SYLLABUS

FOR

Interdisciplinary Courses

Session: 2012-13

GURU NANAK DEV UNIVERSITY
AMRITSAR

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(ii) Subject to change in the syllabi at any time.
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INTERDISCIPLINARY COURSES

FACULTY OF PHYSICAL PLANNING & ARCHITECTURE

27. Planning  92-95
28. B. Architecture  96-99
29. M. Architecture  100-102

FACULTY OF LANGUAGES

30. ENGLISH (UG & PG)  103-106
31. HINDI (UG & PG)  107-119
32. PUNJABI (UG & PG)  120-123
33. SANSKRIT (UG & PG)  124-138
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FOREIGN LANGUAGES:-

35. FRENCH  148-149
36. RUSSIAN  150-151
37. GERMAN  152-153

FACULTY OF LAW

38. Law  154-160

FACULTY OF SPORTS MEDICINE & PHYSIOTHERAPY

39. Physiotherapy  161-162

FACULTY OF VISUAL ARTS & PERFORMING ARTS

40. MUSIC (UG & PG)  163-168
(Vocal & Instrumental)

FACULTY OF HUMANITIES & RELIGIOUS STUDIES

41. M.A. (Hons.) Religious Studies  172-173
42. M.A. (Hons.) Philosophy  174-175
43. M.Phil. Religious Studies  176
44. M.Phil. Philosophy  177
HISTORY (UG)
SEMESTER II
HISTORY OF THE PUNJAB (AD 1469-1849)
(Even)

HSL: 001 Credits: 4-0-0

Unit I
1. Guru Nanak and his teachings.
2. Expansion of Sikhism (AD 1539-1574).
3. Transformation of Sikhism (AD 1574-1675)

Unit II
5. Sikh Struggle for sovereignty (AD 1708-1765).

Unit III
7. Maharaja Ranjit Singh’s rise to power.
8. Civil and Military administration

SUGGESTED READING
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

HISTORY (UG)
SEMESTER III
FREEDOM STRUGGLE IN THE PUNJAB (C. 1850- AD 1947)
(Odd)

HSL: 002                                                                 Credts: 4-0-0

Unit–I
1. Early Resistance: Bhai Maharaj Singh and the Kuka Movement
2. Indian National Congress and the Agrarian Unrest (1907)
3. The Ghadar Movement

Unit–II
1. The Rowlett Satygraha and the Jallianwala Bagh.
2. Non Cooperation and Gurdwara Reform, the Babbar Akali Movement.
3. The Nehru Report, the Lahore Resolution and the Civil Disobedience.

Unit–III
1. Revolutionary Militancy: Bhagat Singh and his Associates
2. The Praja Mandal Movement
3. Towards Independence and the Partition

SUGGESTED READING
7. Sukhdev Singh Sohal and Amandeep Singh Sekhon (Eds.), Shaheed Bhagat Singh: Life and Ideology, Punjabi University Guru Kashi College, Damdama Sahib, (Bathinda), 2011.
INTERDISCIPLINARY COURSES  
(Faculty of Arts & Social Sciences)

M.A. (Hons.) History (PG)  
SEMESTER – II  
MODERN PUNJAB (A.D. 1901-2011)  
(Even)

HSL: 051                                         Credits: 4-0-0

UNIT-I
1. Land Alienation Act (1901); Agrarian Unrest (1907).
2. The Gadhar Movement.

UNIT-II
5. The Partition and Aftermath.

UNIT-III
7. The Green Revolution; Rise of Militancy and Aftermath.
8. Towards Normalcy (1991-2011): Centre-State Relations; Agriculture; Education.
9. Emerging Concerns: drug addiction; sex ratio; health hazards.

RECOMMENDED READING
Talbot, Ian, Punjab under the Raj (1849-1947), Manohar, New Delhi, 1988. 17
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

REFERENCE READING
Bhalla, G.S., *Condition of Indian Peasantry*, NBT, New Delhi, 2006.
Following Research Journals, Guru Nanak Dev University, Amritsar:
  *Journal of Regional History*
  *Punjab Journal of Politics*
  *Guru Nanak Journal of Sociology*
  *PSE Analyst*
INTERDISCIPLINARY COURSES  
(Faculty of Arts & Social Sciences)  

M.A. (Hons.) History (PG)  
SEMESTER – III  

INDIAN NATIONAL MOVEMENT (A.D. 1857-1947)  
(Odd)  

HSL: 052  
Credits: 4-0-0  

UNIT-I  
2. Politics of Indian National Congress (1885-1907).  

UNIT-II  
4. Partition of Bengal and Swadeshi Movement 1905-08.  
5. Rise of Extremism; The Gadhar Movement.  
6. Gandhian Movements: Non-Cooperation, Civil Disobedience and Quit India.  

UNIT-III  
7. Revolutionary and Left Politics: Bhagat Singh and Associates; the Working Class Movement.  

RECOMMENDED READING  
Hasan, Mushirul, Nationalism and Colonial Politics in India (1916-28), OUP, Delhi, 1979.  
Sarkar, Sumit, Modern India (1885-1947), Orient Longman, Delhi, 1983.  
REFERENCE READING

Husain, Iqbal, (ed.), *Karl Marx on India*, Tulika, New Delhi, 2006.
*Indian People in the Struggle for Freedom: Five Essays*, Sahmat, New Delhi, 1998. 20
M. Phil (History):
THE COLONIAL PUNJAB (AD 1849-1947)
(Odd)

HSL: 053
Credits 3-0-0

UNIT I
1. Transport and Communications, Agriculture.
2. Industry, Trade and Commerce; Education.

UNIT II
3. Social Classes: Aristocracy; Artisans; Middle Classes; Agricultural Labourers.
4. Socio- Religious Reforms: Nirankaris; Namdhari; Arya Smaj; Singh Sabhas and Ahmadiyas.

UNIT III
5. Political Developments (1907-1919): Agrarian Unrest (1907); The Gadhar Movement; Jallianwala Bagh Massacre.
6. The Akali Movement; Militant Nationalism; Communal Politics and the Partition (1947).

BIBLIOGRAPHY

BOOKS

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)


ARTICLES

PRIMARY SOURCES
Census Reports (Punjab) 1855, 1868, 1881, 1891, 1901, 1911, 1921 and 1931.
Gustafson, E & Jones,Kenneth (ed), Sources on Punjab History, Manohar, Delhi, 1975.
Ibbetson, D., Panjab Castes, Languages Department, Punjab, Patiala, 1970(reprint).
O’Dwyer, Michael, India As I Knew It (1885-1925), Mittal Publications, New Delhi, 2004 (First Published in 1925).
Sharma, Sri Ram, Punjab in Ferment, S. Chand & Co., New Delhi 1971. 24
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

Pre-Ph. D (History):
MODERN PUNJAB (AD 1849-1947)
(Odd)

HSL: 054
Credits: 3-0-0

Unit-I
New Administration; Transport and Communications, Agriculture; Industry, Trade and Commerce; Education

Unit-II
Society and Culture: Aristocracy, Middle Classes, Artisans, Agricultural Labourers: The Nirankaris; The Namdharis Social Religious Reforms: Singh Sabhas; Arya Samaj; Ahmadiyas; Ad Dharm Movement.

Unit-III
National Movement: Swadeshi Movement; Agrarian Agitation of 1907; The Gadhar Movement, Rowlett Satyagraha; Militant Nationalism; The Akali Movement; Unionists, Partition and Independence.

RECOMMENDED READING


Library & Information Science  
LSL 001: Basics of Librarianship

Credits: 3-0-0

**Unit-I**

1. **Concept of Library and its Services**: Definition, purpose and functions. Role of libraries in supporting education and research programmes.

2. **Types of Libraries**: Public, Academic, Special and National Libraries- Definition, purpose and functions of each type of library.

**Unit-II**

3. **Library Catalogue**: Definition, need, purpose and functions.

4. **Working of University Library**: Various sections of a university library and their working.

**Unit-III**

5. **Reference and Information Sources**: Different types of reference and information sources including electronic and web resources.

6. **Reference and Information Services**: Concept, definition, need and types.

7. **User education**: Concept, objectives, techniques and methods.
Library & Information Science
LSL 051: Emerging Trends in Library and Information Science

Credits: 3-0-0

Unit-I

1. **Information**: Characteristics, nature, value and use.

2. **Communication of information**: Communication channels, barriers.

Unit-II


4. **Internet**: Internet based resources and services

Unit-III

5. **Information/Knowledge Society**: Genesis and characteristics.

6. **Marketing of Information**: Marketing of library of information products and services.
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

School of Social Sciences
INTERDISCIPLINARY COURSE (UG)
B.A (Hons.) Social Science Sem.-II
MODERN INDIA (1857-1947)
(Even)

SSL: 001
Credits: 4-0-0

UNIT-I
1. Uprising of 1857; Indian National Congress (1885-1907)
2. Rural Indebtedness
3. De-industrialization; Economic Drain

UNIT-II
4. Army, Civil Service;
5. Education; Socio-Religious Reformation: Brahmo Samaj: Aligarh Movement;
   Arya Samaj
6. Partition of Bengal and Swadeshi Movement; The Gadhar Movement

UNIT-III
7. Indian Capitalist Class; Working Class Movement
8. Communal Politics; The Cripps Mission; The Cabinet Mission
9. Partition and Independence (1947)

RECOMMENDED READING
Hasan, Mushirul, Nationalism and Colonial Politics in India (1916-28), OUP, Delhi, 1979.
Sarkar, Sumit, Modern India (1885-1947), Orient Longman, Delhi, 1983.
REFERENCE READING


Husain, Iqbal, (ed.), *Karl Marx on India*, Tulika, New Delhi, 2006.


INTERDISCIPLINARY COURSE
B.A (Hons) Social Science: Sem.-III
MODERN ECONOMIC THEORY
(Odd)

SSL: 002
Credits: 4-0-0

UNIT-I
1. Nature of Economics: Definition, Scope & Method
2. Demand & Supply: basic framework, Market equilibrium, Elasticity of Demand and Supply and Maschallian Price Determination.
3. Theory and Production of Cost: Production Functions; Short Term and long term cost

UNIT-II

UNIT-III
6. Introduction to Consumption Saving, Investment function, Business Cycle and Inflation.

RECOMMENDED READING
INTERDISCIPLINARY COURSE (UG)
BA (Hons) Social Science SEM-IV
SOCIAL CHANGE IN CONTEMPORARY PUNJAB
(Even)

UNIT-I
1. Social Change- Meaning and Concepts,
2. Social Change- Evolution, Revolution, Diffusion, Progress, Transformation,
3. Theories of Social Change: Evolutionary, Dialectical and Cyclical.

UNIT-II
4. Introduction to Contemporary Punjabi Society
5. Caste, Class and Gender
6. Rural Urban Transformation

UNIT-III
7. Media and Politics in Punjab
8. NRI’s Contribution to Punjabi Societies.
9. Governance Issues and Concerns

RECOMMENDED READING
INTERDISCIPLINARY COURSE (PG)
MA (Hons.) Social Science SEM-II

FUNDAMENTALS OF SOCIOLOGY
SSL: 051  (Even)  Credits: 4-0-0

Unit-I
1. Nature and Scope of Sociology and its Comparison with other Social Sciences
2. Major theoretical strands of research methodology.

Unit-II
4. Society, Community, Association, Institutions, Culture, Culture Change, Diffusion
   Cultural lag, Cultural relativism, Ethnocentrism, acculturation.
5. Social Structure Concept Characteristics/Components.
6. Social group – Definition, Characteristics and Importance, primary and secondary
   groups, Reference Group, Groups role in development of personality. Socialization –
   Meaning, Concepts, Need, Process & Agencies, Theories; (Cooley, Freud, Mead and
   Jean Piaget)

Unit-III
7. Socialization – Meaning, Concepts, Need, Process & Agencies, Theories; (Cooley, Freud,
   Mead and Jean Piaget)
   and customs, Agencies of Social Control – Formal and Informal

RECOMMENDED READING
4. Koenig, Samuel, Sociology, an Introduction to the Science of Society, Barnes and
INTERDISCIPLINARY COURSE (PG)
MA (Hons.) Social Science SEMESTER – III

FREEDOM STRUGGLE IN INDIA (A.D. 1857-1947)
(Even)

SSL: 052 Credits: 4-0-0

UNIT-I
1. Revolt of 1857; Tribal Uprisings
2. Indian National Congress (1885-1907)
3. Revolutionary Terrorism

UNIT-II
4. The Gadhar Movement
5. The Rowlett Satyagraha
6. Non-Cooperation, Civil Disobedience, Quit India Movements

UNIT-III
7. Militant Nationalism; Peasants and Workers Movements
9. Communal Politics; the Partition and the Independence

RECOMMENDED READING

Hasan, Mushirul, Nationalism and Colonial Politics in India (1916-28), OUP, Delhi, 1979.
Sarkar, Sumit, Modern India (1885-1947), Orient Longman, Delhi, 1983.
REFERENCE READING


Husain, Iqbal, (ed.), *Karl Marx on India*, Tulika, New Delhi, 2006.
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

M. A. (Hons.) Psychology
(Under Credit Based Continuous Evaluation Grading System)

Paper:-PYL 051 (odd)- ID Psychological Processes

Credits : 3 - 0 - 0

Unit-I
Personality: Concept, Determinants of personality, Approaches to personality - An overview of types and traits.

Unit-II
Intelligence: Concept, Determinants of intelligence, nature vs nurture, Intelligence Quotient, moral, social and emotional intelligence, measurement of intelligence

Unit-III
Motivation: Nature, concept of needs, drives and incentives, classification of motives-biological, social and psychological

Readings:


M. A. (Hons.) Psychology
(Under Credit Based Continuous Evaluation Grading System)

Paper:-PYL 061 (Even) - 1D  Stress

Credits : 3 - 0 - 0

Unit-I
Introduction to concept of Stress, Types of Stress:- Frustration, Conflict, Pressure factors influencing severity of stress.

Unit-II
Reactions of life stress:- General principles, task oriented and defense oriented reaction patterns.

Unit-III

Readings:

M.A. (Hons.) Sociology

Paper-SOB-051: CONTEMPORARY SOCIAL PROBLEMS IN INDIA

Credits: 3

Unit-I

Unit-II
Socio-Demographic and Socio-Cultural Problems: Female Foeticide, Child Abuse, Problems of the Aged, Dowry.

Unit-III
Socio-Economic and Structural Problems: Poverty, Unemployment, Slums, Drug Abuse and Drug Addiction, Corruption.

References:

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

M.A. (Hons.) Sociology

Paper SOB- 052: SOCIAL CHANGE IN INDIA

Credits: 3

Unit-I

Unit-II

Unit-III
Changes in Social Structure of Indian Society – Family, Marriage, Caste, Class and Gender.

References:

1. B. Kupposwamy: Social Change in India, Vikas Publications, New Delhi, 1972
M.A. (Hons.) Political Science

Paper – I
PSL051- Indian Government and Politics

Credits – 4

Unit – I

1. Nature of the Indian Constitution
2. Preamble

Unit – II

4. Nature of Parliamentary System: Lok Sabha and Rajya Sabha
5. Supreme Court and Judicial Activism.
6. Civil Society: its role in Contemporary times.

Unit – III

7. Regionalism: Issues and Trends
8. Communalism: Genesis and Contemporary Situation

Suggested Readings

1. Rajni Kothari Politics in India (New Delhi: Orient Longmans, 1971)
4. M.V.Pylee Constitutional Government in India (Bombay: Asia, 1965)
7. Politics of Scarcity (Chicago, University of Chicago Press, 962)
8. Paul R. Brass Language, Religion and Politics in Northern India (New Delhi, Vikas, 1975)
9. Ramashray Ray  

10. P. Chandra  

11. Centre-State Relations  
NCRCW and K.M. Punchhi Commission On Centre-State Relations and Coalition System.

12. D.D. Basu  
*Introduction to the Constitution of India* (New Delhi: Prentice Hall of India, 1997)

*Shifts in Indian Politics* (New Delhi: Concept Publishing Co., 1984)

14. R. Bhatnagar and Pardeep Kumar eds  
*Regional Political Parties in India* (New Delhi: Ess Publications, 1988)

15. Dipankar Gupta ed.  
*Social Stratification* (New Delhi: OUP, 1992)

*Economy, Society and Development* (New Delhi: Sage, 1991)

17. Paul R. Brass  

18. Arvind N. Das  
*India Invented: A Nation in the Making* (New Delhi: Manohar, 1992)

19. A.S. Narang  
*Indian Government and Politics* (New Delhi: Gitanjali, 1994)

20. H.K. Puri  

21. -----------------  

22. M.P Singh  

23. M.P Singh  

24. Ramashray Roy  
*Perspectives on Indian Politics*, (Delhi: Discovery Publishing House, 1987)

25. Pardeep Kumar  
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

26. Myron Weiner
   The Indian Paradox (New Delhi: Sage, 1989)

27. S. Nihal Singh
   The Rocky Road of the Indian Democracy
   (New Delhi: Sterling Publishers, 1993)

28. J.N.Pandey

   Violation of Democratic Rights in India,
   (Bombay: Popular Prakashan Pvt. 1980)

30. Pramod Kumar ed.
   Towards Understanding Communalism,
   (Chandigarh: CRRID, 1992)

31. Nirmal Mukerji and Arora ed.
   Federalism in India, Origins and Development, Balbir
   (New Delhi: Vikas Research, 1992)

