

SYLLABUS

FOR

Interdisciplinary Courses

Session: 2012-13



**GURU NANAK DEV UNIVERSITY
AMRITSAR**

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INTERDISCIPLINARY COURSES

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FACULTY OF VISUAL ARTS & PERFORMING ARTS

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3
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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

4. The Khalsa Panth of Guru Gobind Singh.
5. Sikh Struggle for sovereignty (AD 1708- 1765).
6. Nature and organization of the Misl.

Unit III

7. Maharaja Ranjit Singh's rise to power.
8. Civil and Military administration
9. Anglo-Sikh Relations: Anglo- Wars and Annexation.

SUGGESTED READING

1. W.H. McLeod, *Guru Nanak and the Sikh Religion*, OUP, New Delhi, 1996.
2. Khushwant Singh, *A History of the Sikhs*, Vols. I-II, OUP, New Delhi, 2006.
3. J.S. Grewal, *The Sikhs of the Punjab*, CUP, Cambridge, 1990.
4. G.L. Chopra, *The Punjab as a Sovereign State*, VVRI, Hoshiarpur, 1960.
5. Teja Singh and Ganda Singh, *A Short History of the Sikhs*, Patiala, 1983.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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

HSL: 002

Credits: 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 Satyagraha 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

1. Khushwant Singh, *A History of the Sikhs*, Vols. II, OUP, New Delhi, 2006.
2. J.S. Grewal, *The Sikhs of the Punjab*, CUP, Cambridge, 1990.
3. Fauja Singh, *A Brief History of the Freedom Movement in the Punjab*, Punjabi University, Patiala, 1998.
4. Joginder Singh, *Namdhari Guru Ram Singh*, NBT, New Delhi, 2010.
5. Satya M. Rai, *Punjabi Heroic Tradition (1900-1947)*, Punjabi University, Patiala, 1995.
6. P.M.S. Grewal, *Bhagat Singh: Liberation's Blazing Star*, Leftword, New Delhi, 2007.
7. Sukhdev Singh Sohal and Amandeep Singh Sekhon (Eds.), *Shaheed Bhagat Singh: Life and Ideology*, Punjabi University Guru Kashi College, Damdama Sahib, (Bathinda), 2011.
8. Sekhar Bandyopadhyay (Ed.), *Nationalist Movement in India: A Reader*, OUP, New Delhi, 2009.

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.
3. The Jallianwala Bagh Massacre (1919).

UNIT-II

4. Militant Nationalism with special reference to Bhagat Singh and Associates.
5. The Partition and Aftermath.
6. The Punjabi Suba Movement and the Reorganization Act (1966).

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

- Grewal, J.S., *The Sikhs of the Punjab*, CUP, Cambridge, 1990.
- Grewal, J.S., and Indu Banga (eds.), *Punjab in Prosperity and Violence: Administration, Politics and Social Change (1947-97)*, K.K. Publishers, Chandigarh, 1998.
- Banga, Indu (ed.), *Five Punjabi Centuries: Polity, Economy, Society and Culture C. 1500-1990: Essays for J.S.Grewal*, Manohar, New Delhi, 1997.
- Mohan, Kamlesh, *Militant Nationalism in the Punjab (1919-1935)*, Manohar, New Delhi, 1985.
- Puri, Harish K., *The Ghadar Movement*, Guru Nanak Dev University, Amritsar, 1993.
- Puri, Harish K. Paramjit Singh Judge and Jagroop Singh Sekhon, "Terrorism in Punjab: Understanding Reality at the Grassroots Level", *Guru Nanak Journal of Sociology*, Vol. XVIII No. I, G.N. D. University, Amritsar, 1997.
- Khushwant Singh, *A History of the Sikhs (1839-1988)*, Vol. II, OUP, Delhi, 1991.
- Kirpal Singh, *Partition of Punjab*, Punjabi University, Patiala, 1972.
- Pritam Singh & Shinder Singh Thandi (eds.), *Punjabi Identity in Global Context*, OUP, Oxford, 1999.
- Pritam Singh, *Punjab Economy: The Emerging Pattern*, Enkay Publishers, New Delhi, 1995.
- Talbot, Ian, *Punjab under the Raj (1849-1947)*, Manohar, New Delhi, 1988. 17
- Wallace, Paul and S. Chopra (eds.), *Political Dynamics and Crisis in Punjab*, G.N.D. University, Amritsar, 1988.
- Punjab Human Development Report: 2004*, Govt. of Punjab, Chandigarh, 2004.

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(Faculty of Arts & Social Sciences)

REFERENCE READING

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- Grewal, J.S., *The Akalis: A Short History*, Punjab Studies Publications, Chandigarh, 1996.
- Grewal, Reeta and Sheena Pall (eds.), *Pre-Colonial and Colonial Punjab: Society, Economy, Politics and Culture*, Manohar, New Delhi, 2005.
- Pramod Kumar, et al, *Punjab Crisis: Context and Trends*, CRRID, Chandigarh, 1984.
- Jain, Harish (ed.), *Punjab Handbook: 2004*, Unistar, Chandigarh, 2003.
- Surjeet, H.S., *Deepening Punjab Crisis: A Democratic Solution*, Patriot Publications, New Delhi, 1992.
- Bhalla, G.S., *Condition of Indian Peasantry*, NBT, New Delhi, 2006.
- Tandon, Prakash, *Punjabi Saga (1857-2000)*, Rupa, New Delhi, 2003.
- Mittar, Vishwa, Sukhwinder Singh and J.S. Brar, *Changing Structure of Education in Punjab: Some Issues and Policy Recommendations*, Punjabi University, Patiala, 2002.
- Bhalla, G.S. and G.K.Chadha, *The Green Revolution and the Small Peasant: A Study of Income Distribution among Punjab Cultivators*, Concept Publishing House, Delhi, 1983.
- Gopal Singh (eds.) *Punjab: Past, Present and Future*, Ajanta, Delhi, 1994.
- 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

1. Uprising of 1857.
2. Politics of Indian National Congress (1885-1907).
3. Economic Nationalism (1885-1905).

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.
8. Communalism (1906-1940): The Muslim League, The Hindu Mahasabha.
9. British Constitutional Proposals: The Cripps Mission, The Shimla Conference and The Cabinet Mission; Politics of Partition and Independence.

RECOMMENDED READING

- Bandyopadhyay, Sekhar (ed.), *Nationalist Movement in India: A Reader*, OUP, New Delhi, 2009.
- Seal, Anil, *Emergence of Indian Nationalism: Competition and Collaboration in the Later Nineteenth Century*, CUP, Cambridge, 1984.
- Chandra, Bipan, *India's Struggle for Independence (1857-1947)*, Penguin, New Delhi, 1988.
- _____, *Essays on Indian Nationalism*, Har-Anand, New Delhi, 2006.
- Hasan, Mushirul, *Nationalism and Colonial Politics in India (1916-28)*, OUP, Delhi, 1979.
- Sarkar, Sumit, *Modern India (1885-1947)*, Orient Longman, Delhi, 1983.
- Mahrotra, S.R., *The Emergence of Indian National Congress*, Vikas, Delhi, 1971.
- Prasad, B., *Bondage and Freedom: A History of Modern India (1858-1947)*, Vol. II, Rajesh Publications, New Delhi, 1979.
- Sen, Sukomal, *Working Class in India: History of Emergence and Movement (1830-1970)*, K.P. Bagchi & Co. Calcutta, 1977. 19

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

REFERENCE READING

- Aloysius, G.I., *Nationalism without Nationalism in India*, OUP, New Delhi, 1988.
- Azad, Maulana Abdul Kalam, *India Wins Freedom*, OUP, New Delhi, 1998.
- Chandra, Bipan, Amlesh Tripathi & Barun De, *Struggle for Freedom*, NBT, New Delhi 1977.
- _____, *The Rise and Growth of Economic Nationalism in India: Economic Policies of Indian National Leadership (1880-1905)*, PPH, New Delhi, 1982.
- Brown, Judith M, *Modern India: The Origins of an Asian Democracy*, OUP, New Delhi, 1984.
- Bandyopadhyay, Sekhar, *From Plassey to Partition: A History of Modern India*, Orient Longman, New Delhi, 2004.
- David, Page, et al, *The Partition Omnibus*, OUP, New Delhi, 2002.
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- Low, D.A., (ed.), *Congress and the Raj*, OUP, New Delhi, 1977.
- _____, *British and Indian Nationalism*, CUP, Cambridge, 1997.
- Chatterjee, Partha, *Nationalist Thought and the Colonial World*, OUP, New Delhi, 1986.
- Massellos, Jim, *Nationalism in the Indian Subcontinent*, Melbourne, 1972.
- Matcalf, Thomas, R., *Aftermath of the Revolt: 1857-1878*, Princeton, New Jersey, 1978.
- Ravindra Kumar, *Essays on Gandhian Politics: The Rowlett Satyagraha of 1919*, OUP, Oxford, 1971.
- Husain, Iqbal, (ed.), *Karl Marx on India*, Tulika, New Delhi, 2006.
- Grover, B.L. (ed.) *British Policy Towards Indian Nationalism: 1885-1909*, National Publications, New Delhi, 1967, 1-15.
- Ghosh, P.C., *The Development of the Indian National Congress (1892-1909)*, Firma K.L. Mukhopadhyay, Calcutta, 1960.
- Rothermund, Dietmer, *The Phases of Indian Nationalism and Other Essays*, Nichiketa, Bombay, 1975.
- McLane, J.R., *Indian Nationalism and the Early Congress*, Princeton University Press, Princeton, 1977.
- Mahajan, Sucheta, *Independence and Partition: The Erosion of Colonial Power in India*, Sage, New Delhi, 2000.
- Indian People in the Struggle for Freedom: Five Essays*, Sahmat, New Delhi, 1998. 20

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

**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; Namdharis; Arya Smaj; Singh Sabhas and Ahmadiyahs.

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

- Ali, Imran, *The Punjab under Imperialism (1885-1947)*, OUP, Delhi, 1989.
- Banga, Indu, *Five Punjabi Centuries: Essays for Dr J.S. Grewal*, Manohar, New Delhi, 1997.
- Banerjee, Himadri, *Agrarian Society of the Punjab, 1849-1901*, Manohar Book Service, New Delhi, 1982.
- Chaman Lal, *Bhagat Singh: The Jail Notebook and Other Writings*, Leftword, New Delhi, 2007.
- Chhabra, G.S., *Social and Economic History of the Panjab (1949-1901)*, S. Nagin & Co., Jalandhar, 1962.
- Fauja Singh, *A Brief Account of the Freedom Movement in the Punjab*, Punjabi University, Patiala, 1972.
- _____, *Kuka Movement*, Motilal Banarsidass, Delhi, 1965.
- Fox, Richard G., *Lions of the Punjab: Culture in the Making*, Archives Publishers, New Delhi, 1987.
- Gulati, K. C., *The Akalis: Past and Present*, Asha Janak Publications, New Delhi, 1974.
- Grewal J.S., *The Sikhs of the Punjab: New Cambridge History of India*, Orient Longman, Hyderabad, 1997.
- _____, *The Akalis: A Short History*, Punjab Studies Publications, Chandigarh, 1996.
- Grewal, Reeta, *Colonialism and Urbanization in India: The Punjab Region*, Manohar, New Delhi, 2009.
- Grewal, Reeta and Pall, Sheena (eds.), *Pre-Colonial and Colonial Punjab: Society, Economy Politics and Culture*, Manohar, Delhi, 2005.
- Harminder Singh, *Industrial Development in the Punjab 1901-47*, M.Phil Dissertation, Guru Nanak Dev University, Amritsar, 1981.

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INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

- Islam, M.M., *Irrigation, Agriculture and the Raj: Punjab (1887-1947)*, Manohar, New Delhi, 1997.
- Jalal, Ayesha, *The Sole Spokesman: Jinnah, the Muslim League and the Demand for Pakistan*, OUP, New Delhi, 1998.
- Joginder Singh, *The Sikh Resurgence*, National Book Organization, New Delhi, 1977.
- _____, *Namdhari Guru Ram Singh*, NBT, New Delhi, 2010.
- Jones, Kenneth W., *Arya Dharm: Hindu Consciousness in 19th Century Punjab*, Manohar, Delhi, 1976.
- Josh, Bhagwan, *The Communist Movement in Punjab (1925-1947)*, Anupam, Delhi, 1979.
- Kapur, Rajiv, A., *Sikh Separatism: The Politics of Faith*, Vikas, New Delhi, 1987.
- Khushwant Singh, *A History of the Sikhs*, Vol. II, OUP, Delhi, 1978.
- Linden, Bobvander, *Moral Languages from Colonial Punjab: The Singh Sabha, Arya Samaj and Ahmadyias*, Manohar, New Delhi, 2008.
- Mittal, S.C., *Freedom Movement in Punjab (1915-35)*, Concept Publishing Company, Delhi, 1977.
- Mohan, Kamlesh, *Militant Nationalism in the Punjab, (1919-1935)*, Manohar, New Delhi, 1985.
- Mohinder Singh, *The Akali Movement*, Macmillan, Delhi, 1978.
- Mukherjee, Mridula, *Colonializing Agriculture: The Myth of Punjab Exceptionalism*, Sage New Delhi, 2005.
- Noorani, A.G., *The Trail of Bhagat Singh: Politics of Justice*, OUP, New Delhi, 2005.
- Oberoi, Harjot S., *Reconstruction of Religious Boundaries*, OUP, New Delhi, 1994.
- Pandey, Gyanendra, *Remembering Partition*, CUP, New Delhi 2000.
- Puri, H.K., *The Ghadhar Movement*, Guru Nanak Dev University, Amritsar, 1993.
- Rai, Satya M, *Partition of the Punjab*, Asia Publishing House, Bombay, 1965.
- _____, *Punjabi Heroic Tradition, 1900-1947*, Punjabi University, Patiala, 1978.
- Saini, B.S., *The Social and Economic History of the Punjab (1901-1939)*, Ess Ess Publication, Delhi, 1975.
- Settar, S & Indira Baptista Gupta, *Pangs of Partition*, Vols. 2, ICHR, Manohar, New Delhi, 2002.
- Sharma, Harish C., *Artisans of the Punjab: A Study of Socio-Economic Change in a Historical Perspective (1849-1947)*, Manohar, New Delhi, 1996.
- Sohal, Sukhdev Singh, *The Making of Middle Classes in the Punjab, (1849-1947)*, ABS Publications, Jalandhar, 2008.
- Sukhwant Singh, *Agricultural Growth under Colonial Constraints: The Punjab (1849-1947)*, Manpreet Prakashan, Delhi, 2000.
- _____, *Peasant-Proprietors in the Punjab 1849-1901*, Manpreet Prakashan, Delhi, 2002.
- Surinder Kaur, *British Policy Towards Education in the Punjab 1849-1947*, M.Phil Dissertation, Guru Nanak Dev University, Amritsar, 1981.
- Talbot, Ian, *Punjab under the Raj (1849-1947)*, Manohar, New Delhi, 1988.
- Tandon, Prakash, *Punjabi Saga*, Orient Paper Back, New Delhi, 1990.
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- Webster, John C.B, *The Nirankari Sikhs*, Macmillan, Delhi 1979.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

ARTICLES

- Banga, Indu, "The Crisis of Sikh Politics (1940-1947)", *Sikh History and Religion in the Twentieth Century*, Centre for South Asian Studies, University of Toronto, 1988.
- Barrier, N.G., "The Formation and Enactment of the Punjab Alienation of Land Bill", *The Indian Economic and Social History Review* Vol.II, No.I, 1966.
- _____, "The Arya Samaj and Congress Politics in the Punjab, 1894-1908", *The Panjab Past and Present*, Vol. V, P II 1971.
- _____, "Punjab Disturbances of 1907", *The Panjab Past and Present* Vol.III, Pt. 2, 1974.
- Grewal J.S, and Sharma, Harish C., "Political Change and Social Readjustment: Case of the Sikh Aristocracy in the Punjab", *Proceedings of Indian History Congress*, Goa 1987.
- Harbans Singh, "Origin of the Singh Sabha", *The Panjab Past and Present*, Vol. VII, Pt..I, 1973.
- Heager, Gerald A., "The Growth of the Congress Movement in the Punjab, 1920-1947", *Journal of Asian Studies*, Vo. XXXII, 1972-73.
- Sharma, Harish Chander, "Politicization among the Chamars of the Punjab (Early 20th Century)", *Journal of Regional History*, Vo. IV, 1983.
- Sohal, Sukhdev Singh, "British Policies and Money Lenders in the Agrarian Economy of Punjab 1849-1947", *Journal of Regional History*, Vol. IV, 1983.
- _____, "Consequences of Commercialization of Agriculture in the Colonial Punjab 1849-1901", *Proceedings of Punjab History Conference*, Patiala 27-29, March 1987. 23
- _____, "Political Economy of Communalism: Late 19th Century Colonial Punjab", *Man And Development Chandigarh* Vol. IX, June 1987.
- _____, "Professional Middle Classes in the Punjab", *Journal of Regional History*, Vol. VIII, 1982.

PRIMARY SOURCES

- Badan-Powell, B.H., *The Land System of British India*, II, Oriental Publishers, 1974(reprint).
- Calvert, H., *The Wealth and Welfare of the Punjab*, Civil and Military Gazette Press, Lahore, 1922.
- Census Reports (Punjab)* 1855, 1868, 1881, 1891, 1901, 1911, 1921 and 1931.
- Darling, M.L., *The Panjab Peasant in Prosperity and Debt*, Manohar, Delhi, 1977.
- Datta, V.N., *New Light on the Punjab Disturbances*, Vol.1, IAS, Shimla, 1973.
- Grewal, J.S. and H.K. Puri, *Letters of Udham Singh*, Guru Nanak Dev University, Amritsar, 1978.
- Gustafson, E & Jones, Kenneth (ed), *Sources on Punjab History*, Manohar, Delhi, 1975.
- Ibbetson, D., *Punjab Castes*, Languages Department, Punjab, Patiala, 1970(reprint).
- Kirpal Singh, *Select Documents on the Partition of Punjab: 1947*, National Book Shop, Delhi, 2006.
- 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

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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 Namdhari
Social Religious Reforms: Singh Sabhas; Arya Samaj; Ahmadiyas; Ad Dharm
Movement.

Unit-III

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

RECOMMENDED READING

Banga, Indu, *Five Punjabi Centuries: Essays for Dr J.S. Grewal*, Manohar, New Delhi 1997.
Banerjee, Himadri, *Agrarian Society of the Punjab, (1849-1901)*, Manohar, New Delhi, 1982.
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1922.

