਮੁਹਾਵਰਿਆਂ ਦੀ ਵਰਤੋਂ ਰਾਹੀਂ ਵਿਦਿਆਰਥੀ ਦੀ ਭਾਸ਼ਾਈ ਯੋਗਤਾ ਨੂੰ ਪਰਖਿਆ ਜਾਵੇਗਾ।

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

EOL108   Microeconomics – II

Credits: 4–0–0

Minor–I

Equilibrium of the firm and industry. Perfect competition: assumptions, equilibrium of firm and industry, price determination, supply curve of industry, dynamic changes and equilibrium of industry.

Monopoly: Assumptions, equilibrium, monopoly power, supply curve, price discrimination, monopoly control and regulation. Monopolistic competition: assumptions, equilibrium, product differentiation, selling costs, excess capacity.

Minor–II

Price determination under monoposony and bilateral monopoly. Oligopoly; collusive and non–collusive models.

Critical evaluation of marginal analysis; average cost pricing; elementary treatment of limit pricing.

Major (including Minor–I and Minor–II)

Baumol's sales revenue maximization models. Marris and Williamson Models.

Behavioural theory of the firm; game theory; linear programming model of the firm – elementary view.

Suggested Readings:

1.   Koutsoyiannis, A.   :   Modern Microeconomics.

2.   Curven, P.J.   :   The Theory of the firm.

3.   Cohen and Cyert   :   The Theory of the firm.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

EOL109   Macroeconomics – II

Credits: 4–0–0

Minor–I
Basic Concepts: Full employment and various types of unemployment. Aggregate demand and aggregate supply functions. Effective demand.

Keynesian Economics: Keynes consumption function; saving and investment functions. Determination of income, employment and output in Keynesian frame work in a two sector, three sector and four sector economy. Paradox of thrift.

Minor–II
Multiplier: Static and Dynamic analysis. Balanced – budget multiplier. Foreign trade multiplier.

Theories of Consumption and Investment: Absolute Income Hypothesis; Relative Income Hypothesis; Permanent Income Hypothesis. Classical theory of investment; Keynesian theory of investment; Accelerator theory of investment.

Major (including Minor–I and Minor–II)
Money: Concept and functions of money; Supply of money; Theories of Demand for Money: Classical, Cambridge, Keynes and Friedman. Theories of Rate of Interest: Classical, Loanable and liquidity preference.

Keynes Vs. Classicals with special reference to wage – price flexibility and full employment. Real Balance Effect.

Suggested Readings:

1.   Shapiro, E.   :   Macroeconomic Analysis.
2.   Peterson, W.C.   :   Income, Emplyment and Economic Growth
3.   McConnell, O. & Brue, S.L. :   Economics (12th edition).
4.   Edgmond, M.R.   :   Macroeconomic Theory and Policy.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

EOL110   Mathematics for Economists – II

Credits: 4–0–0

Minor–I

Differentiation: Implicit functions, partial derivatives, Euler's theorem, total derivatives, Maxima and Minima, economic applications.

Integrations; Methods of integration, definite integrals, integration by parts, integration of rational fractions, economic applications of integration.

Minor–II

Linear Algebra: Matrices, types, products of matrices, inverse of matrix, rank of a matrix, determinants, simultaneous linear equations (Cramer's rule).

Set theory: Union, intersection difference and symmetric differences.

Major (including Minor–I and Minor–II)

Analytical Geometry: Coordiante of point, area of triangle: locus, the straight line, equation of a straight line, intersection of two straight lines.

Circle: Different forms of the equations of a circle, intersection of a line and a circle, parabola, rectangular hyperbola.

Suggested Readings:

Yamane, Taro   :   Mathematics for Economists.

Allen, R.G.D.   :   Mathematical Analysis for Economists.

Monga, G.S.   :   Mathematics and Statistics for Economists.

Chaing, A.   :   Fundamental Methods of Mathematical Economics.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

EOL111   **Statistics – II**   **Credits: 4–0–0**

Minor–I

Correlation and Regression Analysis: Partial and multiple correlation coefficients: Derivations, application and properties. Fitting of multiple regression by least squares technique stress on numerical examples.

Growth Curves: Properties, methods of estimation and applications of parabolic, geometric, exponential, modified exponential, Gompertz and logistic growth curves.

Minor–II

Time Series Analysis: Meaning, Components: Models, economic significance of time series, methods of estimating trend and seasonal variations.

Major (including Minor–I and Minor–II)

Probability: Definition (classical and empirical only), laws of probability, conditional probability and independence of events (applications only) concept of random variables, probability density and mass function, expectation, moments, moment generating function, properties (without proof) of binomial, poisson and normal distributions, numerical examples based upon these distributions and their fitting.

Suggested Readings:

1.   Spiegal M.R.   :   Theory and Problems of Statistics.

2.   Gupta, S.C. and V.K. Kapoor :   Fundamental of Applied Statistics.

3.   Mood, A.M. and F.A. Graybill :   Introduction to the Theory of Statistics.

4.   Karmel, P.H. and Polar K.M. :   Applied Statistics and Economists.

5.   Croxton E.E., Cowden, D.J.   :   Applied General Statistics.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

EOL112   Operating Systems

Credits: 3–0–2

Minor–I

What is an Operating System – Evolution of OS.

Machine Language, Assembly, Compiler, Interpreter.

Types of Operating Systems with Examples.

Single User Systems: MS DOS.

Multi User Systems: Unix, Xenix, Vax/VMS.

Functions of Operating System.

Memory Management (Fixed Sized Partition, variable sized partition, Dynamic.

Memory Management with Reallocation technique, Paging, Demand Paging Techniques).

CPU Management (First Come First Served, Shortest job First, Round Robin Policy).

File Management.

I/O Device Management.

Command Interpreter.

Data Management.

Programme Development Tools.

Time Sharing.

Security.

Communication.

B.Sc. (Honours School) Economics (Semester–II)
(Under Credit Based Continuous Evaluation Grading System)

Minor–II

Brief History of MS – DOS.

Terminology for MS – DOS.

  File.

  Types of File (Data, Programme).

  Wild Cards (*, ?).