32. Zoya Hasan and S.N. Jha
   The State, Political Processes and Identity,
   and R. Khan
   (New Delhi: Sage, 1989)

33. Ghanshyam Shah ed.
   Capitalist Development: Critical Essays
   (Bombay: Popular Parkashan, 1990)

34. B.L. Fadia
   Indian Government and Politics (Agra: Laxmi Narain Agarwal, 1997)

35. Sarkaria Commission Report
36. Granville Austin
   The Indian Constitution (New Delhi: OUP, 2001)

37. B.L. Fadia
   Indian Government and Politics (Agra: Sahitya Bhawan Publications, 2008)

38. P.M. Bakshi

39. Lloyd I. Rudolph and Susanne Rudolph
   (New Delhi: OUP, 2008)


41. Punjab Journal of Politics
    (from 2000-2010)

42. Francine Frankel
   India’s Political Economy 1947-2004
   (New Delhi: OUP, 2006)

43. Zoya Hasan, et. al.,
   India’s Living Constitution (New Delhi, Permanent Black, 2002)

44. Andre Beteille
   Society and Politics in India- Essays in Comparative Politics, OUP, 1991

45. Samir, Amin
   Capitalism in the Age of Globalization (Jaipur: Rawat, 2000).

46. Rajeev Bhargave
   Multi-Culturalism, Liberalism and Democracy (New Delhi: OUP, 1999)

47. Neera Chandoke
   Beyond Secularism: The Rights of Religion Minorities (New Delhi: OUP, 1999)

48. M.S.A Rao
   Social Movements in India: Studies in Peasant, Backward Classes, Sectarian Tribal and Women’s Movements, Manohar, 1979)
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

PSL053-Issues in Contemporary International Politics
(Inter-disciplinary Course for Semester -II)

Credit-4

Unit-I
1. Nature of Post-Soviet World Order
2. International Terrorism Since 9/11

Unit-II
3. Environment Related issues and Global Response

Unit-III
5. India in Global politics
6. Political uprisings in Middle East

Suggested Readings:-

Goldstein, Joshua S
International Relations, Pearson, New Delhi, 2006

John Baylis. Steve Smith,
The Globalization of World Politics, Oxford

Patricia Owens
University Press, 2011

Mahendra Kumar
Theoretical Aspects of International Politics
Shiva Lal Agarwala & Co. 1976

Niraja Gopal Jayal & Partap
The Oxford Companion to Politics in India,
Bhanu Mehta, ed.
Oxford University Press.2010

Kuldip Singh & Preet Inder
India’s Policy on the issue of climate change
Kahlon
and Focus on UPA, World Focus, Vol. XXXIII, No. 11, P
22-29,Nov.2012

Tapan Biswal, Ed.
International Relations, Macmillan, New Delhi, 2009

Kuldip Singh and Nayanika
Global Warming and Central Asia: Political
Singh
and Social Dimensions, Man & Development,
Volume XXXIII, No.2, June 2011

Kuldip Singh
Major Explanations of Soviet Collapse and Beyond, Punjab

----------------------

India, Central Asia and the Changing Contours of War on
Terrorism’ pp.821-825 World Focus, No. 383-84,
November- December 2011

----------------------

Conceptualizing peace and security in the Era of US War
on Terrorism’ pp. 186-201, India Quarterly, Vol. 61, No. 4,
2005
Paper – II
PSL052- Perspectives and Processes of Indian Polity
Inter-Disciplinary

Credits - 4

Unit – I

1. Theoretical perspectives of Indian Politics
   ( a ) Partha Chatterjee
   ( b ) Gunnar Myrdal

Unit – II

2. Approaches to Five Years Plans: First Five Years Plan to 12th Plan.
3. Land Reforms: An Evaluation
4. Liberalisation and Globalisation : Impact on Indian Politics

Unit – III

5. Social Stratification : Caste and Class

Suggested Readings

Rajni Kothari ed., *Politics in India* (Boston:, 1970)

____________

*Democratic Polity and Social Change in India* (New Delhi: 1977)

Dalip Hero


Andre Betaille

*Caste, Class and Power* (Bombay:, OUP, 1968)

Rajni Kothari

*State Against Democracy* (New Delhi: Ajanta Publishers, 1988)

Bipan Chandra

*Communalism in Modern India* (Delhi: Vani Educational Book, 1984)

Daniel Thorner

*Agrarian Prospects in India* (Bombay: Allied, 1976)
P.C. Joshi  
*Land Reforms in India* (New Delhi: 1975)

Francine R. Frankel  
*India’s Political Economy 1947-2004* (Delhi: OUP, 2005)

Francine R. Frankel  

Atul Kohli ed.  

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C.D. Deshmukh,  
*Economic Development in India* (Bombay: 1957)

Lloyd Rudolph and Susan Rudolph  

Achin Vanaik  
*The Painful Transition: Bourgeois Democracy in India* (New Delhi: Verso, 1990)

P. Bardhan  
*The Political Economy of Development in India* (New Delhi: OUP, 1991)

S.N. Chowdhary  

Gunnar Myrdal  

Partha Chatterjee  
*State and Politics in India* (New Delhi, OUP, 1997)

Sudipto Kaviraj  
*Politics in India* (New Delhi, OUP, 1997)

C.T. Kurien and and S. Gopal ed.,  
*Economy, Society and Development* (New Delhi: Sage, 1991)
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

Mahendra Prasad Singh and Himanshu Ray (eds.)
*Indian Political System: Structures, Policies, Development* (New Delhi: Jnanada Prakashan, 1990)

Bipan Chandra et. al.,

Madhu Purnima Kishwar

Carolynm M. Elliot

Zoya Hasan (ed.)
*Politics and the State in India* (New Delhi: Sage, 2000)

Peter Ronald De Souza
Contemporary India (New Delhi: Sage, 2000)

Tarlok Singh,
*India’s Development Experience* (Delhi: Macmillan, 1974)

Myron Weiner (ed.)

Paul R. Brass

Dipankar Gupta (ed.)
*Caste in Question: Identity or Hierarchy* (New Delhi: Sage, 2004)

A Report
*State of Democracy in South Asia* (New Delhi: OUP, 2008)

Ranjit Singh Ghuman (et. als.)
*Globalisation and Change* (Jaipur: Rawat, 2010)

S.R. Ahlawat(ed.),
*Economic Reforms and Social Transformation* (Jaipur: Rawat, 2008)

Sandeep Shastri and K.C. Suri
*Electoral Politics in Indian States* (New Delhi: OUP, 2009)

Pranab Bardhan,
*The Political Economy of Development in India* (New Delhi, OUP 1994)
INTERDISCIPLINARY COURSES
(Faculty of Economics & Business)

Commerce
CBM-051: FUNDAMENTALS OF MANAGEMENT
(Even and odd Semester)

Credits 4-0-0

Text
- Planning: Concept and Importance, Types, Steps in Planning, Limitations of Planning and Planning Premises, Management by Objectives (MBO): Concept, Objective setting process, Benefits and Weaknesses of MBO.

First Minor Test: One Hour
- Decision Making: Nature and Types of Decisions, Decision Making Process, Problems in Decision Making and Improving Decision Making. • Organizing: Nature and Types of Organizations; Departmentation; Span of Management; Centralization and Decentralization; Line and Staff Authority; Authority and Responsibility.

Second Minor Test: One Hour
- Leadership: Concept and various theories of Leadership: Path-Goal theory, Likert’s System four, The Managerial Grid, Charismatic Leadership,
- Controlling: Concept, Controlling Process and Control Techniques.

Final Examination: Three Hours

References:
## Commerce

**CBM-061: Entrepreneurship Development and Project Management**  
*(Even and Odd Semester)*

<table>
<thead>
<tr>
<th>Credits 4-0-0</th>
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<td><strong>Text</strong></td>
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Entrepreneurship: Developing corporate entrepreneurship.  
Understanding Entrepreneurship perspective. Entrepreneurship motivation.  
Developing Creativity and Understanding Innovation. |

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<th><strong>First Minor Test : One Hour</strong></th>
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| Ethics and Social Responsibility of an Entrepreneur, Entrepreneurial Skills.  
Role of Entrepreneurship in Economic Development.  
Entrepreneurial Decision Process.  
Environmental Assessment: Macro and Micro View. |

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<th><strong>Second Minor Test : One Hour</strong></th>
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<th><strong>Final Examination : Three Hours</strong></th>
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**Suggested Readings:**
INTERDISCIPLINARY COURSES  
(Faculty of Economics & Business)  

Punjab School of Economics  
(For odd semester at UG level)  
EOL001 : General Economics

Credits : 3-0-0

**Minor-I**


**Minor-II**

Circular flow of income; methods of computing national income; National income aggregates. Aggregate demand and its components; GDP and welfare, Propensity to consume and save, Investment multiplier, Full employment and unemployment.

**Major (including Minor-I and Minor-II)**


Balance of payment - meaning and components, foreign exchange rate - meaning of fixed and flexible rates and managed vs. floating rate. Determination of exchange rate in a free market. Economic reforms since 1991 - Need and main features, an appraisal of LPG policies.

**Recommended Readings**

INTERDISCIPLINARY COURSES
(Faculty of Economics & Business)

Punjab School of Economics
(For even semester at UG level)
EOL002 : Indian Economic Problems

Credits : 3-0-0

Minor-I

Structure of Indian Economy: Indian economy on the eve of independence; Nature of Indian economy; Major problems of Indian economy: population, unemployment, poverty and rising prices.
Planning in India: Objectives, strategy and achievements of planning in India (brief idea of latest five year plan); New economic reforms - Liberalization, Privatization and Globalization. Rationale behind economic reforms.

Minor-II

Agriculture: Role and nature of agricultural sector, production and productivity trends; new agricultural strategy and green revolution; agricultural price policy.
Industry: Pattern of growth and performance; public sector in India - role, growth, performance and problems; new Industrial policy.

Major (including Minor-I and Minor-II)

Foreign Trade: India’s foreign trade - features, composition and direction. India’s balance of payments problem; Indian trade policy.
Indian taxation: Direct vs. indirect taxes; Fiscal deficit and policy.
Main features of economic reforms since 1991; Poverty : Features and estimates; Poverty alleviation programmes; Sustainable economic development; Infrastructure : Social and economic; Human capital formation.

Recommended Readings

2. Economic and Political Weekly (Various Issues).
INTERDISCIPLINARY COURSES
(Faculty of Economics & Business)

Punjab School of Economics
(For odd semester at PG level)
EOL051 : Economic Analysis

Credits : 3-0-0

Minor-I
Demand analysis: meaning, determinants and law of demand. Supply : meaning, determinants and law of supply. Market price determination.
Production function: short period and long period. Cost function: short period and long period. Price determination under perfect competition and monopoly.

Minor-II

Major (including Minor-I and Minor-II)
Economic Development: meaning and measurement; Underdevelopment: meaning and characteristics; Growth, Poverty and Income distribution relationship; Dualism: social and technological; Lewis and Todaro Models.
The Pure Theory of International Trade: The theory of comparative advantage and Heckscher Ohlin model and its empirical testing.
The theory and practice of Commercial Policy: Secular deterioration in terms of trade of developing countries; Tariff and non-tariff developing barriers to trade. Bilateralism and multilaterism.

References
2. Edwin Mansfield (Ed.) : Microeconomics (Selected Reading) 2nd Edition
5. Froyen, Richard T. Macroeconomics, Theories and Policies, Prentice Hall International Inc. London, I 999(Ch. 8.6,9,11,12,14)
6. Abel, Andrew B & Ben S. Bernanke Macroeconomics, Pearson Education Singapore, 2003 (Ch.12)
10. Griffin, K.B. and Enos, J.L.: Planning Development
EOL052 : Indian Economic Issues and Policies

Credits : 3-0-0

Minor-I
International Trade : Foreign Trade, foreign investment and foreign exchange reserves.
Banking sector: Banking sector reforms and its performance during liberalization period. RBI - Recent monetary and credit policy.

Minor-II
Industrial Development in India: Recent national manufacturing policy; Industrial sickness in India : Problems and policy; Industrial competitiveness and role of competition policy; Recent policies on micro, small and medium enterprises; Recent global recession and industrial slow down in India and stimulus package for industry recovery; Recent industrial infrastructure development policy in India.

Major (including Minor-I and Minor-II)
Agricultural Issues : Role of agriculture in Indian economic development; Mechanisation of Indian agriculture; Green revolution in India; Problems of small farmers in India; Rural credit and indebtedness of farmers.

Major Taxes and Burden of Taxation in India; Public Expenditure in India : Trends and Issues; India’s Fiscal Policy.

References
INTERDISCIPLINARY COURSES
(Faculty of Sciences)

CHEMISTRY (PG)
CYL-051: Bio-physical Chemistry

UNIT-I
(23 Hrs)

Biological Cell and its Constituents: Biological Cell, structure and functions of proteins, enzymes, DNA and RNA in living systems. Helix coil transition.

Bioenergetics: Standard free energy change in biochemical reactions, exergonic, endergonic, Hydrolysis of ATP, synthesis of ATP from ADP, coupled reactions, degree of coupling.

Statistical Mechanics in Biopolymers: Chain configuration of macromolecules, statistical distribution end to end dimensions, calculation of average dimensions for various chain structures. Polypeptide and protein structures, introduction to protein folding problem.

Biopolymer Interactions: Forces involved in biopolymer interactions, Electrostatic charges and molecular expansion, hydrophobic forces, dispersion force interactions. Multiple equilibria and various types of binding processes in biological systems. Hydrogen ion titration curves.

Thermodynamics of Biopolymer Solutions: Thermodynamics of biopolymer solutions, osmotic pressure, membrane equilibrium, muscular contraction and energy generation in mechanochemical system.


UNIT- II
(22 Hrs)

Bio-polymers and their Molecular Weights: Evaluation of size, shape, molecular weight and extent of hydration of biopolymers by various experimental techniques.

Viscosity: Measurement, relation to geometry and correlation with hydrodynamic properties.


Ultracentrifugation: Svedberg equation, sedimentation equilibrium, density gradient sedimentation.

Electrophoresis: General principles, Double layer techniques, moving boundary electrophoresis, zonal electrophoresis, isoelectric focusing.

Osmotic Pressure: Second virial coefficient, Donnan effect, molecular mass and geometry from O.P. data.

Optical properties of Biomacromolecules: Light Scattering, fundamental concepts, Rayleigh Scattering, Scattering by Larger particles.
Books Recommended:


5. Text Book of Polymer Science, F.W. Billmeyer.

6. Physical Chemistry of Polymers, A. Tager.
1. **General Features of Spectroscopy:**
   (5 Hrs.)
   Units and conversion factors. Introduction to spectroscopy, Nature of radiation. Energies corresponding to various kinds of radiation, Experimental techniques, intensities of spectral lines, Selection rules and transition moments, Line widths, Broadening.

2. **Nuclear Magnetic Resonance Spectroscopy:**
   (35 Hrs.)
   PMR: Natural abundance of \(^{13}\text{C}\), \(^{19}\text{F}\) and \(^{31}\text{P}\) nuclei; The spinning nucleus, effect of external magnetic field, precessional motion and frequency, Energy transitions, Chemical shift and its measurements. Factors influencing chemical shift, anisotropic effect; Integrals of protons, proton exchange, spin-spin coupling - splitting theory, one, two and three bond coupling, virtual, long range and allylic coupling, magnitude of coupling constant; factors affecting the coupling constant, Chemical and magnetic equivalence, First and second order spectra, \(A_2\), \(AB\), \(AX\), \(AB_2\), \(AX_2\), \(A_2B_2\) and \(A_2X_2\) spin systems, Simplification of complex spectra (solvent effect, field effect, double resonance and lanthanide shift reagents), CWand FTNMR, Relaxation processes, \(T_1\) and \(T_2\) measurements, Applications of PMR in structural elucidation of simple and complex compounds.

\(^{13}\text{C}\)-NMR: Resolution and multiplicity of \(^{13}\text{C}\) NMR, \(^1\text{H}\)-decoupling, noise decoupling, broadband decoupling; Deuterium, fluorine and phosphorus coupling; NOE and origin of nuclear Overhauser effect, off-resonance, proton decoupling, Structural applications of \(^{13}\text{C}\)-NMR., pulse sequences, pulse widths, spins and magnetization vectors, DEPT, INEPT, Introduction to 2D-NMR, COSY, NOESY, HSQC spectra.

3. **Mass Spectra:**
   (10 Hrs.)
   Introduction, methods of ionization EI & CI, Brief description of LD, FAB, SIMS, FD etc., Ion analysis methods (in brief), isotope abundance, Metastable ions, general rules predicting the fragmentation patterns. Nitrogen rule, determination of molecular ion peak, index of H deficiency, fragmentation patterns for aliphatic compounds, amines, aldehydes, Ketons, esters, amides, nitriles, carboxylic acids ethers, aromatic compounds etc.