Chhabra, G.S., *Social and Economic History of the Panjab (1849-1901)*, S. Nagin & Co.
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Darling, M.L., *The Panjab Peasant in Prosperity and Debt*, Manohar, Delhi, 1977.

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Patiala, 1972.

_____, *Kuka Movement*, Motilal Banarsidass, Delhi 1965.

Fox, Richard G., *Lions of the Punjab: Culture in the Making*, Archives Publishers,
New Delhi, 1987.

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Hyderabad, 1997, 25

Grewal, Reeta and Pall, Sheena, *Pre-Colonial and Colonial Punjab: Society, Economy
Politics and Culture*, Manohar, Delhi, 2005.

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INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

- Harminder Singh, *Industrial Development in the Punjab 1901-47*, M.Phil Dissertation, Guru Nanak Dev University, Amritsar, 1981.
- Jalal, Ayesha, *The Sole Spokesman: Jinnah, the Muslim League and the Demand for Pakistan*, OUP, New Delhi, 1998.
- Joginder Singh, *The Sikh Resurgence*, National Book Organization, New Delhi, 1977.
- Jones, Kenneth W. *Arya Dharm: Hindu Consciousness in 19th Century Punjab*, Manohar Book Service, Delhi 1976.
- Kessinger, Tom G., *Vilyatpur 1848-1968: Social and Economic Change in a North Indian Village*, Young Asia Publications, New Delhi, 1979.
- Khushwant Singh, *A History of the Sikhs*, Vol. II, OUP, Delhi 1978.
- Lavan, Spencer, *The Ahmadiyah Movement*, Manohar, Delhi, 1974.
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- Mohan, Kamlesh, *Militant Nationalism in the Punjab, (1919-1935)*, Manohar, New Delhi, 1985.
- Mohinder Singh, *The Akali Movement*, NBT, New Delhi, 2008.
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- Pandey, Gyanendra, *Remembering Partition*, CUP, New Delhi, 2000.
- Puri, H.K., *The Ghadar Movement*, Guru Nanak Dev University, Amritsar, 1993.
- Rai, Satya M, *Partition of the Punjab*, Asia Publishing House, Bombay, 1965.
- _____, *Punjabi Heroic Tradition 1900-1947*, Punjabi University, Patiala, 1978.
- Saini, B.S., *The Social and Economic History of the Punjab (1901-1939)*, Ess Ess Publication, Delhi, 1975.
- Settar, S & Indra Baptista Gupta, *Pangs of Partition*, Vols. 2, ICHR, Manohar, New Delhi, 2002.
- Sharma, Harish C., *Artisans of the Punjab: A Study of Socio-Economic Change in a Historical Perspective 1849-1947*, Manohar, New Delhi, 1996.
- Sohal, Sukhdev Singh, *The Making of the Middle Classes in the Punjab, (1849- 1947)*, ABS Publishers, Jalandhar, 2008. 26

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

Sukhwant Singh, *Agricultural Growth under Colonial Constraints: The Punjab (1849-1947)*, Manpreet Prakashan, Delhi, 2000.

_____, *Peasant–Proprietors in the Punjab (1849-1901)*, Manpreet Prakashan, Delhi, 2002.

Surinder Kaur, *British Policy towards Education in the Punjab 1849-1947*, M.Phil
Dissertation, Guru Nanak Dev University, Amritsar, 1981.

Talbot, Ian, *Punjab under the Raj (1849-1947)*, Manohar, New Delhi, 1988.

Tandon, Prakash, *Punjabi Saga*, Orient Paper Book, New Delhi, 1990.

Tanwar, Raghuvendra, *Politics of Sharing Power: The Punjab Unionist Party (1923-1941)*,
Manohar, New Delhi, 1999.

Tuteja, K.L., *Sikh Politics*, Vikas Publishing House, New Delhi, 1984.

Webster, John C.B, *The Nirankari Sikhs*, Macmillan, Delhi, 1979.

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

3. **Emerging Technologies and Trends in Modern Library:** Digital Library development-issues involved.
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

- Bandyopadhyay, Sekhar, *From Plassey to Partition: A History of Modern India*, Orient Longman, New Delhi, 2004.
- Seal, Anil, *Emergence of Indian Nationalism: Competition and Collaboration in the Later Nineteenth Century*, CUP, Cambridge, 1984.
- Chandra, Bipan, *India's Struggle for Independence (1857-1947)*, Penguin, New Delhi, 1988.
- _____, *History of Modern India*: Orient Longman, New Delhi, 2008,
- Hasan, Mushirul, *Nationalism and Colonial Politics in India (1916-28)*, OUP, Delhi, 1979.
- Sarkar, Sumit, *Modern India (1885-1947)*, Orient Longman, Delhi, 1983.
- Mahrotra, S.R., *The Emergence of Indian National Congress*, Vikas, Delhi, 1971.
- N.K. Sinha, *A History of India*, Orient Longman, Calcutta, 1985.
- Prasad, B, *Bondage and Freedom: A History of Modern India (1858-1947)*, Vol. II, Rajesh Publications, New Delhi, 1979.
- Sen, Sukomal, *Working Class in India: History of Emergence and Movement (1830-1970)*, K.P. Bagchi & Co. Calcutta, 1977.
- Bhattacharya, H., *Aspects of Indian Economic History (1700-1950)*, Calcutta, 1986.
- Jones, Kenneth, W., *Socio Religious Movements in India*, CUP, Cambridge, 1989.

18
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

REFERENCE READING

Azad, Maulana Abdul Kalam, *India Wins Freedom*, OUP, New Delhi, 1998.

Chandra, Bipan, Amlesh Tripathi & Barun De, *Struggle for Freedom*, NBT, New Delhi 1977.

_____, *The Rise and Growth of Economic Nationalism in India: Economic Policies of Indian National Leadership (1880-1905)*, PPH, New Delhi, 1982.

Brown, Judith M, *Modern India: The Origins of an Asian Democracy*, OUP, New Delhi, 1984.

David, Page et al, *The Partition Omnibus*, OUP, New Delhi, 2002.

Desai, A.R., *Social Background of Indian Nationalism*, Popular Prakashan, Bombay, 1966.

Chatterjee, Partha, *Nationalist Thought and the Colonial World*, OUP, New Delhi, 1986.

Massellos, Jim, *Nationalism in the Indian Subcontinent*, Melbourne, 1972.

Matcalf, Thomas, R., *Aftermath of the Revolt: 1857-1878*, Princeton, New Jersey, 1978.

Mukherjee, Aditya, *Imperialism, nationalism and Making of the Indian Capitalist Class*, Sage, New Delhi, 2004.

Ravindra Kumar, *Essays on Gandhian Politics: The Rowlett Satyagraha of 1919*, OUP, Oxford, 1971.

Habib, Irfan, *Essay in Indian History: Towards a Marxist Perception*, Tulika, New Delhi, 1985.

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

Grover, B.L. (ed.) *British Policy Towards Indian Nationalism 1885-1909*, National Publications, New Delhi, 1967, 1-15.

Ghosh, P.C., *The Development of the Indian National Congress (1892-1909)*, Firma K.L. Mukhopadhyay, Calcutta, 1960.

Rothermund, Dietmer, *The Phases of Indian Nationalism and Other Essays*, Nichiketa, Bombay, 1975.

Mahajan, Sucheta, *Independence and Partition: The Erosion of Colonial Power in India*, Sage, New Delhi, 2000.

Indian People in the Struggle for Freedom: Five Essays, Sahmat, New Delhi, 1998.

Tomlinson, B.R. *Political Economy of the Raj (1914-47)*, CUP, London, 1979.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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 frame work, Market equilibrium, Elasticity of Demand and Supply and Marshallian Price Determination.
3. Theory and Production of Cost: Production Functions; Short Term and long term cost

UNIT-II

4. Market Structure: Introductory approach to perfect competition, monopoly, monopolistic Competition, Oligopoly and Duopoly.
5. National Income: Definition, Concepts and Identities, Measure of National Income.

UNIT-III

6. Introduction to Consumption Saving, Investment function, Business Cycle and Inflation.
7. Nature and Structure of Indian Economy.

RECOMMENDED READING

1. Koutsoyiannis.A(1990): *Modern Microeconomics*, Macmillan Press, London
2. Lipsey, R.G and K.A. Chrystal (1999), *Principles of Economics*, Oxford University Press FLBS
3. Bach G.L. (1977), *Economics*, Prentice Hall
4. Gauld, J.P and P.L.Edward (1977), *Microeconomics Theory*, Richrad Irwin.
5. Samuelson, P.A. and Nordhaus, W.D. (2001), *Economics*, Tata McGraw Hills
6. Ahuja.H.L. (2004), *Advanced Economic Theory*, S. Chand & Co.
7. Ackley, G (1976), *Macroeconomics: Theory and Policy*, Macmillan Publishing Company, New York
8. Beckerman, W (1988), *An Introduction to National Income Analysis*, Universal Book Stall, New Delhi.
9. Dornbusch and Fischer, *Macroeconomics*, McGraw Hills, New Delhi.
10. Heijdra, B.J. and F.V. Ploeg (2001), *Foundations of Modern Macroeconomics*, Oxford University Press Oxford.
11. Levacic, R.(1976), *Macroeconomics*, Macmillan, London.
12. Peterson, W.C.(1978) *Income, Employment and Economic Growth*, Norton, Newyork.
13. Roy Choudhary, Uma Datta (1995), *National Income Accounting*, Macmillan India Ltd., New Delhi.
14. Shapiro, E (1996), *Macroeconomics Analysis*, Galgotia Publications, New Delhi.
15. Studenski, P.A., *The Income of Nation: Parts 2, Theory and Methodology*.

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

SSL: 003

Credits: 4-0-0

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

1. Arora Balwinder., *Female foeticide in Punjab: A sociological study* _Guru Nanak Dev University, 2006
2. Bal ,Gurpreet., *Development and change in Punjab*, National Book Organization New Delhi 1995
3. Johnson H. M.: *Sociology-A Systematic Introduction*, Allied Publication, Bombay,1977.
4. Judge,S.Paramjeet., *Reconstructing Identities*. Rawat, Jaipur, 2007. (Co-edited)
5. Judge,S.Paramjeet *Religion, Identity and Nationhood: The Sikh Militant Movement*. Rawat, Jaipur, 2005.
6. Judge,S.Paramjeet *Development, Gender and Diaspora: Context of Globalisation*, Rawat, Jaipur
(Co-edited with S. L. Sharma, S. K. Sharma and Gurpreet Bal), 2003.
7. Judge,S.Paramjeet *Social and Political Movements: Readings on Punjab*, Rawat, Jaipur
(Co- edited with Harish K. Puri), 2000.
8. Judge,S.Paramjeet *Social Change Through Land Reforms*, Rawat, Jaipur, 1999.
9. Judge,S.Paramjeet *Dimensions of Social Change: Essays in Honour of Prof. P.N. Pimpley*, Rawat: Jaipur. (Co-edited with Satish K. Sharma), 1997.
10. Judge,S.Paramjeet *Strategies of Social Change in India*, MD Publication, New Delhi
(Co- authored with Gurpreet Bal), 1996.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

11. Judge, S.Paramjeet *Punjabis in Canada: A Study of Formation of an Ethnic Community*, Chanakya Publications, New Delhi, 1994.
12. K.Ajaypal, *Gender and Politics: Perception and Participation (Contemporary Women Leadership in Punjab)* Lambert Publishing House, Germany, 2011.
13. Kuppaswamy, B. : *Social Change in India*, Vikas, Delhi.
14. Mahajan V.: *Agriculture, Rural Development and Panchayati Raj*, Vol. I&II, Deep and Deep Publication, Delhi, 1996.
15. Pal Mahi (2004): *Panchayati Raj and Rural Governance EPW*, Vol. XXXIX, NO.2, January 10-16.
16. Panagariya Arivind (2004): *Growth and reforms during 1980's and 90's* , EPW, Vol. XXXIX, No. 25, June 19-25.
17. Sandhu Ranvinder ., *Urbanization in India: sociological contributions* sage publications 2003
18. Sandhu Ranvinder *Drug addiction in Punjab :A sociological study* Guru Nanak Dev University, 2006
19. Sandhu Ranvinder *The city and its slums: a sociological study* Guru Nanak Dev University Press, 1989
20. Sheth.D.L.(2004): *Globalisation and New Policy of Micro movements*, Economic and Political Weekly, Vol., XXXIX, NO. I.
21. Sikdar Soumyen: *Contemporary issues in Globalisation: An Introduction to Theory and Policy in India* Oxford University Press, New Delhi, 2003
22. Srinivas, M. N. : *Social Change in Modern India*, Orient Longman, Bombay, 1972.
23. Yogindra Singh : *Modernization of Indian Tradition*, Thomson, Delhi, 1973.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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

FUNDAMENTALS OF SOCIOLOGY
(Even)

SSL: 051

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.
3. Steps in Social Research.

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)
8. Social Control – Meaning, Importance. Norms and values-conformity and deviance, Law and customs, Agencies of Social Control – Formal and Informal
9. Nature and types of Societies-Tribal, Agrarian, Industrial and Post Industrial

RECOMMENDED READING

1. Bottomore, T.B., *Sociology*, Random House, New Delhi, 1972.
2. Davis, Kingsley, *Human Society*, Macmillan Company, New York.
3. Inkeles, Alex, *What is Sociology*, Prentice-Hall of India, New Delhi, 1964.
4. Koenig, Samuel, *Sociology, an Introduction to the Science of Society*, Barnes and Bobble, New York, 1970.
5. MacIver, R.M. , *Society, An Introductory Analysis*, Macmillan, New Delhi, 1985.
6. Gisbert, Pascual , *Fundamental of Sociology*, Orient Longmans, Bombay, 1959
7. Mc Gee, Reece et.al. *Sociology–An Introduction*, Rinehart and Winston, Hindale, 1977.

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
8. British Constitutional Proposals: The Cripps Mission; the Shimla Conference and The Cabinet Mission.
9. Communal Politics; the Partition and the Independence

RECOMMENDED READING

- Bandyopadyay, Sekhar (ed.), *Nationalist Movement in India: A Reader*, OUP, New Delhi, 2009.
- Seal, Anil, *Emergence of Indian Nationalism: Competition and Collaboration in the Later Nineteenth Century*, CUP, Cambridge, 1984.
- Chandra, Bipan, *India's Struggle for Independence (1857-1947)*, Penguin, New Delhi, 1988.
- _____, *Essays on Indian Nationalism*, Har-Anand, New Delhi, 2006.
- Hasan, Mushirul, *Nationalism and Colonial Politics in India (1916-28)*, OUP, Delhi, 1979.
- Sarkar, Sumit, *Modern India (1885-1947)*, Orient Longman, Delhi, 1983.
- Mahrotra, S.R., *The Emergence of Indian National Congress*, Vikas, Delhi, 1971.
- Prasad, B, *Bondage and Freedom: A History of Modern India (1858-1947)*, Vol. II, Rajesh Publications, New Delhi, 1979.
- Sen, Sukomal, *Working Class in India: History of Emergence and Movement (1830-1970)*, K.P. Bagchi & Co. Calcutta, 1977.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

REFERENCE READING

- Aloysius, G.I., *Nationalism without Nationalism in India*, OUP, New Delhi, 1988.
- Azad, Maulana Abdul Kalam, *India Wins Freedom*, OUP, New Delhi, 1998.
- Chandra, Bipan, Amlesh Tripathi & Barun De, *Struggle for Freedom*, NBT, New Delhi 1977.
- _____, *The Rise and Growth of Economic Nationalism in India: Economic Policies of Indian National Leadership (1880-1905)*, PPH, New Delhi, 1982.
- Brown, Judith M, *Modern India: The Origins of an Asian Democracy*, OUP, New Delhi, 1984.
- Bandyopadhyay, Sekhar, *From Plassey to Partition: A History of Modern India*, Orient Longman, New Delhi, 2004.
- David, Page et al, *The Partition Omnibus*, OUP, New Delhi, 2002.
- Desai, A.R., *Social Background of Indian Nationalism*, Popular Prakashan, Bombay, 1966.
- Low, D.A., (ed.), *Congress and the Raj*, OUP, New Delhi, 1977.
- _____, *British and Indian Nationalism*, CUP, Cambridge, 1997.
- Chatterjee, Partha, *Nationalist Thought and the Colonial World*, OUP, New Delhi, 1986.
- Massellos, Jim, *Nationalism in the Indian Subcontinent*, Melbourne, 1972.
- Matcalf, Thomas, R., *Aftermath of the Revolt: 1857-1878*, Princeton, New Jersey, 1978.
- Ravindra Kumar, *Essays on Gandhian Politics: The Rowlett Satyagraha of 1919*, OUP, Oxford, 1971.
- Husain, Iqbal, (ed.), *Karl Marx on India*, Tulika, New Delhi, 2006.
- Grover, B.L. (ed.) *British Policy Towards Indian Nationalism 1885-1909*, National Publications, New Delhi, 1967, 1-15.
- Ghosh, P.C., *The Development of the Indian National Congress (1892-1909)*, Firma K.L. Mukhopadhyay, Calcutta, 1960.
- Rothermund, Dietmer, *The Phases of Indian Nationalism and Other Essays*, Nichiketa, Bombay, 1975.
- McLane, J.R., *Indian Nationalism and the Early Congress*, Princeton University Press, Princeton, 1977.
- Mahajan, Sucheta, *Independence and Partition: The Erosion of Colonial Power in India*, Sage, New Delhi, 2000.
- Indian People in the Struggle for Freedom: Five Essays*, Sahmat, New Delhi, 1998.

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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:

1. Morgan, T. and King, A.(1971) Introduction to Psychology, Seventh Edition, Mc Graw-Hill company.
2. Munn, L. (1969) Introduction to Psychology , Oxford & IBH Publishing Co.
3. Price, H. and Glickstein, M. (1982) Principles of Psychology, Holt, Pinchast and Winston.
4. Marx, H. (1976) Introduction to Psychology, Problems, Procedures and Principles, Mac Millon Publishing Co. Inc., New Delhi.
5. Laird, J. D and Thompso N. S. (1992) Psychology, Houghton Mifflin Company, Boston.

26
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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

Paper:-PYL 061 (Even) - ID 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

An introduction to stress-related disorders and their treatment.

Readings:

1. Coleman, J. C. (1976) Abnormal Psychology and Modern Life Scott Fores man & Co.
2. Bootzin, R. R. Acocella, J.R. and Allong, L. B. (1993) Abnormal Psychology, Mc Graw-Hill Inc., New Delhi.

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INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

M.A. (Hons.) Sociology

Paper-SOB-051: CONTEMPORARY SOCIAL PROBLEMS IN INDIA

Credits: 3

Unit-I

Social Problems: Concept and Theoretical approaches to the study of Social Problems: Social Disorganization, Value Conflict, Personal Deviation and Anomie.