  Directory (Root, Single, Multi, Current)

  Relative and Absolute Path.

  Booting a System (ROM BIOS, self test, Port, IO.SYS, MSBIOS. SYS,

  Autoexec.bat, Config.Sys, Command.Com).

Internal and External Commands with Syntax (Arguments & Parameters)

Internal: cls, date, time, md, cd, copy con, dir,, type, ren, delete, rd, copy.

External: chkdsk, scandisk, mem, attrib, xcopy, diskcopy, diskcomp, backup, restore.

Features and Benefits of Unix.

Unix System (multi–programming, time sharing, multi–tasking).

Components of Unix (Kernel, Shell).

Unix file system (data blocks, ilist, super block, boot block.)

Major (including Minor–I and Minor–II)

Types of files (Ordinary, directory and Special Files).

Types of users in Unix –levels of users (0 – 2).

Login and Logout from Unix Session.

Types of Shells (Bourne, c – shell, r – shell).

Shell as a Command Interpreter – Functions.

Simple Directory and File Commands

cat, ls, ln, chmod, mail, who, who am I, cal, pwd, date, ps, mkdir, ed, rmdir, rm, tput, clear.

Piping, filters, batch processing, shell programming (echo, read, case constructs).

Editors (vi): Commands for opening, inserting, modifying, deleting and saving a file.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

EOL201   **Microeconomics – III**

Credits: 4–0–0

Minor–I
Pricing of factors: Meaning and concept; Marginal productivity theory of distribution; Euler's Theorem and its application to distribution; Modern theory of distribution;   Macro theories of distribution and their relevance to economic theory.

Minor–II
Factor pricing: Determination of rent, Ricardian theory of rent, Modern theory of rent, Quasi rent, Wages and its determination, Interest : classical and lonable fund theory; Determination of profit and theories of profit.

Equilibrium and its stability: Static and dynamic stability, existence, uniqueness and stability of equilibrium; the Walrasian and Marshallian stability conditions; Application of dynamic stability : Cob – web theorem.

Major (including Minor–I and Minor–II)
Welfare Economics: Concept and meaning. Value Judgements and inter personal comparisons; Pigovian concept of welfare. Pareto Optimality Criteria of social welfare in consumption and production. Deviations from pareto optimality and externalities, compensation criteria; Bergson – Samuelson criteria. Theory of second best and Arrow possibility theorem.

Suggested Readings:

1.   Koutsoyiannis, A.   :   Modern Microeconomics.

2.   Henderson and Quandt   :   Microeconomics Theory – A Mathematical Approach.

3.   Layard and Walter   :   Microeconomics Theory.

4.   Bruce N. and L. Rooding   :   Welfare Economics.

5.   Weintrabub, E.R.   :   General Equilibrium Theory.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

EOL202   **Macroeconomics – III**

Credits: 4–0–0

Minor–I
Equilibrium in the product and money markets: IS and LM functions, changes in IS and LM functions, General equilibrium – changes in general equilibrium, elasticity of IS and LM functions and monetary and fiscal policies ; Wage – price flexibility and general equilibrium; Overall equilibrium in the basic static model (goods, labour and money markets).

Minor–II
Trade Cycles: Features, Keynes' view on trade cycle, Schumpeter, Kaldor Samuelsons Hicks models, control of trade cycle.

Economic Growth: Meaning and Measurement, Harrod and Domar and Neo – classical growth model with and without technical progress.

Major (including Minor–I and Minor–II)
Inflation: Causes, consequences and cures, Inflation – unemployment trade off. Natural rate of unemployment.

Macroeconomic Policy: Monetary policy – instruments, objectives and effectiveness in recession and boom.

Fiscal Policy: Objectives and Instruments, problems of stabilization policy.

Suggested Readings:

1. Ackley, G   : Macroeconomics: Theory and Policy, Macmillan Publishing Company, New York.

2. Dorabusch & Fischer   : Macroeconomics, McGraw Hill, New Delhi.

3. Heijdra, B.J. and F.V.Ploeg: Foundations of Modern Macroeconomics, Oxford University Press, Oxford.

4. Levacic, R.   : Macroeconomics, MacMillan, London, 1976.

5. Shapiro, E.   : Macroeconomic Analysis, Galgotia Publications, New Delhi, 1996.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

EOL203   **Mathematics for Economists – III**

Credits: 4–0–0

Minor–I

Linear Algebra: Linear dependence and independence of vectors; Characteristics roots and vectors; Quadratic forms; Solution of simultaneous linear equations homogenous and Non–homogenous.

Minor–II

Input – Output Analysis: Assumptions; Transaction matrix: Technical coefficients, Hawkin – Simon Conditions, open and close input–output systems.

Differential and Difference Equations: Linear difference and differential equations of first and second order each.

Major (including Minor–I and Minor–II)

Linear Programming: Formulation of linear programming problem. Graphical method, Simplex method, Two–phase simplex method, unbounded solution, infeasible solution, degeneracy and cycling problem. Duality theorem, Solution of primal and dual by simplex method. Dual simplex method.

Suggested Readings:

1.   Yamane, Taro   :   Mathematics for Economists.

2.   Chiang A.   :   Fundamental Methods of Mathematical Economics.

3.   Chang Yan Chion :   Introduction to Input – Output Economics.

4.   Taha, H.A.   :   Operations Research: An Introduction. (2nd Edition).

5.   Monga, G.S.   :   Mathematics for Management & Economics.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

EOL204   **Agricultural Economics**

Credits: 4–0–0

Minor–I

Economics of Agriculture: Nature, scope and its importance in the economy. Role of agriculture in economic development. Reasons for slow growth of Indian agriculture. Transforming traditional agriculture.

Agricultural credit: Need, role of co–operative and commercial banks.

Minor–II

Institutional changes and agricultural development : Land reforms – consolidation of holdings, abolition of intermediaries, ceiling on land holdings and tenurial reforms – need, nature and evaluation with special reference to India.

New agricultural technology – Its impact on production, income distribution and labour absorption. Negative consequences of new agricultural technology in the context of Punjab.