4. **UV and Visible Spectroscopy of organic molecules:**
   (10 Hrs.)
Books Recommended:

1. Pavia, Lampman & Kriz, Introduction to Spectroscopy.

2. C.N Banwell "Fundamentals of Molecular Spectroscopy".


4. W. Kemp, "Organic Spectroscopy".


8. G.M. Barrow "Introduction to Molecular Spectroscopy".
Credit: 4-0-0

1. Introduction
   Chemistry in everyday living
   Branches of chemistry

2. Nature and Composition of Matter
   Matter and energy
   Separation of mixtures
   Atomic theory of matter
   Atoms and molecules
   Formulae
   Chemicals equations
   Avogadro's Hypothesis
   Mole concept
   Chemical equation

3. Structure of an Atom
   Atomic structure
   Electrons, Protons and Neutrons
   Models of an atom
   Atomic number and mass number
   Isotopes, Isobars, Isotones, Isodiaphers and Isosteres
   Theories of radiation
   Quantum numbers
   Configuration of atoms

4. Radioactivity
   Discovery of Radioactivity
   Nuclear Disintegration
   Nuclear Reactor
   Application of Radioactive Isotopes

5. Periodic Classification of Elements
   Modern Periodic table
   Gradation of Properties in groups and periods

6. Chemical Bonding
   Chemical Bond
   Causes of Chemical Combinations
   Types of Bonding
7. Chemical Reactions
   - Introduction
   - Types of chemical reactions
   - Speed of reactions and catalysts
   - Rate of chemical reactions
   - Energies involved in a reactions
   - Electrochemicals cells
   - Metallic corrosion

8. Oxidation and Reduction
   - Oxidation and reduction
   - Oxidation Reduction
   - Reaction / Redox Reaction
   - Oxidation Number

9. Metals & Non Metals
   - Occurrence of Metals
   - Properties of Metals
   - Properties of Non-Metals

10. Carbon
    - Introduction
    - Allotrophy of carbon

11. Solutions
    - Components of solutions
    - Concentrations of solutions
    - Solubility of gases
    - Solid solutions
    - Raoult's Law
    - Osmosis

12. Acids, Bases and Salts
    - Acid and Base
    - Salts
    - The pH scale
    - The pH of solution
    - Buffer solutions

13. Chemistry in Service of Man
    - Polymers
    - Natural Rubber
    - Plastics
14. Fertilizers and Pesticides
   Fertilizers
   Pesticides

15. Cement and Glass
   Cement
   Glass

Books:

2. Principles of general chemistry by Martin S. Silberberg, Publisher McGraw-Hill
INTERDISCIPLINARY COURSES  
(Faculty of Sciences)

CHEMISTRY (UG)

CYL-002: Physical Chemistry

Credit: 3-0-0  
Course Hrs. 45

Statistical Thermodynamics:  
(20 Hrs)


Chemical Bonding:  
(25 Hrs)

Hamiltonian for diatomic molecules, Born oppenheimer approximation, understanding chemical bonding through molecular orbital treatment of H₂⁺, Bonding and antibonding molecular orbitals, Molecular orbital configurations of homonuclear diatomic molecular, molecular electronic terms, the Valence bond and molecular orbital treatment of hydrogen molecule. Comparison of molecular orbital and valence bond treatments. The Hartree Fock method for molecules. The Virial theorem, the Hellman Feynman theorem, the electrostatic theorem. The free electron molecular orbital method, the Huckel m.o method HMO treatment of butadiene, benzene Extended Huckel method.

Books Suggested:
1. Quantum Chemistry, Ira N. Levine Prentice Hall.
2. Introduction to Statistical Thermodynamics, T.I. Hill.
Electrostatics: Electric Charges; Coulomb's law, forces between multiple charges; Electrical field, electric field due to a point charge, electric-field lines; electric dipole, torque on a dipole in uniform electric field. Electric flux, Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell; Electric potential, potential difference, electric potential due to a point charge and system of charges; electrical potential energy of a system of charges. Capacitors and capacitance, combination of capacitors, capacitance of a parallel plate capacitor, energy stored in a capacitor. Electric current, drift velocity, mobility, Ohm's law, electrical resistance, electrical energy and power, electrical resistivity and conductivity, combinations of resistors; temperature dependence of resistance, Superconductor.


Electronic Devices: Semiconductors, Intrinsic/Extrinsic semiconductor, P.N. Junction, Characteristic of p n junction diode, pn junction as rectifier, zener diode and its characteristics, photodiode, LED and solar cells, Integrated Circuits, Bipolar junction transistor, CB, CE, CC configuration, Transistor as amplifier, oscillator and switch, logic gates: AND, OR, NOT, NAND, NOR, XOR.

Text and Reference Books:
3. Concepts of Physics: H. C. Verma
4. Electrodynamics: Grifths
5. Integrated Electronics: J. Millman and C. C. Halkias
6. Digital Principles & Applications – P. Malvino & Leach
# GENERAL PHYSICS-II

**Course No.** PHL-002  
**LTP** 3 0 0

1. **Quantum Mechanics:** Wave-particle duality; Schroedinger equation and expectation values; Uncertainty principle; Solutions of the one-dimensional Schroedinger equation for a free particle, particle in a box, particle in a finite well, linear harmonic oscillator; Reflection and transmission by a step potential and by a rectangular barrier; Particle in a three dimensional box.

2. **Atomic and Molecular Physics:** Stern-Gerlach experiment, electron spin, fine structure of hydrogen atom; L-S coupling, J-J coupling; Spectroscopic notation of atomic states; Zeeman effect; Elementary theory of rotational, vibrational and electronic spectra of diatomic molecules; Raman effect and molecular structure; Raman spectroscopy.

3. **Solid State Physics:** Crystalline and amorphous structure of matter; Different crystal systems, space groups; Methods of determination of crystal structure; X-ray diffraction, scanning and transmission electron microscopies; Thermal properties of solids, specific heat, Debye theory, Magnetism: dia, para and ferromagnetism; Elements of superconductivity, Meissner effect, BCS theory, Elementary ideas about high temperature superconductivity.

**Text and Reference Books:**
2. Quantum Mechanics - P T Mathews  
3. Introduction to Quantum theory -R Dicke and J Wittke  
4. Quantum Mechanics - Ghatak and Loknatham  
5. Introduction to Atomic Spectra - H. E. White  
6. Atomic Spectra and Atomic structure by Gerhard Herzberg  
### Characterization Techniques

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X-ray diffraction, data manipulation of diffracted X-rays for structure determination; X-ray fluorescence spectrometry for element detection with concentration; Auger electron spectroscopy (AES), X-ray photoelectron spectroscopy (XPS), Secondary ion mass spectroscopy (SIMS) techniques for the analysis of surfaces, DTA, TGA and DSC measurements and analysis of the curves.


**Recommended Books:**
2. Culity
INTERDISCIPLINARY COURSES
(Faculty of Sciences)

MATHEMATICS

Under Graduate level course
Odd/Even semester

MTL 001 NUMERICAL METHODS

L-T-P
4-0-0

Unit-I

Unit-II
Interpolation and Polynomial Approximation, Lagrange’s Method, Newton’s polynomials, Runge’s Phenomenon, orthogonal property, Chebychev approximation, Pade’s Approximation, Methods of Curve fitting.

Unit-III

Reference Books:
INTERDISCIPLINARY COURSES  
(Faculty of Sciences)

MATHEMATICS

Post Graduate level course  
Odd/Even semester

MTL 051 APPLIED STATISTICS

Note:
1. The scope of the contents restricted to applications only given in the recommended books.
2. The mathematical derivations, in any case, are excluded.

UNIT-I
Empirical Models, Simple linear regression, properties of the least square estimators, Hypothesis tests in simple linear regression, prediction of new observation, adequacy of the regression model.
Multiple linear regression model: least square estimations of the parameters, properties of the least squares estimators. Test for significance of regression, prediction of new observations, Model adequacy checking.

UNIT-II
Design and analysis of single-factor experiments: Designing engineering experiments, analysis of variance for CRD with fixed effect model, Analysis of variance for RCBD with fixed effect model.
Design of experiments with several factors: Factorial experiments, two factor factorial experiments, general factorial experiment, $2^k$ factorial designs and its blocking and confounding, and fractional replication.

UNIT-III

Books Recommended:
INTERDISCIPLINARY COURSES
(Faculty of Applied Sciences)

Food Science & Technology
FTL-001: Food Hygiene and Sanitation
(Odd)

Credits: 3-0-0

Note: Students can use the Non-Programmable scientific calculator.

Unit - I
General principles of food hygiene.
Personal hygiene.
Food handling habits, water sources and impurities in water supply and treatment.
Sanitation facilities and procedures in food plant operation.

Unit - II
Quality standards for potable water supply.
Microbial standards for foods.
Sanitation in food service institution.

Unit - III
Method of cleaning and disinfection.
Detergents and Sanitizer.

Recommended Books:

Food Science & Technology
FTL-002: Introduction to Food Science and Nutrition
(Even)

Credits: 3-0-0

Note: Students can use the Non-Programmable scientific calculator.

Unit - I

Basic terms of food science and technology, Principles of processing and preservation, Food poisoning: its causes and symptoms, Food safety, adulteration and food laws, Status of food industry in India.

Unit - II

Introduction to human nutrition. The functions of foods. Food groups and concept of balanced diet. The need for energy, basal energy metabolism. Calorific value of foods, Dietary allowances for different age groups, nutritive value of foods, Dietary interrelationship.

Unit - III

Classification, physiological functions, dietary sources, deficiency diseases, role in metabolism and daily requirement of following: carbohydrates, lipids, proteins, vitamins and minerals.

Recommended Books:

1. Food Science by Norman N. Potter.
4. Essentials of Food Nutrition by Dr. M Swaminathan.
INTERDISCIPLINARY COURSES
(Faculty of Applied Sciences)

Food Science & Technology
FTL-051: Introduction to Food Processing
(Odd)

Credits: 3-0-0

Note: Students can use the Non-Programmable scientific calculator.

Unit - I

Food: definition, groups of foods.
Objectives of food processing.
Constituents of food: carbohydrates, proteins, fats, vitamins and minerals, pigments, enzymes.
Food processing operations: Cleaning, separating, heating, cooling, evaporating, drying, packaging.

Unit – II

Food spoilage: Microorganisms, insects, parasites and rodents, natural food enzymes, temperature, moisture, oxygen, light and time.
Application of heat in processing: pasteurization, sterilization, blanching, conduction and convection heating, canning, aseptic processing.
Applications of low temperature in food processing: refrigeration, freezing

Unit – III

Food dehydration and concentration: significance of moisture, water activity, factors affecting moisture removal from foods, types of driers, freeze drying, concentration of foods using evaporators.
Fermented foods: pickles, yoghurt and wine.
Food packaging: importance, objectives and functions.

Recommended Book:
1. Food Science by Norman N. Potter.
2. Food Engineering Operations by JG Brennan, JR Butters, ND Cowell and AEV Lilly.
Food Science & Technology
FTL-052: Technology of Processed Foods
(Even)

Credits: 3-0-0

Note: Students can use the Non-Programmable scientific calculator.

Unit - I

Production, composition and structure of wheat and rice, Milling of wheat and rice, Manufacture of cereal products: bread, cookies and biscuits, cakes, pasta and noodles, corn flakes and extruded snacks.

Unit – II

Chemical composition and nutritive value of milk. Processing of milk and milk products: standardized pasteurized milk, flavoured milk, yoghurt, dahi, paneer and cheese, ice cream, milk powder.

Unit – III


Recommended Books:
1. Technology of Cereals by N. L. Kent.
5. Outlines of Dairy Technology by Sukumar De.
Pharmaceuticals
(For PG students)
Odd Semester
PHL-051 Drug Design and Drug Development
Credits (2-1-0)


2. Introduction to dosage forms, classification, selection of route of administration. Preparation, evaluation and quality control tests for tablets, Hard & Soft gelatin capsules and parenteral dosage forms. Method and design for bioavailability study.

3. **Natural sources of drugs:** Plants, animals, microbes, mineral, marine and plant tissue cultures as sources of biomedicinals.

4. **An introduction to active constituents of natural drugs:** Their classification, properties, general methods of extraction and isolation.

5. **Natural Products as leads for new pharmaceuticals.**

6. **Principles of Experimental Pharmacology:** Basic principles of pharmacological evaluation of new chemical entity, animal models in pharmacological research, some standard techniques used in laboratory animals, euthanasia of experimental animals. Regulations for ethical treatment to laboratory animals. Alternatives to animals. Preclinical, safety and clinical evaluation of new drug.
INTERDISCIPLINARY COURSES
(Faculty of Applied Sciences)

READING MATERIAL RECOMMENDED:

7. Pharmacopoeia of India, Govt. of India, Ministry of health and family welfare, Delhi, 1996.
Pharmaceuticals  
(For PG students)  
Even Semester  
PHL052-Pharmacokinetics & Biopharmaceutics  

Credits (2-1-0)  

1. Introduction to Pharmacokinetics and Biopharmaceutics, various terms used, Absorption, distribution, metabolism and excretion of drugs. Biological half life, Apparent volume of distribution  
2. Fluid compartments, circulatory system and protein binding.  
3. Compartment models  
   3.1 One Compartment Open Model: Pharmacokinetics of single dose administration as applied to intravenous (rapid) and oral administration, Intravenous transfusion, Multiple intravenous and oral administration.  
   3.2.1 Two Compartment Open Model: Pharmacokinetics of single and multiple dose administration, Intravenous transfusion.  
4. Curve fitting- area under blood level curves  
5. Urinary excretion studies, Sigma minus plot  

Section B  
6. Pharmacokinetic basis of sustained release formulations  
7. Clinical Pharmacokinetics  
   7.1 Hepatic elimination of drugs, Drug metabolism and its kinetics using one compartment and two compartment models. Liver extraction ratio and its relationship with absolute availability, Relationship between blood flow, Intrinsic clearance and hepatic clearance.  
   7.2 Dosing of drugs in infants, elderly and obese patients.  
   7.3 Dosage regimen adjustment in patients with and without renal failure. Dosage adjustments in uremic patients  

Section C  

BOOKS RECOMMENDED:  
Pharmaceuticals

(For UG students)

Odd Semester

PHL001: Pharmaceutical Chemistry-I: Organic Chemistry

Credits (2-1-0)


5. Addition to Carbon/Carbon and Carbon/Hetero Multiple Bonds: Electrophilic, nucleophilic and free radicals addition to carbon-carbon and Carbon/Hetero multiple bonds, orientation and stereochemistry.


Books Recommended (Latest editions unless specified):


Suggested Readings:

Pharmaceuticals
(For UG students)
Even Semester
PHL 002: Pharm. Chem. XI: Pharmaceutical Analysis

Credits (2-1-0)

1. **Non-aqueous Titrations:** Theoretical consideration, acid base equilibria in non-aqueous media, titration of acids and bases, indicators, Applications.

2. **Complexometric Titrations:** Concept of complexation and chelation, Warner’s coordination number and electronic structure of complex ions, stability constants, titration curves, masking and demasking agents, types of complexometric titration, metal ion indicators, factors influencing the stability of complexes, EDTA-METAL ion Complexes, Determination of hardness of water.

3. **Solvent Extraction:** Liquid solid extraction, liquid-liquid extraction, separation of mixtures by extraction, distribution law, successive extraction, the craige method of multiple extractions, continuous counter-current extraction, effect of various factors on extraction.

4. **Chromatography:** Introduction, types of chromatography, Liquid-Solid adsorption chromatography, Liquid-Liquid partition chromatography, paper chromatography, Ion exchange chromatography, Thin layer chromatography. Gas chromatography, (introduction, basic GLC apparatus, Carrier gas, sample introduction, columns, solid support, temperature effects), Applications.

5. **Electrochemistry:** The electric cell, electrode potential, half-cell and its types, sign convention. Nernst equation, the salt bridge, electrochemical- series standard potential, standard hydrogen electrode, measuring relative voltage of half cells, calculations of standard potential, reference electrodes and indicator electrodes

   (a) **Potentiometry:** Theoretical considerations, ion-selective electrodes, measurement of potential, Location of the end point, analytical applications, direct measurement of metal concentration, differential curve, determination of Ksp, pH measurements, pH meter, relation of pH to potential and applications.

   (b) **Conductometric Methods:** Introduction measurement of conductance and conductometric titration.

   (c) **Colorimetric Titration's:** Principle, controlled potential colorimetry, Cell design, instrumentation, advantages and limitations, electrode selection and applications.

   (d) **Polarography:** Theory, dropping mercury electrode air current potential relationship. Polarization, choice of electrodes, effect of oxygen, instrumentation and applications.

6. **Phase Solubility Analysis:** Theory, experimental procedure and applications.
Books Recommended (Latest editions unless specified)


Suggested Reading (Latest Editions).

1. Analytical Chemistry by D. A. Skoog and D. M. West.

2. Principles of Instrumental Analysis by D. A. Skoog and J. J. Lorry.
Textile Chemistry
B.Tech. (Textiles Chemistry) (Semester-I)

TCL- 001  Introduction to Textiles

Credits/L/T/P: 4/3/1/0

Section –A:

Introduction:
What are textiles, types of fibers, yarn, fabric, Garment

Color:
Introduction to color, types of colorants, natural colourants

Introduction to Colouration:
Application methods on different types of textiles, method of colour measurements.

Section –B:

Quality Assurance of Textiles:
All types of fastness properties, physical and chemical properties of textiles, designs and pattern of weave, print and garment

Section –C:

Processing:
Pretreatment, dyeing, printing and finishing.

Section –D:

Process flows:

Chapter 1: Introduction
Types of textile fibers; cotton, polyester, silk, nylon, wool etc., General introduction to production route for textile fibre, Application areas for textile materials,

Chapter 2: Care Labeling
Care Label, Basic care label symbols, Care symbols for washing, bleaching, drying, ironing, dry-cleaning, International standards on care labels.

Chapter 3: Stains
Classifications of Stains and their removal, Techniques used for stain removal, Stain removal products, Unidentifiable stains.

Chapter 4: Denim Washing
Definition of Denim, Basic information on Indigo: the dye used for denim, Different types of denim washes; stone wash, acid wash and enzyme wash.

Chapter 5: Quality Assurance in Textile Apparel
Quality assurance in apparel manufacturing, Quality assurance for knits, Fabric inspection system, Types of defects (Yarn, fabric and seams).

Books:
Booklets of Textile Association of India, Ahmedabad.
INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science
CSL-001- Computer Fundamentals

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Unit I


Operating System Concepts: Role of an Operating System, Types of operating systems, Booting procedure and its types, Introduction to Windows and its features.


Unit II

Programming Tools: Problem Analysis, Program Constructs (Sequential, Decision, Loop), Algorithms, Flowcharts, Pseudocode. Decision table, Modular Programming, Top-down and Bottom-up Approaches.


Unit III

Data Communications: Introduction to Data Communication: Definition and advantages, Types of Networks, Network topologies, Transmission Media, Modems.

Internet: Internet and its applications, Working knowledge of Search engines and use of electronic mail.

References:
6. Martin, James: Telecommunications and the Computer, PHI
INTERDISCIPLINARY COURSES  
(Faculty of Engineering & Technology)

Computer Science  
CSL-002- Computer Programming

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</table>

Unit I

Introduction to Program Development: Need for program Development Life Cycle (PDLC), description of different phases of PDLC viz. defining the problem, designing the program, coding the program, testing and debugging the program, formalizing the solution, and finally implementing & maintaining the program.

Overview of C: Brief history of C, comparison of C with other programming languages, general structure of a C program, stages in the development of a C program, introduction to different versions of C.