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:

1. Ahuja, Ram: *Social Problems in India*, Rawat, Jaipur, 2002.
2. Arora, Balwinder: *Female Foeticide in Punjab: A Sociological Study*, Guru Nanak Dev University Press, Amritsar, 2009.
3. S.C. Joshi: *Social Problems; Genesis, Causes and Consequences*, Ashish Publisher House, New Delhi, 2005.
4. Sandhu, R S: *Drug Addiction in Punjab, A Sociological Study*, Guru Nanak Dev University Press, Amritsar, 2009

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INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

M.A. (Hons.) Sociology

Paper SOB- 052: SOCIAL CHANGE IN INDIA

Credits: 3

Unit-I

Social Change – Meaning and Concepts: Evolution, Revolution, Progress, Development, Diffusion and Transformation.

Unit-II

Factors of Social Change: Demographic, Education, Legislation, Technological, Industrialization and Urbanization.

Processes of Social Change – Sanskritization, Modernization, Westernization.

Unit-III

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

References:

1. B. Kuppaswamy : *Social Change in India*, Vikas Publications, New Delhi, 1972
2. M.N. Srinivas: *Social Change in Modern India*, Orient Longman Pvt. Ltd., New Delhi, 1972.
3. Yogendra Singh: *Modernization of Indian Tradition*, Thompson Press, Delhi, 1973.
4. Michael Haralambos: *Sociology: Themes and Perspectives*, Oxford University Press, Delhi, 1992.
5. Rajendra K. Sharma: *Social Change and Social Control*, Atlantic Publishers, New Delhi, 1997.

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

M.A. (Hons.) Political Science

Paper – I
PSL051- Indian Government and Politics

Credits – 4

Unit – I

1. Nature of the Indian Constitution
2. Preamble
3. Fundamentals Rights and Directive Principle

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
9. Center-State Relations with focus o Sarkaria Commission Report.

Suggested Readings

- | | | |
|----|------------------|--|
| 1. | Rajni Kothari | <i>Politics in India</i> (New Delhi: Orient Longmans, 1971) |
| 2. | W.H.Morris Jones | <i>Government and Politics in India</i> (London: Hutchinson, 1971) |
| 3. | Norman D. Palmer | <i>The Political System in India</i> , (Boston: Houghton, 1971) |
| 4. | M.V.Pylee | <i>Constitutional Government in India</i> (Bombay: Asia, 1965) |
| 5. | Robert Hardgrave | <i>India: Government and Politics in a Developing Nation</i> (New York: Harcourt Bruce and Ward, 1970) |
| 6. | Myron Weiner | <i>State Politics in India</i> (Princeton: OUP, Princeton, 1968) |
| 7. | ----- | <i>Politics of Scarcity</i> (Chicago, University of Chicago Press, 962) |
| 8. | Paul R. Brass | <i>Language, Religion and Politics in Northern India</i> (New Delhi, Vikas, 1975) |

INTERDISCIPLINARY COURSES

(Faculty of Arts & Social Sciences)

9. Ramashray Ray *The Uncertain Verdict : A Study of the 1969 Mid-term Election. In Four Indian States* (New Delhi: Orient Longmans, 1972)
10. P. Chandra *Constitution of India* (New Delhi: Universal Law Agency 2011)
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)
13. George Mathew ed. *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)
16. C. T. Kurien, ER Prabhakar and S. Gopal, eds. *Economy, Society and Development* (New Delhi: Sage, 1991)
17. Paul R. Brass *The Politics of India since Independence* (Hyderabad: Orient Longmans Ltd., 1990).
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 "Centre-State Relations in India : A Review of Sarkaria Commission Report," *Punjab Journal of Politics*, Vol.XIII, Nos.1-2, 1989
21. ----- Political Parties and Discourse on Union – State Relation, *Punjab Journal of Politics*, Vol.XIV, Nos.1-2, 1990.
22. M.P Singh "Federalizing and Stabilizing India: The Party and Constitutional Amendments Hold the Key to Survival" *Punjab Journal of Politics*, Vol XIV, Nos.1-2, 1990
23. M.P Singh "Whither Indian Federalism: Sarkaria Commission Report and Beyond" *Punjab Journal of Politics*, Vol XIII, Nos.1-2, 1989
24. Ramashray Roy *Perspectives on Indian Politics*, (Delhi: Discovery Publishing House, 1987)
25. Pardeep Kumar "The study of State Politics: Some *Observations*" *Punjab Journal of Politics*, Vol. XIV, Nos. 1-2, 1989

INTERDISCIPLINARY COURSES

(Faculty of Arts & Social Sciences)

- | | | |
|-----|---|---|
| 26. | Myron Weiner | <i>The Indian Paradox</i> (New Delhi: Sage, 1989) |
| 27. | S. Nihal Singh | <i>The Rocky Road of the Indian Democracy</i>
(New Delhi: Sterling Publishers, 1993) |
| 28. | J.N.Pandey | <i>Constitutional Law of India</i> (Allahabad: Law Agency, 1997) |
| 29. | A.R.Desai ed. | <i>Violation of Democratic Rights in India</i> ,
(Bombay: Popular Prakashan Pvt. 1980) |
| 30. | Pramod Kumar ed. | <i>Towards Understanding Communalism</i> ,
(Chandigarh: CRRID, 1992) |
| 31. | Nirmal Mukerji and Arora ed. | <i>Federalism in India, Origins and Development</i> , Balbir
(New Delhi: Vikas Research, 1992) |
| 32. | Zoya Hasan and S.N.Jha and R. Khan | <i>The State, Political Processes and Identity</i> ,
(New Delhi: Sage, 1989) |
| 33. | Ghanshyam Shah ed. | <i>Capitalist Development: Critical Essays</i>
(Bombay: Popular Parkashan, 1990) |
| 34. | B.L Fadia | <i>Indian Government and Politics</i> (Agra: Laxmi Narain Agarwal, 1997) |
| 35. | Sarkaria Commission Report | |
| 36. | Granville Austin | <i>The Indian Constitution</i> (New Delhi: OUP, 2001) |
| 37. | B.L. Fadia | <i>Indian Government and Politics</i> (Agra: Sahitya Bhawan Publications, 2008) |
| 38. | P.M. Bakshi | <i>The Constitution of India</i> (New Delhi: Universal Law Publishing Company, 2008) |
| 39. | Lloyd I. Rudolph and Susanne Rudolph | <i>Explaining Indian Democracy: A Fifty-Year Perspective, 1956-2006</i> , Vols. I, II, III
(New Delhi: OUP, 2008) |
| 40. | <i>Indian Journal of Political Science.</i> | Vols. From 2000-2010. |
| 41. | <i>Punjab Journal of Politics</i> | (from 2000-2010) |
| 42. | Francine Frankel | <i>India's Political Economy 1947-2004</i>
(New Delhi: OUP, 2006) |
| 43. | Zoya Hasan, et. al., | <i>India's Living Constitution</i> (New Delhi, Permanent Black, 2002) |
| 44. | Andre Beteille | <i>Society and Politics in India- Essays in Comparative Politics</i> , OUP, 1991 |
| 45. | Samir, Amin | <i>Capitalism in the Age of Globalization</i> (Jaipur: Rawat, 2000. |
| 46. | Rajeev Bhargave And Amiya Bagchi | <i>Multi-Culturalism, Liberalism and Democracy</i> (New Delhi: OUP, 1999) |
| 47. | Neera Chandoke | <i>Beyond Secularism: The Rights of Religion Minorities</i> (New Delhi: OUP, 1999) |
| 48. | M.S.A Rao | <i>Social Movements in India: Studies in Peasant, Backward Classes, Sectarian Tribal and Women's Movements</i> , Manohar, 1979) |

**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
4. Major Issues in Globalization since 1991

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
	Journal of Politics, Volume.29, pp 21-32, No. 2, 2005
-----	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

33
INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

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
6. Electoral Process in India with Special focus on Punjab since 1952.

Suggested Readings

Rajni Kothari ed.,	<i>Politics in India</i> (Boston:, 1970)
_____	<i>Democratic Polity and Social Change in India</i> (New Delhi: 1977)
Dalip Hero	<i>Inside India Today</i> (London: Routledge & Kegan Paul, 1978)
Andre Betaille	<i>Caste, Class and Power</i> (Bombay:,OUP, 1968)
Rajni Kothari	<i>State Against Democracy</i> (New Delhi: Ajanta Publishers, 1988)
Bipan Chandra	<i>Communalism in Modern India</i> (Delhi: Vani Educational Book, 1984)
Daniel Thorner	<i>Agrarian Prospects in India</i> (Bombay: Allied, 1976)

INTERDISCIPLINARY COURSES
(Faculty of Arts & Social Sciences)

P.C.Joshi	<i>Land Reforms in India</i> (New Delhi: 1975)
Francine R. Frankel	<i>India's Political Economy 1947-2004</i> (Delhi: OUP, 2005)
Francine R. Frankel	<i>India's Green Revolution, Economic Gains and Political Costs</i> (Princeton: University Press, 1971)
Atul Kohli ed.	<i>India's Democracy : An Analysis of Changing State-Society Relations</i> (Hyderabad: Orient Longmans, 1991)
-----	<i>Democracy and Discontent : India's Growing Crisis of Governability</i> (Princeton: Cambridge University Press, 1991)
-----	<i>The State and Poverty in India : The Politics of Reform</i> (Hyderabad: Orient Longman Limited, 1987)
C.D. Deshmukh,	<i>Economic Development in India</i> (Bombay: 1957)
Lloyd Rudolph and Susan Rudolph	<i>The Modernity of Tradition, Political Development in India</i> (Bombay: Orient Longman, 1967)
Achin Vanaik	<i>The Painful Transition: Bourgeois Democracy in India</i> (New Delhi: Verso, 1990)
P. Bardhan	<i>The Political Economy of Development in India</i> (New Delhi: OUP, 1991)
S.N.Chowdhary	<i>Community Power Structure</i> (New Delhi: Har Anand Publications, 1993)
Gunnar Myrdal	<i>Asian Drama : An Inquiry into the Poverty of Nations</i> (Harmondsworth: Penguin Books, 1968)
Partha Chatterjee	<i>State and Politics in India</i> (New Delhi, OUP, 1997)
Sudipto Kaviraj C.T.Kurien and and S. Gopal ed.,	<i>Politics in India</i> (New Delhi, OUP, 1997) <i>Economy, Society and Development</i> (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., *India after Independence* (New Delhi: Viking, 1999).
- Madhu Purnima Kishwar *Deepening Democracy: Challenges of Governance and Globalisation in India*, (Oxford: OUP, 2005)
- Carolynm M. Elliot *Civil Society and Democracy: A Reader* (Oxford: OUP, 2003)
- 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.) *State Politics in India*, (Princeton: University Press, 1968)
- Paul R. Brass *The Politics of India Since Independence* (Cambridge: Cambridge University Press, 2004)
- 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)

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

Credits 4-0-0

Text

- Management: Nature and Purpose, Evolution of Management Thought – Classical Perspective, Humanistic Perspective, Managerial, Skills and Functions of Managers.
- 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

- Motivation: Concept and various theories of Motivation: McGregor's theory X and theory Y, Maslow's Hierarchy of Needs theory, Alderfer's ERG theory, Herzber's Motivation-Hygiene theory, McClelland's Needs theory of Motivation, Adam's Equity theory, Vroom's Expectancy theory and Porter and Lawler's Model of Motivation.
- 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:

- Harold Koontz and Heinz Weihrich, *Essentials of Management: An International Perspective*, New Delhi, McGraw-Hill, 2007.
- Richard L Daft, *The New Era of Management*, New Delhi, Thomson, 2007.
- Jon L Pierce and Donald G Gardner, *Management and Organizational Behaviour*, New Delhi, Thomson, 2007.
- Stephen P Robbins, David A. Decanzo, *Fundamentals of Management*, New Delhi, Pearson Education, 2001.
- Sekaran, Uma, *Organizational Behaviour: Text and Cases*, New Delhi, Tata McGraw Hill, 2007.
- Steven L. McShane, Mary Ann Von Glinow, Radha R Sharma, *Organisational Behaviour*, New Delhi, Tata McGraw Hill, 2007.
- Paul Hersey, Kenneth H Blanchard, Devwey E Johnson, *Management of Organizational Behaviour: Leading Human Resources*, New Delhi, Pearson Education, 2002.
- Philip Sadler, *Leadership*, New Delhi, Kogan Page, 2004. London.

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

Credits 4-0-0

Text
Entrepreneurship: Concepts, Traits, Types, characteristics, classification and types, nature and functions. Theory of Entrepreneurship. Entrepreneurship: Developing corporate entrepreneurship. Understanding Entrepreneurship perspective. Entrepreneurship motivation. Developing Creativity and Understanding Innovation.
First Minor Test : One Hour
Ethics and Social Responsibility of an Entrepreneur, Entrepreneurial Skills. Role of Entrepreneurship in Economic Development. Entrepreneurial Decision Process. Environmental Assessment: Macro and Micro View.
Second Minor Test : One Hour
Market and Demand Analysis. Technical Analysis. Financial Analysis, Social Cost Benefit Analysis, Developing an Effective Business Plan. Project Management Concept. Generation and screening of project ideas: Sources and Methods. Feasibility Study. Managing Risk in Project Network Technique for Project Management; Time and Cost Overrun.
Final Examination : Three Hours

Suggested Readings:

1. Hisrich, Robert D and Peters, Michael P, Entrepreneurship, Delhi, Tata McGraw Hill, 2002.
2. Holt, David H, Entrepreneurship: New Venture Creation, Delhi, Prentice Hall of India, 2001.
3. Cliffton, Davis S. and Syflie, David E, "Project Feasibility Analysis" , 1977 John Wiley, New York.
4. Chandra, Prasanna, Projects: Preparation, Appraisal, Budgeting and Implementation, Delhi Tata McGraw Hill.

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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

Microeconomics vs. Macroeconomics, Central economic problems of an economy. Consumer Analysis: Utility theory; conditions of consumer's equilibrium, Demand - determinants of demand, law of demand, shifts along and shifts of the demand curve. Elasticity of demand and its measurement. Cost curves: fixed and variable; short and long run costs. Elementary analysis of market forms.

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)

Money - its meaning and functions. Supply of money. Credit creation by commercial banking system. Central bank and its functions.

Government budget: meaning, objectives and components. Classification of receipts and expenditure; fiscal deficit and policy.

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

1. Stonier and Hague, A Text Book of Economic Theory, Pearson Publication.
2. R.G. Lipsey, Positive Economics, English Language Book Society.
3. Chelliah, R., Fiscal Policy in Underdeveloped Countries, George Allen & Unwin, London.
4. Dernberg & Mcdongal, Macro Economics: The Measurement Analysis and Control of Aggregate, McGraw Hill. New York.
5. Shapiro, E. (1996), Macroeconomic Analysis, New Delhi..
6. Mundle, S. (1999), Public Finance Policy, OUP, New Delhi.
7. M.C. Seth, Modern Economic Theory.
8. Soderston, B.O. (1991), International Economics, The Macmillan Press, London.
9. N.C. Ray, Microeconomics, NCERT, New Delhi.
10. Locket, D.G. : Money and Banking, McGraw Hill, New York, 1976.
11. Bhole, L.M. : Financial Institutions and Market Structure, Growth and Innovations, 4th ed., 2007, Tata McGraw Hill.

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.

Employment and unemployment : Problems and Policies.

Recommended Readings

1. Dhingra, I.C., The Indian Economy Environment and Policy, Sultan Chand & Sons, New Delhi (latest).
2. Economic and Political Weekly (Various Issues).
3. Economic Times and Financial Express.
4. Govt. of India, Economic Survey (Various Issues).
5. Misra S.K. and Puri V.K., Indian Economy, Himalaya Publishing House, New Delhi (latest).
6. Ruddar Dutt and KPM Sundaram, Indian Economy, S Chand and Company Ltd., New Delhi (latest).
7. P.K. Dhar, Indian Economic Problems, Kalyani Publishers, Ludhiana and New Delhi (latest).

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

National Income : Concept and measures. Different measures of national income.
Psychological law of consumption; Investment : Meaning and forms; Inflation : Meaning and causes. Inflation-Unemployment trade-off.

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 multilateralism.

References

1. Briet W. and Hochman H M (ed.) : Readings in Microeconomics.
2. Edwin Mansfield (Ed.) : Microeconomics (Selected Reading) 2nd Edition
3. Pindyck, R S, and Rubinfeld, D L: Microeconomics (3rd ed.), PH; New Delhi(1996)
4. Arnold, A. Roger "Macro Economics", Fourth Edition South -Western College Publishing, An International Thomson Publishing Company, Cincinnati, Ohio, USA, 1998 (Ch. - 11,13)
5. Froyen, Richard T. Macroeconomics, Theories and Policies, Prentice Hall International Inc. London, 1999(Ch. 8,6,9,11,12,14)
6. Abel, Andrew B & Ben S. Bernanke Macroeconomics, Pearson Education Singapore, 2003 (Ch.12)
7. Yotopolus, P.A. and Nugent, J.B. : Economics of development Empirical Investigation.
8. Meier, G.(ed.): Learning Issues in Economic Development.
9. Singh, S.P.(ed.): Underdevelopment to Development Economics.
10. Griffin, K.B. and Enos, J.L.: Planning Development
11. Canes, Frankel and Jones : World Trade and Payments, An Introduction, Pearson Education.
12. Soderston, B. : International Economics, Macmillan.

INTERDISCIPLINARY COURSES
(Faculty of Economics & Business)

Punjab School of Economics
(For even semester at PG level)

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

1. Rao, Hanumantha, C.H., Technological Change and Distribution of Gains in Indian Agriculture, 1980.
2. Ahluwalia, I.J., Industrialisation Growth in Indian Stagnation since Mid 60's 1985.
3. Kapila, Uma (ed.) Indian Economy Since Independence, 1993
4. Dholkia, B.H., Sources of Economic Growth, 1974.
5. Jalan, Bimal (ed.), The Indian Economy Problems and Prospects, 1975.
6. Brahamanda, P.R. and Panchmukhi, V.R. (ed.) The Development Process of the Indian Economy, Himalaya Publishing House, Bombay, 1987.
7. Dantwala, M.L., Indian Agriculture Development since Independence, Oxford, IBH Pub. Co., New Delhi, 1991.
8. Raj Kapila and Uma Kapila, India's Economy in the 21st Century, 2002.

INTERDISCIPLINARY COURSES
(Faculty of Sciences)

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

Credits: 3-0-0

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.