Major (including Minor–I and Minor–II)

Agricultural Marketing in India: Structure, types, defects, marketing functions, marketing margins, marketed surplus and marketable surplus. Factors affecting marketed surplus.

Agricultural Price Policy: Need and objectives. Mobilisation of agricultural surpluses, Terms of trade between agriculture and industry.

Suggested Readings:

1. Mellor, J.W. (1968)   The Economics of Agricultural Development, Cornell University Press, New York.

2. Schultz, T.W. (1964   Transforming Traditional Agriculture, Lyall Book Depot, 1970.

3. Soni, R.N. (2003   Leading Issues in Agricultural Economics, Shoban Lal Nagin Chand & Co., Jalandhar.

4. Sadhu, A.N. and   Fundamentals of Agricultural Economics, Himalaya Publishing House.
   Amarjit
   Singh (1997)
5. Dorner Peter (1972)   Land Reforms and Agricultural Development, Penguin Books.

6. Kahlon, A.S. (1982)   Agricultural Price Policy in India, Allied Publishers, New Delhi

7. Mamoria, C.B. (1985)   Agricultural Problems in India, Allahabad, Kitab Mahal.

8. Acharya, S.S. &   Marketing of Farm Products in India, Oxford, IBH Publications.
   M.L. Aggarwal (2002)

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

EOL205   **Introduction to GUI Packages**

Credits: 3–0–2

Minor–I

Introduction to Windows – XP / Windows 7
Evolution of Windows
Origin of Windows
Parts of Windows Screen (Definition)
The Desk Top, The Windows, Icons
Types of Windows
Application Windows, Document Windows
Anatomy of a Window
The Title Bar, Minimize & Maximize Button, The Control Box, Scroll Bars, Scroll Buttons and Scroll Boxes.

Minor–II

Composition of Desktop
Different ways to run programs
Using File Manager
Create files, Copy files, Move file, Rename files, Searching a file,
Editing Files, Saving Files, Deleting Files, Printing Files
Basics of Windows XP

System requirement for installing windows.

The Desktop, the Taskbar, Start menu, Different options under All Programs, Documents, Settings, Find, Help, Run, Shutdown, About the My Computer Icon.

Major (including Minor–I and Minor–II)

About My Networking Places Icon, Recycle Bin, Internet Explorer, Control Panel, Folders – Creation and Definition, Rules for File Names, Windows Explorer (Definition), Shortcut Icons with creation and definition, Service Pack 1, 2 and 3, Different options under All Programs.

References:

Alan Simpsons' Wndows Xp Bible.

Computer Fundamental by P.K.Sinha

NOTE: Credits has for 2 Practicals is equal to one (01) Lecture.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

ESL220: ENVIRONMENTAL STUDIES (COMPULSORY)

Credit 3-0-0

1. **The multidisciplinary nature of environmental studies:** Definition, scope & its importance, Need for public awareness.

2. **Natural resources**: Natural resources and associated problems.

    a) **Forest resources**: Use of over exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

    b) **Water resources**: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

    c) **Mineral resources**: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

    d) **Food resources**: World food problems, change caused by agriculture and overgrazing, effects or modern agriculture, fertilizer-pesticide problem, salinity, case studies.

    e) **Energy resources**: Growing of energy needs, renewable and non-renewable energy resources, use of alternate energy sources, case studies.

    f) **Land recourses**: Land as a resource, land degradation, soil erosion and desertification.

    g) Role of an individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles.

3. **Ecosystem:**
    Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids.
    Introduction, types, characteristic features, structure and function of the following ecosystems:
    a. Forest ecosystem
    b. Grassland ecosystem
    c. Desert ecosystem
    d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

4. Biodiversity and its Conservation:
Definition: Genetic, species and ecosystem diversity, Biogeographical classification of India.
Value of Biodiversity: Consumptive use; productive use, social, ethical, aesthetic and option values.
Biodiversity of global, National and local levels, India as mega-diversity nation "Hot-spots of biodiversity.
Threats to Biodiversity: Habitat loss, poaching of wild life, man wildlife conflicts
Endangered and endemic species of India.
Conservation of Biodiversity: In situ and Ex-situ conservation of biodiversity.

5. Environmental Pollution:
Definition, Causes, effects and control measures of:
a) Air Pollution
b) Water Pollution
c) Soil Pollution
d) Marine Pollution
e) Noise Pollution
f) Thermal Pollution
g) Nuclear Hazards

Solid Waste Management: Causes, effects and control measures of urban and industrial wastes.
Role of an individual in prevention of pollution.
Pollution case studies Disaster Management: Floods, Earthquake, Cyclone and Landslides

6. Social Issues and Environment:
* From unsustainable to sustainable development
* Urban problems related to energy
* Water conservation, rain water harvesting, watershed management
* Resettlement and rehabilitation of people; its problems and concerns. Case studies
* Environmental ethics: Issues and possible solutions.
* Climate change, global warning, acid rain, ozone layer depletion, nuclear accidents and holocause. Case studies.
* Wasteland reclamation
* Consumerism and waste products
* Environmental Protection Act
* Air (prevention and Control of Pollution) Act
* Water (prevention and Control of Pollution) Act
* Wildlife Protection Act
* Forest Conservation Act
* Issues involved in enforcement o£. environmental legislation
* Public awareness

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

7. Human population and the environment
   * Population growth, variation among nations
   * Population explosion-Family welfare programme
   * Environment and human health
   * Human rights
   * Value education
   * HIV / AIDS
   * Women and child welfare
   * Role of information technology in environment :and human health
   * Case studies

   * **Road Safety Rules & Regulations:** Use of Safety Devices while Driving, Do's and Don'ts while Driving, Role of Citizens or Public Participation, Responsibilities of Public under Motor Vehicle Act, 1988, General Traffic Signs
   * **Accident & First Aid:** First Aid to Road Accident Victims, Calling Patrolling Police & Ambulance

8. Field Work: Visit to a local area to document environmental assets–river / forest / grassland / hill / mountain. Visit to a local polluted site–Urban / Rural / Industrial / Agricultural. Study of common plants, insects, birds. Study of simple ecosystems–pond, river, hill slopes, etc. (Field work equal to 5 lecture hours)

References:

1.   Agarwal, K. C. 2001. Environmental Biology, Nidhi Publications Ltd. Bikaner.

2.   Bharucha, E. 2005. Textbook of Environmental Studies, Universities Press, Hyderabad.

3.   Bharucha, E. 2004. The Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad.

4.   Brunner, R. C. 1989. Hazardous Waste Incineration, McGraw Hill Inc. New York.

5.   Clark, R. S. 2000. Marine Pollution, Clanderson Press Oxford.

6.   Cunningham, W. P., Cooper, T. H., Gorhani, E. & Hepworth, M. T. 2001. Environmental Encyclopedia, Jaico Publications House, Mumbai.