Unit II

Data Types, Operators & Expressions: Constants and variables, data types, declaring variables, storage classes, different types of expressions and their evaluation, conditional expression, assignment statement, enumerated data type, redefining/creating data types, library functions, type casting.

Console Input/Output: Standard input/output devices, unformatted input/output functions (character I/O functions and string I/O functions), formatted input/output functions (scanf( ) function and printf ( ) function).

Control Statements: Decision making using if, if - else, elseif and switch statements, Looping using for, while and do - while statements, transferring program control using break and continue statements.

Unit III

Functions: Defining a function, local variables, return statement, invoking a function, specifying and passing arguments to a functions, function prototyping and use of header files, recursion

Arrays & Strings: Introduction to arrays, declaring arrays, initializing arrays, processing of arrays, passing arrays as arguments to a function, introduction to strings, Discussion on arrays is to be limited up to 2-D arrays only.

References:
INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science

CSL051: Internet Applications

<table>
<thead>
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<th>Credits</th>
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</table>

UNIT-I

Introducing the Internet
Overview: Internet - working and development, Architecture, internet, intranet and extranet, design goals, issues and related aspects, Internet Domain Names and IP addresses, connecting LAN to Internet.

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

UNIT-II

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

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

UNIT-III

Search Engines
Introduction to usenet, organization of usenet articles, reading, saving, mailing, writing and posting of an article. Basic gophar commands, accessing virtual reference desk through gophar.

WWW-World Wide Web
Working of WWW, Hypertext and Hypermedia, URL, Searching the WWW.

References:
INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science

CSL052: OPERATING SYSTEM

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</table>

UNIT-I

Introduction to Operating Systems, Main Functions and characteristics of Operating Systems, Types of Operating Systems.


UNIT-II

Memory Management: External fragmentation, Internal fragmentation, Compaction, Paging, Segmentation, Virtual memory, Demand paging.

UNIT-III

Device Management: Dedicated devices, shared devices, virtual devices, channels, I/O traffic controller, I/O scheduler, I/o Device handlers.

TEXT / REFERENCES:

INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

ELECTRONICS
(ODD SEMESTER)
ECL-051 Basic Electrical & Electronics
(Inter-disciplinary Course-I)

Credit: L T P
3 0 0

Part I

ELECTRICAL
1. Electric current and ohm's: Ohm’s law, Resistances in Series, Resistance in parallel, Division of current in parallel circuits, Equivalent resistance, Voltage and current sources and their characteristics, Numericals. 4

Part II

ELECTRONICS
2. Amplifiers: Classification, Configuration, concept of feedback in Amplifiers & Oscillators. 3
3. Digital Electronics: Definition, symbol and Truth table of basic logic gates, concept of universal gate, Introduction to Flip-Flops, counters, concept of RAM, ROM, EPROM and their applications 6
4. Instrumentations: Working principle and uses of following instruments- C.R.O, Digital Multimeter, Transducers. Data Acquisition systems. 4
5. Linear Integrated Circuits: Equivalent circuit, Ideal Characteristics of op-amp. Concept of feedback, closed-loop applications, differentiator, integrator amplifier, Digital to Analog, Analog to digital convertors. 5

Books:
2. Integrated Electronics by Millman & Halkias.
3. Digital principles of Malvino leach.
4. Electrical Instrumentation by Cooper.
INTERDISCIPLINARY COURSES  
(Faculty of Engineering & Technology)

ELECTRONICS  
(EVEN SEMESTER)  
ECL-052 Fundamentals of Communication Engineering  
(Inter-disciplinary Course-II)

Credit: L T P  
3 0 0

1. Introduction  
Concept, Need of Communication, Need for Modulation, Need for Transmission and Receiving Antennas, Types of Communication, Analog & Digital Communication, AM, FM, PM  
7

2. Transmission Media  
Guided and Unguided Transmission Media, Comparison of Different Media-twisted pair, coaxial cable, Optical Fiber, Microwave  
5

3. Fiber Optic Communication  
Principle of working, Types of Fibers- Single mode, mono mode, Step-index, Graded Index, Fiber optic components, concept of Wave Division Multiplexing, Applications.  
5

4. Microwave Communication  
Line of sight propagation, role of curvature of earth on coverage, Concept of Terrestrial & Extra Terrestrial Communication, Satellite communication, Earth station, Transponder, VSAT, Direct Broadcasting Satellite (DBS), GEO, MEO, LEO, Multiplexing techniques, Applications.  
7

5. Cellular Mobile Communication  
Basic Block of Cell, Frequency reuse, Roaming, FDMA, TDMA, CDMA, Different Generations and general terminology.  
5

6. Radar & Navigation  
Principle, Types, Applications, Navigational Aids, Instrument landing System, Radar Beacon, Microwave Landing system, Electronic Counter Measures(ECM), LORAN.  
6

Books:  
1. Electronic Communication Systems by Kennedy  
2. Electronic Communication Systems By Tomasi  
3. Radar and Navigational Aids By Kulkarni
An overview of the immune system: Historical perspective, an introduction to the immune system – innate and adaptive immunity. Immunodeficiencies: secondary immunodeficiency disorders.


Antibodies: Gamma globulins; structure, bifunctional property of antibodies, determining bifunctionality, cross reactivity, Antigen antibody interactions: primary interactions, secondary interactions. Classification of antibodies: Isotypes, Allotypes, properties & biological functions of antibody isotypes, IgG, IgE, IgM, IgD, IgA, Monoclonal antibodies


The immune system in Health & Disease, specially AIDS.

Books Recommended:

Stanley, J. (2002). Essentials of Immunology and Serology. Delmar Thomson Learning, USA
1. **Principles of Analytical Methods:** Titrometry, Gravimetry, Colorimetry, Spectrophotometry, Atomic Absorption Spectrophotometry and Flame Photometry

2. **Histochemical and immunotechniques:** Antibody generation, detection of molecules using ELISA, RIA, western blot, immunoprecipitation, flow cytometry and immunofluorescence microscopy, detection of molecules in living cells, *in situ* localization by techniques such as FISH and GISH.

3. Biophysical methods: **Analysis of biomolecules using UV/visible, fluorescence, UV, ORD/CD, Visible, circular dichroism, NMR and ESR spectroscopy, structure determination using X-ray fluorescence and X-ray diffraction and NMR; analysis using light scattering, different types of mass spectrometry and surface plasma resonance methods, GC - MS/LC - MS Hydrodynamic methods; Atomic absorption and plasma emission spectroscopy.**

4. Principles and techniques of nucleic acid: **hybridisation and Cot curves; Sequencing of proteins and nucleic acids; Southern, Northern and South Western blotting techniques; Polymerase chain reaction.**

5. **Principles and applications of Gel-filteration:** Ion exchange and Affinity chromatography; Thin layer gas chromatography; GLC, HPLC; Electrophoresis and electrophocussing; Ultracentrifugation.

6. **Radiolabeling techniques:** Properties of different types of radioisotopes normally used in biology, their detection and measurement; incorporation of radioisotopes in biological tissues and cells, molecular imaging of radioactive material, safety guidelines.

7. **Electrophysiological methods:** Single neuron recording, patch-clamp recording, ECG, Brain activity recording, lesion and stimulation of brain, pharmacological testing, PET, MRI, fMRI, CAT.

**References:**

GAP 76-81
INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)
INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)
INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)
INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)

M.Sc. (Honours) Human Genetics (Odd Semester)
(Credit Based Continuous Evaluation Grading System)

HGL-051 HUMAN GENETICS IN HEALTH AND DISEASE
Interdisciplinary course for other Departments

Credits: 3-0-0

Unit-I

An Overview of Human Genetics, Fields of Human Genetics, The Human karyotype, Origin and consequences of point and chromosomal mutations, Gamete maturation and embryonic development, Sex ratios, Sexual development and dosage compensation, Human chromosomal abnormalities.

Unit-II

Genetic traits, diseases and disorders, Single gene disorders — Autosomal, X-linked, Y-linked, The Human nuclear and mitochondrial genome, Structural and molecular organization, Mitochondrial, Multifactorial and polygenic (complex) disorders. The Human Genome Project, Human Genetic variation.

Unit-III

Applications — DNA fingerprinting and profiling, Prenatal diagnosis, Genetic testing. Gene and cell therapy, Cloning, Personalized medicine, Human Genetics and ethical concerns.

Books Recommended:

M.Sc. (Honours) Human Genetics (Even Semester)
(Credit Based Continuous Evaluation Grading System)

**HGL-052: INTRODUCTORY HUMAN GENETICS**
Interdisciplinary Course for other department
(For Non-Biology Students)

**Credits: 3-0-0**

**Unit-I**
Overview of genetics, Cell and cell components, Prokaryotic/Eukaryotic cells, Cell division — Mitosis, Meiosis, Gametogenesis, Basic concepts of inheritance — Mendelian inheritance, Sex-linked inheritance, Multifactorial traits.

**Unit-II**
Molecular basis of inheritance — Chemical composition of DNA, DNA structure, DNA replication, Gene Action — From DNA to protein, Gene mutations and chromosomes, Human sex determination.

**Unit-III**
Human genome — Nuclear and mitochondrial, Genetic diseases and disorders, Human Genome Project. Manipulation of genetic material — Genetic engineering, Genetic forensics, Genetic testing, Gene therapy, Cloning.

**Books Recommended:**

MICROBIOLOGY (PG)
FTL-061: INDUSTRIAL MICROBIOLOGY

Credit: 3-0-0

Microbial biodiversity and its importance in industrial microbiology, methods of isolation, screening of microbes with unique properties. Culture collection, cataloguing of cultures, methods of culture maintenance, raw materials of industrial importance, medium formulation, methods of process development i.e. strain, fermentor, fermentation parameters etc. Shake flask culture, inoculum development, and bioreactor design.

Strain development by mutagenesis, protoplast fusion and transformation of cloned genes. Recombinant protein expression with E.coli and fermentation. Expression in yeast Pichia pastoris, production of recombinant vaccines, purification of recombinant proteins.

Important microbial products and technology for production of beer, wine, microbial biomass lovastatin and related polyketides, lactam antibiotics and enzymes from industrial strains.

General account of biotransformation, Immobilization of enzymes for production of HFCS, 6APA, Treatment of industrial effluents using activated sludge and anaerobic treatment options.

Books Recommended:
3. Recombinant microbes for industrial and agricultural application (eds), Y. Murroka, T. Imanuka (1994), Marcel Dekker, Inc.
INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)

MICROBIOLOGY (PG)
FTL-062: Advances in Environmental Biotechnology
Credit: 3-0-0

Microbiology of cellulose degradation, Enzymatic aspects of cellulolysis. Potential application of Microbial cellulases. Microbiology of lignin degradation, white-rot, brown-rot, and soft-rot type fungal attack in ligninolysis. Enzymology of lignin degradation and their biotechnological applications. Brief account of microbial degradation of pectin and hemicellulose with their potential applications.
The concept of Bioremediation efficacy testing approaches to bioremediation: Environmental modifications for Bioremediation, Microbial seeding and Bioengineering Approaches to the bioremediation of pollutants. Gaseous and Heavy metal air pollutants, Microbes as sources of Atmospheric pollutants, microbes as sinks for Bioscrubbers and biofilters.
Microbial Insecticides: Bacillus thuringensis. The concept of endotoxins and cry genes, B. thuringensis as a present day bioinsecticide. (Bacillus sphaericus) B. popilliae) and Baculoviruses. Biology of baculoviruses, Baculoviruses as Insecticides and their future potential. Bacterial leaching from ores, microorganisms associated with recovery of copper by direct and indirect leaching, uranium leaching.

Books Recommended:

INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)

M.Sc. (Hons.) Molecular Biology & Biochemistry

Course No. MBL-091 (Interdisciplinary Course)

Credit: L T P
3 0 0

FUNDAMENTALS OF BIOCHEMISTRY

Unit-I
A. Chemical and Physical Foundations Thermodynamics and kinetics, Redox states, Water, pH, acid-base reactions, and buffers, Solutions and equilibria, Solute-solvent interactions, Chemical interactions and bonding, Chemical reaction mechanisms.
B. Biomolecules: Structure, Assembly, Organization, and Dynamics Small molecules, Macromolecules (for example, nucleic acids, polysaccharides, proteins, and complex Lipids), Supramolecular complexes (for example, membranes, ribosomes, and multienzyme complexes)

Unit-II
C. Catalysis and Binding Enzyme reaction mechanisms and kinetics, Ligand-protein interaction (for example, hormone receptors, substrates and effectors, transport proteins, and antigen-antibody interactions),
D. Major Metabolic Pathways Carbon, nitrogen, and sulfur assimilation Anabolism, Catabolism, Synthesis and degradation of macromolecules.
E. Bioenergetics (including respiration and photosynthesis) Energy transformations at the substrate level, Electron transport, Proton and chemical gradients Energy coupling (phosphorylation and transport)

Unit-III
F. Regulation and Integration of Metabolism Covalent modification of enzymes, Allosteric regulation, Compartmentation, Hormones.
G. Methodology Spectroscopy, Isotopes, Separation techniques (for example, centrifugation, chromatography, and electrophoresis), Immunotechniques.

Books Recommended:
M.Sc.(Hons.) Molecular Biology & Biochemistry

Course No. MBL-092 (Interdisciplinary Course)

MOLECULAR BIOLOGY AND GENETICS

UNIT-I
A. Genetic Foundations: Mendelian and non-Mendalian inheritance, Transformation, transduction, and conjugation, Recombination and complementation, Mutational analysis, Genetic mapping and linkage analysis.
B. Chromatin and Chromosomes: Karyotypes, Translocations, inversions, deletions, and duplications, Aneuploidy and polyploidy,
C. Genomics: Genome structure, Physical mapping, Repeated DNA and gene families, Gene identification, Transposable elements.
D. Genome Maintenance: DNA replication, DNA damage and repair, DNA modification, DNA recombination and gene conversion

UNIT-II
E. Gene Expression: The genetic code, Transcription, RNA processing, Translation
F. Gene Regulation in Prokaryotes: Positive and negative control of the operon, Promoter recognition by RNA polymerases, Attenuation and antitermination,
G. Gene Regulation in Eukaryotes: Cis-acting regulatory elements, Trans-acting regulatory factors, Gene rearrangements and amplifications.

UNIT-III
I. Methodology: Restriction maps, Nucleic acid blotting and hybridization, DNA cloning in prokaryotes and eukaryotes. Sequencing and analysis, Protein-nucleic acid interaction

Books Recommended:
INTERDISCIPLINARY COURSES  
(Faculty of Life Sciences)

ZOOCOLGY  
ZOL 001: Animal Diversity (Odd Semester)  
Credit 3-0-0

Unit –I

Invertebrates  
Broad Classification (upto class level)  
Important features

Unit –II

Lower Chordates  
Broad Classification (upto class level)  
Important features

Unit –III

Vertebrates  
Broad Classification (upto class level)  
Important features

Suggested Reading Material:

New Delhi.  
Publications, Meerut.  
ZOOLOGY

ZOL -002: Important Wildlife Projects in India (Even Semester)

Credit 3-0-0

Unit –I
1. Important wildlife sanctuaries and national parks in India
2. Ecological status and conservation status of the following :
   i) Project Tiger
   ii) Asiatic Lion & Gir National Park

Unit-II
3. Ecological status and conservation status of the following :
   iii) Project Elephant
   iv) Project Hangul
   v) Manipur Brow Antler Deer
   vi) Crocodile breeding project

Unit-III
4. Ecological status and conservation status of the following :
   vii) One horned rhinoceros
   viii) Musk deer
   ix) Great Indian Bustard

Suggested Reading Material:

Sharma, P. DEcology and Environment , BPR Publishers
ZOOLOGY

ZOL 051: Concepts of Environmental Biology (Odd Semester)

Credit: 3-0-0

Unit – I
Environmental pollution & Disasters
Pollution – Definition, types and control of pollution.
Eutrophication and Bioaccumulation of pollutants.
Water and Wastewater studies with reference to environment.
Natural and Man induced disasters – Floods, Earthquakes, landslides, deforestation and Tsunami.

Unit – II
Environmental Impact Assessment
Environmental hazards and risk assessment.
Environmental Planning and management – need and scope of EIA.
EIA processes.
Policies and laws with reference to environmental protection.
Agencies involved in protection and conservation of environment.

Unit – III
Recent Trends in Environmental Biology
Biofertilizers and food form micro-organisms
Solid waste management with vermicomposting
Bioremediation
Bioreactors in Environment monitoring.

Suggested Reading Material
ZOOLOGY

ZOL 052: Concepts of Zoology (Even Semester)  Credit 3-0-0

Unit-I

Evolution
Origin of Life
Evolution of multicellularity
Theories and evidences of animal evolution

Taxonomy
Importance of classification
Nomenclature
Concept of species

Unit-II

Ecology
Ecosystem Components
Niche
Homeostasis
Biotic and Abiotic factors affecting animals

Behaviour
Innate and learnt behaviour
Parental care
Migration

Unit-III

Embryology
Gamete structure, Gametogenesis
Fertilization
Early development upto three germ layers

Applied Zoology
Economically important Invertebrates
Economically important Vertebrates

Suggested Reading Material

Gilbert, S.F. (2003), Developmental Biology, Sinauer – associates, Inc. USA.
Goel, S. C (1984), Principles and Animal Developmental Biology, Himalaya, Bombay.

Urbanization Process: Characteristics, function, growth, size, migration, Social-Economic profile of a city, Major components of settlement, Evolution of City Ancient town planning, Medieval City planning Modern urban planning concepts; Frank Lloyd Wright’s broad acre city. Le Corbusier, Manual Castal’s concept.

Importance of planning of human settlement, community participation through site planning, content and components of different plans – site plan, master plan, regional plan, specific theme based plan, illustrations with the help of examples.