Cell Membrane and Transport of Ions: Structure and functions of cell membrane. Active transport across cell membrane, irreversible thermodynamics treatment of membrane transport.

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.

Diffusion: Fick's Law of diffusion, diffusion coefficient and its interpretation, frictional coefficient.

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.

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INTERDISCIPLINARY COURSES
(*Faculty of Sciences*)

Books Recommended:

1. Principles of Biochemistry, A.L. Lehninger, Worth Publishers.
2. Biochemistry, L. Stryer, W.H. Freeman.
3. Biochemistry, Voet and Voet, John Wiley.
4. Macromolecules: Structure and Function, F.Wold, Prentice Hall.
5. Text Book of Polymer Science, F.W. Billmeyer.
6. Physical Chemistry of Polymers, A. Tager.

CHEMISTRY (PG)

Molecular Spectroscopy
Paper: CYL-052

Credits: 4-0-0

- 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}C , ^{19}F and ^{31}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), CW and FT NMR, Relaxation processes, T_1 and T_2 measurements, Applications of PMR in structural elucidation of simple and complex compounds.

 ^{13}C -NMR: Resolution and multiplicity of ^{13}C NMR, ^1H -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}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 hydrogen deficiency, fragmentation patterns for aliphatic compounds, amines, aldehydes, Ketones, esters, amides, nitriles, carboxylic acids ethers, aromatic compounds etc.
- 4. UV and Visible Spectroscopy of organic molecules: (10 Hrs.)**
Measurement techniques, Beer – Lambert's Law, molar extinction coefficient, oscillator strength and intensity of the electronic transition, Frank Condon Principle, Ground and first excited electronic states of diatomic molecules, relationship of potential energy curves to electronic spectra, Chromophores, auxochromes, blue shift, red shift, hypo and hyperchromic effect, $\pi \rightarrow \pi^*$, $n \rightarrow \pi^*$ transitions in organic molecules, Woodward rules for conjugated dienes and α, β -unsaturated carbonyl groups, extended conjugation and aromatic sterically hindered systems, Quantitative applications.

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INTERDISCIPLINARY COURSES
(*Faculty of Sciences*)

Books Recommended:

1. Pavia, Lampman & Kriz, Introduction to Spectroscopy.
2. C.N Banwell "Fundamentals of Molecular Spectroscopy".
3. R. M. Silverstein, G.C.Bassler, T.C. Morrill, "Spectrometric Identification of Organic Compounds.
4. W. Kemp, "Organic Spectroscopy".
5. D.H. Williams, I. Fleming, "Spectroscopic Methods in Organic Chemistry".
6. D.H. Williams, I. Fleming, "Spectroscopic Problems in Organic Chemistry", 1967.
7. R.C. Banks, E.R. Matjeka, G. Mercer, "Introductory Problems in Spectroscopy", 1980.
8. G.M. Barrow "Introduction to Molecular Spectroscopy".

CHEMISTRY (UG)
CYL-001 General Chemistry

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

INTERDISCIPLINARY COURSES
(Faculty of Sciences)

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 crabon

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

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INTERDISCIPLINARY COURSES
(*Faculty of Sciences*)

14. Fertilizers and Pesticides

Fertilizers
Pesticides

15. Cement and Glass

Cement
Glass

Books:

1. General Chemistry by Darrel D. Ebbing and Steven D. Gammon, 9th Edition, Houghton Mifflin company, Boston, New York.
2. Principles of general chemistry by Martin S. Silberberg, Publisher McGraw-Hill
3. Engineering Chemistry by Jain and Jain, Dhanpat Rai Publishing Co.
4. Modern ABC of Textbook Chemistry Vol. I & II For Class 11 and 12 by Dr. S.P.Jauhar
Modern Publishers Books, New Delhi.
5. Pradeep New Course Chemistry Vol. I & II For Class 11 and 12 by S. N. Dhawan, S. C. Khaterpal & P. N. Kapil, Pradeep Publication, Jalandhar.

INTERDISCIPLINARY COURSES
(Faculty of Sciences)

CHEMISTRY (UG)

CYL-002: Physical Chemistry

Credit: 3-0-0

Course Hrs. 45

Statistical Thermodynamics:

(20 Hrs)

The thermodynamic probability of a system, Types of statistics; Maxwell- Boltzmann distribution law, Fermi- Dirac and Bose- Einstein distribution laws and their comparison. Systems of independent particles. The energy of a system: Ensembles; canonical, microcanonical and grand canonical ensembles. The partition function. Separation of partition functions into translational, rotational, vibrational and electronic partition functions. Relation between partition function thermodynamic functions. Statistical calculation of equilibrium constants. Relation between entropy and thermodynamic probability.

Chemical Bonding:

(25 Hrs)

Hamiltonian for diatomic molecules, Born oppenheimer approximation, understanding chemical bonding through molecular orbital treatment of H_2^+ , 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.

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INTERDISCIPLINARY COURSES
(Faculty of Sciences)

PHYSICS (UG) (Odd Semester)
GENERAL PHYSICS-I

Course No.
PHL-001

LTP
3 0 0

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

Magnetostatics: Concept of magnetic field, Biot-savart law and its application, Ampere's law and its applications, Force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, Force between two parallel current-carrying conductors, definition of ampere, Electromagnetic induction, Faraday's laws, induced emf and current, Lenz's Law.

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:

1. Fundamentals of Physics 8th Edition: Resnick Halliday Walker
2. University Physics 12th Edition: Hugh D. Young , Roger A. Freedman , Lewis Ford
3. Concepts of Physics: H. C. Verma
4. Electrodynamics: Griffiths
5. Integrated Electronics: J. Millman and C. C. Halkias
6. Digital Principles & Applications – P. Malvino & Leach

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INTERDISCIPLINARY COURSES
(Faculty of Sciences)

PHYSICS (UG) (Even Semester)
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:

1. Concepts of Modern Physics - Arthur Beiser
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
7. An introduction to Solid State Physics - C. Kittel.
8. Solid State Physics - A.J. Dekkar.

INTERDISCIPLINARY COURSES
(Faculty of Sciences)

PHYSICS (PG) (Even or Odd Semester)
CHARACTERIZATION TECHNIQUES

Course No.
PHL-051

LTP
3 0 0

Scanning electron microscopy, Transmission electron microscopy, Scanning tunneling microscopy, Atomic force microscopy, Optical microscopy.

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.

Infrared, ultra-violet, visible and Raman spectroscopy. Electrical measurements: Two probe, Four probe and Vander Pauw techniques, Hall effect. Impedence spectroscopy.

Recommended Books:

1. Methods of surface analysis (techniques and applications), J.M. Walls, Cambridge University Press, 1989
2. Cullity
4. Science of engineering materials, C.M. Srivastava and C. Srinivasan – New Age International Ltd.(P), 2005.
5. The Principles and Practice of Electron Microscopy- Ian.M.Watt- Cambridge University Press, 1997
6. Modern techniques for surface science-D.P. Woodruff and T.A. Delchar –Cambridge University Press, 1994
7. Materials science, testing and properties for technicians. W.O. Fellers – Prentice Hall, 1990.
8. Dielectric relaxation in solids-A.K. Jonscher-Chelrea Dielectrics Press London, 1983.

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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

Error Analysis (Relative error, Truncation error, Roundoff error, order of approximation, order of convergence, Propagation, solution of Non-linear equations, Bracketting method, Bisection method of Balzeno, Method of false position and convergence, Newton Raphson Method, Secout Method, Accelerated convergence.

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

Numerical Integration: Quadrature, Simpson's Rules, Trapezoidal Rule, Error Analysis, Romberg Integration, Gauss Legendre Integration.

Solution of differential equations: Euler's method, Henn's method, Taylor Series method, Runge Kutta method, Milne's Simpson method, Adam's Basufertn method System of differential equations.

Reference Books:

1. Numerical Methods of Scientists and Engineers, Madhumangal Pal (Narosa).
2. Numerical Methods unsing Matlab, Mathews and Fink.
3. Introductory methods of Numerical Analysis, S.S. Sastry.

MATHEMATICS

**Post Graduate level course
Odd/Even semester**

MTL 051 APPLIED STATISTICS

**L-T-P
4- 0-0**

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

Non-parametric statistics: Sign test, wilcoxon signed-rank test, Wilcoxon rank-sum test. Reliability, Failure time distribution, exponential model in reliability and life testing.

Books Recommended:

1. Montgomery, D.C. and Runger, G.C. (2003): Applied Statistics and Probability for engineers, 3rd edition, John Wiley & sons, Inc [Chapters 11,12,13,14,15].
2. Johnson, R. A. and Gupta, C.B. (2006): Probability and Statistics for Engineers, 7th Edition, Pearson Education, [Ch. 15].

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:

1. Guide to Improving Food Hygiene - Ed Gaston and Tiffney.
2. Practical Food Microbiology and Technology (2nd edition) - J. Mountney and W.A. Gould.
3. Food Poisoning and Food Hygiene (3rd Edition) - Betty C. Hobbs.

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.
2. Lehninger: Principles of Biochemistry by David L. Nelson and Micheal M. Cox.
3. Biochemistry by Jeremy M. Berg, John L Tymoczko and Lubert Stryer.
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

Egg: structure and composition, quality factors, storage and egg preservation. Poultry processing: slaughtering to packaging, comminuted meat products. Processing of fruits in juices, aseptic packaging, squash, jams and marmalades. Drying and canning of vegetables. Packaging of fresh fruits and vegetables.

Recommended Books:

1. Technology of Cereals by N. L. Kent.
2. Preservation of Fruits and Vegetables by Girdhari Lal, G. S. Siddappa, G. L. Tandon.
3. Meat Handbook by Albert Lovie.
4. Poultry Products Technology by G.J. Mountney.
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)

1. **Drug Designing:** Objectives and Economic aspects of drug designing. Procedures followed in drug designing. Lead based Method: lead discovery, De novo drug designing, Structure based drug designing. Drug Development- Dissection of drug molecules into biofunctional moieties, biosteric replacement, lead optimization, QSAR and use of various molecular descriptors. Computer aided drug design-Molecular mechanics, designing of ligands for known and unknown receptors, various forces involved in drug receptor interactions, stereo chemical aspects of drug receptors interaction.
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.

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INTERDISCIPLINARY COURSES
(Faculty of Applied Sciences)

READING MATERIAL RECOMMENDED:

1. Manfred E Wolff, (ed), Burger's Medicinal Chemistry and Drug Discovery, Vol – I Principles and Practice, 5th Ed., John Wiley and Sons, 1995.
2. J. G Vinter and Mark Gardner, (Eds.) Molecular Modelling and Drug Design, The Macmillan Press Ltd., London, U.K., 1994.
3. Comprehensive Medicinal Chemistry, Pergamon press, 1990, Vol. 4.
4. Lachman et. al. Theory and Practice of industrial Pharmacy. Varghese Publishing house. Hind rajasthan Building, Bombay-400014.
5. Trease and Evans Pharmacognosy, Ed. W.C. Evans, 14th Edn, Gopsons Papers Ltd., Noida, India, 1997
6. Plant Drug Analysis, H. Wagner, S. Bladt and E.M. Zgainski, Springer Verlag, New York, (Latest edition)
7. Pharmacopoeia of India, Govt. of India, Ministry of health and family welfare, Delhi, 1996.
8. Tyler, V.C. Brady, L.R. and Robers, J.E. Pharmacognosy. Lea and Febiger, Philadelphia.
9. Shah, C.S. and Quadry, J.S. Textbook of Pharmacognosy, B.S. Shah Publishers, Ahmedabad.
10. Wilson & Gisvold's Text Book of organic Medicinal and Pharmaceutical chemistry, 10th edition. J. B. Lippincott Co, Philadelphia, USA.
11. W.C. Foye, Principle of Medicinal Chemistry, Lea & Febiger, Philadelphia, USA. (Latest Edition)
12. H.G. Vogel and W.H. Vogel Drug Discovery and Drug Evaluation. Pharmacological assays. 2nd edition Springer Verlag, Berlin, Germany, 1997.
13. M.N. Ghosh, Fundamentals of Experimental Pharmacology, 2nd edition, Scientific Book agency, Kolkata, India, 1984.
14. D.R. Laurence and A.L. Bacharach (eds.), Evaluation of Drug Activities: Pharmacometrics Vol. I and II, Academic Press London, U.K., 1964.

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

8. Bioavailability and Bioequivalence: Definitions, Terminology, Clinical significance and factors affecting biological performance of drugs. Methods of determination of bioavailability using blood level and urinary excretion data, Parameters used to evaluate bioequivalence.
9. Non linear Pharmacokinetics: Concepts, Reasons for non-linear behavior and methods to ascertain non-linear kinetics.

BOOKS RECOMMENDED:

- 1) M. Gibaldi and D. Perrier (Eds), Pharmacokinetics 2nd Edition, Marcel Dekker Inc., New York, U.S.A., 1984.
- 2) L.Shargel and A.B.C.Yu. (Eds) Applied Biopharmaceutics and Pharmacokinetics, 5th Edition, Prentice Hall International, London, U.K.
- 3) R, E.Notari (Ed) Biopharmaceutics and Clinical Pharmacokinetics: an Introduction, 4th Edition, Marcel Dekker Inc., New York, USA, 2005 (Indian Reprint).

Pharmaceuticals

(For UG students)

Odd Semester

PHL001: Pharmaceutical Chemistry-I: Organic Chemistry

Credits (2-1-0)

1. **Structure and Properties:** Electronegativity. Dipole moment, Inductive and field effects. Covalent bonding. Hybridization, Multiple bonds. Bond lengths, bond angles and bond energies. Delocalized chemical bonding. Hyperconjugation. Tautomerism. Hydrogen bonding. Addition compounds. Organic acids.
2. **Stereochemistry (Basic Concepts):** Optical activity, Chirality, Enantiomers, Diastereomers, Relative and absolute configuration. D/L and R/S nomenclature. Racemic mixture and resolution. Geometrical isomerism. E/Z system of nomenclature. Conformations in open chain systems.
3. **Aliphatic Nucleophilic Substitution:** SN1, SN2, SNi and neighbouring group mechanisms. Substitution at allylic, trigonal and vinylic carbon atoms. Effect of substrate structure, attacking nucleophile, and leaving group on reactivity. Hydrolysis of esters.
4. **Elimination Reactions:** E1, E2, E1-CB, E2-CB mechanisms, Saytzeff and Hoffman rules. Pyrolytic eliminations, Cleavage of quaternary ammonium hydroxides.
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.
6. **Alkanes:** Nomenclature, Physical properties, Industrial source and Preparation. Halogenation, combustion and pyrolytic reactions.
7. **Cycloalkanes:** Nomenclature, Physical properties, Industrial source and Preparation. Bayer's Strain theory, Conformations of cyclohexanes and its monosubstituted derivatives.
8. **Alkenes, Dienes and Alkynes:** Nomenclature, physical properties, industrial source preparation and addition reactions. Polymerization of dienes. Acidity of alkynes.
9. **Alcohols:** Alkyl Halides and Ethers: Nomenclature, General methods of preparation, physical properties, chemical reactions and applications.
10. **Aldehydes and Ketones :** Structure, nomenclature, physical properties, industrial source, preparation and reactions. Acid/base promoted halogenation of ketones. Active Methylene compounds: Ethyl acetoacetate and diethyl malonate: synthesis and applications in organic synthesis. Michael, Mannich, Grignard, Reformatsky, Wittig and Perkin reactions. Aldol, Knoevenagel and Benzoin condensations.

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INTERDISCIPLINARY COURSES
(*Faculty of Applied Sciences*)

Books Recommended (Latest editions unless specified):

1. R.T. Morrison and R.N. Boyd. Organic Chemistry, Allyn and Bacon Inc., Boston, USA.
2. I.L. Finar, Organic Chemistry, Vol. I and II, ELBS, Longman.
3. P. Sykes, A Guidebook to Mechanisms in Organic Chemistry, Orient Longman, New Delhi.

Suggested Readings:

- 1 J. March, Advanced Organic Chemistry, Reaction, Mechanisms and Structure, Wiley Eastern, New Delhi.
- 2 G. Solomon and C. Fryhle, Organic Chemistry, John Wiley & Sons, 1992.
- 3 S.H. Pine, Organic Chemistry, McGraw Hill Book.

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 K_{sp} , 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.

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INTERDISCIPLINARY COURSES
(*Faculty of Applied Sciences*)

Books Recommended (Latest editions unless specified)

1. J. Bassett, R. C. Denney, G. H. Jeffery, J. Mendham, Vogel's textbook of Quantitative Inorganic Analysis, including Elementary Instrumental Analysis. The English Language book Society and Long man.
2. K.A. Conner, A Textbook of Pharmaceutical Analysis, Willey Interscience publication.
3. H. H. Willard. L. L. Merritt Jr and J. A. Dean, Instrumental Methods of Analysis, Van Nostrand Reinhold, New York, USA.

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:

Process flow of natural fibers like cotton, wool, silk. Process flow of synthetic fibers like polyester, nylon.

Books: Colourants and Auxiliaries Vol 1, John Shore, SDC Publishers, UK, 2001.

Textile Chemistry
B.Tech. (Textiles Chemistry) (Semester-II)

TCL-002

Textile Care

Credits: 3/1/0

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.

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INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science
CSL-001- Computer Fundamentals

Credits		
L	T	P
3	0	1

Unit I

Introduction: Computer System Characteristics, Hardware - CPU, Memory, Input, Output & Storage devices, Organization of Secondary Storage Media, Software - System & Application.

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

Development Tools: Editors, Translators - Compilers, Interpreters, Linkers Loaders, Debuggers.

Unit II

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

Office Management Tools: Word processing using MS Word – Editing, Formatting, Spell Checking, Table handling, Spreadsheet - Excel – Editing, Formatting, Creating formulas, Charts. Presentation Tool: MS PowerPoint – Templates, Views, Formatting text, Slides with graphs.

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:

1. Computers Today: Suresh K. Basandra, Galgotia, 1998.
2. Gurvinder Singh & Rachhpal Singh: A Text Book on Windows Based Computer Courses, Kalyani Publishers, 1999.
3. Droomy, G: How to Solve it by Computer, Prentice Hall, 1985.
4. V.K. Jain: Fundamentals of Information Technology.
5. Norton, Peter: Introduction to Computers, McGraw Hill
6. Martin, James: Telecommunications and the Computer, PHI

INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science
CSL-002- Computer Programming

Credits		
L	T	P
3	0	1

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:

1. Byron Gottfried: Programming in C, Tata McGraw Hill Publishing Company Ltd., Delhi.
2. Yashvant Kanetkar: Let Us C, BPB Publications, Delhi.
3. R.S. Salaria: Applications Programming in C, Khanna Book Publishing Co. (P) Ltd., Delhi.