B.Sc. (Honours School) Economics (Semester – III)
(Under Credit Based Continuous Evaluation Grading System)

7.   De, A. K. 1989. Environmental Chemistry, Wiley Eastern Ltd.

8.   Down to Earth, Centre for Science and Environment, New Delhi.

9.   Hawkins, R. E. 2000. Encyclopedia of Indian Natural History, Bombay Natural History Society.

10. Heywood, V. H & Waston, R. T. 1995. Global Biodiversity Assessment, Cambridge House, Delhi.

11. Jadhav, H. & Bhosale, V. M. 1995. Environmental Protection and Laws. Himalaya Pub.

12. Joseph, K. and Nagendran, R. 2004. Essentials of Environmental Studies, Pearson Education (Singapore) Pte. Ltd., Delhi.

13. Kaushik, A. & Kaushik, C. P. 2004. Perspective in Environmental Studies, New Age International (P) Ltd, New Delhi.

14. Miller, T. G. Jr. 2000. Environmental Science, Wadsworth Publishing Co.

15. Odum, E. P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA.

16. Rajagopalan, R. 2005. Environmental Studies from Crisis to Cure. Oxford University Press, New Delhi.

17. Sharma, B. K. 2001. Environmental Chemistry. Geol Publishing House, Meerut.

18. Sharma, J. P. 2004. Comprehensive Environmental Studies, Laxmi Publications (P) Ltd, New Delhi.

19. Sharma, P. D. 2005. Ecology and Environment, Rastogi Publications, Meerut.

20. Subramanian, V. 2002. A Text Book in Environmental Sciences, Narosa Publishing House, New Delhi.

21. Survey of the Environment. 2005. The Hindu.

22. Tiwari, S. C. 2003. Concepts of Modern Ecology, Bishen Singh Mahendra Pal Singh, Dehra Dun.

23. Townsend, C., Harper, J. and Michael, B. 2001. Essentials of Ecology, Blackwell Science.

24. Booklet on Safe Driving. Sukhmani Society (Suvidha Centre), District Court Complex, Amritsar

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

EOL209   **Statistics – III**

Credits: 4–0–0

Minor–I
Axiomatic definition of probability: Addition and multiplication laws; conditional probability; independence of events; Bayes's Theorem.

Probability distributions: Binomial, Poisson and normal distributions; derivation of their properties; numerical problems based on these distributions; fitting of these distributions.

Minor–II
Sampling: Concepts used in sampling: methods of sampling: simple random, systematic and stratified. Point estimation: Concept of random sampling, meaning of an estimator; properties of a good estimator; methods of estimation – method of moments, method of least squares and method of maximum likelihood (with more emphasis on the method of m.l.e.).

Major (including Minor–I and Minor–II)
Elementary ideas about sampling distribution of sample mean, Z, t, chi square of F: Testing of significance; concepts of null and alternative hypothesis; types of errors; some elementary tests based on above sampling distributions.

Statistical Quality Control: Conceptual meaning; methods of construction (with stress on numericals) of mean chart and range chart.

Suggested Readings:

1. Mood, A.M. and F.M. Graybill   Introduction to theory of statistics, McGraw Hill, New York, 1963.

2. Goon, A.M., M.K. Gupta,   An Outline of Statistical Theory, The World Press, B. Das Gupta   Calcutta, 1977.

3. Kapur, J.N. and Saxena, H.C.   Mathematical Statistics, S. Chand and Company, New Delhi, 1995.

4. Hogg, Robert, W.and Tanis, Elliot, A.   Probability and Statistical Inference, MacMillan, New York, 1977.

5. Sukhatme, P.V. and Sukhatme, B.V.   Sampling Theory of Surveys with Applications IOWA State University Press, U.S.A., 1970.

6. Gupta, S.C. and Kapoor, V.K.   Fundamentals of Applied Statistics, Sultan Chand & Co., New Delhi, 1978.

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

EOL210   **Money and Banking**

Credits: 4–0–0

Minor I

Money: Nature and functions; money and near money; supply of money: mechanics of money supply creation; measures of money supply in India. Demand for money: Fisher, Cambridge, Keynesian and Friedman theories.

Rate of Interest: Determination; factors affecting the level and structure of interest rates. Money and capital markets (introductory).

Minor II

Commercial Banking: Functions, theories; credit creation. Commercial banking in India; Structure; nationalisation: objectives, performance and evaluation.

Major (including Minor I and Minor II)

Central Banking: Meaning and functions, techniques of credit control with special reference to India, credit policy in India.

Monetary Policy: Targets and indicators; macro economic objectives. Monetary policy in less developed countries. Inflation in India.

Suggested Readings:

1. Luckett, D.G.   Money & Banking, McGraw Hill, New York, 1976.

2. Gupta, S.B.   Monetary Planning for India, University Press, New Delhi.

3. Cargill, T.F.   Money: The Financial system and monetary policy, Englio Wood Cliffs, Prentice Hall, 1979.

4. Shekhar, K. G.   Banking Theory and Practice law and Foreign Exchange, 6th edition, Vikas Publishing House, New Delhi, 1978.

5. Misra, S. Puri   Indian Economy, Himalya Publishing House, New Delhi (Latest Edition).

6. Reserve Bank of India   Report on Currency and Finance.

7. ————————   Reserve Bank of India Bulletin, Economic Times, Financial Express.

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

EOL211   **Industrial Economics**

<div align="right">Credits: 4–0–0</div>

Minor–I
Definition: Nature and scope of Industrial Economics. History and development of Industrial Economics.