Suggested Readings:
INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

GURU RAMDAS SCHOOL OF PLANNING
EVEN SEMESTER (Under Graduate)

SPL 002- FUNDAMENTALS OF MAP PREPARATION

Credits: 3-1-0

Scales: types of scales; Topographical maps – sources, Survey of India (SOI) specifications, grid formation; Conventional Symbols and sign for maps; Projection systems- Types, basic concepts; Urban areas – components of an urban map; Regional maps for regional planning – components; Demonstration of Use of Statistical Data on Maps- Pictographically, Graph etc.

Concept of digital maps, advantages and disadvantages of digital maps; Setting up of a drawing in CAD– Coordinate system, Limits, Units, Precision, Point, Lines, Polygons; Concept of Layers. Demonstrative exercise may be shown.

Digital maps in GIS: basic concepts, definitions and terminology, Raster and Vector digital maps; supporting data management- spatial and attributes, linking of tables; data analysis and modeling-attribute analysis and spatial analysis- Buffering, Geo-processing, Map overlays etc. Demonstration of GIS applications in cities.

Suggested Readings:
SPL 051 – PRINCIPLE AND TECHNIQUES OF PLANNING

Credits: 3-1-0

Planning process: definition, need and importance, function, objective and type of planning sectoral and spatial, administrative level of planning (national, state, district, block, local), City planning – meaning and significance; Planning approaches – objectives, scope of Comprehensive Planning (Master plan,), Structure Planning, Action Area Planning, Advocacy Planning

Contents of spatial planning for a settlement: Site planning, transport planning, utility planning, landscape planning, neighbourhood planning, Planning standards – Their relevance for Planning Urban areas, development controls, Floor area ratio; Floor space index; Site & plot coverage.

Urban renewal and redevelopment, conservations definition, techniques, its relevance; concept of listed buildings and heritage zones, conservation legislation, conservation movement: international & national perspective, case study of a city,

Suggested Readings:
SPL 052 – REGIONAL PLANNING AND RURAL DEVELOPMENT

Credits: 3-1-0

Concept of region, type of different regions – geographical, agriculture, city regions, importance of regional planning, need of regionalisation, Techniques of delineating the regions. Regional interactions – importance, techniques, Regional imbalances in India- some examples.

Regional plans – components, concept & broad objectives, importance of regional setting of a city, need and status of infrastructure required, environmental considerations in planning, hierarchy of regional settlements, basic theories and concepts.

Basic characters of a village, village as a sustainable human settlement, identification of rural infrastructure, need & importance of rural infrastructure in settlements. Provision of rural infrastructure in the light of 73rd Constitutional amendment (Eleventh schedule), approaches and strategies to provide infrastructure for rural settlement – some examples.

Suggested Readings:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Subject Code</th>
<th>Course Title</th>
<th>Semester</th>
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<th>Duration of Exam.</th>
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<tbody>
<tr>
<td>1</td>
<td>ARL-001</td>
<td>Residential Architecture</td>
<td>Autumn 03</td>
<td>2</td>
<td>1</td>
<td>0</td>
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<tr>
<td>2</td>
<td>ARL-002</td>
<td>History of Architecture</td>
<td>Spring 03</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td></td>
<td>3 hrs</td>
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</table>
Objective: To introduce the students to the concepts, designing and planning of a residence; functions and characteristics of residential-architecture.

Course-contents:

PART I

Residential planning
Building Bye-Laws: Role in the healthy development of Architecture. Study of local building bye-laws. Site planning: meaning, purpose and methodology; site surveys: types, relevance, components; functional and technical factors in site planning, Orientation, planning of a house, apartment: design-principles and methodology: use of a comprehensive-approach.

Interior designing
Definition of Interior Design, Interior Design and architecture, Interior Design Process, themes and Concepts; Introduction to various elements in interiors like floors, ceiling, walls, staircases, opening, etc. Use of materials and various methods of their treatment to obtain certain specific functional, aesthetic and psychological effects. Other elements of interiors like accessories used for enhancement of interiors –paintings, objects de art, furnishing i.e. shades, blends, curtains etc.

PART II

Vaastu shastra

PART III

Landscaping
Principles and goals of landscape design; types of landscape styles - hard and soft landscape, wet and dry landscape. Landscape design elements: types, materials, use and relevance. Plants: Functional, aesthetic and environmental aspects of plant; Types and forms of plants; criteria for plant selection; Indoor plants; characteristics (height, foliage, flowering etc.) of various plants, their common and botanical names.
Building-material

Types of building-material: Cement, sand, glass, wood, concrete, R.C.C., market –survey; technical-details: use of materials on site; chemical & physical properties ;materials used for cladding: slate ,tiles, stone.

Suggested Readings:

4. Time Saver Standards.
5. Neufert Standards.
Objective: To acquaint the students the development of Architecture in India from the Indus Valley Civilisation to Hindu Architecture, Buddhist Architecture, Islamic Architecture and Sikh Architecture.

PART I

Indus Valley Civilisation
Development of Architecture in Indus Valley

Hindu Architecture
Development of Hindu Architecture, Gupta & the Chalukyan period, Dravidian Architecture through different phases (Pallavas, Cholas, Pandyas, Vijainagar & Madura), Indo–Aryan Architecture (Orissa, Khajuraho & Gujarat)

PART II

Buddhist Architecture
Development of Buddhist Architecture, Characteristics of Buddhist Architecture, Development of Stupas, Chaitays and Viharas

Islamic Architecture
Evolution of Islamic Architecture during various Muslim Dynasties in Imperial Delhi, Study of important Mughal structures in Delhi & Agra such as Purana Qila, Humayun’s Tomb, Agra Fort & Taj Mahal, Shahjahanabad & Red Fort

PART III

Sikh Architecture
Development of Sikh Architecture in Punjab with special focus on Golden Temple

SUGGESTED READINGS

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<thead>
<tr>
<th>S.No.</th>
<th>Subject Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credits</th>
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<th>Duration of Exam.</th>
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<tr>
<td>1</td>
<td>ARL-051</td>
<td>Socio Economic Aspects of Urban Environment</td>
<td>Autumn</td>
<td>04</td>
<td>3</td>
<td>1</td>
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<td>3 hrs</td>
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<tr>
<td>2</td>
<td>ARL-052</td>
<td>Understanding the City Form</td>
<td>Spring</td>
<td>04</td>
<td>3</td>
<td>1</td>
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Course Contents:

Objectives
The Objective of the course is to understand the relationship of Urban Design with Socio-Economic aspects of a City.

COURSE CONTENTS

PART–I
Relationship of Man and Environment, Understanding the Socio-Economic aspects, Traditional patterns and trends of change in Indian society, Concept of social structure, culture and social institutions

PART–II
Relation between social structure and spatial structure, Social aspects of housing, Social problems of slums, An area level study of a settlement with reference to socio-economic aspects, methods to prepare survey formats for socio-economic aspects

PART– III
Economic resource, Typology of goods, Production economics, Process, laws, product and costs, Economics of scale, external economics, valuation, typology of markets, land and real estate market, macro – economic concepts, Basic economic analysis, economic principles and land use, land use pattern and land values.

Suggested Readings
Course Contents:

Objectives
The Objective of the course is to understand the fundamentals of urban design and its significance in shaping a better livable city

COURSE CONTENTS

PART–I
Introduction to Urban Design theory, Importance of Urban Design and its Role in shaping the image of a city, Principles of Urban Design, Scope and Objectives of urban design, Elements of urban design, Elements of City Image, Urban Design as an inter-disciplinary profession that unites Architecture, Urban Planning and Landscape Architecture.

PART–II
Concept of City Planning, Traditional City and Modern City, Historic Background and Evolution of Indian City, Case Study of Chandigarh and Amritsar, City forms in the Western nation, Factors affecting city form, Building typology and its impact on urban forms, The impact of climate and land form on urban form.

PART–III
Introduction to Conservation, Ethics of Conservation, Degree of Intervention, The role of conservation and relevance of historic buildings and areas in present context

Suggested Readings
1. Lynch, Kevin; Image of the City; Pub. of the Joint Center for urban Studies, 1960.
2. Llewelyn-Devis, Urban Design Compendium; English Partnership and The Housing Corporation
INTERDISCIPLINARY COURSES  
(Faculty of Languages)  

ENGLISH  
SEMESTER-I  

Interdisciplinary Paper (UG)  
ENL.001  
Introduction to Stories and One-Act Plays  

Credits: 4  

UNIT–I  

J.M. Synge: "Riders to the Sea"  
Anton Chekhov: "A Marriage Proposal"  
[Text Prescribed: Plays in One Act, edited by M. Elias Orient Longman]  

UNIT–II  

Rohinton Mistry: "Lend Me Your Light"  
"Swimming Lessons"  
[from Tales from Firozsha Baag – Rohinton Mistry]  

UNIT–III  

Manju Kapoor: Difficult Daughters
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ENGLISH

SEMESTER-II

Interdisciplinary Paper (UG)
ENL.026
Introduction to American Literature
Credits: 4

Unit–I

Hemingway: *The old Man and the Sea*

Unit–II

Herman Melville: *Billy Budd*

Unit–III

Langston Hughes:

- *Harlem*
- *The Negro Speaks of Rivers*
- *The Weary Blues*
- *Dream Variations*
- *Theme for English B*
- *1, too, Sing America*
ENGLISH

SEMESTER-I

Inter-Disciplinary Paper (PG)  
ENL051

Introduction to Literature in English

Unit–I:  Gitanjali (Selected Poems) – Tagore  
a. Leave the chanting and singing  
b. The song that I came to sing  
c. Prisoner, tell me, who it was  
d. Where the mind is without fear  
e. I had gone a-begging  
f. On the seashore of endless worlds  
g. Deliverance is not for me

Unit–II:  Heart of Darkness – Joseph Conrad

Unit–III:  The Stranger – Albert Camus

Unit–IV:  Death of a Salesman – Arthur Miller
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ENGLISH

SEMESTER-II
Inter-Disciplinary Paper (PG)
ENL076

Appreciation of Poetry

Credits: 4

Unit-I

i. **Features, Forms and Devices**
   Narrative Poetry, Lyric Poetry.
   Figurative Language, Imagery, Rhyme.
   Other Poetical Devices

ii. **History, Biography and Gender**
   Importance of History: Easter 1916: W.B. Yeats
   Relevance of Biography: Nearing Forty: Derek Walcott
   Poetry and Gender: Daddy: Sylvia Plath

iii. **Subjects, Themes and Motifs**

Unit-II: John Keats

i. Ode to Psyche
ii. Ode to a Nightingale
iii. Ode on a Grecian Urn
iv. Ode on Melancholy
v. To Autumn
vi. La Belle Dame Sans Merci
vii. When I have Fear

Unit-III: Wallace Stevens

i. Sunday Morning
ii. Thirteen Ways of Looking at a Blackbird
iv. Anecdote of the Jar
v. Emperor of Ice Cream
vi. Idea of Order at Key West

Unit-IV: Shiv Kumar Batalvi

i. My youth has undone me
ii. The Falcon
iii. I will die in the fullness of youth
Hindi

P.G

ODD SEMESTER

कबीर : विशेष 'k v /; u

HIL 051

(4-0-0)

Q K; k, oav kpy k puk d sfy, fu/ktjr d fr

काव्य—निधि , संपादक—डॉ. हरमहेंद्र सिंह बेदी , डॉ. सुंदर जितेन्द्र , कस्तुरी लाल एंड सन्न, अमृतसर।

इकाई.—1

व्याख्या— साही — गुरुदेव को अंग , सुगमण को अंग
कवी काव्य का क्रान्तिकारी पक्ष

इकाई.—2

व्याख्या— साही — विरह को अंग , चितावणी को अंग
कवी का रहस्यवाद

इकाई.—3

व्याख्या— साही — मन को अंग , माया को अंग
कवी काव्य का दार्मिक पक्ष ,

सहायक पुस्तकें

कवीर साहित्य चित्र, परसुराम चतुर्वेदी, स्मृति प्रकाशन, इलाहाबाद।
कवीर एक अनुशीलन, रामकुमार वर्मा, साहित्य भवन, इलाहाबाद।
कवीर : जीवन और दर्शन, रामनिवास चंदक, नागरी प्रचारिणी सभा, वाराणसी।
कवीर : एक नई दृष्टि, रघुवंश, लोकमारात्री प्रकाशन, इलाहाबाद।
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER

i à kç  d k e/; d ky hu fgUnh l kgR;

HIL 052 (3-0-0)

bd kÅ&1
पंजाब के हिन्दी साहित्य की पृष्ठभूमि, परम्परा, काल विभाजन— नाथ, सिद्ध तथा लौंचक साहित्य

bd kÅ&2
guru muhji lipi mein uplabh panjab ka bhakti hindhi sahiht— guru kavvaydarya, ramkavvaydarya, kruun kavvaydarya, sufhikavvaydarya

bd kÅ&3
guru muhji lipi mein uplabh darbari kavy— pattiyala darbar, sangur darbar, kapurthala darbar, narma darbar

I gk; d i qr d s%
1. i à kç  d k fgUnh l kgR; ] MKW gjegahz fl g cshj ] MKW d ] foUhz d kç ] eui zr i d k ku ] fnYy ha
2. i à kç  i kuh; fgUnh l kgR; d k bfr gkå ] pU nd kUr cky hj uSkuy i Foy f'k a gml ] ubZfnYy ha
3. x ç e [ b h f y fi e afgUnh d kç ] MKWgjHkt u fl g ] Hkåj hr; l kgR; eânj ] fnYy ha
4. x ç e [ b h f y fi e afgUnh x ] MKWx fsoUhn u fKk jkt x ç ] jkt d ey i d k ku ] fnYy ha
5. x ç x kç Un fl g d snj ckh d fo] MKW Hkåj Hkk k p kçkj hj LofLrd d l kgR; l nu] d ç {kç A
6. i à kç fgUnh l kgR; niZk 'ke'kç fl g] 'v'kssl * 'v'kssl eqr d ky; ] ifV; ky k A
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER

HIL 053

(3-0-0)

इकाई - एक

हिन्दी की ऐतिहासिक पृष्ठभूमि

इकाई - दो

हिन्दी का भोगौलिक विस्तार

इकाई - तीन

हिन्दी का भाषिक स्वरूप

सहायक पुस्तकें

• हिन्दी भाषा की रचना संरचना, भोलानाथ तिवारी, साहित्य सहकार, दिल्ली.
• हिन्दी भाषा की संरचना, भोलानाथ तिवारी, वाणी प्रकाशन, दिल्ली.
• हिन्दी भाषा का इतिहास, डॉ॰ धीरेंद्र वर्मा, इलाहाबाद : हिन्दुस्तान एकेडमी.
• हिन्दी : उद्भव, विकास और रूप, हरदेव बाहरी.
HIL 054 (4-0-0)

व्याख्या एवं आलोचना के लिए निर्धारित कृतियाँ

1— गवन ए.उपन्यासद्व प्रेमचंद, हंस प्रकाशन, इलाहाबाद

2— प्रेमचंद की कहानियाँ — ईदगाह, भातरंज के खिलाड़ी, कफन

bd क़ा&1

gवन — पूर्ण — 110
gवन उपन्यास की समस्याएं
कहानी — ईदगाह,
ईदगाह : कथ्य और भिल्प,

bd क़ा&2

gवन — पूर्ण — 111 — 220
gवन उपन्यास की सामाजिक चेतना
कहानी — भातरंज के खिलाड़ी
भातरंज के खिलाड़ी : कथ्य और भिल्प

bd क़ा&3

gवन — पूर्ण — 221 — 330
gवन उपन्यास का कलात्मक पक्ष
कहानी — कफन
cफन : कथ्य और भिल्प
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

d kek u h %foभोश अध्ययन

HIL 055 (3-0-0)

Q k;k, oav ky kp uk ds fy, fu/kdj r d fr

जयशंकर प्रसाद : कामायणी, (श्रद्धा सर्ग), राजकमल पेपरबैल्स , नई दिल्ली

bd kā-1

कामायणी : श्रद्धा सर्ग (पद—1–15)
'कामायणी' का दार्शनिक—पश्च

bd kā-11

कामायणी : श्रद्धा सर्ग (पद 16–30)
'कामायणी' इतिहास एवं कल्पना

bd kā-III

कामायणी : श्रद्धा सर्ग (पद—31–45)
कामायणी का महाकाव्यत्व

lgk d iqr da

कामायणी : एक पुनर्विचार, गजानन माधव मुक्तिबोध, राजकमल प्रकाशन, नयी दिल्ली।
कामायणी में काव्य, संस्कृति और दर्शन, द्वारका प्रसाद सकसोना, विनोद पुस्तक मंदिर, आगरा।
मिथक और स्वरूप : 'कामायणी' की मन : सौदर्य सामाजिक भूमिका, संभव कुंतल मेघ, ग्रंथम, कानपुर।
कामायणी के अध्ययन की समस्याएं, डॉ॰ नंगेन्द्र नेशनल पब्लिशिंग हाउस, नयी दिल्ली।
कामायणी : मूल्यांकन और मूल्यांकन, इन्द्रप्रस्थ मदन, नीलाम प्रकाशन, इलाहाबाद।
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD & EVEN SEMESTER

HIL 056

(b 3-0-0)

bd ke 1

fg Un h l kg R; d k i f; p; k ed bfr g l

bd ke 2

fg Un h l kg R; d k v kfn d ky

bd ke 3

fg Un h l kg R; d k v k/kqfd d ky
INTERDISCIPLINARY COURSES
(Faculty of Languages)

U.G.