INTERDISCIPLINARY COURSES
(Faculty of Engineering & Technology)

Computer Science

CSL051: Internet Applications

Credits		
L	T	P
4	0	0

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 gopher commands, accessing virtual reference desk through gopher,

WWW-World Wide Web

Working of WWW, Hypertext and Hypermedia, URL, Searching the WWW.

References:

1. Learning to use the Internet by Ernest Ackermann, Franklin, Beedle Associates Inc., 2002.
2. Kris Jony & Ken Cope, Internet Programming, Galgotia Publications, 2007.

Computer Science

CSL052: OPERATING SYSTEM

Credits		
L	T	P
4	0	0

UNIT-I

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

Process Management: Process States, Process Control Block, Process Scheduling, Critical regions, Race Conditions, Deadlocks.

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:

Madnick and Donovan: Operating System, McGraw Hill, 1973.

P.B. Henson: Operating System Principles, Prentice Hall, 1973.

P.B. Henson: Architecture of concurrent programs, Prentice Hall, 1977.

Peter B. Galvin, A. Silberchatz: Operating System Concepts, Addison Wesley, 6th Edi., 2003.

A.C. Shaw: Logic Design of operating System, Prentice Hall, 1974.

M.J. Bach: Design of UNIX Operating system, PHI, 1986.

A.S. Tenenbaum: Operating System: Design and Implementation PHI, 1989

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
2. **Electromagnetic Induction & A.C. Fundamentals :** Faraday's law of Electromagnetic Induction, Generation of Alternating voltage, current, simple wave form, A.C. signals & Digital Signals, Cycle, Time period, Frequency, Amplitude, Phase, Phase difference. 6

Part II

ELECTRONICS

1. **Semiconductor Devices:** Review of Semiconductors, p-n junction diode and its applications, Zener Diode, L.E.D, Tunnel Diode, Varactor diode, BJT and its configurations & characteristics, JFET and MOSFET 5
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:

1. Electrical Engineering by JB Gupta.
2. Integrated Electronics by Millman & Halkias.
3. Digital principles of Malvino leach.
4. Electrical Instrumentation by Cooper.
5. Op-amp & Linear Integrated circuits by Ramakant Gayakward.

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

Botanical & Environmental Sciences (PG)
BSL051- Immunology
(Odd)

Credits 3-0-0

An overview of the immune system : Historical perspective, an introduction to the immune system – innate and adaptive immunity. Immunodeficiencies : secondary immunodeficiency disorders.

Antigens and antigen recognition : Antigens: prerequisites for immunogenicity, relative immunogenicity of different types of molecules, Molecules that enhance immunogenicity. Activators of lymphocytes: antigens, superantigens, mitogens. Antigen recognition by cells of innate immunity & adaptive immunity.

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

Cells and tissues of immunity: Lymphoid tissues: primary & secondary lymphoid tissues, cells of innate immunity : phagocytes, antigen presenting cells, natural killer cells, Eosinophils, mast cells and basophils, B- cells, secondary immune responses. The major histocompatibility complex, antigen process and antigen presentation, complement.

The immune system in Health & Disease, specially AIDS.

Books Recommended:

Goldsby, R.A. Kindt, T.J., Osborn B.A., Kuby, J. (2003). Immunology. W.H. Freeman & Company, New York.

Stanley, J. (2002). Essentials of Immunology and Serology. Delmar Thomson Learning, USA

Botanical & Environmental Sciences (PG)
BSL052 - Instrumental Methods of Analysis
(Even)

Credits 3-0-0

- 1. Principles of Analytical Methods:** Titrimetry, 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-filtration:** Ion exchange and Affinity chromatography; Thin layer gas chromatography; GLC, HPLC; Electrophoresis and electrofocussing; 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:

1. Wilson K. and Walker J. (Eds.) (1995). Practical Biochemistry: Principles and Techniques, Cambridge University Press, U.K.
2. Riley, T. and Tomilson, C. (1987). Principles of Electroanalytical Methods. John Wiley and Sons Ltd., Chichester, England.
3. Sheehan, D. (2000). Physical Biochemistry: Principles and Applications, John Wiley and Sons Ltd., Chichester, England.
4. Pungor, E. (1995). A Practical Guide to Instrumental Analysis. CRC press LCC, U.S.A

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INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)

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)

81
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:

1. Cummings, M.R. (2009). Human Heredity: Principles and Issues. Pacific Grove, CA: Brooks/Cole.
2. **Gardner**, A. and Davies, T. (2009). **Human Genetics**. Scion Publishing, 2nd ed.
3. Korf, B.R. (2006). Human Genetics and Genomics: A Problem-Based Approach. Blackwell Publishing Co., Oxford. 3rd Revised ed.
4. Lewis, R. (2008). Human Genetics: Concepts and Applications, McGraw-Hill Publishing, New York, 8th ed.
5. Lewis, R. (2010). Human Genetics: The Basics. Routledge.
6. Mange, E.J. and Mange, A.P. (1999). Basic Human Genetics. Sinauer, Sunderland.
7. Skirton, H. and Patch, C. (2009). Genetics for the Health Sciences. Scion Publishing.

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INTERDISCIPLINARY COURSES
(Faculty of Life Sciences)

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:

1. Adkison, L. and Brown, M.D. (2007). Elsevier's Integrated Genetics (Elsevier's Integrated S.). Mosby (St. Louis).
2. Hartwell, L., Hood, L., Goldberg, M. and Reynolds, A. (2008). Genetics: From Genes to Genomes. McGraw-Hill Higher Education, 3rd ed.
3. Lewis, R. (2011). Human Genetics — The Basics. Routledge, London.
4. Mange, E.J. and Mange, A.P. (1999). Basic Human Genetics. Sinauer, Sunderland.
5. Passarge, E. (2007). Color Atlas of Genetics. Thieme, 3rd ed.
6. Tamarin, R.H. (2001). Principles of *Genetics*. WCB/McGraw-Hill, 7th ed.

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:

1. Manual Industrial Microbiology and Biotechnology (eds) A.L. Demain and Solomon, N. A. (1986). ASM, Washington. D.C.
2. Principles of Fermentation Technology Stansbury and Whittaker, Pergamon Press.
3. Recombinant microbes for industrial and agricultural application (eds), Y. Murroka, T. Imanuka (1994), Marcel Dekker, Inc.
4. Biotechnology, 2nd Edition, W. Crueger and A. Crueger. (1992), Panima Publishers.
5. Microbial Technology. Vol I and II Eds. Peppler and Perlman, (1979), Academic Press.
6. Comprehensive Biotechnology, Vol III and IV, Ed., Moo Young (1984), Pergamon Press.

MICROBIOLOGY (PG)

FTL-062: Advances in Environmental Biotechnology

Credit: 3-0-0

Purification of waste water by aerobic processes, Communal sewage and industrial effluents, Aims and limitations of aerobic bioprocessing. Activated sludge process. Trickling filter process, lagoon process. Purification of effluents by anaerobic processing. Biology of methane formation,.

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 thuringiensis*. The concept of endotoxins and cry genes, *B. thuringiensis* 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:

1. Atlas. R.M. and Bartha, M (1981). Microbial Ecology Fundamentals and applications, Addison-Wesley, Philipines.
2. Campbel, R. (1977). Microbial Ecology, Balckwell Scienctific, London.
3. Grant, W.D. and Long, P.E. (1981). Environmental Microbiology, Balckie, London.
4. Bioreactors in Biotechnology: A practical approach (1991). Scragg. A.H., Ellis Horwood Ltd.17

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:

1. Nelson DL and Cox MM (2001) Lehninger Principles of Biochemistry, 3rd Edition, Macmillan Worth Publishers, New Delhi
2. Voet D and Voet JG (2001) Biochemistry, 3rd Edition, John Wiley & Sons, New York
3. Cohn EE, Stumph PK, Bruening G and Doi RH (1987) Outlines of Biochemistry, 5th Edition, John Wiley & Sons, New York

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

Course No. MBL-092 (Interdisciplinary Course)

Credit: L T P
3 0 0

MOLECULAR BIOLOGY AND GENETICS

UNIT-I

- A. Genetic Foundations: Mendelian and non-Mendelian 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:

1. Berg JM, Tymoczko, JL and Stryer L (2002) Biochemistry, 5th Edition, WH Freeman & Co., New York
2. Freifelder D (1993) Molecular Biology, 2nd edition. Narosa Publishing House, India
3. Brown TA (2002) Genetics: A Molecular Approach, 2nd Edition. Van Nostrand Reinhold (International) Co. Ltd. London.
4. Lewin B (2001) Genes VII, Oxford University Press, New York

ZOOLOGY
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:

Barnes, R. D. (1980). The Invertebrate Zoology, Hotl-Saunders, Philadelphia, 4th ed.

Dhami, P. S. and Dhami, J. K. (1988). Invertebrates Zoology, R., Chand & Company, New Delhi.

Dhami, P.S. and Dhami, J. K. (1994). A Text Book of Zoology. Pradeep Publications, Jalandhar.

Kotpal, R. L. (2011). Modern Text Books of Zoology: Invertebrates & Vertebrates. Rastogi Publications, Meerut.

Meglith, P. (1972). Invertebrate Zoology. Oxford Uni. Press, New York.

Prasad, S. N. (1970). A Text Book of Vertebrate Zoology. Kitab Mahal Allahabad.

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:

- Dasmann, R. F. (1982), Wildlife Biology, Wiley Eastern, New Delhi.
- Giles, R. H. (1984), Wildlife Management Techniques, Natraj Publishers, Dehradun.
- Gopal, R. (1992), Fundamental of Wildlife management Justice Home Allahabad.
- Hosetti, B. B. (1997), Concepts in Wildlife Management, Chawla Press, Delhi.
- Sharma, B. D. (1994), High Altitude Wildlife of India, Oxford IBH, New Delhi.
- Sharma, B.D. (1999), Indian Wild Life Resources Ecology and Development . Daya Publishing House, Delhi.
- Sharma, B.D. (2002), Man environment and wildlife animal. IBH Publishing Co., Pvt . Ltd. New Delhi.
- Sharma, P. D [Ecology and Environment](#), BPR Publishers
- Singh, H. R. Environmental Biology. S. Chand and Company Limited.
- Teague, R. D. (1987), A manual of Wildlife Conservation, Natraj Publishers, Dehradun.
- Tirvedi, P.R. and Singh, U. K. (1996), Environmental Laws of Wildlife.

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 EI A.
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 from micro-organisms
Solid waste management with vermicomposting
Bioremediation
Bioreactors in Environment monitoring.

Suggested Reading Material

Brewer, R. (1994). The science of Ecology. Saunders Publishers, New York.
Heywood, V.H. & Waston, R. T. (1995) Global biodiversity Assessment, Cambridge House, Delhi.
Townsend, C., Harper, J. & Micheal, B (2001) Essentials of Ecology, Blackwell Science.
Singh, H.R. & Kumar, N. (2004) Ecology & Environmental Science, Vishal Publishing Co., Jalandhar.
Sharma, P.D. (2005) Ecology & Environment, Rastogi Publication, Meerut.
Odum, E.P. (1971) Fundamentals of Ecology. W.B. Saunders Company Co.USA
Tambrell, J. (2002) Introduction to toxicology, Taylor & Francis, London.
Smith, K. (1996) Environmental Hazards. Routledge, London.
Smith, R.L. (1972) The ecology of Man: An ecosystem Approach, Harper & Row Publisher, New York.
Chapman, J.L. and Reiss, M.J. (1995) Ecology: Principles and applications, Cambridge University, Press, New Delhi.
Clesceri, L.S., Greenberg A.E. Eaton, A.D. (1998) 20th Edition Standard methods for the examination of water and wastewaters. American Public Health Association, U.S.A.
Nathanson, J. A. (1986). Basic Environmental Technology. Prentice Hall, New Jersey.

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

Meglitsch, P. A. (1991), Invertebrate Zoology (3rd edition), Oxford University Press.
Minkoff, E. C. (1983), Evolutionary Biology, Addison Wesley Pub. Co., London.
Kapoor, V. C. (2001), Theory and practice of Animal Taxonomy, IPH Pub. New Delhi.
Mayer, E. and Aschhok (1991), Principles of Systematics, McGraw Hill Book Co. London.
Alcock, J. (1998), Animal behaviour, An evolutionary approach Sinauer Assoc., Sunderland, Mass, USA.

INTERDISCIPLINARY COURSES

(Faculty of Life Sciences)

- Drickamer, L. C. and Vessey, S. H. (1986), Animal Behaviour - Concepts, Processes and Methods. (2nd ed.), Wordsworth Publ. Co., California.
- Manning, A. and Dawkins, M. S. (1992 & 1998), An Introduction to Animal Behaviour , 4th ed.(Cambridge low price editions). Cambridge University Press, Cambridge.
- Sharma, B.D. (1999), Indian Wild Life Resources Ecology and Development . Daya Publishing House, Delhi.
- Balinsky, B. I. (1981), An introduction of Embryology, Saunders, Philadelphia.
- Berril, N. J. (1971), Development Biology. McGraw Hill, New Delhi.
- Gilbert, S.F. (2003), Developmental Biology, Sinauer – associates, Inc. USA.
- Goel, S. C (1984), Principles and Animal Developmental Biology, Himalaya, Bombay.
- Saunders, J. W. (1982), Developmental Biology, Patterns, Principles, Problems, MacMillan, New York.
- Shukla, G. S. & Upadhaya, V. B. (1991-92), Economic Zoology, Rastogi Publications, Meerut.
- Srivastava, P. A. (1977), Economic Zoology, Commercial Publication Bureau, Kanpur.

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

GURU RAMDAS SCHOOL OF PLANNING
ODD SEMESTER (Under Graduate)

SPL 001 - ELEMENTS OF HUMAN SETTLEMENTS

Credits: 3-1-0

Definition of Settlements: Theoretical- Hamlet, village, focal village, town, city. Polis, Metropolis, Megalopolis, Census Classification of Towns, Standard Urban Areas, Urban Agglomeration, Mega Cities, Urban Regions. Urban - rural relationships. Common issues in cities illustrated with examples.

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, Manuel 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:

1. Gallion A (1963), "The Urban pattern; City Planning and Design", D.V. Nostrand Company Inc, N.York.
2. Nath R (1995), "Medieval Indian History and Architecture", APH Publishing Pvt Ltd, New Delhi.
3. Hall P (2002), "Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the 21st Century", Blackwell Publications, Oxford.
4. Hall P (1998), "Cities in Civilization; Culture, Technology and Urban Order", Weidenfield and Nicolson, London.
5. Lynch K (1981), "A Theory of Good City Form", Cambridge Publications, London.
6. Keeble L. (1972), 'Principles & Practice of Town and Country Planning', the Estates Gazette Ltd., London.
7. Kopardekar & Diwan (1994), 'Urban and Regional Planning-Principles, Practice and Law' S.H. Kopardekar, Talegaon – dabhade.

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:

1. Ministry of Urban Affairs & Employment, Govt. of India, (1996), 'UDPFI Guidelines', Vol. 2A, New Delhi
2. Omura, George (2007), "Mastering AutoCAD", BPB Publications, New Delhi.
3. Tickoo, Sham (2008), "Understanding AutoCAD", Tata McGraw Hill, New Delhi.
4. National Map Policy (2005), Survey of India, Dehradun.

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

GURU RAMDAS SCHOOL OF PLANNING
ODD SEMESTER (Post Graduate)

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:

1. Gallion A (1963), “The Urban pattern; City Planning and Design”, D.V. Nostrand Company Inc, N.York.
2. Hall P (1998), “Cities in Civilization; Culture, Technology and Urban Order”, Weidenfield and Nicolson, London.
3. Lynch K (1981), “A Theory of Good City Form”, Cambridge Publications, London.
4. Keeble L. (1972), ‘Principles & Practice of Town and Country Planning’, the Estates Gazette Ltd., London.
5. Kopardekar & Diwan (1994), ‘Urban and Regional Planning-Principles, Practice and Law’ S.H. Kopardekar, Talegaon – dabhad.

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

**GURU RAMDAS SCHOOL OF PLANNING
EVEN SEMESTER (Post Graduate)**

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:

1. Dhesi, Avtar (2008), *Rural Development in Punjab: A Success Story Gone Astray*, Rourledge India.
2. Gupta, K.R. (2004), *Rural Development in India (Vol.2)*, Atlantic Publishers and Distributors Pvt. Ltd.
3. Gupta, K.R. and Pransanjit Maiti, (2008), *Rural Development in India (Vol.3)*, Atlantic Publishers and Distributors Pvt. Ltd.
4. Kopardekar & Diwan (1994), 'Urban and Regional Planning-Principles, Practice and Law' S.H. Kopardekar, Talegaon – dabhade.
5. Kumar, Ghosh, (1991), *Management of Rural Development*, Anmol Publications Pvt. Ltd.
6. Tiwari, Satish, (2000), *Rural Development*, Anmol Publications Pvt. Ltd.

INTERDISCIPLINARY COURSES
(Faculty of *Physical Planning & Architecture*)

B.ARCH.								
S.No.	Subject Code	Course Title	Semester	Credits	L	T	U	Duration of Exam.
1	ARL-001	Residential Architecture	Autumn	03	2	1	0	3 hrs
2	ARL-002	History of Architecture	Spring	03	2	1	0	3 hrs

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

Subject Code: ARL-001

Course Title: Residential Architecture

(Inter Disciplinary-Autumn Semester)

Duration of Examination : 3 Hrs

Credits : 03 (L=2,T=1,U=0)

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

Terminology of vaastu- shastra, fundamental-concepts, elements of vaastu, The designs based on directional alignments, laws of nature. Residential vaastu: planning for different-rooms.

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.

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

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:

1. Rangwala, S.C., Engineering Materials, Charotar Publishing House, India, (1997.)
2. Punmia, B.C., Building Construction, Laxmi Publications Pvt.Ltd., New Delhi,(2010)
3. Lyons –Arthur, Materials for Architects and Builders - An introduction; Arnold, London, (1997).
4. Time Saver Standards.
5. Neufert Standards.
6. Kumar, Vijaya. *Vastushastra*. New Dawn/Sterling. (2002)
7. Gautum, Jagdish. *Latest Vastu Shastra (Some Secrets)*. Abhinav Publications. (2006)
8. Ching ,Francis D.K., Interior Design Illustrated, V.N.R. Pub NY, 1987
9. Shah, Charanjit Singh ,Architects Handbook Ready Reckner by Published by Galgotia publishing company, New Delhi.
10. National Building Code–2005 published by Bureau of Indian Standards, New Delhi.
11. Ingel Jack E, “Landscaping: Principles and Practice”.

INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

Subject Code: ARL-002

Duration of Examination : 3 Hrs

Course Title: History of Architecture

Credits : 03 (L=2,T=1,U=0)

(Interdisciplinary Course-Spring Semester)

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

1. Grover, S.– Buddhist And Hindu Architecture In India, CBS Publishers & Distributors, Delhi (2003)
2. Grover, S. – Islamic Architecture in India, CBS Publishers & Distributors, Delhi (2003)
3. Brown, P.– Indian Architecture (Buddhist And Hindu Periods), DB Taraporevala Sons & Co. Private Ltd., Bombay (1971)
4. Brown, P.– Indian Architecture (Islamic Period), D.B Taraporevala sons & co. Private Ltd., Bombay (1971)
5. Nath, R. History of Mughal Architecture. Abhinav Publications. New Delhi. 1985.
6. Arshi, P.S. Sikh Architecture in Punjab. Intellectual Publishing House. New Delhi. 1985.

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INTERDISCIPLINARY COURSES
(Faculty of *Physical Planning & Architecture*)

M.ARCH.								
S.No.	Subject Code	Course Title	Semester	Credits	L	T	U	Duration of Exam.
1	ARL-051	Socio Economic Aspects of Urban Environment	Autumn	04	3	1	0	3 hrs
2	ARL-052	Understanding the City Form	Spring	04	3	1	0	3 hrs

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INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

Subject Code: ARL-051
Course Title: Socio Economic Aspects of
Of Urban Environment
(Interdisciplinary-Autumn Semester)

Duration of Examination : 3 Hrs
Credits: 04 (L=3,T=1,U=0)

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

1. Cullen, Gordon (1971), "The Concise Townscape" Van Nostrand Reinhold, New York.
2. Gosling, David and Barry Maitland (1984), "Concepts of Urban Design" St. Martin's Press, New York
3. Hall, Edward T. (1990), "The Hidden Dimension" Anchor Books Editions, New York.
4. Kostof, Spiro (1991), "The City Shaped: Urban Patterns and Meanings through History" Little Brown, Boston Mass.
5. Rowe, Colin and Koetter, Fred (1979), "Collage City" MIT Press, Cambridge, Mass.
6. Southworth, Michael, Alexander. C, S. Ishikawa and M. Silverstein (1977), "A Pattern Language" Oxford University Press, New York.
7. Steele Fritz (1981), "The Sense of Place" CBI Publishing Company Inc. Boston.
8. Watson, Donald (ed.) 2003, "Time Saver Standards for Urban Design" McGraw Hill.
9. Whyte, William Hollingsworth (1980), "The Social Life of Small Urban Spaces" Conservation Foundation, Washington D.C.

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INTERDISCIPLINARY COURSES
(Faculty of Physical Planning & Architecture)

Subject Code: ARL-052
Course Title: Understanding The City Form
(Interdisciplinary-Spring Semester)

Duration of Examination : 3 Hrs
Credits: 04 (L=3,T=1,U=0)

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
3. M. Feilden, Bernard; Conservation of Historic Buildings; Pub. by Architectural Press; 3rd edition, 2003.

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

**ENGLISH
SEMESTER-I**

**Interdisciplinary Paper (UG)
ENL001
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*

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

ENGLISH

SEMESTER-II

Interdisciplinary Paper (UG)
ENL026
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*
- I, 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

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**
Recurring Themes and Motifs: Love, Death, Nature, Religion, Time, War.

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

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P.G ODD SEMESTER

कबीर : विशे'k v/; ; u

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काव्य—निधि , संपादक— डॉ. हरमहेन्द्र सिंह बेदी , डॉ. सुधा जितेन्द्र , कस्तूरी लाल एंड सन्ज़, अमृतसर।

इकाई.-1

व्याख्या— साखी — गुरुदेव कौ अंग , सुमिरण कौ अंग

कबीर काव्य का क्रान्तिकारी पक्ष

इकाई.-2

व्याख्या— साखी — विरह कौ अंग , चितावणी कौ अंग

कबीर का रहस्यवाद

इकाई.-3

व्याख्या— साखी — मन कौ अंग , माया कौ अंग

कबीर काव्य का दार्शनिक पक्ष ,

सहायक पुस्तकें

कबीर साहित्य चिंतन, परशुराम चतुर्वेदी, स्मृति प्रकाशन, इलाहाबाद।

कबीर एक अनुशीलन, रामकुमार वर्मा, साहित्य भवन, इलाहाबाद।

कबीर : जीवन और दर्शन, रामनिवास चंडक, नागरी प्रचारिणी सभा, वाराणसी।

कबीर : एक नई दृष्टि, रघुवंश, लोकभारती प्रकाशन, इलाहाबाद

108
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER

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पंजाब के हिन्दी साहित्य की पृष्ठभूमि , परम्परा ,काल विभाजन— नाथ , सिद्ध तथा लौकिक साहित्य

bdk&2

गुरुमुखी लिपि में उपलब्ध पंजाब का भक्ति हिन्दी साहित्य— गुरु काव्यधारा ,
रामकाव्यधारा , कृष्णकाव्यधारा, सूफीकाव्यधारा

bdk&3

गुरुमुखी लिपि में उपलब्ध दरबारी काव्य— पटियाला दरबार , संगरूर दरबार, कपूरथला दरबार , नाभा
दरबार

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इकाई - एक

हिन्दी की ऐतिहासिक पृष्ठभूमि

इकाई - दो

हिन्दी का भौगोलिक विस्तार

इकाई - एक

हिन्दी का भाषिक स्वरूप

सहायक पुस्तकें

- हिन्दी भाषा की शब्द संरचना, भोलानाथ तिवारी, साहित्य सहकार, दिल्ली.
- हिन्दी भाषा की संरचना, भोलानाथ तिवारी, वाणी प्रकाशन, दिल्ली.
- हिन्दी भाषा का इतिहास, डॉ० धीरेन्द्र वर्मा, इलाहाबाद : हिन्दुस्तान एकेडमी.
- हिन्दी : उद्भव, विकास और रूप, हरदेव बाहरी.

110
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

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HIL 054

(4-0-0)

व्याख्या एवं आलोचना के लिए निर्धारित कृतियां

1— गबन „उपन्यासद्व प्रेमचंद , हंस प्रकाशन , इलाहाबाद

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

bdk&1

गबन — पृ— 1— 110

गबन उपन्यास की समस्याएं

कहानी — ईदगाह ,

ईदगाह : कथ्य और भित्ति ,

bdk&2

गबन — पृ— 111 — 220

गबन उपन्यास की सामाजिक चेतना

कहानी — भातरंज के खिलाड़ी

भातरंज के खिलाड़ी : कथ्य और भित्ति

bdk&3

गबन — पृ— 221 — 330

गबन उपन्यास का कलात्मक पक्ष

कहानी — कफन

कफन : कथ्य और भित्ति

111
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

काल्पनिक : भाषा अध्ययन

HIL 055

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जयशंकर प्रसाद : कामायनी, (श्रद्धा सर्ग) , राजकमल पेपरबैक्स , नई दिल्ली

ब्लॉक-I

कामायनी : श्रद्धा सर्ग (पद-1-15)
कामायनी' का दार्शनिक-पक्ष

ब्लॉक-II

कामायनी : श्रद्धा सर्ग (पद 16-30)
'कामायनी' इतिहास एवं कल्पना

ब्लॉक -III

कामायनी : श्रद्धा सर्ग (पद- 31-45)
कामायनी का महाकाव्यत्व

संदर्भ ग्रंथः

कामायनी : एक पुनर्विचार, गजानन माधव मुक्तिबोध, राजकमल प्रकाशन, नयी दिल्ली।

कामायनी में काव्य, संस्कृति और दर्शन, द्वारका प्रसाद सक्सेना, विनोद पुस्तक मंदिर, आगरा।

मिथक और स्वरूप : 'कामायनी' की मन : सौंदर्य सामाजिक भूमिका, रमेश कुन्तल मेघ, ग्रंथम, कानपुर।

कामायनी के अध्ययन की समस्याएँ, डॉ० नगेन्द्र नेशनल पब्लिशिंग हाऊस, नयी दिल्ली।

कामायनी : मूल्यांकन और मूल्यांकन, इन्द्रप्रस्थ मदान, नीलाभ प्रकाशन, इलाहाबाद।

112
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD & EVEN SEMESTER

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HIL 056

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bdkb&2

fglñh l kfgR; dk e/; dky

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113
INTERDISCIPLINARY COURSES
(Faculty of Languages)

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ODD SEMESTER

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; fuV **III**

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114
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER
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l kFkd rFkk Lrjh; vupkn dh fo'k\$krk, a

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115
INTERDISCIPLINARY COURSES
(Faculty of Languages)

ODD SEMESTER

dfj oafkj; cPpu

HIL 003

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हरिवंशाराय बच्चन, मधुभाला , राजपाल एंड सन्ज , दिल्ली ।

bdkÃ&1

व्याख्या— पृ 1–45

हरिवंशाराय बच्चन : सामान्य परिचय,

bdkÃ&2

व्याख्या—पृ 46–90

रोमांसवादी काव्यधारा और हरिवंशाराय बच्चन

bdkÃ&3

व्याख्या—पृ 91–135

मधुभाला काव्य संग्रह की मूल संवेदना और भाषागत वैभिष्ट्य

ODD SEMESTER

jk"V'dfo ek[kuyky prph

HIL 004

(3-0-0)

0; k[; k , oa vkykpuk ds fy, fu/kk'j r dfork, a %
पुष्प की अभिलाशा, मरण ज्वार, कैदी और कोकिल, रणवेदी पर बलिवेदी पर, प्यारे भारत
दे'त।

bdkb&1

व्याख्या— कैदी और कोकिल
माखनलाल चतुर्वेदी: सामान्य परिचय

bdkb& 2

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

bdkb& 3

रणवेदी पर बलिवेदी पर, प्यारे भारत दे'त

माखनलाल चतुर्वेदी की कविताओं का मूल स्वर

सहायक पुस्तकें:

नरेशचन्द्र चतुर्वेदी, राष्ट्रीय कविताएँ, कानपुर : साहित्य निकेतन, 1986
माखनलाल चतुर्वेदी और वि.दा.सावरकर की कविताओं में राष्ट्रीय चेतना, सुभाष महालेख चं

117
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

fglñh l kfgR; dk l f{klr bfrgkl

HIL 005

(3-0-0)

v/; ; u ds fy, fu/kkZj r i fj {ks=%

bdkb&1

1. fglñh l kfgR; dk vkfndky rFkk HkfDrdky% l kekl; i fjp;

bdkb&2

2- fglñh l kfgR; dk jhfrdky rFkk vk/kfud dky% Hkkj rñnq ; ¶] f}onh ; ¶]

Nk; kokn ; ¶ dk l ñHkZ

bdkb&3

3. fglñh l kfgR; dk vk/kfud dky % i xfrdky] iz; kxokn] ubl dfork] l edkyhu

dfork rFkk x| fo/kkvka ds fodkl dk l ñHkZ

118
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

fglñh xty vkj ñ; r ðkj

HIL 006

(3-0-0)

v/; ; u dsfy, fu/kkjr ifj{ks=

xty laxg & lk; sea/ki] yskd & ñ; r ðkj

; fuV I

fglñh xty %ifjp; , oa fu/kkjr 0; k[; k

; fuV II

ñ; r ðkj %0; fDrRo , oa dfrRo , oa fu/kkjr 0; k[; k

; fuV III

lk; sea/ki xty laxg dh fo'k'krk, a , oa fu/kkjr 0; k[; k

119
INTERDISCIPLINARY COURSES
(Faculty of Languages)

EVEN SEMESTER

ukVddkj ekgu jkdः

HIL 007

(3-0-0)

0; k[; k ds fy, fu/kk᳚r ukVd %

1- vk/ks v/kj % jk/kkd".k i᳚dk'ku] fnYyh] 1974

bdk&1a

^ vk/ks&v/kj % i & 1&37

I edkyhu e/; oxh᳚ thou dk nLrkost

bdk&2

^vk/ks&v/kj % i & 38&74

vk/ks&v/kj % fopkj/kkj k] Hkk"kk

bdk&3

vk"kk<+dk ,d fnu] i & 75&111

vk/ks&v/kj % भीर्क dh I kFkdrrk] jæeph; rk

I gk; d i᳚rds %

1. ekgu jkd's k vk᳚ muds ukVd] MkW fxjh'k j Lrk᳚h] yk᳚Hkkj rh i᳚dk'ku] fnYyhA

2. ekgu jkd's k dh jæ&I f"V] MkW txnh'k 'kek᳚ jk/kkd".k i᳚dk'ku] okjk.kl hA

3. ukVddkj ekgu jkd's k] MkW frydjkt 'kek᳚ vk; L c᳚ fMi k᳚ ub᳚ fnYyhA

4. vk/k᳚ud ukVd dk el hgk % ekgu jkd's k] MkW xkfou n pkrd] bl n᳚i LFk i᳚dk'ku] fnYyhA

5. vk/ks&v/kj % I eh{kk] MkW jkt's k 'kek᳚ vk'kk᳚ i᳚dk'ku] ub᳚ fnYyh

PUNJABI

PBL-001 ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਸਾਹਿਤ

ਦੂਜੇ ਵਿਭਾਗਾਂ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਅੰਤਰ ਅਨੁਸ਼ਾਸਨੀ (Inter-disciplinary) ਕੋਰਸ

(Under Credit Based Continuous Evaluation Grading System)

ਅੰਡਰ ਗਰੈਜੂਏਟ ਕਲਾਸਾਂ ਲਈ ਪੰਜਾਬੀ ਕੋਰਸ

ਸੈਸ਼ਨ 2012-2013

3-0-0

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ 100

- I. ਨਾਨਕ ਸਿੰਘ : ਪਵਿੱਤਰ ਪਾਪੀ (ਨਾਵਲ)
- II. ਸੁਰਜੀਤ ਪਾਤਰ : ਹਵਾ ਵਿੱਚ ਲਿਖੇ ਹਰਫ਼ (ਕਵਿਤਾ)
- III. ਪਾਲੀ ਭੁਪਿੰਦਰ : ਚੰਦਨ ਦੇ ਓਹਲੇ (ਨਾਟਕ)

ਯੂਨਿਟ ਤੇ ਥੀਮ

- 1. ਓ. ਨਾਵਲ : ਪਰਿਭਾਸ਼ਾ ਤੇ ਤੱਤ
ਅ. ਪਵਿੱਤਰ ਪਾਪੀ : ਕੇਂਦਰੀ ਸਮੱਸਿਆ
ੲ. ਪਵਿੱਤਰ ਪਾਪੀ : ਨਾਵਲ ਕਲਾ
- 2. ਓ. ਨਜ਼ਮ, ਗੀਤ ਅਤੇ ਗਜ਼ਲ ਕਾਵਿ ਵੰਨਗੀਆਂ
ਅ. ਹਵਾ ਵਿੱਚ ਲਿਖੇ ਹਰਫ਼ : ਵਿਸ਼ਾ ਵਸਤੂ
ੲ. ਹਵਾ ਵਿੱਚ ਲਿਖੇ ਹਰਫ਼ : ਕਾਵਿ ਜੁਗਤਾਂ
- 3. ਓ. ਨਾਟਕ : ਪਰਿਭਾਸ਼ਾ ਤੇ ਸਰੂਪ
ਅ. ਚੰਦਨ ਦੇ ਓਹਲੇ : ਕੇਂਦਰੀ ਸਮੱਸਿਆ
ੲ. ਚੰਦਨ ਦੇ ਓਹਲੇ : ਨਾਟ ਜੁਗਤਾਂ

PUNJABI

PBL-002 ਪੰਜਾਬੀ ਲੋਕਧਾਰਾ ਅਤੇ ਸਭਿਆਚਾਰ

ਦੂਜੇ ਵਿਭਾਗਾਂ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਅੰਤਰ ਅਨੁਸ਼ਾਸਨੀ (Inter-disciplinary) ਕੋਰਸ

(Under Credit Based Continuous Evaluation Grading System)

ਅੰਡਰ ਗਰੈਜੂਏਟ ਕਲਾਸਾਂ ਲਈ ਪੰਜਾਬੀ ਕੋਰਸ

ਸੈਸ਼ਨ 2012-2013

3-0-0

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ 100

- I. ਲੋਕ ਸਾਹਿਤ ਅਤੇ ਉਸਦੀਆਂ ਵੰਨਗੀਆਂ
(ਲੋਕ ਰੰਗ ਪੁਸਤਕ ਦੇ ਆਧਾਰ 'ਤੇ)
ਪ੍ਰਕਾਸ਼ਕ : ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅਮ੍ਰਿਤਸਰ
- II. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ : ਮੇਲੇ ਅਤੇ ਤਿਉਹਾਰ
- III. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ ਵਿਚ ਵਾਪਰ ਰਹੇ ਪਰਿਵਰਤਨ

ਯੂਨਿਟ ਤੇ ਥੀਮ

- 1. ਓ. ਲੋਕ ਸਾਹਿਤ : ਪਰਿਭਾਸ਼ਾ ਤੇ ਸਰੂਪ
ਅ. ਲੋਕ ਕਾਵਿ : ਪੰਜਾਬੀ ਸਮਾਜ-ਸਭਿਆਚਾਰ ਦੀ ਪੇਸ਼ਕਾਰੀ
ੲ. ਲੋਕ ਕਹਾਣੀ : ਵਿਸ਼ੇ ਅਤੇ ਸੰਦੇਸ਼
- 2. ਓ. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ : ਪਛਾਣ ਚਿੰਨ੍ਹ
ਅ. ਪੰਜਾਬ ਦੇ ਪ੍ਰਮੁੱਖ ਮੇਲੇ : ਸਭਿਆਚਾਰਕ ਮਹੱਤਤਾ
ੲ. ਪੰਜਾਬ ਦੇ ਪ੍ਰਮੁੱਖ ਤਿਉਹਾਰ : ਸਭਿਆਚਾਰਕ ਮਹੱਤਵ
- 3. ਓ. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ : ਵਿਸ਼ਵੀਕਰਨ ਦਾ ਪ੍ਰਭਾਵ
ਅ. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ : ਰਿਸ਼ਤਾ-ਨਾਤਾ ਪ੍ਰਣਾਲੀ ਦਾ ਬਦਲਦਾ ਸਰੂਪ
ੲ. ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ : ਪ੍ਰਮੁੱਖ ਚੁਣੌਤੀਆਂ