Basic Concepts: Firm, industry, Market, Market structure, Market power, passive and active behaviour of the firm.

Minor–II
Conceptual framework for the study of Industrial Economics. Organizational form and alternative motives of the firm.

Growth of the firm: Acquisition, diversification, merger constraints on Growth: demand, managerial and financial.

Major (including Minor–I and Minor–II)
Market Structure: Seller's concentration; product differentiation; entry conditions and economies of scale.

Theories of Industrial Location: Factors affecting location; contributions of weber and Sargent Florance. Location policy in India since Independence. Industrial concentration and dispersal in India. Industrial growth under planning in India. Industrial policy.

Suggested Readings:

1.   Barthwal, B.R.   :   Industrial Economics.

2.   Devine, P.J.and others   :   An introduction to Industrial Economics.

3.   Hay and Morris   :   Industrial Economics Theory and Evidence.

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

EOL212   **Labour Economics**

Credits: 4–0–0

Minor–I
Nature and characteristics of Labour Markets in developing countries like India ; Classical, neo–classical and dualistic theories of labour markets; Analysis of demand and supply of labour.

Minor–II
Unemployment : Concepts, Causes and Measurement; Classical, neo–classical and bargaining theories of wage determination; Concepts and causes of wage differentials.

Major (including Minor–I and Minor–II)
Growth, Structure and pattern of trade unions in India; Causes of Industrial disputes ; methods of settlement ; Collective bargaining, conciliation, arbitration and labour participation in management ; Growth, pattern and structure of labour unions in India.

State and social security of labour in India; Labour market reforms : Exit policy and measures imparting flexibility in labour markets ; Globalisation and labour markets.

Recommended Readings:

1. Hajela, P.D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publisher, New Delhi.
2. Lester, R.A. (1964), Economics of Labour, (2nd Edition), Macmillan, New York
3. McConnell, C.R. and S.L.Brue (1986), Contemporary Labour Economics, McGraw–Hill, New York.
4. Papola, T.S., P.P.Ghosh and A.N.Sharma (Eds) (1993), Labour, Emloyment and Industrial Relations in India, B.R.Publishing Corporation, New Delhi.
5. Venkata Ratnam, C.S.(2001), Globalization and Labour–Management Relations : Dynamics of Change, Sage Publications / Response Books, New Delhi.
6. McCormickm B. and Smith (Eds) (1968), The Labour Market, Penguin, Harmondsworth.
7. Das, N. (1960), Unemployment, Full Employment and India, Asia Publishing House, Bombay.
8. Deshpande L.K. and J.C.Sandesara, (Eds) (1970), Wage Policy and Wages Determination in India, Bombay University Press, Bombay.
9. Hicks J.R. (1932), The Theory of Wages, Clarendon Press, Oxford.
10. Mazumdar, D. (1989), Micro–economic Issues of Labour Markets in Developing Countries, EDI Services Paper No.40, World Bank, Washington D.C.
11. Memoria, C.B. (1966), Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad.
12. Punekar, S.D.(1978), Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay.
13. Singh V.B. (Ed) (1970), Industrial Labour in India, Popular Parakashan, Bombay.
14. Misra, L. (2000), Child Labour in India, Oxford University Press, New Delhi.
15. Riveros, L. (1990), Labour Market Policies and Labour Market Reforms in Socialist Economies, World Bank, Washington D.C.

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

EOL213   **Relational Database and Management System**

Credits: 3–0–2

Minor–I

Definition of 3GL and 4GL Languages.
Definition of CODD's Rules.
Introduction to RDBMS and Oracle – Advantages and Limitations over DBMS.

Normalisation of Data: First, Second and Third Normal Form.
Database Models – Hierarchical, Network and Relational.
Features of SQL – Compatibility, Portability, Data Deictionary.
Introduction to SQL plus – Definition.

SQL Operators:

=. != < > < > = <= (NOT) BETWEEN ……AND……. (NOT) IN (text), (NOT) like, IS (NOT) NULL, NOT, AND, OR.

Data Types:

Char, numbers, date long, raw, long raw.

DDL Commands of SQL:

Create tables.
Alter Table, view.
Drop Table.
Create View——— As select from, where.
Rename.
Create Index.

Data Manipulation Language:

Select

Select distinct.
Select from where.
Select from where order by.
Select group by clause.
Select group by having clause.

Insert Into
Update Statement.
Delete Statement.

Data Control Language:

Rollback.
Revoke.
Grant.

Sub Query Definition with 2 Levels.

B.Sc. (Honours School) Economics (Semester – IV)
(Under Credit Based Continuous Evaluation Grading System)

Minor–II

Aggregate Functions:
Sum, avg, max, min, count, stddev, variance.
Character Functions:
Lower, Upper, Length, Substr, RPAD, LPAS
Arithmetic Functions:
Round, Trunc, Sqrt, Mod, Abs, Sine.
Date and Time Functions and other Miscellaneous Functions:
(Add – months, months–between, NVL, translate, field concatenation. Decode).

Conversion Functions (to–char, to–number, to–date).
Introduction to PL / SQL:
Relationship between SQL & PL / SQL.
Advantages of PL / SQL.
PL / SQL block structure.
Valuable and Constant Declaration.
Declaration using attributes
% type attribute.
If else if ends if statement.

Major (including Minor–I and Minor–II)

Iterative Controls.
Simple Loops (Loop ——— end loop).
Numeric FOR Loops.
While Loops.
Intro and Advantages of procedures and functions with examples.

Intro to Database Triggers.
Creation of a database triggers with example.
Enable and disable of database trigger.
Drop a database trigger.

Developer 2000
Reports 2.5
Forms 4.5

Utilities
Export / Import.
SQL * Loader.

NOTE: Credits has for 2 Practicals is equal to one (01) Lecture.

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL301   **Public Finance**

Credits : 5–0–0

Minor–I
Nature and Scope of Public Finance: Principle of Maximum Social Advantage; Sources of Public Revenue; Canons of taxation; Concept of Equity in taxation; Principles of taxation; Benefit Received and Ability to pay.

