

SCHOOL OF LIBERAL STUDIES
PANDIT DEENDAYAL PETROLEUM UNIVERSITY
B.A. / B.B.A. (Hons.)

SEMESTER IV				
Sr. No.	Title of the Course	Course Credits	Course Code	Hours per week
1	Introduction to Principles of Public Administration (Core)	3	A401	3
2	Basics of Indian Foreign Policy (Core)	3	A402	3
3	Exploration of Literary Forms (Core)	3	A403	3
4	Macro Economics 1 (Core)	3	A404	3
5	Principles of Marketing (Core)	3	A405	3
6	Introduction to Environmental Law (Core)	3	A406	3
7	French - 2 (Core)	3	A417	5
8	Chinese - 2 (Core)	3	A418	5
9	Japanese - 2 (Core)	3	A419	5
10	Statistics (Elective)	3	A408	3
11	Rural Development in India (Elective)	3	A409	3
12	Cognitive Psychology (Elective)	3	A410	3
13	Educational Psychology (Elective)	3	A411	3
14	Soft Skills (Elective)	3	A412	3
15	Advanced Atmospheric Science (Elective)	3	A414	3
16	Principles of Financial Management (Elective)	3	A420	3

1. Introduction to the Principles of Public Administration (Core Course)

Course Credit: 03

Course Contents:

Course Rationale:

This paper is an introductory course in Public Administration. The essence of Public Administration lies in its effectiveness in translating the governing philosophy into programmes, policies and activities and making it a part of community living. The paper covers public administration in its historical context thereby proceeding to highlight several of its categories, which have developed administrative salience and capabilities to deal with the process of change. The importance of legislative and judicial control over administration is also highlighted.

Learner's Objective:

- Students get oriented on the fundamental principles of Public Administration as a discipline.
- Students get oriented on the essentials frameworks and concepts of Public Administration and its significance with regard to the concepts and theories of Public Policy execution.
- The students get ground knowledge to take Public Administration as Major, should they wish so.

1. Introduction

- a. Meaning, Nature & Scope of Public Administration
- b. Significance of Public Administration
- c. Public and Private Administration: Differences and similarities

2. Control over Public Administration

- a. Legislative
- b. Executive
- c. Judicial

3. Organization

- a. Meaning of Organization
- b. Forms of Organization: Formal & Informal

4. Principles of Organization

- a. Hierarchy – Meaning, Merits and Demerits
- b. Span of Control
 - i. Meaning
 - ii. Different Factors of Span of control
 - iii. Unity of Command – Meaning and Importance

- iv. Communication – Meaning, Types and Principles
- v. Co-ordination – Meaning, Needs & Means

5. Line and Staff Agencies

- a. Line Agencies – Meaning, Functions and Types
- b. Department of Public Corporation
- c. Staff Agencies – Meaning Functions & Types
 - i. General, Technical and Auxiliary

Recommended Books:

1. Arora, Ramesh K., **Comparative Public Administration**, New Delhi, Asia Publishing House, 1972
2. Arora, Ramesh K., (ed.) **Themes and Issues in Administrative Theory**, Bookman Associates, Jaipur, 1980
3. Avasthi, A., and S. R. Maheswari, **Public Administration**, Agra, Lakshmi Narain Aggarwal, 2003
4. Bhattacharya, Mohit, **Public Administration**; New Horizon, JPH, 2009
5. Dimock, M. E. and G.O. Dimock, **Public Administration**, Oxford, I.B.H. Publishing Co., 1975
6. Nigro, F. A. and G. L. Nigro, **Modern Public Administration**, New York, Harper Row, 1980
7. White, L.D., **Introduction to the Study of Public Administration**

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

2. Basics of Indian Foreign Policy (Core Course)

Course Credit: 03

Course Contents:

1. Determinants of Foreign Policy
 - a. Internal and External Factors
 - b. Limitations
2. National Security
 - a. Nuclear Policy and Armament Programmes
3. Driving Forces of Foreign Policy
 - a. Energy Security
 - b. Diaspora
 - c. Indian Ocean
4. India and its Neighbours
 - a. China
 - b. Pakistan
 - c. Bangladesh
 - d. Myanmar
 - e. Nepal
 - f. Sri Lanka
5. India and Super Powers
 - a. US
 - b. Russia
6. India and Regional Organizations:
 - a. ASEAN
 - b. SAARC
 - c. EU
 - d. AU
 - e. Mercuser
7. India and global Issues
 - a. Apartheid
 - b. Environment
 - c. Human Rights
 - d. Democracy

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

3. Exploration of Literary Forms (Core Course)

Course Credit: 03

Course Contents:

1. Discussion of what is Literature and its Characteristics
2. Literary Forms of Poetry:
 - a. Epic
 - b. Ballad
 - c. Lyric
 - d. Sonnet
 - e. Ode
 - f. Pastoral Poetry
 - g. Elegy
 - h. Satire
3. Introduction of Essay as a Literary Form
4. Types of Essays
5. Collection of Essays:
 - a. Francis Bacon
 - b. Richard Steele
 - c. Charles Lamb
 - d. A. G. Gardiner
 - e. Nirad Chaudhuri
 - f. Amitav Ghosh
 - g. Arundhati Roy
6. Introduction of Drama as a Literary Form
7. Constituents of Drama
8. Texts:
 - a. Othello by William Shakespeare
 - b. Hayavadana by Girish Karnad
9. Novel and Short Story as Literary Forms
10. Collection of Short Stories:
 - a. The Lost Child by Mulk Raj Anand

- b. Exchange of Lunatics by Saadat Hasan Manto
- c. The Flight by Kamala Das
- d. The Butterfly by Kamleshwar
- e. Taking the Veil by Katherine Mansfield
- f. Schools and Schools by O' Henry

Reference Books

- 1 Dictionary of Literary Terms by J.A. Cuddon
- 2 English Literature: An Introduction for Foreign Readers by R.J.Rees, Macmillan India

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

4. Macro Economics 1 (Core Course)

Course Credit: 03

Course Objective:

To increase the student's understanding and make them appreciate of the development, progression, and determining change in Economic Thoughts.

Course Contents:

1. Nature and Scope of Macro Economics:
 - a. Circular Flow of Product and Income
 - b. Four Sector Economy Model
 - c. Stocks and Flows
 - d. Key Macro Aggregates
 - e. Concepts and Measurement of National Income
2. Classical and Keynesian Economics:
 - a. Says Law
 - b. Macro Economic Variables and Functions
 - c. Consumption, Saving, Investment
 - d. Consumption Function
 - e. Investment Function
 - f. Interest Rate
 - g. Concept of Interest Rate
 - h. Gross Interest Rate and Real Rate of Interest
 - i. Time Preference
 - j. Present Value and Future Value
3. Macro Economic Policies:
 - a. Fiscal and Monetary Policies
 - b. Meaning and Scope
 - c. Objectives
 - d. Instrument of Monetary and Fiscal Policy
 - e. Macro Economic Policy of India
4. Inflation:
 - a. Meaning
 - b. Measurements
 - c. Types of Inflation
 - d. Economic Impact
 - e. Inflation in India

5. Unemployment:
- a. Meaning
 - b. Measurements
 - c. Types of Unemployment
 - d. Unemployment in India
 - e. Poverty and Income Inequality

Basic reading list:

- V.N. Reddy, History of Economic Thought
- Blackhouse, R. (1985), A History of Modern Economic Analysis, Basil Blackwell, Oxford.
- Grey, A. and A.E. Thomson (1980), The Development of Economic Doctrine, (2nd Edition), Longman Group, London.
- Roll, E. (1973), A History of Economics Thought, Faber, London.
- Schumpeter, J.A. (1954), History of Economic Analysis, Oxford University Press, New York.
- Hunt, E.K. History of Economic Thought, A Critical Perspective.

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

5. Principles of Marketing (Core Course)

Course Credit: 03

Course Contents:

Unit I: Introduction to Marketing

1. Nature, Scope and Importance of Marketing
2. Basic concepts
3. Marketing Environment
4. Market Segmentation
5. Targeting and Positioning

Unit II: Product

1. Product Levels
2. Product Mix
3. Product Strategy
4. Product innovation and Diffusion
5. Product Development
6. Product Lifecycle and Product Mix
7. Pricing Decisions:
 - a. Designing Pricing Strategies and Programmes
 - b. Pricing Techniques

Unit III: Place

1. Meaning and Importance
2. Types of Channels
3. Channels Strategies
4. Designing
5. Managing Marketing Channel
6. Managing Retailing
7. Physical Distribution
8. Marketing
9. Logistics and Supply Chain Management

Unit IV: Promotion

1. Promotion Mix
2. Push vs. Pull Strategy
3. Promotional Objectives

4. Advertising:
 - a. Meaning and Importance
 - b. Types
 - c. Media Decisions
 - d. Promotion Mix
5. Personal Selling:
 - a. Nature
 - b. Importance and Process
6. Sales Promotion:
 - a. Purpose and Types
7. Publicity and Public Relations:
 - a. Definition, Importance and Methods

Text Book:

Kotler, Koshi Jha, (2009), Marketing Management, 13th Edition, Pearson Education.