ODD SEMESTER

HIL 001 (3-0-0)

v /; u dsfy, fu/kdj r i fj (ks %

; fu V I

fg Un h Hkk'kk %, sr g d v k'kj

; fu V II

fg Un h Hkk'kk % Hkk'kk d v k'kj

; fu V III

fg Un h Hkk'kk % Hkk'kk d v k'kj
ODD SEMESTER

HIL 002

(3-0-0)

v/; u d sfy, fu/kk r ifj {KS %

; fuV I

v u q kn % v f H k z k Lo; i j i f j H k k 'k d u

v u q kn % v k o'; d r k, o a i z k s u

; fuV II

v u q kn d k foL r r l f e r r f k v k n 'k z Lo; i
v u q kn % d y k j f o K k u v F k o k f e f j r f o k k
l k f k r F k k L r j h v u q kn d h fo' k k r k a

; fuV III

v u q kn d si z k j

f o / k d s v k k d j % x j k u q k n j i j k u q k n j
i d f r d s v k k d j % ' k q C n d v u q k n j H k k o k u q k n j
l k j k u q k n j ; k = d v u q k n A
f o' k k e k a d s v k k d j % v k q v u q k n j i k j H k f ' k l d k a d k v u q k n j
HIL 003

(3-0-0)

हरिवंशाराज वचन, मधुभाषा, राजपाल एंड सन्न, दिल्ली।

bd kA-1

व्याख्या—पृ 1-45
हरिवंशाराज वचन : सामान्य परिचय,

bd kA-2

व्याख्या—पृ 46-90
रोमांसवादी काव्याभास और हरिवंशाराज वचन

bd kA-3

व्याख्या—पृ 91-135
मधुभाषा काव्य संग्रह की मूल संवेदना और भाषागत वैभवशत्य
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER

jk'
fo ekf'ksy pr qzh

HIL 004

Q k; k , oav ky kou d sfy , fu/kdr d for k a%
पुष्प की अभिलाषा, मरण ज्वार, कौंदी और कोकिल, रणवेदी पर बलिवेदी पर, प्यारे भारत
dे”ग।

bd kbZ 1

व्याख्या— कौंदी और कोकिल
माखनलाल चतुर्वेदी: सामान्य परिचय

bd kbZ 2

व्याख्या— पुष्प की अभिलाषा, मरण ज्वार
राष्ट्रवादी काव्यधारा और माखनलाल चतुर्वेदी

bd kbZ 3

रणवेदी पर बलिवेदी पर, प्यारे भारत दे”ग
माखनलाल चतुर्वेदी की कविताओं का मूल स्वर

सहायक पुस्तकें:
नरेशचन्द्र चतुर्वेदी, राष्ट्रीय कविताएँ, कानपुर : साहित्य निकेतन, 1986
माखनलाल चतुर्वेदी और वि.द. सावरकर की कविताओं में राष्ट्रीय चेतना, सुभाष महालेख चं
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

HIL 005 (3-0-0)

1. ghUnhlkgR; d k l á{Mr bfr gW

bd kbo1

2. ghUnhlkgR; d k v kfn d ky r Flk HfdDr d ky %l ke ku i fjp;

bd kbo2

3. ghUnhlkgR; d k j hfr d ky r Flk v k/kj d d ky %Hkj r sh q; q] f] os h; q]

Nk; ko fn q; q d k l a Hz

bd kbo3

4. ghUnhlkgR; d k v k/kj d d ky %izfr d ky] iz kso kn] ubZd f o k] l ed ky hu

d f o k r Flk x| fo/kv kadsfod k d k l a Hz
INTERDISCIPLINARY COURSES  
(Faculty of Languages)

EVEN SEMESTER

HIL 006  
(3-0-0)

v/; u dsfy, fu/kfjr ifj{k-% 
xt y la g & lk; sea/ki v } y $ k & nq; a dq kj 
; fuv I 

fgU nh xt y % i fjp; , oafu/kfjr Q K; k 
; fuv II 

nq; a dq kj % Q fDr Ro , oad fr Ro , oafu/kfjr Q K; k 
; fuv III 

lk; sea/ki v xt y la g dh fo'kSK k a , oafu/kfjr Q K; k
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

HIL 007 (3-0-0)

Q k; k ds fy, fu/kjir u kWd %
1- v k'ks v/kjy%j k/kd '", k i z k ku] fn Yy hj 1974
   bd kÅ&1a

^ v k'ks v/kjy% % i & 1&37
l e d ky hu e/; ox h'k t hou d k nLr ko t
   bd kÅ&2

v k'ks v/kjy% % 38&74
v k'ks v/kjy% fo p kj /kj kj Hkk'kk
   bd kÅ&3

v k'kk<+d k, d fnu] i & 75&111
v k'ks v/kjy% भारतक d h l kFk r k] j xe p h r k

l g k; d i q r d s%
1. e kgu jkd sk v k§ m u d su kWd ] M W f x j h k j L r k h ] y k a l H d j r h i d k ku] fn Yy h a
2. e kgu jkd sk d h j a & ! "V] M W t x n h k' le kj j k/kd " , k i z k ku] o kj k h a
3. u kWd d kj e kgu jkd sk j M W f r y d j k t ' le kj v k ; Z c dj f Mi kj u b Z f n Y y h a
4. v k'kuj d u kWd d ke l hj k % e kgu jkd sk j M W x k o u n p k d ] b u h i z F k i z k ku]
   fn Y y h a
5. v k'k v/kjy% le h[kj M W j k t sk ' le kj v k h a l i z k ku] u b Z f n Y y h
INTERDISCIPLINARY COURSES
(Faculty of Languages)

PUNJABI

PBL-001 अपूर्व पंजाखी मधित

उन से सिखाये जा रहे विविध विषयों से पंजाखी अनुभव अदालती (Inter-disciplinary) वेंजम
(Under Credit Based Continuous Evaluation Grading System)
अंतर विषयों में रखा है अंतर पंजाखी वेंजम
मौसम 2012-2013

3-0-0

भाग : 3 थैटे
बुध भाग 100

I. तात्त्वक संबंध: पर्यावरण पत्र (पत्र)
II. सूक्ष्म भाषा: उद्व ़िंड लख उड (विलिंग)
III. प्राकृत लिख पद्धति: चेय ऐंटे दुर्बे (लटब)

पुस्तक दे शीर्ष

1. है. तात्त्वक: पत्रिका डे उंड
   भ. पर्यावरण पत्र: वेंटी माध्यमिक
   द. पर्यावरण पत्र: तात्त्वक वसा

2. है. तात्त्वक, जीउ भरे नारायण चित्र दैवधरीश्वान
   भ. उद्व ़िंड लख उड: दिम्ब वर्ण
   द. उद्व ़िंड लख उड: वावि सुवांग

3. है. तात्त्वक: पत्रिका डे मुथ
   भ. चेय ऐंटे दुर्बे: वेंटी माध्यमिक
   द. चेय ऐंटे दुर्बे: तात्त्वक सुवांग
Punjabi

PBL-002 पंजाबी लेख्यात्मक अभ्यासाचार

(Inter-disciplinary) वैद्य

(Under Credit Based Continuous Evaluation Grading System)

भाग 2012-2013

मार्ग : 3 घंटे

बुल अंक 100

I. लेख माधुर अभि दीर्घातीय हेतुतीया

(लेख बेह फ्लामब दे आयत एस)

भूषण : दादा राहुल रेशे पुरस्कारमिती, अभिनवत

II. पेघाँ लेखासंग्रह : मेके अन्द्र दिशारागन

III. पेघाँ लेखासंग्रह दिल्ल सुभ तो पत्रित्वर

पुस्तिकांचा वीम

1. धी. लेख मधुर : पत्रिका ते समुद्र

   भ. लेख वाणी : पेघां भाग-लेखासंग्रह ची भेंगवाणी

   ध. लेख वाणी : हिंमे अन्द्र मेटम

2. धी. पेघां लेखासंग्रह : पहाड विद्यूत

   भ. पेघां दे पुरुष भेंसे : लेखासंग्रह भावूठा

   ध. पेघां दे पुरुष दिशारागन : लेखासंग्रह भावूठा

3. धी. पेघां लेखासंग्रह : दिवंगतियाचे चा पुरुष

   भ. पेघां लेखासंग्रह : दिवंगत-रूप पुरुषांचे चा चर्चनाचा माधुर

   ध. पेघां लेखासंग्रह : पुरुष चूह्वीसा
INTERDISCIPLINARY COURSES
(Faculty of Languages)

PUNJABI
PBL-051 अंतरविभागीय पंजाबी माधव
(Under Credit Based Continuous Evaluation Grading System)

3-0-0

माधव : 3 चेंटे
बुल भाग 100

I. छुंट तरंग रंग : आमा ची द्राच

II. पूंछे माल : बाँधीभां

III. साधनपाद : बिंबा पृथक उठाओ

पुस्तिका हे वीभ

1. हे. द्राच आउँदे अपिशब्द द्राच
   भ. आमा ची द्राच : अपिशब्द अंध
   द. आमा ची द्राच : समर सिंग नेराव

2. हे. मूंदी आउँदे मूंदीनत
   भ. पूंछे माल चीमाँ बाँधीभां : दिंगा दमडू आउँदे दिपामाघात
   द. पूंछे माल चीमाँ बाँधीभां : बसा अंध

3. हे. बिंबा : पवित्रमान आउँदे समुद्र
   भ. बिंबा पृथक उठाओ : दिंगा दमडू
   द. बिंबा पृथक उठाओ : बसावट धुधीभां
PUNJABI

PBL-052 अपूर्विक पंजाबी माध्यम

(Inter-disciplinary) (Under Credit Based Continuous Evaluation Grading System)

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

शीत ज्ञान एवं वाणिज्य

अन्य शीत ज्ञान एवं वाणिज्य
INTERDISCIPLINARY COURSES  
(Faculty of Languages)

**SANSKRIT**  
U.G. Level Courses in Sanskrit

<table>
<thead>
<tr>
<th>Course Code</th>
<th>July-December (Odd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKL – 001</td>
<td>Panchatantra : A Niti Granth (4-0-0)</td>
</tr>
<tr>
<td>SKL – 002</td>
<td>General Introduction of Purnasardhashatakam (3-0-0)</td>
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<tr>
<th>Course Code</th>
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<tr>
<td>SKL – 006</td>
<td>Basics of Sanskrit Learning (4-0-0)</td>
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<td>SKL – 007</td>
<td>Shatakas of Bhartrihari (3-0-0)</td>
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SKL- 001  

**Unit-I**  पंचतन्त्र का सामान्य अध्ययन।

**Unit-II**  कथामुख एवं मित्रसम्प्राप्ति।

**Unit-III**  अपरीक्षित कारक की प्रथम दस कथाएँ।

1.  पंचतन्त्र : विष्णुशर्मा, चौकम्बा संस्कृत प्रकाशन, वाराणसी।

Credits: 4-0-0
SKL-002

(General Introduction of Purnasardhashatakam)

Credits: 3-0-0

Unit-I संस्कृत साहित्य में शतक परम्परा।

Unit-II पूर्णसार्धशतक काव्य का विस्तृत अध्ययन।

Unit-III भक्तपूर्णसिंह की शिक्षायें।

1. पूर्णसार्धशतकम: दलबीर सिंह चाहल, गुरु नानक देव विश्वविद्यालय, अमृतसर, 2006.
SKL- 006

(Basics of Sanskrit Learning)

Credits: 4-0-0

Unit-I  शब्द रूप (Declension) - देव, हरि, गुरु, लता, युक्तद, अस्मद, तद, किम।

Unit-II  धातु रूप (Conjugation) - भू, फल, दृष्ट, गम्, पा, प्रच्छ, वद (लद, लूद, लोद, लज लकारों में)।

Unit-III  पंचतन्त्र का कथा मुख।

1.  लघुसिद्धान्तकौमुदी वरदराज, मोहीलाल बनासीदास, नई दिल्ली।

2.  पंचतन्त्र: विष्णु शर्मा, चौकम्बा संस्कृत प्रकाशन, वाराणसी।
SKL- 007

**SANSKRIT**
*(Even)*

*(Faculty of Languages)*

**Hṛṣṭiṣṭikād ś'kr̥d**
*(Shatukas of Bhartrihari)*

Credits: 3-0-0

Unit-I  नीतिशालक, श्रंगारशालक एवं वैराग्यशालक का सामान्य परिचय।

Unit-II  नीतिशालक का विस्तृत परिचय।

Unit-III  नीतिशालक के प्रमुख प्रेरणादायक बिन्दु।

**fu/kkZfjr x tFk &**

1.  नीतिशालक : भर्तृहरि, चौकम्बा विद्याभवन, वाराणसी।
## SANSKRIT
### P.G. Level Courses in Sanskrit

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<td>SKL – 052</td>
<td>General Study of Sanskrit Kavyas on Sikh Gurus (4-0-0)</td>
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<td>SKL – 053</td>
<td>Main Streams of Sanskrit Literature (3-0-0)</td>
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<td>General Study of Valmiki Ramayana (3-0-0)</td>
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<td>General Study of Mahakavi Bhas : A Sanskrit Dramatist (4-0-0)</td>
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<td>SKL – 063</td>
<td>Relation between Sanskrit &amp; Panjabi (3-0-0)</td>
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INTERDISCIPLINARY COURSES  
(Faculty of Languages)

**SANSKRIT**  
(Odd)

SKL- 051  
(General Study of Chanakya’s Arthashastra)

Credits: 4-0-0

Unit-I  
विद्याओं के प्रकार,  
राजा के प्रशासनिक दायित्व।

Unit-II  
नियुक्ति: अमाल्य, मन्त्री, पुरोहित।  
प्रशासकों के कार्य तथा व्यवहार का गुप्त परीक्षण।

Unit-III  
गुप्तचर व्यवस्था (गुप्तचरों की नियुक्ति, प्रकार तथा परीक्षण)  
दूसरों की दूसरे राज्यों में कार्यप्रणाली।

1. अर्थशास्त्र: कौटिल्य, चौधर्य ओरियन्टलिया, दिल्ली।
**SANSKRIT**  
(Odd)

**SKL- 052**  
(General Study of Sanskrit Kavyas on Sikh Gurus)  
Credits: 4-0-0

**Unit-I**  
गुरु नानक देव पर आधारित संस्कृत काव्यों का सामान्य परिचय।

**Unit-II**  
गुरू गोविन्द सिंह पर आधारित संस्कृत काव्यों का सामान्य परिचय।

**Unit-III**  
श्रीरंक काव्य का सामान्य परिचय।

1. पंजाब का संस्कृत साहित्य को योगदान (डॉ. लेखराम शर्मा, डॉ. दलबीर सिंह चाहल, सम्पादक) — इंडियन्डेंट पब्लिशिंग कंपनी, दिल्ली, 2009.
SANSKRIT
(Odd)

SKL- 053  लालौ लक्ष्य: धीरे धीरे को लेकर 3-0-0
(Main Streams of Sanskrit Literature)

Unit-I काव्य — रघुवंश, बुद्धचरित, मेघदूत।

Unit-II गद्यकाव्य — कादम्बरी, शिवराजविभय।

Unit-III नाटक — मालविकागमित्र, मुच्छकटिक।

1. संस्कृत भाषा का इतिहास : बलदेव उपाध्याय, चौखम्बा विद्याधर, वाराणसी।
SANSKRIT
(Odd)

SKL – 054

(General Study of Valmiki Ramayana)

Credits: 3-0-0

Unit-I  वाल्मीकीयरामायण की कथावस्तु

Unit-II  वाल्मीकीयरामायण में सामाजिक मूल्य

Unit-III  वाल्मीकीयरामायण में पारिवारिक आदर्श

1. वाल्मीकीयरामायण : महर्षि वाल्मीकि गीता प्रेस, गोरखपुर।
SKL- 061  

SANSKRIT  
(Even)

(Basics of Sanskrit Grammar)

Credits: 4-0-0

Unit-I  सचि, कृदन्त (क्वा, तवत्, कत्)

Unit-II  कारक, उपसर्ग।

Unit-III  समास, र्त्री प्रत्यय

1. लघुसिद्धान्तकौमुदी: वरदराज, बनारसीदास, नई दिल्ली।
SANSKRIT
(Even)

SKL-062  
(General Study of Mahakavi Bhas: A Sanskrit Dramatist)

Credits: 4-0-0

Unit-I  भास के नाटकों का सामान्य परिचय एवं विभाजन।

Unit-II  स्वर्णवासवदत्तम का विस्तृत अध्ययन।

Unit-III  मध्यमव्यायोग : प्रथम संस्कृत एकांकी रूपक।

1. भास नाटक चक्र : चौंखम्बा ओरिन्टालिया, दिल्ली।
INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
(Even)

SKL – 063

(Relation between Sanskrit & Panjabi)

Credits: 3-0-0

Unit-I

तत्सम एवं तद्भव शब्दावली

Unit-II

व्याकरणिक परिप्रेक्ष्य

Unit-III

भाषावैज्ञानिक परिप्रेक्ष्य

1. संस्कृत तथा पंजाबी के सम्बन्ध : डॉ. श्यामदेव पाराशर, विश्वेश्वरानन्द वैदिक शोध संस्थान, होशारपुर, 1990.
SKL-064  
(Environment Awareness in Sanskrit Literature)

Credits: 3-0-0

Unit-I  पर्यावरण चेतना के सन्दर्भ में प्रकृति की व्यापकता

Unit-II  वनस्पति संरक्षण

Unit-III  जलवायु संरक्षण

1. वैदिक साहित्य का इतिहास : बलदेव उपाध्याय
SANSKRIT
(Even)

SKL-052

General Study of Sanskrit Kavyas on Sikh Gurus

Credits: 4-0-0

Unit-I

Unit-II

Unit-III

1. पंजाब का संस्कृत साहित्य को योगदान (डॉ. लेखराम शर्मा, डॉ. दलबीर सिंह चाहल, सम्पादक) – इण्डियापेन्डेंट पब्लिशिंग कंपनी, दिल्ली, 2009.
URDU and PERSIAN

(Odd- Semester)

URL- 001:  **URDU**  
(3-0-0)

Syllabi and Courses of Reading:

**UNIT-I**

Understanding of script, Alphabets, Words Making, Pronunciation, Correction of Spellings, Izafat, Ataf, Use of words in the sentences, Completion of Sentences and Fill in the Blanks

**UNIT-II**

Number, Gender, Synonyms and Antonyms, Idioms, Proverbs and Phrases

**UNIT-III**

Noun, Pronoun, Adjective, Verb, Subject, Object and Sentences (Murakkab Izafi, Murakkab Tausifi, Khabri, Masbat, Manfi, Istafhami)
URDU

Inter Disciplinary Integrated Courses (URDU) under Credit Based Continuous Evaluation Grading System for Under Graduate Students of other Departments (Odd- Semester)

URL- 002: URDU (3-0-0)

Syllabi and Courses of Reading:


UNIT-I

Lazmi Urdu Nisab, (1st half)

UNIT-II

Lazmi Urdu Nisab, (2nd half)

UNIT-III

Composition (Letter, Application and Essay etc)
Note: Department has three options for the students of different department as inter disciplinary course. Student can choose any one of them.