Minor–II
Taxable Capacity: Concept and its significance; Factors determining taxable capacity; Taxable Capacity in India.

Direct vs. Indirect Taxes: Advantages and disadvantages; A theoretical case against Indirect taxes; Proportioal vs. Progressive taxes.

Incidence of Taxation: (Concept of impact, shifting and incidence): tax shifting: (Forward and Backward): tax capitalization theories of shifting of taxation; Effects of taxation on production and distribution.

Major (including Minor–I and Minor–II)
Public Expenditure; Concept, canons and Principles Budgetary classification of Public expenditure.

Public Debt: Concept, Distinction between internal and external debt; Sources of Public Borrowings; objects and significances of public debt.

Suggested Readings:
1. Bhargava, R.N.   Theory and Working of Union Finance in India (Latest Edition)
2. Chelliah, Raha J.   Fiscal Policy in Underdeveloped Countries.
3. Dalton, Hugh   Principles of Public Finance
4. Misra, B.   Economics of Public Finance
5. Prest, A.R.   Public Fianace in Theory and Practice
6. ————   Public Finance in Developing Countries
7. Tyagi, B.P.   Public Finance
8. Government of India   Economic Surveys
9. A.E.A.   Readings in Economics of Taxation
10. Government of India   Economic Surveys

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL302 **Indian Economy**

Credits : 5–0–0

Minor–I

Structure of Indian Economy: The population problem and economic development, occupational distribution of labour force; Poverty and Income distribution in India, Problems of unemployment and Rising prices.

Minor–II

Planning in India: Objectives; Strategy ; Current Five Year Plan– Objectives, allocation and targets ; New economic reforms – Liberalization, privatization and globalization ; Rational behind economic reforms ; Progress of privatization and globalization.

Basic Issues in Agriculture: Role, nature and cropping pattern; Trends in agricultural production and productivity; Factors determining productivity; new agricultural strategy and Green Revolution; Agricultural price policy.

Major (including Minor–I and Minor–II)

Issues in Industrial Development: Industrial development during planning period ; Industrial poilcy of 1948, 1956,1977 and 1991 ; Cottage and small scale industries ; Public sector in India – its role, growth, performance, problems ; Issue of privatization.

External Sector: India's foreign trade– features, composition and direction; India's balance of payments problem; Indian trade policy; foreign capital, foreign aid, multinational corporations (MNCs); FERA and FEMA.

Recommended Readings:

Datt, R. and K.P.M. Sundhram (2003), Indian Economy, S. Chand & Company Ltd., New Delhi.

Dhingra, I.C. (2003), The Indian Economy Environment and Policy, Sultan Chand & Sons, New

Delhi.

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL303   **Economic History in India**

Credits : 5–0–0

Minor–I

Indian Economy in 19th century an overview of agriculture, industry, trade and British economic and commercial policies.

Population; construction of population estimates. Characteristics of population; fertility, motality, sex ratio.

Minor–II

Population growth, natural disasters and their relation with economic activity.

Agrarian Scence; Land tenures, tenurial relations, pattern.

Commercialisation of agriculture.

Major (including Minor–I and Minor–II)

Industry and infrastructure; growth of railways and its impact, growth of modern Industries; tea, cotton, textiles, iron and steel.

Impact of British rule: Drain theory of Industrialization, Swadeshi movement, Effect of world depression and the second World War on Indian Economy, Post – War rehabilitation.

Recommended Readings:

Dutt, R.P.	:	India Today, Calcutta, Manisha,1970.
Kaushal, G.	:	Economic History of India (1757 – 1966), Ludhiana, Kalyani Publishers, 1979.
Knowles, L.C.	:	Economics Development of the British Overseas Empire.
Rustey, V.	:	Economic Development of India.
Jathar, G.B. & S.S. Beri	:	Indian Economics, OUP, 1937.
Singh, V.B.	:	Economic History of India (1857 – 1956).
Chakrabarti, S.C.	:	Economic Development of India, 1965.

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL304   **International Economics**

Credits : 5–0–0

Minor–I

Trade Theories and Commercial Policy: Theories of absolute advantage, comparative advantage and opportunity cost ; Heckscher–Ohlin theory of trade– its main features, assumptions and limitations : Terms of trade (concepts and secular deterioration in terms of trade) ; Doctrine of reciprocal demand ; Gains from trade–their measurement and distribution.

Minor–II

Commercial Policy: Rationale of protection; Tariff and non–tariff barriers to trade (quota, voluntary export restraints, export subsidies, dumping and international cartel) ; Tariff and quota (partial equilibrium analysis).

Balance of Trade and Balance of Payments : Concepts and components of balance of trade and balance of payments ; Equilibrium and disequilibrium in balance of payments ; Various measures to correct deficit in the balance of payment ; Foreign trade multiplier.

Major (including Minor–I and Minor–II)

Exchange Rate : Meaning, concept of equilibrium exchange rate and determination ; Fixed versus flexible exchange rates ; Managed floating exahcnge rate.

International Monetary System and International Institutions : Brettonwood systems and its breakdown, International liquidity Special drawing rights, I.M.F.

Recommended Readings:

1. Green Away,D.(1983)	:	International Trade Policy,Macmillan Publishers Ltd., London.
2. Heller, Robert (1977)	:	International Trade Theory and Empirical Evidence, Prentice Hall, New Delhi.
3. Ingo Walter (1975)	:	International Economics, Ronald Press, New York, 1975.
4. Soderston, B. (1991)	:	International Economics, McMillan, New York.
5. Salvatore, D.L. (1991)	:	International Economics, Prentice Hall, Upper Saddle River, New Delhi.
6. Todaro, Michael (1991)	:	Economic Development, Longman, New York. 1994.
7. Yeagre (1976)	:	International Monetary Relations, Theory, History and Policy, Harper and Row, New York, 1976.

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL305   **Econometrics**

Credits : 5–0–0
Minor–I
Nature and meaning of econometric; Difference between mathematical economics , statistics and econometrics ; Goals of econometrics.

Simple linear regression model (Two variables): Sources of disturbance terms, assumptions, least squares estimators and their properties; Gauss Markov's theorem.