PUNJABI
PBL-051 ਮੱਧਕਾਲੀਨ ਪੰਜਾਬੀ ਸਾਹਿਤ

ਦੂਜੇ ਵਿਭਾਗਾਂ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਅੰਤਰ ਅਨੁਸ਼ਾਸਨੀ (Inter-disciplinary) ਕਰਸ
(Under Credit Based Continuous Evaluation Grading System)
ਪੋਸਟ ਗਰੈਜੂਏਟ ਕਲਾਸਾਂ ਲਈ ਪੰਜਾਬੀ ਕੋਰਸ

3-0-0

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ 100

- I. ਗੁਰੂ ਨਾਨਕ ਦੇਵ : ਆਸਾ ਦੀ ਵਾਰ
- II. ਬੁੱਲ੍ਹੇ ਸ਼ਾਹ : ਕਾਫ਼ੀਆਂ
- III. ਕਾਦਰਯਾਰ : ਕਿੱਸਾ ਪੂਰਨ ਭਗਤ

ਯੂਨਿਟ ਤੇ ਥੀਮ

- 1. ਓ. ਵਾਰ ਅਤੇ ਅਧਿਆਤਮਕ ਵਾਰ
ਅ. ਆਸਾ ਦੀ ਵਾਰ : ਅਧਿਆਤਮਕ ਪੱਖ
ੲ. ਆਸਾ ਦੀ ਵਾਰ : ਸਮਾਜਕ ਸਰੋਕਾਰ
- 2. ਓ. ਸੂਫੀ ਅਤੇ ਸੂਫੀਵਾਦ
ਅ. ਬੁੱਲ੍ਹੇ ਸ਼ਾਹ ਦੀਆਂ ਕਾਫ਼ੀਆਂ : ਵਿਸ਼ਾ ਵਸਤੂ ਅਤੇ ਵਿਚਾਰਧਾਰਾ
ੲ. ਬੁੱਲ੍ਹੇ ਸ਼ਾਹ ਦੀਆਂ ਕਾਫ਼ੀਆਂ : ਕਲਾ ਪੱਖ
- 3. ਓ. ਕਿੱਸਾ : ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਸਰੂਪ
ਅ. ਕਿੱਸਾ ਪੂਰਨ ਭਗਤ : ਵਿਸ਼ਾ ਵਸਤੂ
ੲ. ਕਿੱਸਾ ਪੂਰਨ ਭਗਤ : ਕਲਾਗਤ ਖੂਬੀਆਂ

INTERDISCIPLINARY COURSES
(Faculty of Languages)

PUNJABI
PBL-052 ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਸਾਹਿਤ

ਦੂਜੇ ਵਿਭਾਗਾਂ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਅੰਤਰ ਅਨੁਸ਼ਾਸਨੀ (ਅਵਕਗ-ਦਜਤਫਜਬ;ਜਅਗਖ) ਕੋਰਸ
(Under Credit Based Continuous Evaluation Grading System)
ਪੋਸਟ ਗਰੈਜੂਏਟ ਕਲਾਸਾਂ ਲਈ ਪੰਜਾਬੀ ਕੋਰਸ

3-0-0

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ 100

- I. ਸਿਵ ਕੁਮਾਰ : ਲੂਣਾ (ਕਵਿਤਾ)
- II. ਜਰਨੈਲ ਸਿੰਘ ਸੇਖਾ : ਦੁਨੀਆਂ ਕੈਸੀ ਹੋਈ (ਨਾਵਲ)
- III. ਸਵਰਾਜਬੀਰ : ਸ਼ਾਇਰੀ (ਨਾਟਕ)

ਯੂਨਿਟ ਤੇ ਥੀਮ

- 1. ਓ. ਲੂਣਾ : ਕਾਵਿ-ਰੂਪ ਦੀ ਸਮੱਸਿਆ
ਅ. ਲੂਣਾ : ਕੇਂਦਰੀ ਸਮੱਸਿਆ
ੲ. ਲੂਣਾ : ਪਾਤਰ ਪ੍ਰਬੰਧ
- 2. ਓ. ਪਰਵਾਸੀ ਸਾਹਿਤ : ਪਰਿਭਾਸ਼ਾ, ਸੰਕਲਪ ਅਤੇ ਮੂਲ ਮਸਲੇ
ਅ. ਦੁਨੀਆਂ ਕੈਸੀ ਹੋਈ : ਵਿਸ਼ਾ ਵਸਤੂ
ੲ. ਦੁਨੀਆਂ ਕੈਸੀ ਹੋਈ : ਕਲਾ-ਜੁਗਤਾਂ
- 3. ਓ. ਨਾਟਕ : ਪਰਿਭਾਸ਼ਾ ਤੇ ਸਰੂਪ
ਅ. ਸ਼ਾਇਰੀ : ਵਿਸ਼ਾ ਵਸਤੂ
ੲ. ਸ਼ਾਇਰੀ : ਨਾਟ-ਜੁਗਤਾਂ

125
INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
U.G. Level Courses in Sanskrit

Course Code

SKL – 001
SKL – 002

July-December (Odd)

Panchatantra : A Niti Granth (4-0-0)
General Introduction of Purnasardhashatakam (3-0-0)

Course Code

SKL – 006
SKL – 007

January – May (Even)

Basics of Sanskrit Learning (4-0-0)
Shatakas of Bhartrihari (3-0-0)

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
U.G. Level Courses (Odd)

SKL- 001

पंचतन्त्र का सामान्य अध्ययन।
(Panchatantra: A Niti Granth)

Credits: 4-0-0

Unit-I पंचतन्त्र का सामान्य अध्ययन।

Unit-II कथामुख एवं मित्रसम्प्राप्ति।

Unit-III अपरीक्षित कारक की प्रथम दस कथायें।

संदर्भ ग्रन्थें :

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

127
INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
(Odd)

SKL- 002

i w kŕ k/kŕ krde~dk I kekŭ; v/; ; u
(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।

fu/kkfj r xŭFk &

1. पूर्णसार्धशतकमः दलबीर सिंह चाहल, गुरु नानक देव विश्वविद्यालय, अमृतसर, 2006.

SANSKRIT
(Even)

SKL- 006

l d'r&f' k{k.k ds emy/k/kkj
(Basics of Sanskrit Learning)

Credits: 4-0-0

- Unit-I शब्द रूप (Declension) - देव, हरि, गुरु, लता, युष्मद्, अस्मद्, तद्, किम् ।
- Unit-II धातु रूप (Conjugation) - भू, पठ्, दृश्, गम्, पा, प्रच्छ्, वद् (लट्, लृट्, लोट्, लङ् लकारों में) ।
- Unit-III पंचतन्त्र का कथा मुख ।

fu/kkFjr xlfk &

1. लघुसिद्धान्तकौमुदी वरदराज, मोतीलाल बनारसीदास, नई दिल्ली ।
2. पंचतन्त्र : विष्णु शर्मा, चौखम्बा संस्कृत प्रकाशन, वाराणसी ।

SANSKRIT
(Even)

SKL- 007

भर्तृहरि शतक
(Shatakas of Bhartrihari)

Credits: 3-0-0

Unit-I नीतिशतक, श्रंगारशतक एवं वैराग्यशतक का सामान्य परिचय।

Unit-II नीतिशतक का विस्तृत परिचय।

Unit-III नीतिशतक के प्रमुख प्रेरणादायक बिन्दु।

संदर्भ ग्रन्थें :

1. नीतिशतक : भर्तृहरि, चौखम्बा विद्याभवन, वाराणसी।

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
P.G. Level Courses in Sanskrit

Course Code

July-December (Odd)

SKL – 051	General Study of Chanakya's Arthashastra (4-0-0)
SKL – 052	General Study of Sanskrit Kavyas on Sikh Gurus (4-0-0)
SKL – 053	Main Streams of Sanskrit Literature (3-0-0)
SKL – 054	General Study of Valmiki Ramayana (3-0-0)

Course Code

January – May (Even)

SKL – 061	Basics of Sanskrit Grammar (4-0-0)
SKL – 062	General Study of Mahakavi Bhas : A Sanskrit Dramatist (4-0-0)
SKL – 063	Relation between Sanskrit & Panjabi (3-0-0)
SKL – 064	Environmental Awareness in Sanskrit Literature (3-0-0)
SKL – 052	General Study of Sanskrit Kavyas on Sikh Gurus (4-0-0)

SANSKRIT
(Odd)

SKL- 051 pk.kD; ds vFkZ kkL= dk l kekl; v/; ; u
(General Study of Chanakya's Arthashastra)

Credits: 4-0-0

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

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

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

fu/kkfj r xlfk &

1. अर्थशास्त्र : कौटिल्य, चौखम्बा ओरियन्टलिया, दिल्ली।

SANSKRIT
(Odd)

SKL- 052 fl D[k x#vka ij vk/kkfjr l ldr dk0; ka dk l kekl; i fjp;
(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 गुरु गोविन्द सिंह पर आधारित संस्कृत काव्यों का सामान्य परिचय।

Unit-III श्रृंग काव्य का सामान्य परिचय।

fu/kkfjr xlfk &

1. पंजाब का संस्कृत साहित्य को योगदान (डॉ. लेखराम शर्मा, डॉ. दलबीर सिंह चाहल, सम्पादक) – इण्डीपेन्डेन्ट पब्लिशिंग कम्पनी, दिल्ली, 2009.

SANSKRIT
(Odd)

SKL- 053

l ldr l kfgR; dh ied[k fo/kk; 3-0-0
(Main Streams of Sanskrit Literature)

Unit-I काव्य – रघुवंश, बुद्धचरित, मेघदूत ।

Unit-II गद्यकाव्य – कादम्बरी, शिवराजविजय ।

Unit-III नाटक – मालविकाग्निमित्र, मृच्छकटिक ।

fu/kkfjr xlfk &

1. संस्कृत साहित्य का इतिहास : बलदेव उपाध्याय, चौखम्बा विद्याभवन, वाराणसी ।

SANSKRIT
(Odd)

SKL – 054

okYehdh; jkek; .k dk l kekl; v/; ; u

(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

fu/kkfj r xlfk &

1. वाल्मीकीयरामायण : महर्षि वाल्मीकि गीता प्रैस, गोरखपुर।

SANSKRIT
(Even)

SKL- 061

l l d'r 0; kdj .k ds enyk/kkj
(Basics of Sanskrit Grammar)

Credits: 4-0-0

Unit-I सन्धि, कृदन्त (क्त्वा, तव्यत्, क्त)

Unit-II कारक, उपसर्ग ।

Unit-III समास, स्त्री प्रत्यय

fu/kkfjr xlfk &

1. लघुसिद्धान्तकौमुदी : वरदराज, मोतीलाल बनारसीदास, नई दिल्ली ।

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
(Even)

SKL- 062

egkdfo HkkI dk I kekU; i fjp; %, d I ldr ukVddkj
(General Study of Mahakavi Bhas : A Sanskrit Dramatist)

Credits: 4-0-0

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

Unit-II स्वप्नवासवदत्तम् का विस्तृत अध्ययन।

Unit-III मध्यमव्यायोग : प्रथम संस्कृत एकांकी रूपक।

fu/kkfj r xlfk &

1. भास नाटक चक्र : चौखम्बा ओरिन्टालिया, दिल्ली।

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
(Even)

SKL – 063

l ldr , oa iatkch dk l Ecll/k
(Relation between Sanskrit & Panjabi)

Credits: 3-0-0

Unit-I तत्सम एवं तद्भव शब्दावली

Unit-II व्याकरणिक परिप्रेक्ष्य

Unit-III भाषावैज्ञानिक परिप्रेक्ष्य

fu/kkTj r xllFk &

1. संस्कृत तथा पंजाबी के सम्बन्ध : डॉ. श्यामदेव पाराशर, विश्वेश्वरानन्द वैदिक शोध संस्थान, होशियारपुर, 1990.

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

SANSKRIT
(Even)

SKL-064

l d'r l kfgR; eai ; kbj.k pruk
(Environmental 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

fu/kkfjr xlfk &

1. वैदिक साहित्य का इतिहास : बलदेव उपाध्याय।

SANSKRIT
(Even)

SKL- 052

fl D[k x#vka ij vk/kkfjr l ldr dk0; ka dk l kekl; i fjp;
(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 गुरु गोविन्द सिंह पर आधारित संस्कृत काव्यों का सामान्य परिचय।

Unit-III श्रृंग काव्य का सामान्य परिचय।

fu/kkfjr xlfk &

1. पंजाब का संस्कृत साहित्य को योगदान (डॉ. लेखराम शर्मा, डॉ. दलबीर सिंह चाहल, सम्पादक) –
इण्डीपेन्डेन्ट पब्लिशिंग कम्पनी, दिल्ली, 2009.

140
INTERDISCIPLINARY COURSES
(Faculty of Languages)

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)

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

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:

Book Prescribed: Lazmi Urdu Nisab by Khalida Naheed, Educational Book House, A. M. U.
Market, Aligarh- U. P. 202002

UNIT-I

Lazmi Urdu Nisab, (1st half)

UNIT-II

Lazmi Urdu Nisab, (2nd half)

UNIT-III

Composition (Letter, Application and Essay etc)

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

URDU
(Odd- semester)

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

(3-0-0)

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)

UNITS AND THEMES

UNIT –I

Ghazal: Definition, Origin and Development

UNIT –II

Trends of Urdu Ghazal

UNIT –III

Important Poets of Urdu Ghazal

Recommended Books:

1. Ghazal Aur Mutali'a-e-Ghazal, Rashid Ahmad Siddiqui, Maktaba Jamia Ltd Jamianagar, New Delhi-25
2. Hamari Sha'iri – Mas'ood Hasan Rizvi, Maktaba Jamia Ltd., Jamianagar, New Delhi-25
3. Ghazal Aur Mutaghazzalin – Abul Lais Siddiqui, 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

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

URDU
(Even- Semester)

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'

(3-0-0)

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 Bareilvi
6. Afkar Karachi – Faiz Number
7. Urdu Ki Ibtada'i Tehriken by Anwar Sa'eed

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

URDU
URL-055: (Option-II)

A STUDY OF URDU SUFI POETRY

(3-0-0)

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

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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

Book Prescribed: Jadeed Nisab-e-Farsi, Part- II & III, Educational Book House, A. M. U. Market, Aligarh- U. P. -202002

UNIT-I

Jadeed Nisab-e-Farsi, Part- II

UNIT-II

Jadeed Nisab-e-Farsi, Part- III

UNIT-III

Applied Grammar

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INTERDISCIPLINARY COURSES
(Faculty of Languages)

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: ELIMENTARY 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.
3. Composition of dialogue of one of three topics covered in the text book.
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
3. Questions on applied grammar pertaining to the text-book.
4. Conjugations of verbs used in the prescribed text-book.

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.
3. Composition of dialogue of one of three topics covered in the text book.
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.
3. Questions on applied grammar pertaining to the text-book.
4. Conjugations of verbs used in the prescribed text-book.

Course of Reading & Prescribed Text-Book:

“CONNEXIONS-1” by Regine Merieux & Yves Loiseau
Published by Didier. (Unit 7to 12)

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INTERDISCIPLINARY COURSES
(*Faculty of Languages*)
(*Foreign Languages*)

RUSSIAN
SEMESTER-I

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 1to 12)

“RUSSIAN” – by Ovsienko Y.G. & Skopina (Part-I)

152
INTERDISCIPLINARY COURSES
(Faculty of Languages)
(Foreign Languages)

RUSSIAN

FLL-102

**Basic Russian
SEMESTER-II**

Credits: 3-0-1

Advanced Grammar

Course of Reading & Prescribed Text-Book:

- All the cases in singular form (Nouns only).
- Verbs of motion without prefixes: идти-ходить, ехать-ездить
“который” in simple form.

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 13to 25)
“RUSSIAN” – by Ovsienko Y.G. & Skopina (Part-I)

Note: Dictionaries are allowed in Translation.

153
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.

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INTERDISCIPLINARY COURSES
(Faculty of Languages)
(Foreign Languages)

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 7to 12

Supplementary Reading:

Sprachkurs Deutsch (published by Verlag Moritz Diesterweg)

Note: Dictionaries are allowed in Translation.

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INTERDISCIPLINARY COURSES
(Faculty of Law)

LAW
(Under Credit Based Evaluation Grading System)

Scheme

Interdisciplinary Course for UG Classes					
Course No.	Title of the Course	Credits			Total Credits
		L	T	P	
LAL001 (ODD)	BASIC CONCEPTS OF LAW –I	4	0	0	4
LAL002 (EVEN)	BASIC CONCEPTS OF LAW –II	4	0	0	4
	Total Credits	8	0	0	8

Interdisciplinary Course for PG Classes					
Course No.	Title of the Course	Credits			Total Credits
		L	T	P	
LAL051 (ODD)	BASIC CONCEPTS OF LAW -III	4	0	0	4
LAL052 (EVEN)	BASIC CONCEPTS OF LAW –IV	4	0	0	4
	Total Credits	8	0	0	8

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

(15 Credit Hours)

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.

D.D. Basu: Shorter Constitution of India, Prentice Hall of India, New Delhi.

Paras Diwan: Hindu Law, Wadhwa & Co., Allahabad.

Mulla: Principles of Hindu Law, N.M. Tripathi, Bombay.

M.P. Tandon: Indian Penal Code

Jaspal Singh: Indian Penal Code

PSA Pillai: Criminal Law

LAW

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

LAL002 (EVEN)

BASIC CONCEPTS OF LAW -II

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

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

(15 Credit Hours)

Features of Environment Protection Act, 1986.
Relationship between Consumer Protection Law and Environmental Law
The Concepts of Green Consumerism and Environmental Consumerism.

MAJOR (Including Minor I & Minor II)

(20 Credit Hours)

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, Law of Consumer Protection: Precept and Practice, Eastern Book Co., Lucknow, 2002

Avtar Singh, Principles of Mercantile Law, Eastern Book Co., Lucknow, 2004

D.N. Saraf, Law of Consumer Protection, N.M. Tripathi, Bombay, 1990

Gurjeet Singh, The Law of Consumer Protection: Justice Within Reach, Deep and Deep, New Delhi, 1996

Satish Shastri, Pollution and the Environmental Law, Eastern Book Co., Lucknow, 2002

J.N. Pandey, Constitutional Law of India, Central Law Agency, Allahabad, 2007.

Kapil Kakkar, Introduction of Service Law, Chawla Publication, Chandigarh, 2007.

I.P. Massey, Administrative Law, Eastern Book Co., Lucknow, 2001.

Ejaz Ahmed, Service Laws in India, Ashoka Law House, New Delhi, 2001.