I. A STUDY OF URDU POETRY
II. SHAHMUKHI LIPI DA GYAN
III. A STUDY OF URDU GHAZAL

Syllabi and Courses of reading

URL-051: (Option-I)

A STUDY OF URDU POETRY

UNITS AND THEMES

I
1. Shai’ry ke Aqsaam (He’at ke Aitbaar se & Mazamin ke Aitbar se)
2. Misra, She’r, Radeef, Qafiya, Matla, Maqta, etc.

II
Asnaf-e-Sha’iry Aur Unki Taknik

III
Asnaf-e-Sha’iry Aur Unka Irteqa

Books Recommended:
1. Muqaddima She’r-o-Sha’iri: Altaf Husain Haali.
URDU

URL- 051:  (Option-II)

SHAHMUKHI LIPI DA GYAN  
(3-0-0)

UNITS AND THEMES

UNIT-I

Understanding of script, Alphabets, Words Making, Pronunciation, Correction of Spellings, Izafat, Ataf, Use of words in the sentences, Completion of the sentences and Fill in the blanks

UNIT-II

Number, Gender, Synonyms and Antonyms, Idioms, Proverbs and Phrases

UNIT-III

Noun, Pronoun, Adjective, Verb, Subject, Object and Sentences (Murakkab Izafi, Murakkab Tausifi, Khabri, Masbat, Manfi, Istafhami)
URDU
URL-051: (Option-III)

A STUDY OF URDU GHAZAL

(3-0-0)

UNIT AND THEMES

UNIT –I
Ghazal: Definition, Origin and Development

UNIT –II
Trends of Urdu Ghazal

UNIT –III
Important Poets of Urdu Ghazal

Recommended Books:

2. Hamari Sha’iri – Mas’ood Hasan Rizvi, Maktaba Jamia Ltd., Jamianagar, New Delhi-25
4. Urdu Sha’iri Par Ek Nazar – Kalimuddin Ahmad, Maktaba Jamia Ltd., Jamianagar, New Delhi-25
5. Ghazal Saz - Majnun Gorakhpuri, Maktaba Jamia Ltd., Jamianagar, New Delhi-25
6. Urdu Ghazal by Dr. Yusuf Husain, Maktaba Jamia Ltd., Jamianagar, New Delhi-25
Note: Department has Two options for the students of different department as inter disciplinary course. Student can choose any one of them.

I. FAIZ AHMAD ‘FAIZ’
II. URDU SUFI POETRY

URL-052: (Option-I)

FAIZ AHMAD ‘FAIZ’

Prescribed: Zindan Namah, Maktaba Jamia Ltd., Jamianagar, Delhi-25

UNITS AND THEMES

UNIT –I

Life and works of Faiz

UNIT –II

Faiz aur Jadeed Shairi

UNIT –III

Faiz aur Unki Sha’iri

Books Recommended:

1. Faiz Ahmad ‘Faiz’ by At’har Nabi
2. Faiz Apni Sha’iri Ke A’ine Mein by Dr. Abdul Haq Hasrat
3. Faiz Apni Sha’iri Ke A’ine Mein by Mumtaz Husain
4. Panch Jadeed Shair by Hamid Nasim
5. Jadeed Urdu Sha’iri by Ibadat Barelvi
6. Afkar Karachi – Faiz Number
7. Urdu Ki Ibtada’i Tehriken by Anwar Sa’eed
A STUDY OF URDU SUFI POETRY

UNIT –I
Sufizm: Definition, Origin and Development

UNIT –II
Sufism: Different Sects, Their Founders and Taalimaat and Practicis

UNIT –III
Urdu Sufi Poets: Dard, Momin, Ghalib, Nazeer and Iqbal

Recommended Books:
1. Islami Tasawwuf: Mubariz-ud-Din
2. Kashful Mehjoob: Data Ganj Bax Ali Hijwiri (Translation)
3. Sufiwad te Islam: Prof. Gulwant Singh
4. Wahdat-ul-wajood te Punjabi Shairi: Dr. Ali Abbas JalalPuri
5. Nazir Akbarabadi aur unki Nazm Nigari by Dr. Tal’at Husain Naqvi, Educational Book House, A. M. U. Market, Aligarh
INTERDISCIPLINARY COURSES
(Faculty of Languages)

(Odd- Semester)

PRL- 001: PERSIAN (3-0-0)
Syllabi and Courses of Reading

UNIT-I
Understanding of script, Alphabets, Words Making, Pronunciation, Correction of Spellings, Izafat, Ataf, Use of words in the sentences, Completion of Sentences and Fill in the Blanks

UNIT-II
Numbers, Counting, Names of the Days, Colors, Relations, Animals, Birds etc

UNIT-III
Noun, Pronoun, Adjective, Verb, Subject, Object and Sentences (Murakkab Izafi, Murakkab Tausifi, Khabri, Masbat, Manfi, Istafhami)

Book Prescribed: Jadeed Nisab-e-Farsi, Part- I

(Even- semester)

PRL- 002: PERSIAN (3-0-0)
Syllabi and Courses of Reading


UNIT-I
Jadeed Nisab-e-Farsi, Part- II

UNIT-II
Jadeed Nisab-e-Farsi, Part- III

UNIT-III
Applied Grammar
PERSIAN
(Odd- Semester)

Syllabi and Courses of Reading

PRL-051: STUDY OF PERSIAN POETRY (3-0-0)

UNIT–I
1. Shai’ry ke Aqsaam (He’at ke Aitbaar se & Mazamin ke Aitbar se)
2. Misra, She’r, Radeef, Qafiya, Matla, Maqta, Waghaira waghaira

UNIT–II
Asnaf-e-Sha’iry Aur Unki Taknik

UNIT–III
Asnaf-e-Sha’iry Aur Unka Irteqa

Book Recommended:
Muqaddima She’r-o-Sha’iri- Altaf Husain Haali.

PERSIAN
(Even- Semester)

Syllabi and Courses of Reading

PRL-052: ELEMENTARY PERSIAN AND PERSIAN GRAMMAR (3-0-0)

UNIT–I
Persian Language: Script, Reading and Writing

UNIT–II
Jadeed Kitab-e- Farsi Hissa Awwal

UNIT–III
Jadeed Kitab-e- Farsi Hissa Duwwum
Jadeed Kitab-e- Farsi Hissa Suwwum
FRENCH
Semester-I

FLL-121 Basic French Credits: 3-0-1

Grammar
1. Questions of general comprehension related to the text.
   e.g.: Qu’est ce que vous faites le dimanche ou
   Apprenez – vous le francais?
2. Questions on comprehension of an unseen passage of about 200 words.
4. Composition of a small paragraph on general topics pertaining to the text.
   e.g.: Ma maison, Mon professeur, Ma famille
5. Simple questions of general interest on French pertaining to the text. (Questions on important
   cities, regions, mountains, Monuments, rivers, national day, National Flag, National song,
   Cuisine.
6. Make sentences:-
   e.g. avoir, faim, etre debout

Translation
1. Translation of a simple unseen passage or short sentences from English into French
2. Translation of a simple unseen passage or short sentences from French into English

Course of Reading & Prescribed Text-Book:
“CONNEXIONS-1” by Regine Merieux & Yves Loiseau
Published by Didier. (Unit 1to 6)
FRENCH
Semester-II

FLL-121 Basic French Credits: 3-0-1

Grammar
1. Questions of general comprehension related to the text.
   e.g.: - Qu’est ce que vous faites le dimanche ou
         Apprenez – vous le francais?
2. Questions on comprehension of an unseen passage of about 200 words.
4. Composition of a small paragraph on general topics pertaining to the text.
   e.g.: Ma maison, Mon professeur, Ma famille, Une ville touristique, Un pique-nique.
5. Simple questions of general interest on French pertaining to the text. (Questions on important
   cities, regions, mountains, Monuments, rivers, national day, National Flag, National song,
   Cuisine.
6. Make sentences:-
   e.g. avoir, faim, etre debout

Translation
1. Translation of a simple unseen passage or short sentences from English into French.
2. Translation of a simple unseen passage or short sentences from French into English.

Course of Reading & Prescribed Text-Book:
“CONNEXIONS-1” by Regine Merieux & Yves Loiseau
Published by Didier. (Unit 7to 12)
FLL-101 Basic Russian Credits: 3-0-1

Grammar

Course of Reading & Prescribed Text-Book:
- Introduction to various parts of speech like Noun, Adjective, Adverb, Verbs and other grammatical aspects like conjugation of verbs, Declension of nouns and adjectives etc.
- Formation of simple sentences.
- Present and past tenses.

Translation

1. Translation from English (an unseen passage or short sentences) into Russian
2. Translation from Russian (a seen passage or short sentences) into English.

Note: Dictionaries are allowed in Translation.

“RUSSIAN” – by Wagner V.N. & Ovsienko Y.G. (Lessons 1 to 12)
“RUSSIAN” – by Ovsienko Y.G. & Skopina (Part-I)
INTERDISCIPLINARY COURSES
(Faculty of Languages)
(Foreign Languages)

RUSSIAN

FLL-102 Basic Russian Credits: 3-0-1
SEMESTER-II

Advanced Grammar
Course of Reading & Prescribed Text-Book:
- All the cases in singular form (Nouns only).

Translation
1. Translation from English (an unseen passage or short sentences) into Russian
2. Translation from Russian (a seen passage or short sentences) into English.
3. Write a small paragraph
   Topics: My friend; About myself; My family; My classroom, My teacher

Course of Reading & Prescribed Text-Book:
“RUSSIAN” – by Wagner V.N. & Ovsienko Y.G. (Lessons 13 to 25)
“RUSSIAN” – by Ovsienko Y.G. & Skopina (Part-I)
Note: Dictionaries are allowed in Translation.
INTERDISCIPLINARY COURSES  
(Faculty of Languages)  
(Foreign Languages)

GERMAN   
Semester-I

FLL-131   Basic German (Part-I)   Credits: 3-0-1

Grammar & Comprehension
- Introduction to various parts of speech in German like Noun, Adjective, adverb, Verb etc.
- Conjugation of verbs.
- Declension of definite and indefinite articles, adjectives.
- Tense: present and perfect.
- Formation of simple sentences.
- Comprehension of an unseen passage.

Translation
1. Translation from English (of a small passage or short sentences) into German.
2. Translation from German (of a small passage or short sentences) into English/Hindi/Punjabi.
3. Write a small paragraph (one out of three topics).
   Topics: My friend; About myself; My family; My classroom, My teacher.

Course of Reading & Prescribed Text-Book:
MOMENT MAL- 1(published by Langenscheidt) Lessons 1-6
Supplementary Reading:
Sprachkurs Deutsch (published by Verlag Moritz Diesterweg)
Note: Dictionaries are allowed in Translation.
GERMAN
Semester-II

FLL-132 Basic German (Part-II) Credits: 3-0-1

Grammar & Comprehension
- Tense: simple past & future.
- Formation of complex & compound sentences.
- Dialogue writing.
- Comprehension of an unseen text.

Translation
- Translation from English into German.
- Translation from German into English/Hindi/Punjabi.
- An informal letter.

Course of Reading & Prescribed Text-Book:

MOMENT MAL –I (published by Langenscheidt) Lessons 7 to 12
Supplementary Reading:
Sprachkurs Deutsch (published by Verlag Moritz Diesterweg)

Note: Dictionaries are allowed in Translation.
## Interdisciplinary Course for UG Classes

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## Interdisciplinary Course for PG Classes

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<td>BASIC CONCEPTS OF LAW -III</td>
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</table>
INTERDISCIPLINARY COURSES
(Faculty of Law)

LAW

Interdisciplinary Courses of Law for UG Classes
(Under Credit Based Continuous Evaluation Grading System)

LAL001 (ODD) BASIC CONCEPTS OF LAW -I

4+0+0
Total Marks: 100 (Equivalent Grade Points to be Indicated)
MINOR I: 20
MINOR II: 20
Major Max. Marks: 50
Quiz/Viva: 10
(15 Credit Hours)

MINOR I
Fundamental Rights:
Available against Whom (Article 12)
Who can Claim
In-consistency with Law (Article 13)
Right to Equality (Article 14 to 18)
Right to Freedom (Articles 19-22)
Right against Exploitation (Articles 23-24)
Right to Freedom of Religion (Articles 25-28)
Cultural and Educational Rights (Articles 29-30)
Directive Principles
Rights to Constitutional Remedies (Articles 32)

MINOR II
Human Rights
National Human Rights Commission: Composition, Powers and Functions
Matrimonial Remedies
Nullity of Marriage
Divorce
Judicial Separation
Restitution of Conjugal Rights

MAJOR (Including Minor I & Minor II) (20 Credit Hours)
Abetment (Ss. 107 to 114)
Criminal Conspiracy (Ss. 120 A & B)
Offences against the State (Ss. 121-124 A)
Offences Relating to Marriage (Ss. 493 to 498)
Right to Information Act, 2005- Objective and Salient Features
Right to Service Act, Objective and Salient Features
Suggested Readings:
M.P. Singh (Ed.): Shukla's Constitution of India, Eastern Book Co., Lucknow.
M.P. Jain: Indian Constitutional Law.
M.P. Tandon: Indian Penal Code
Jaspal Singh: Indian Penal Code
PSA Pillai: Criminal Law
LAL002 (EVEN) BASIC CONCEPTS OF LAW -II

4+0+0

Total Marks: 100 (Equivalent Grade Points to be Indicated)

MINOR I

The Consumer Protection Act, 1986, Concepts and Definitions
Consumer Rights under the Consumer Protection Act, 1986
Application of Consumer Protection Act 1986 to Various Services
New Developments in Consumer Protection Law in India, Consumer Protection Councils

MINOR II

Relationship between Consumer Protection Law and Environmental Law
The Concepts of Green Consumerism and Environmental Consumerism

MAJOR (Including Minor I & Minor II)

CCS (CCA) Rules 1965
Major and Minor Penalties
Suspension and Subsistence Allowance
Conduct and Procedure of Departmental / Disciplinary Enquiries (including Charge Sheet, Inspection and Supply of Copies of Documents, Production of Evidence, Enquiry Report, Hearing if any on Question of Penalty and Final Question of Penalty and Final Action by Competent Authority
Compulsory/Premature Retirement
Principles of Equal Pay for Equal Work
Status and Rights of Adhoc Employees and their Regularization
Enforcement of Contract of Personal Service

Suggested Readings:

Avtar Singh, Principles of Mercantile Law, Eastern Book Co., Lucknow, 2004
Satish Shastri, Pollution and the Environmental Law, Eastern Book Co., Lucknow, 2002
Government of India, Delhi Central Civil Service Rules.
LAW

Interdisciplinary Course of Law for PG Classes
(Under Credit Based Continuous Evaluation Grading System)

LAL051 (ODD) BASIC CONCEPTS OF LAW –III 4+0+0

Total Marks: 100 (Equivalent Grade Points to be Indicated)
MINOR I: 20
MINOR II: 20
Major Max. Marks: 50
Quiz/Viva: 10

MINOR I
Constitution of India
-Preamble
-Citizenship: At the Commencement of the Constitution, After the Commencement of the Constitution.
-Fundamental Rights
-Directive Principles of State Policy
-Fundamental Duties
-Writs
-Judiciary: Supreme Court and High Court

MINOR II
Family Law
-Law of Adoption: Within Country and Inter Country
-Maintenance under Hindu Law, Muslim Law, Special Marriage Act, 1954 and Sec. 125 of Cr. P.C.
-Child Marriage
-NRI Marriages
-Domestic Violence against Women
-Dowry

MAJOR (Including Minor I & Minor II)
Contract Law & Torts
- Formation of Contract Proposal and Acceptance
-Standard Form of Contract, Memorandum of Understanding (MOU)
- Capacity to Contract
-Breach of contracts & damages
-Vicarious liability
-Strict liability
-Nuisance
Suggested Readings:

5. M.P. Jain: Constitutional Law of. India
9. A A A Fayze: Outlines of Mohammedand Law
10. Dr. R.K. Sinha: Muslim Law
11. Mayne’s: Treatise on Hindu Law & Usage
12. Mulla’s: Principle of Hindu Law
13. B.K. Sharma: Hindu Law
14. Pollock & Mulla: Indian Contract Act Specific Relief Act
15. R.K. Bangia: Indian Contract Act Allahabad Law
17. Subha Rao: Law of Specific Relief
20. R.K. Bangia: Law of Torts
22. Gurjeet Singh: Law of Consumer Protection in India
INTERDISCIPLINARY COURSES
(Faculty of Law)

LAW

Interdisciplinary Course of Law for PG Classes
(Under Credit Based Continuous Evaluation Grading System)

LAL052 (EVEN) BASIC CONCEPTS OF LAW -IV

4+0+0

Total Marks: 100 (Equivalent Grade Points to be Indicated)
MINOR I: 20
MINOR II: 20
Major Max. Marks: 50
Quiz/Viva: 10

MINOR I
Criminal Law
- General Explanations (Ss. 6 to 32)
- Joint Liability in Crimes (Ss. 34 to 38 and 149)
- General Exceptions (Ss. 76 to 106)
- Defamation (Ss. 499 to 502)
- Attempt (S. 511)

MINOR II
Cyber Law
- Defining Crime
- Crime in the Context of Internet- Actus Res/ Mens Rea
- Types of Cyber Crimes
- Computing Damage in Internet Crime
- Fraud
- Hacking
- Mischief
- Trespass
- Defamation
- Stalking
- Spam

MAJOR (Including Minor I & Minor II) (20 Credit Hours)
Environmental Law
- Meaning, Origin, Scope of Environment Law
- Kinds of Environment Pollution
- Factors responsible for causing Environment Pollutions
- Constitutional Provisions relating to the Environment Protection
Suggested Readings:

1. Rattan Lal and Dhiraj Lal: Indian Penal Code (Student ed.)
2. M.P. Tandon: Indian Penal Code
3. Jaspal Singh: Indian Penal Code
4. PSA Pillai: Criminal Law
10. Suresh T. Vishwanathan: The Indian Cyber laws, Bharat Law House, New Delhi, 2001
Unit—I


Unit -- II

Unit – III
Effect of Exercise in Musculo Skelton System. Effect of Exercise in Digestive System.