General linear regression model: Definition, assumptions, least – squares estimation.

Minor–II
Gauss Markov's theorem; testing significance of regression coefficients, concepts of R^2 and R^{-2}. Estimation of quadratic, semi – log and double log functions; simple and compound rates of growth (applications).

Concept of analysis of variance approach; One – way ANOVA (application only); Applications of ANOVA technique in regression analysis – testing significance of R^2, significance of improvement in R^2 due to additional explanatory variables, chow's test.

Major (including Minor–I and Minor–II)
Problems of multicollinearity, autocorrelation and hetroscedasticity: Nature, consequences, tests and remedies (elementary treatment).

Recommended Readings:

Chow, G.   :   Econometrics, (1983).

Ghosh, S.K.   :   Econometrics

Gujrati, D.   :   Basic Econometrics (1955, 3rd edition, McGraw Hill Inc.)

Kelejian and Oats   :   Introduction to the Theory of Econometrics.

Koutsoyiannis, A.   :   Theory of Econometrics (1978).

B.Sc. (Honours School) Economics (Semester – V)
(Under Credit Based Continuous Evaluation Grading System)

EOL306   **SAD and Structure Programme**

Credits : 4–0–1

Minor–I
SAD

System Design, Analysis Identification.

CAD – Context Analysis Diagram Algorithms.

DFD – Data Flow Diagrams.

Entity Relationship Charts, ER Diagrams.

Minor–II
Data Structures Using C.

Introduction to C.

Introduction to Data Structures.

Arrays.

Major (including Minor–I and Minor–II)

Functions.

Pointers.

Structures.

Files.

B.Sc. (Honours School) Economics (Semester – VI)
(Under Credit Based Continuous Evaluation Grading System)

EOL307 Regional Economics with Special Reference to Punjab Economy

Credits : 5–0–0

Minor–I

Regional Economics: Concept, Scope and framework; Regional economic problems; Location factors; Different Approaches to study Regional Economics ; Location of places & their problems ; Nature of Regions and relation of activities within a region ; Regional policy & objectives.

Minor–II

Structural Changes in Punjab Economy: Agricultural in Punjab, Growth & productivity Green Revolution ; role, performance & implications ; Agricultural diversification, rationale, constrainsts and prospectus ; agriculture credit & marketing ; W.T.O and Punjab agriculture.

Major (including Minor–I and Minor–II)

Industry in Punjab: Industrial development – Pattern, performance, constraints & challenges; Small–scale industry role, problems & future prospects ; State & industrial development

Development of transport and banking in Punjab. Finances of Punjab State; Sources of revenue and heads of expenditure ;Problems of resource mobilization & fiscal crisis in Punjab.

Recommended Readings:

Hoover, F.M.	:	An Introduction to Regional Economics.
Richardson, H.W.	:	Regional Economics.
Johar, R.S.& J.S. Khanna	:	Studies in Punjab Economy.
Raikhy, P.S. & S.S. Gill	:	Resource Mobilisation and Economic Development: A Regional Perspective.
Govt. of Punjab	:	Statistical Abstracts.
Bawa R.S. & P.S.Raikhy	:	Punjab Economy : Emerging Issues

B.Sc. (Honours School) Economics (Semester – VI)
(Under Credit Based Continuous Evaluation Grading System)

EOL308   **Entrepreneural Development**

Credits : 5–0–0

Minor–I

Need, scope and characteristics of entrepreneureship, special scheme for Technical Entrepreneurs, STED.

Identification of opportunities.

Exposure to demand based resource based, service based import substitiute and export promotion industries.

Market survey techniques.
Need, scope & approaches for project formulation.

Minor–II

Criteria for principles of product selection and development structure of project report,
Choice of technology, plant and equipment.
Institution / financing procedures and financial incentives.
Resource Management men, machine and materials,

Critical Path Method (CPM) & Project Evaluation Review Techniques (PERT) as Planning

tools for establishing SST.

    Creativity and innovation.
    Problem solving approach.
    Strength Weakness Opportunity and Threat (SWOT) Teachniques.

Major (including Minor–I and Minor–II)

Techno–economic feasibility of the project.
Plant layout & Process Planning for the Product.
Quality control/quality assurance and testing of project.

Elements of marketing & sales management.
    Nature of Product and Market strategy
    Packaging and advertising.
    After Sales Service.
    Licensing registration
    Municipal by–laws and insurance coverage.
    Pollution Control
    Social responsibility and business ethics.

B.Sc. (Honours School) Economics (Semester – VI)
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References:

1. Deshpande. M. V.	Entrepreneurship of small scale industries: Concept Growth & Management. Deep & Deep Publication D–1/24, Rajouri Garden, New Delhi– 110027 1984.
2. Mc Cleand D.C	The Achieving Society, Princeton N.J.D. Van Nostrand Co N. Y. 1961.
3. Meredith G.G. Nelson Rcetal	Practice of Entrepreneurship ILO, Geneva, 1982.
4. Pareek U & rao TV	Personal Efficacy in Developing Entreprenurship Learning Systems New Delhi 1978.
5. Rao TV & Parcok U	Developing Entrepreneurship– A hand book Learning Systems , New Delhi– 198.
6. Vyas, JN	Planning an Industrial Unit I Neelkung Neelkanth Part, Opp. Navrangpura, Ahmedabad.
7. Welsh, JA & Jerry	Entrepreneurs Master Planning Guide How To Launch a successful Business, Prentice Hall Englewood Cliffs, 1983.
8. Department of Industrial Development	Incentives & Concessions for setting up industries in Backward Areas, Deptt of Industrial Development Govt of India, New Delhi.
9. India investment industrial Centre	Guide for Entrepreneurs India investment Centre, Jeevan Vihar Building, Sansad Marg, New Delhi.
10. Entrepreneurship Development Institute of India	A Hand book for New Entrepreneurs (with spcial reference to S & T Group) Entreprenuership Development Institute of India.
11. Kahn, S. S	Entrepreneureship Development

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EOL309 **Development Economics**

Credits : 5–0–0

Minor–I
Economic Development: Meaning, measurement and international comparisons. Human Development index and other indices of development and quality of life. Economic and non–economic factors of development. Growth and distribution. Poverty and environment.