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

(15 Credit Hours)

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

(15 Credit Hours)

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)

(20 Credit Hours)

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:

1. H.M. Seervai: Constitutional Law of India, N.M. Tripathi, Mumbai, 1993
2. Granville Austin: The Indian Constitution: Corner-stone of a Nation, Oxford University Press, Mumbai, 1979.
3. M.P. Singh: V.N. Shukla's Constitution of India, Eastern Book Co., Lucknow. 1994
4. P.M. Bakhshi: The Constitution of India, Universal Book Traders, Delhi, 1994.
5. M.P. Jain: Constitutional Law of India
6. D.D. Basu: Human Rights in Constitutional Law, Prentice Hall of India, New Delhi, 1994
7. Paras Diwan: Hindu Law, Allahabad Law Agency, Allahabad.
8. Mulla: Principles of Mohammedan Law, Universal Book Traders, Delhi.
9. A A A Fayze: Outlines of Mohammedan 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
16. Avtar Singh: Indian Contract Act Eastern Book Co.
17. Subha Rao: Law of Specific Relief
18. D.D Basu: Law of Torts
19. Rattan Lal Dhiraj Lal: Law of Torts
20. R.K. Bangia: Law of Torts
21. D.N. Saraf: Law of Consumer Protection
22. Gurjeet Singh: Law of Consumer Protection in India

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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

(15 Credit Hours)

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

(15 Credit Hours)

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

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INTERDISCIPLINARY COURSES
(Faculty of Law)

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
5. Nandan Kamath: Law Relating to Computers, Internet, and E-Commerce: A Guide to Cyber Laws and the Information Technology Act 2000 with Rules and Notifications, Second Edition, Universal Law Publishing Co., New Delhi, 2000
6. Pavan Duggal: Cyber Law- The Indian Perspective, Saakshar Publications, New Delhi, 2002.
7. D.P. Mittal: Taxman's Law of Information Technology (Cyber Law), New Taxman Allied Services Pvt. Ltd., New Delhi, 2000
8. T.V.R. Satya Prasad: Law Relating to Information Technology (Cyber Laws), Asia Law House, Hyderabad, 2001
9. Shakil Ahmad Syed and Rajiv Raheja: A Guide to Information Technology (Cyber Laws and E-Commerce), Capital Law House, New Delhi, 2001
10. Suresh T. Vishwanathan: The Indian Cyber laws, Bharat Law House, New Delhi, 2001
11. W.R. Cornish: Intellectual Property, Second Edition, Sweet and Maxwell, 1989
12. P. Narayanan, Intellectual Property, Eastern Law House, Calcutta, 2000
13. Chris Reed: Computer Law, Third Edition, Butterworths, London, 1997
14. Lakshmi Jambholkar: Cyber Law: Issues and Perspectives, The Indian Journal of International Law, Vol. 40, No.3, July-September, 2000, pp. 559-562
15. Pranam Kumar: Cyber Law as the Need of the Time, Cuttack Law Times, Vol. 89, No. 10, 15 May 2000
16. Veer Singh and Bharat Bhushan Parsoon: Cyber Crimes and Need for National and International Legal Control Regimes, Panjab University Law Review, Vol. 44, 2002, pp. 36-51
17. Raagini Rao: Pornography on the Internet, The Lawyers Collective, Vol. 16, No. 3, March 2001, pp. 11-12.
18. Rakesh Kumar Singh: Environmental Law, University Book House Pvt. Ltd., Jaipur.
19. S.C. Tripathi: Environmental Law,, Central Law Publications, Allahabad.
20. P.S. Jaswal & Nishtha Jaswal: Environmental Law, Allahabad Law Agency, Faridabad.

PHYSIOTHERAPY
SPL051 – Physiology of Exercise and Nutrition

Credits: 3-0-0

Unit—I

Nutrition: Carbohydrates, Fats, Proteins, Vitamins, Minerals and Water. Nutrition for Physical Performance. Energy transfer in Body. Fatigue.

Unit -- II

Effect of Exercise in Cardio Vascular System, Effect of Exercise on Respiratory System.

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.
2. Era Volinski: Nutrition and exercise in Sports - CRC Press, New York.
3. George A. Brooks, Thomas D. Fahey: Exercise Physiology – Human Bioenergetics and its applications 1984, John Wiley & Sons, New York.
4. Astrand & Rodahl: Text Book of Work Physiology, McGraw Hill.
5. Fox and Mathews - The Physiological Basis of Physical Education and athletics - Holt Saunders.
6. Erston and Reilly - Kinanthropometry and Exercise Physiology Laboratory Manual tests, Procedures and Data - F & FN Spon Madras.
7. Rowland - Developmental Exercise Physiology - Human Kinetics.
8. Clarke - Exercise Physiology - Prentice Hall.
9. S. Koley – Exercise Physiology: A Basic Approach – Friends Publications.

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

1. Assessment of injuries of lower limb complex: Pelvis, hip, thigh, knee, leg, ankle, foot and their management.
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 lumbosacral and their management.

References:

1. Norkin & White: Measurement of Joint Motion – A Guide to Goniometry - F.A. Davis.
2. Dvir: Isokinetics: Muscle Testing, Interpretation and Clinical Applications, W.B. Saunders.
3. Reed: Sports Injuries – Assessment and Rehabilitation, W.B. Saunders.
4. Lillegard, Butcher & Rucker: Handbook of Sports Medicine: A symptom – Oriented Approach, Butterworth & Heinemann
5. Baker: The Hughston Clinic Sports Medicine Book, Williams & Wilkins.

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INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

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.

Course No.	C/E/I	Course Title	Credits			Total Credits
			L	T	P	
MUI-001	C	MUSIC APPRECIATION & BASIC TRAINING IN MUSIC VOCAL	2	1	1	4
MUI-002	C	MUSIC APPRECIATION & BASIC TRAINING IN MUSIC INSTRUMENTAL	2	1	1	4

MUSIC

MUI 001: COURSE TITLE:

MUSIC APPRECIATION & BASIC TRAINING IN MUSIC (VOCAL)

L	T	P	Total Credit
2	1	1	4

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, (Rythm)
- II Brief knowledge of Harmonium & method of playing Harmonium.
- III Ability to sing five Alankars on harmonium or key board.

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.

Marks: 50

- 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 & Shivranjani.
- 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

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INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

MUI 002: COURSE TITLE:
MUSIC APPRECIATION & BSSIC TRAINING IN MUSIC INSTRUMENTAL
MINOR-I

L	T	P	Total Credit
2	1	1	4

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.

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

Marks :50

Marks :10

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INTERDISCIPLINARY COURSES
(Faculty of Visual Arts & Performing Arts)

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.

Course No.	C/E/I	Course Title	Credits			Total Credits
			L	T	P	
MUI-051	C	BASIC FUNDAMENTALS & PRACTICAL TRAINING IN MUSIC (VOCAL)	2	1	1	4
MUI-052	C	BASIC FUNDAMENTALS & PRACTICAL TRAINING IN MUSIC (INSTRUMENTAL)	2	1	1	4

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)

L	T	P	Total Credit
2	1	1	4

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)

L	T	P	Total Credit
2	1	1	4

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 : **Marks: 50**
 - i Teen Tal
 - ii) Kaherana
 - iii Dadra
 - iv) Rupak

Note: Quiz /Seminar after Minor-I & Minor-II **Marks: 10**

JOURNALISM

**PAPER- PRINT MEDIA
(INTERDISCIPLINARY COURSE
(FOR POST GRADUATE CLASSES)**

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

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

GNL-402 M.A.(Hons.) Religious Studies Credits 4

Basics of Religion

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
3. Sacred Text: Essential Characteristics.

Unit III: Gender and Religion

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

Suggested Readings

English Books

1. Malory Nye, *Religion : The Basics*, Printed and Bound in India by Gopsons Papers Ltd, 2003.
2. Manfred B. Steger, *Globalization : A Very Short Introduction*, Oxford University Press, New York, 2003.
3. Thomas Discon, *Science and Religion : A Very Short Introduction*, Oxford University Press, 2008.
4. Ramesh Chander Dogra, *Encyclopedia of Sikh Religion and Culture*, New Delhi,
5. Buddhad Chaudhuri (ed.), *Religion, Rituals and Festivals*, New Delhi.
6. Maulana Wahiduddin Khan, *Woman in Islamic Shariah*, The Islamic Centre, New Delhi, 1995.
7. Nikki R. Keddie, *Scholars, Saints and Sufis*, University of California, London, 1972.
8. T.N. Madan (ed.), *Muslim Communities of South Asia : Culture, Society and Power*, New Delhi.
9. Robert Muthnour, *The Encyclopedia of Politics and Religion*, Routledge, London, 1998.
10. Anjana Maitra Sinha, *Women in Changing Society*, Ashish Publishing House, New Delhi.

Punjabi Books

1. ਮਨਦੀਪ ਸਿੰਘ, *ਧਰਮ ਦਰਸ਼ਨ, ਪਬਲੀਕੇਸ਼ਨ ਬਿਊਰੋ, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 2007.*

M.A.(Hons.) Religious Studies

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

1. Ganda Singh, *Guru Nanak : His Life and Teachings*, Singapore Sikh Missionary Tract Society, Singapore, 1940.
2. _____, *Sources of Material on the Life and Teachings of Guru Nanak*(ed.), *The Punjab Past and Present, Vol III*, 1969 Department of Punjab, 1969 Department of Panjab Historical Studies, Panjabi University, Patiala, 1969.
3. _____, *Guru Nanak National*, Book Trust, India, New Delhi, 1967.
4. Kushwant Singh, *Japuji : The Sikh Prayers*, London.
5. Teja Singh, *Guru Nanak and His Mission*, Sikh Trust Society, Amritsar, 1924.
6. _____, *Japuji or Guru Nanak's Meditation*, Sikh Tract Society.
7. Madanjit Kaur and Piar Singh, *Guru Nanak's Life and Teachings*, Guru Nanak Dev University, Amritsar, 1991.
8. S.S. Kohli, *Philosophy of Guru Nanak*, Publication Bureau, Panjab University, Chandigarh, 1969.
9. _____, *Travels of Guru Nanak*, Publication Bureau, Panjab University, Chandigarh, 1969.

Punjabi Books

1. ਤਾਰਨ ਸਿੰਘ, *ਗੁਰੂ ਨਾਨਕ ਤੇ ਕਲਾ*, ਕਸਤੂਰੀ ਲਾਲ ਐਂਡ ਸੰਨਜ਼, ਅੰਮ੍ਰਿਤਸਰ, 1963
2. ਵਜ਼ੀਰ ਸਿੰਘ, *ਗੁਰੂ ਨਾਨਕ ਸਿਧਾਂਤ*, ਪੰਜਾਬੀ ਸਾਹਿਤ ਅਕਾਦਮੀ, ਲੁਧਿਆਣਾ, 1969.
3. ਸੁਰਿੰਦਰ ਸਿੰਘ ਕੋਹਲੀ, (ਸੰਪਾ.), *ਗੁਰੂ ਨਾਨਕ ਜੀਵਨ ਦਰਸ਼ਨ ਅਤੇ ਕਾਵਿ-ਕਲਾ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਚੰਡੀਗੜ੍ਹ, 1975.
4. ਜਸਵਿੰਦਰ ਕੌਰ ਢਿੱਲੋਂ, *ਗੁਰੂ ਨਾਨਕ ਬਾਣੀ : ਸਮਾਜਿਕ ਤੇ ਸੱਭਿਆਚਾਰ ਪਰਿਪੇਖ*, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ.

M.A.(Hons.) Philosophy

GNL-518

Credits 4

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

1. Bertrand Russell, *The Problems of Philosophy*, Oxford University Press, Oxford, 1912.
2. R.V. Joshi, & R.P. Srivastava, *Perspectives in Philosophy*, Ajanta Books International, New Delhi, 1995.
3. H.C. Chatterjee & Datta, *An Introduction to Indian Philosophy* University of Calcutta, 1968.

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
3. Private and Public Morality : Nature and Problems

Unit II : Ecology and Applied Ethics

1. Ecology : Nature and Scope
2. Man-Nature Relationship
3. Ecological Problems: Nature and Types.

Unit III : Professional Ethics

1. Medical Ethics and Legal Ethics
2. Educational Ethics
3. Business Ethics.

Suggested Readings

English Books

1. H. Titus Harold, *Ethics for Today*, Eurasia Publishing House, New Delhi, 1966.
2. T. I. S. Springge, *The National Foundation of Ethics*, Kegan Paul, London, 1997.
3. E. R. Winkler & J.R. Combe (eds.) *Applied Ethics; A Reader* Blackwell, Oxford, 1993.

M.Phil. Religious Studies

GNL-603

Credits 3

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

1. S.S. Hans, *Reconstruction of Sikh History from Sikh Literature*, APS Publishers, Jalandhar, 1989
2. Kharak Singh, *The History of the Sikhs and Religion*, S.G.P.C., Amritsar
3. Santokh Singh, *Philosophical Foundations of the Sikh Value System*, Munshi Ram Manohar Lal, New Delhi, 1982.

ਪੰਜਾਬੀ

1. ਗੁਰਸ਼ਰਨ ਕੌਰ ਜੱਗੀ, *ਗੁਰੂ ਅਰਜਨ ਦੇਵ: ਜੀਵਨ ਤੇ ਰਚਨਾ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ, 1988.
2. ਤਾਰਨ ਸਿੰਘ, *ਗੁਰੂ ਅੰਗਦ : ਜੀਵਨ ਤੇ ਰਚਨਾ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
3. ਦਲੀਪ ਸਿੰਘ ਦੀਪ, *ਗੁਰੂ ਅਮਰਦਾਸ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ 1980.
4. ਦੀਵਾਨ ਸਿੰਘ ਤੇ ਸਤਿੰਦਰ ਸਿੰਘ, *ਗੁਰੂ ਤੇਗ ਬਹਾਦਰ: ਚਿੰਤਨ, ਕਲਾ ਤੇ ਬਾਣੀ*, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ 1976.
5. ਪ੍ਰੀਤਮ ਸਿੰਘ ਗਿੱਲ, *ਸ੍ਰੀ ਗੁਰੂ ਗੋਬਿੰਦ ਸਿੰਘ: ਇਕ ਦਾਰਸ਼ਨਿਕ ਅਧਿਐਨ*, ਨਿਊ ਬੁਕ ਕੰਪਨੀ, ਜਲੰਧਰ, 1967
6. *ਸਿੱਖ ਰਹਿਤ ਮਰਯਾਦਾ*, ਸ਼ਰਮਣੀ ਗੁਰਦੁਆਰਾ ਪ੍ਰਬੰਧਕ ਕਮੇਟੀ, ਅੰਮ੍ਰਿਤਸਰ ।
7. ਜਸਵਿੰਦਰ ਕੌਰ ਢਿੱਲੋਂ (ਡਾ.), *ਗੁਰੂ ਨਾਨਕ ਦੀ ਕੀਮਤ ਮੀਮਾਂਸਾ*, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ
8. ਨਰਿੰਦਰ ਕੌਰ ਭਾਟੀਆ (ਡਾ.) ਅਤੇ ਜਸਵਿੰਦਰ ਕੌਰ ਢਿੱਲੋਂ (ਡਾ.) *ਪ੍ਰਮੁੱਖ ਸਿੱਖ ਸੰਸਥਾਵਾਂ*, ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ
9. ਰਤਨ ਸਿੰਘ ਜੱਗੀ, *ਦਸਮ ਗ੍ਰੰਥ ਦਾ ਕ੍ਰਤਿਤਵ*, ਪੰਜਾਬੀ ਸਾਹਿਤ ਸਭਾ, ਨਵੀਂ ਦਿਲੀ, 1966
10. ਪ੍ਰੋ. ਪਿਆਰਾ ਸਿੰਘ ਪਦਮ, *ਦਸਮ ਗ੍ਰੰਥ ਦਰਸ਼ਨ*, ਸਰਦਾਰ ਸਾਹਿਤ ਭਵਨ, ਪਟਿਆਲਾ, 1968
11. ਜੋਧ ਸਿੰਘ (ਡਾ.), *‘ਭੂਮਿਕਾ’ ਦਸਮ ਗ੍ਰੰਥ ਕਾ ਹਿੰਦੀ ਅਨੁਵਾਦ*, ਭਵਨ ਬਾਨੀ ਪ੍ਰਕਾਸ਼ਨ
12. ਗੰਡਾ ਸਿੰਘ, ਪ੍ਰਿੰ. ਤੇਜਾ ਸਿੰਘ, *ਸਿੱਖ ਇਤਿਹਾਸ*, ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ

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

1. Bhaswati Das & Vimal Khana, *Gender Issues in Development*, Rawat Publication, New Delhi, 2009.
2. Duncan Macrae, Jr. *The Social Function of Social Science*, Yale University Press, London, 1976.
3. Kum-Kum Bhavani, *Feminist Futures : Reimagining Women*, Culture and Development, Zed Books, New York, 2003.
4. Ajit Kumar Sinha, *New Dimensions of Women Empowerment*, Deep & Deep Publications, New Delhi, 2008.
5. U. Chandra, *Human Rights*, Law Agency Publications, Allahabad, 2000

Commerce
CBM: Basic Accounting and Finance

Credits 4-0-0

Text
Accounting as an Information System and the users of this information, relationship between financial accounting, management and cost accounting. Basic accounting principles/concepts. Meaning of depreciation, depletion and amortization. Long term and short term sources of finance. Working Capital: Gross working capital, networking capital, factors affecting working capital.
First Minor Test : One Hour
Format and Items of profit and loss account/statement and balance sheet of corporate and non-corporate business entities. Concept of debit and credit balance and brief idea about the recording process (Accounting Cycle). Ratio Analysis (Simple Problems with main emphasis interpretation).
Second Minor Test : One Hour
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. Modes of Fund Transfer: Information of common practical use regarding cheque, draft, debit and credit card, internet banking, mobile banking, NEFT, RTGS. 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.
Final Examination : Three Hours
Including the Syllabus of Minor I and II.

Suggested Readings:

1. Anthony, R.N., Hawkins, David F and Merchant, Kenneth A, "Accounting Text and Cases"; McGraw Hill Companies.
 2. Lal, Jawahar, "Accounting for Management", Himalaya Publishing House.
 3. "Fundamentals of Accounting", The Institute of Chartered Accountants of India, New Delhi.
 4. Chandra, P., "Financial Management", Tata McGraw Hill.
 5. Pandey, I.M., "Financial Management", Vikas Publishing House.
 6. Horngren, Datar and Foster, "Cost Accounting—A Managerial Emphasis", Pearson Education.
 7. Avadhani, V.A., "Investment Management", Himalaya Publishing House.
 8. Singh, Preeti., "Investment Management", Himalaya Publishing House.
- <http://www.mca.gov.in/>
<http://www.sebi.gov.in>