References
1. Mc Ardle, Katch, Katch: Exercise Physiology Edition IV.
5. Fox and Mathews - The Physiological Basis of Physical Education and athletics - Holt Saunders.
8. Clarke - Exercise Physiology - Prentice Hall.
INTERDISCIPLINARY COURSES
(Faculty of Sports Medicine & Physiotherapy)

PHYSIOTHERAPY

SPL052 - Assessment and Management in Physiotherapy
Credits: 3-0-0

Unit --I

1. Importance of assessment & management of injuries, Methods of assessment & management.

2. Evaluation of Physical Fitness.

3. Musculoskeletal screening.

Unit --II


2. Assessment of injuries of upper limb complex: Shoulder girdle, shoulder, arm, elbow, forearm, wrist, hand and their management.

Unit –III

1. Assessment of injuries of spinal column: Cervical, thoracic and lumboscaral and their management.

References:


3. Reed: Sports Injuries – Assessment and Rehabilitation, W.B. Saunders.


## MUSIC
Inter Disciplinary Course U.G Level (Credit Based) for other deptts.
Session-2012-13

**Note:** Students have to select any one course from the list of courses.

<table>
<thead>
<tr>
<th>Course No.</th>
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<th>Credits</th>
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<tr>
<td>MUI-002</td>
<td>C</td>
<td>MUSIC APPRECIATION &amp; BASIC TRAINING IN MUSIC INSTRUMENTAL</td>
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INTERDISCIPLINARY COURSES  
(Faculty of Visual Arts & Performing Arts)

MUSIC

MUI 001: COURSE TITLE:
MUSIC APPRECIATION & BASIC TRAINING IN MUSIC (VOCAL)

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</table>

MINOR-I

*Note*: The Paper setter will set 3 questions. All questions are compulsory.

I  Knowledge of some basic Technical Terminology of Music:
  Qualities of Naad, (Pitch, Intensity, Timber) Swara, Varjit, Vadi, Samavadi, Vivadi, Anuvadi Laya, (Rhythm)

II  Brief knowledge of Harmonium & method of playing Harmonium.

III  Ability to sing five Alankars on harmonium or keyboard.

Marks: 20

MINOR-II

*Note*: The Paper setter will set 3 questions. All questions are compulsory.

I  Ability to sing 2 light compositions based on Ragas.

II  Knowledge of some Basic Talas & ability to recite on Hand as well on Tabla.
  Teentala 16 Beats
  Kaharava  8 Beats

III  Critical appreciation of music compositions: One light, one classical based.

Marks: 20

MAJOR

*Note*: The Paper setter will set 5 questions. Selecting one each from Minor-I & Minor-II. All questions will be compulsory.

I  Importance of music listening in the appreciation of vocal music.

II  Ability to recite Shabad/Bhajans (any two) with Harmonium.

III  Film Songs based on (Two songs each to be selected) Ragas Yaman & Shivranjini.

IV  Ability to sing National anthem with Harmonium.

V  Role of Multi Media in Music Vocal.

*Note*: Quiz After Minor-I & Minor-II

Marks: 10
MUI 002: COURSE TITLE:
MUSIC APPRECIATION & BASIC TRAINING IN MUSIC INSTRUMENTAL
MINOR-I

Note: The Paper setter will set 3 questions. All questions are compulsory.

I Knowledge of some basic Technical Terminology of music:
  (Nada) Sound  Swara, Saptak, Raga ,Rhythm .
II Brief Introduction of your instrument with diagram.
III Ability to play five Alankars on any one Instrument of your choice (out of following)
  Sitar, Harmonium,, Guitar, Santoor, Dilruba
  Marks :20

Minor-II

Note: The Paper setter will set 3 questions. All questions are compulsory.

I Ability to play 2 compositions on any instrument based on ragas.
II Knowledge of different beats in Indian Music. (Select any four)
III Critical Appreciation of any two compositions one each in light & classical based.
  Marks: 20

MAJOR

Note: The Paper setter will set 5 questions. Selecting one each from Minor-I &Minor-II.
  All questions will be compulsory.
I Importance of music listening in the appreciation of vocal Instrumental.
II Ability to play folk tunes (any three)
III Use of Raga Kalyan & Bhairavi in Cinematic Music (two each sings to be selected)
IV Ability to Play National anthem with Harmonium.
V Role of Multi Media in Music Instrumental.

  Marks :50

Note : Quiz /Seminar after Minor-I & Minor-II  Marks :10
## MUSIC
Inter Disciplinary Course P.G Level (Credit Based) for other deptts.
Session-2012-13 & 2013-14

Note: Students have to select any one course from the list of courses.

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<th>Course No.</th>
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INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

Inter Disciplinary Course P.G Level (Credit Based)

COURSE-I
MUI–051: Course Title: Basic Fundamentals & Practical Training in Music (Vocal)

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</table>

MINOR-I
Note: The Paper setter will set 3 questions. All questions are compulsory.

I. Knowledge of some basic Technical Terminology of Music:
   Swara, Jatis of Raga, Varjit, Thata, Vadi, Samvadi, Alankar, Vivadi-Anuvadi

II Basic knowledge of playing Harmonium or Key Board.

III Ability to Sing ten Alankars on harmonium or key board or any instrument of your choice.

   Marks: 20

MINOR-II
Note: The Paper setter will set 3 questions. All questions are compulsory.

   I Ability to sing 5 light compositions based on Ragas.

   II Knowledge of some Basic Talas & ability to recite on hands.
      - Teentala 16 Beats
      - Kaharva 8 Beats
      - Rupak 7 Beats
      - Dadra 6 Beats

III Importance of Laya & Tala (Rhythm) in music.

   Marks: 20

MAJOR
Note: The Paper setter will set 5 questions. Selecting one each from Minor-I & Minor-II.

All questions will be compulsory.

   Marks: 50

   I Relevance & use of notation system in Indian classical music.

   II Ability to recite Shabad/Bhajans (any five) with Tanpura.

   III Basic knowledge of Ragas: yaman & Bhairavi.

   IV Ability to sing western composition (any two) with Guitar.

   V Role of Multi Media in Music.

   Note: Quiz After Minor-I & Minor-II

   Marks: 10
INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

Inter Disciplinary Course PG Level (Credit Based)

COURSE-II
MUI–052: COURSE TITLE: BASIC FUNDAMENTALS & PRACTICAL TRAINING IN MUSIC (INSTRUMENTAL)

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</table>

MINOR-I

Note: The Paper setter will set 3 questions. All questions are compulsory.

I Knowledge of some basic Technical Terminology of music:
Swara, Saptak, Raga, Thata, Nada

II Introduction of Classification of Indian Musical Instruments.

III Ability to play ten Alankars on any one Instrument of your choice (out of following)
Sitar, Harmonium, Guitar, Santoor, Dilruba

Marks: 20

Minor-II

Note: The Paper setter will set 3 questions. All questions are compulsory.

I Ability to play 5 compositions on any instrument based on ragas.

II Knowledge of different beats in Indian Music. (Select any four)

III Use of classical Ragas in Indian film music.

Marks: 20

MAJOR

Note: The Paper setter will set 5 questions. Selecting one each from Minor-I &Minor-II. All questions will be compulsory.

I Ability to play different famous folk tunes of Punjab (any three)

II Relation of music with psychology-a practical approach.

III Relation of Music with Mathematics-a practical approach.

IV Relation of music with computer-a practical approach.

V Ability to play the following Talas on Tabla:
   i) Teen Tal   ii) Kaherana
   iii) Dadra   iv) Rupak

Note: Quiz /Seminar after Minor-I & Minor-II

Marks: 50

Marks: 10
News: Types, Elements, Sources of News; News Gathering Techniques, News Writing Styles
Feature & its Types, Editorial and its Types, Columns and Columnists
Creative writing: essays, short stories, middles
Headline, technique, style, purposes, kinds of headlines
Lead: functions and types
Reporting Scoops and Exclusives, Beats, Specialized Reporting, Investigative, Interpretative and Depth Reporting
Types of Interview, Purpose, Technique
New Trends in Print Media: Commercialization, Bias in News, Manipulation, Advertorial, Sensationalism, Coloured Reports
Glossary of Print Media Terms
Right to Information Act-2005
INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

JOURNALISM

PAPER - INTRODUCTION TO MASS COMMUNICATION
(INTERDISCIPLINARY COURSE
(FOR UNDERGRADUATE CLASSES)

Credit Hours: 3          Max Marks: 100

Communication- Concept, scope and need, 7Cs of communication; Verbal and Non-Verbal Communication; Public Speaking.

Traditional Media, Types of Communication

Characteristics of Print, Radio, TV and Films.

News: Definition, Types, Sources, Structure; Lead, Headlines: Articles, Features, Middles, Editorials.

Voice Modulation for Radio

Key elements of writing for Radio

Key elements of writing for TV

Formats of Radio & T.V. Film Reviews.

Glossary
INTERDISCIPLINARY COURSES
(Faculty of Humanities & Religious Studies)

M.A.(Hons.) Religious Studies

GNL-402 Basics of Religion

Credits 4

Unit I: Culture and Religion
  1. Religion, Culture and Society
  2. Religious Syncretism
  3. Power and Culture

Unit II: Ritual and Scripture
  1. Ritual, Meaning and Symbolism
  2. Ritual and Communication

Unit III: Gender and Religion
  1. Religion and Ideology of Gender
  2. Gender and Christianity
  3. Muslim Women

Suggested Readings

English Books
4. Ramesh Chander Dogra, Encyclopedia of Sikh Religion and Culture, New Delhi,
8. T.N. Madan (ed.), Muslim Communities of South Asia : Culture, Society and Power, New Delhi.

Punjabi Books
1. ਸਾਹਿਤੀਕ ਮਿਲਾਣ, ਪੰਜਾਬੀ ਗਿਰਜਾਵਾਦ, ਪੰਜਾਬੀ ਗੀਤਕਾਵਾਦ, ਪੰਜਾਬੀ ਚਾਲੀਚਾਲਿਤੀ, ਪਹਿਚੂਣਾ, 2007.
GNL-414  4 Credits

Guru Nanak Dev: Life and Teachings

Unit-I: Life of Guru Nanak
1. Religious, Social and Political Milieu
2. Life of Guru Nanak
3. Travels of Guru Nanak

Unit-II: Major Compositions of Guru Nanak
1. Japuji
2. Asa Di Var
3. Siddh Gosht

Unit-III: Teachings of Guru Nanak
1. Metaphysical Aspects
2. Ethical Aspects
3. Social Aspects

Suggested Readings

English Books

Punjabi Books
1. उच्चरित सिन्ह, गुरु नानक दे विचार, जनदर्शी साहित्य भार्त, अमृतसर, 1963
2. रमण सिंह, गुरु नानक दीवान, भौज-पत्री मौर्य एच.एम, आमृतसर, 1969.
3. महिला सिद्ध रंगोली, (संप. ) गुरु नानक साहित्य दर्शन आने बारात बाल, पंजाबी पुस्तिकों नी, चेंडीगढ़, 1975.
4. साहित्य साहित्य पत्री, गुरु नानक जी जी : साहित्यिक उद्योग जी रामदेव, गुरु नानक देव पुस्तिकों नी, अमृतसर.
M.A.(Hons.) Philosophy

GNL-518

Philosophy and Its Relevance

Unit I: Philosophy: An Introduction
1. Philosophy: Nature and Scope
2. Branches of Philosophy
3. Methods of Philosophy

Unit II: Problems of Philosophy
1. Appearance and Reality
2. Self and Non-Self
3. Individual and Society

Unit III: Main Issues of Philosophy
1. Applied Philosophy: Nature and Scope
2. Freedom and Responsibility
3. Reason and Faith

Suggested Readings

English Books

M.A. (Hons.) Philosophy

GNL-521 4 Credits

Applied Ethics

Unit I: Applied Ethics - An Introduction
1. Applied Ethics: Nature and Scope
2. Human Nature and Character

Unit II: Ecology and Applied Ethics
1. Ecology: Nature and Scope
2. Man-Nature Relationship

Unit III: Professional Ethics
1. Medical Ethics and Legal Ethics
2. Educational Ethics

Suggested Readings

English Books

Sikh History, Religion, Philosophy and Literature

Unit I: Sikh History (1469-1708 A.D.)
   a) Origin and Development of Sikh Religion: Guru Nanak Dev to Guru Arjan Dev
   b) Development of Sikh Religion: Guru Hargobind to Guru Tegh Bahadur
   c) Life and Mission: Guru Gobind Singh

Unit II: Sikh Philosophy
   a) Sikh Philosophy: God, Man, World
   b) Sikh Institutions: Langar, Sangat, Dharamsala, Gurmata
   c) Sikh Ethics

Unit III: Sikh Literature
   a) Guru Granth Sahib: Compilation and Editing
   b) Dasam Granth: Authorship and Contents
   c) Janamsakhi and Gurbilas Literature

Suggested Readings

English Books

Punjabi Books
1. गुरुवार कैल रंगी, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1988.
2. उपरक भिंत, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1980.
3. टिकान भिंत देख मंडित भिंत, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1979.
4. टिकान भिंत देख मंडित भिंत, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, अभिभाषण 1976.
5. प्रीत भिंत निख, मी गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1967
6. भिंत लकड़ भिंत देख, मुख्य भिंत गुरुवार भिंत, भिंत देख, नतीज, पटिमा, 1970.
7. समालित भिंत देख दिल (डॉ.), गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, अभिभाषण 1969.
8. समालित भिंत देख दिल (डॉ.), भिंत समालित भिंत दिल (डॉ.), भिंत देख, नतीज, पंजाबी पुरोंस्चालित, अभिभाषण 1969.
9. विनो भिंत निख (डॉ.), देख मुख्य देख दिल, पंजाबी माउंड म्यां, तलीं पत्र, 1966.
10. जी. पी. भिंत देख देख, देख मुख्य देख देख, मुख्य माउंड म्यां, तलीं पत्र, 1968.
11. जी. पी. भिंत (डॉ.), देख मुख्य देख देख देख, देख मुख्य देख देख, माउंड म्यां, 1968.
12. जी. पी. भिंत, भिंत संस्कृत माउंड, भिंत संस्कृत माउंड, पंजाबी पुरोंस्चालित, पटिमा 1968.

Hindi Books
1. गुरुवार कैल रंगी, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1988.
2. उपरक भिंत, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1980.
3. टिकान भिंत देख मंडित भिंत, गुरु अमर सं। देख। नीति देख। नतीज, पंजाबी पुरोंस्चालित, पटिमा, 1979.
INTERDISCIPLINARY COURSES
(Faculty of Humanities & Religious Studies)

M.Phil. Philosophy

GNL/2-604  3 Credits

Studies in Social Philosophy

Unit I: Social Philosophy: An Introduction
1. Social Philosophy: Nature and Scope
2. Relation with Social Sciences
3. Social Organizations and Social Ethics

Unit II: Key Issues in Social Philosophy
1. Key Issues in Social Philosophy: Individual, Groups and Society
2. Human Rights and Responsibility
3. Social Equality and Social Justice

Unit III: Gender Studies
1. Gender Studies: Nature and Scope
2. Phases of Feminist Consciousness
3. Women Empowerment

Suggested Readings

English Books
INTERDISCIPLINARY COURSES
(Faculty of Economics & Business)

Commerce
CBM: Basic Accounting and Finance

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<tr>
<th>Text</th>
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<tbody>
<tr>
<td>Accounting as an Information System and the users of this information, relationship between financial accounting, management and cost accounting.</td>
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<tr>
<td>Basic accounting principles/concepts.</td>
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<td>Meaning of depreciation, depletion and amortization.</td>
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<td>Long term and short term sources of finance.</td>
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<td>Working Capital: Gross working capital, networking capital, factors affecting working capital.</td>
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<th>First Minor Test : One Hour</th>
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<tr>
<td>Format and Items of profit and loss account/statement and balance sheet of corporate and non-corporate business entities.</td>
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<tr>
<td>Concept of debit and credit balance and brief idea about the recording process (Accounting Cycle).</td>
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<td>Ratio Analysis (Simple Problems with main emphasis interpretation).</td>
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<th>Second Minor Test : One Hour</th>
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<tr>
<td>Cost Concepts and Cost Behaviour: Various classifications of cost, brief idea about breakeven point, budgetary control, functional budgets, master budget, flexible budget and zero base budgeting.</td>
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<tr>
<td>Modes of Fund Transfer: Information of common practical use regarding cheque, draft, debit and credit card, internet banking, mobile banking, NEFT, RTGS.</td>
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<td>Common Stock Market Terminology: Primary market, Secondary market, SENSEX, NIFTY, IPO, FPO, right issue, bonus issue, buy back of shares, stock split, stock consolidation, demat account, share trading account, bulls, bears, going long, going short, meaning of fundamental analysis and technical analysis.</td>
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<th>Final Examination : Three Hours</th>
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<td>Including the Syllabus of Minor I and II.</td>
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Suggested Readings:

http://www.mca.gov.in/
http://www.sebi.gov.in