Dualistic Development: Social and technological dualism.

Minor–II
Lewis model of unlimited supply of labour; Ranis and Fei model. Measurement of surplus labour. Unemployment and disguised unemployment.

Models of Growth: Classical model: the Marxian model; Schumpeter's model; Keynesian model; the Harrod – Domar model, Mrs. Joan Robinson's growth model ; Production function approach to the sources of growth.

Major (including Minor–I and Minor–II)
Development Strategies: Theory of balanced growth and big push; The unbalanced growth and critical minimum effort thesis; import replacing vs. export oriented industrialisation; investment allocation criteria choice of technique.

Capital Formation: Meaning and sources; capital – output ratio. Human capital: concept and utilisation. Foreign aid – forms and sources. Trade vs. aid. Transfer of technology.

Recommended Readings:

1. Ghatak, S.   : An Introduction to Development Economics, Allen and Unwin, London.

2. Higgins, B.   : Economic Development: Theory and Policies,

   Central Book Depot, Allahabad, 1963.

3. Kuznets, S.   : Population, Capital and Growth, Heina Mann Educational Books, 1974.

4. Meier, G.M.   : Leading Issues in Economic Development, Oxford University Press,

   New Delhi, 1995.

5. Thirlwall, A.P.   : Growth and Development, Macmillan, London, 1999.

6. Todaro, M.P.   : Economic Development in Third World, Oxford University, London.

7. Yotopoulous, P.A.: Economics of Development, Harper and Row, New York, 1976.
   & Nugent J.

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EOL310   **Comparative Economic Systems**

Credits : 5–0–0

Minor–I

Economic Systems: Meaning, concept and features, Marxian classification; pre–capitalist societies. Capitalism; Socialism; mixed economy.

Capitalism: Mode of production and classification criteria. Consumer's sovregnity in private enterprise system and in planned economies.

Minor–II

Capitalism as a theoretical concept and as an existing system; the Reformulated capitalist economics.

Socialism : Marxian philosophy and interpretation of Marxian Theory of surplus value: crisis, breakdown and socialism; pre–requisites, problems and processes of socialist transformation; transformation of production relations, institutions and ideas.

Major (including Minor–I and Minor–II)

Planning, development priorities and resources allocation, accumulation, employment and skill – formation, income distribution. The developing economies of the Third World International economic relations between socialist and third world countries.

Recommended Readings:

1. Halm, George, N.   :   Economic Systems: A Comparative Analysis.

2. Louks, V.N. & Whitney, W.C.   :   Comparative Economic Systems.

3. Dalton, G.   :   Economic Systems and Society.

4. Willezynski, J.   :   Economics of Socialism.

5. Kolov, G.A.   :   Political Economy of Socialism.

6. Lavigne, M.   :   Economics of East European Socialist Countries
                                                      and USSR.

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EOL 311   **Accounting and Financial Management**

Credits : 5–0–0

Minor–I

Meaning and Scope of Accounting: Accounting concepts and conventions. Double entry system of accounting, Preparation of Journal, Ledger and Trial Balance.

Distinction between capital and revenue items. Preparation of trading and profit and loss account and balance sheet.

Minor–II

Cost accounting – Meaning and scope. Distinction between cost accounting and financial accounting. Advantages of cost accounting and financial accounting. Elements of cost: material, labour overheads. Preparation of Cost Sheet.

Elementary knowledge regarding standard costing. Budgetary control and Break – even analysis.

Major (including Minor–I and Minor–II)

Objectives and functions of Financial Management.

Introduction to Capital Budgeting Methods. Sources of raising funds – internal and external sources.

Recommended Readings:

1. S.N. Maheshwari   : An Introduction to Accounting., Vikas Publishing House Pvt. Ltd.

2. Pandey, I.M.   : Financial Management.

3. Ghosh, P.K.   : Cost Accounting. National Publishing House, Darya Ganj, New Delhi.

4. Prasad, N.K.   : Principles and Practices of Cost Accounting, Book Syndicate, Calcutta.

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EOL312   **Computer Networks and Internet Applications**

Credits: 4–0–1

Objective: To enable the students to have understanding of various network designs, topologies and services provided by Networks.

Minor–I

Introduction: Network definition, network hardware and software, Network topologies, uses of computer networks, Tranmission media, OSI Reference models, TCP/IP reference model, Comparison of OSI and TCP Reference models.

Analog and Digital Transmission, Switching, ISDN Services, Tranmission in ATM
Networking Devices: Repeaters, Routers, Bridges and Gateway.
Network Security and Privacy: Data Representation, Fundamentals of Data Compression Techniques and Cryptography.

Minor–II

Introducing the Internet
Overview: Description of the Internet – working and development, Architecture, Internet, Intranet and Extranet, Internet Domain Names and IP addresses, connecting LAN to Internet: Protocols, DHCP concepts, DNS, Proxy Server.

Internet Connectivity: Connection concepts, FDDI, ISDN, ADSL, PPP and ATM, web servers and browsers.

Major (including Minor–I and Minor–II)

Electronic Mail and Telnet
Overview : Working of email, Advantages of email, Understanding of Internet email addresses using Telnet to access a remote machine, Telnet commands, Telnet sessions.

FTP
Connection to an Anonymous FTP site using FTP to retrieve a file, common FTP commands.

WWW–World Wide Web
Working of WWW, Hypertext and Hypermedia, URL, Search engines.

Recommended Readings:
1. Learning to use the internet by Ernest Ackermann, Franklin, Beedle Associates Inc., 2002.
2. Kris Jony and Ken Cope, Internet Programming, Galgotia Publications.
3. Tannanbaum, A.S. : Computer Networks, Prentice Hall, 1992, 3rd Edn.
4. Stallings, William : Local Networks : An Introduction to Macmillan Publishing Co.
5. Stallings, William : Data and Computer Communication Macmillan Publishing Co.
6. Black : Data Networks (PHI) 1988.
7. Forouzon Behrouz: Data Communications, Tata McGraw Hill, 2007.