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

6. Introduction to Environmental Law (Core Course)

Course Credit: 03

Course Contents:

1. Jurisprudence-Philosophy & Method of Law
2. Soft Law - Had Law and Stoic School of Zeno
3. Framework of Conventions
4. Constitutional Provisions
5. Directives Principles & Environmental Law
6. The EPA, 1986
7. Criminal Enforcement of Environmental Law
8. Role of Judiciary in Environmental Protection
9. Some Important Cases

Leading Cases Referred:

1. *K.M. Chinnappa vs. UOI AIR 2003 SC 724, 731*
2. *Chhetriya Pardushan Mukti vs. State Of U.P And Ors. 1990 AIR 2060.*
3. *M. C. Mehta vs. Kamal Nath (1997)1 SCC 388*
4. *Karnataka Industrial Areas Development Board vs. C. Kenchappa, AIR 2006 SC 2038*

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

7. Foreign Languages (Core Course)

Course Credit: 03

Course Contents:

A. French II

Topics and Vocabulary

1. Review and Practice Level 1 vocabulary/grammar
2. Talking about Family, Friends and Celebrities
3. Talking about oneself – Key Personal Information + Likes/Dislikes
4. Talking about Hobbies
5. Daily Life – Routine, Habits, Leisure Time
6. Days of the Week
7. Animals
8. Time
9. Consumer Goods – Clothes, Accessories, Food
10. Describing Objects – Shapes, Colour, Size
11. Talking about Weather
12. Shopping

Grammar

1. Possessive Pronouns
2. Revision of 'ER' verbs
3. The Immediate past: 'venir de'
4. Negative Sentence
5. Key Verbs: faire, aller, sortir, etc.
6. Demonstrative Pronouns
7. Frequency Adverbs
8. Reflexive Verbs in 'ER'
9. Question Word (quel)

Cultural Content

1. French Speaking Celebrities
2. French Brands and Products
3. Bruxelles

Skills Work

1. Speaking
2. Role-Plays
3. Listening
4. Pronunciation

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

B. Chinese II

Course Content:

1. Writing Practice
2. Chinese Writing System
3. Sentence Patterns
4. Ordering food at restaurant (vocabulary – Vegetables, Fruits and other food items including classroom conversation/ dialogues)
5. Talking about likes & dislikes; requirements
6. Chinese Characters
7. Telling Time
8. Particles
9. Measure Words
10. Detailed Grammar Patterns

Skills Work:

1. speaking
2. Listening
3. Learning proper Pronunciation

C. Japanese

Main Objectives:

- 1) Acquire basic conversation / communication skills in Japanese (N5 level)
- 2) Become fluent in phonetic Japanese characters (Hiragana, Katakana)
- 3) Become familiar to logographic Japanese characters (Kanji)

Course Deliverables:

- Students can feel confident in meeting Japanese or visiting Japan without interpreter.
- Students can read maps and collect information in Japanese via internet (Hiragata/Katakana).
- Students can continue self-study to pass N5 exam which is the pre-condition to receive Student VISA in Japan.

	Session	Topics and texts	Grammar	Language skills
Week 1	Session 1 S1	Inauguration Introduction of Japanese culture Phonetic alphabet 1 Hiragana(1) Saying hello and goodbye	Hiragana vowels to Na- line	Understand Japan / Japanese culture Can say simple greetings Can write Hiragana

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	Session 2 S1-4	Phonetic alphabet 1 Hiranaga(2) Self-introduction Basic numbers, time and phone number,	All Hirangana characters(exc ept for special sound) Particle “no” for connecting 2 or more nouns Particle “wa” for topic marker	Can introduce him-/herself; Can ask another person’s profession
Week 2	Session3 S5-6+S3	<i>Review Quiz (week 1)</i> Phonetic alphabet 1 Hiranaga(3) Speaking about things around him/her	Hiragana for special sound Demonstrative words Whose Particle “no” for belongings Particle “de” for language	Can write all Hiragana Can ask the name of a thing in Japanese Can ask whose belonging it is

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Week 3	Session4 S7 – S8	Phonetic alphabet Hiragana(4) Counter suffixes(floor/small thing/people/sheets/mac hine) Asking about floor Order something in Japanese restaurant/shop	Remember all Hiragana completely Kai/Gai(floor counter) Mai(Sheets counter) Dai(Machine counter) Nin(person counter) -Tsu(small things counter) Kudasai/onega ishimasu	Can count many kinds of object Can tell and ask the floor Can order food in Japanese restaurant
	Session 5 (S8-S9)	<i>Review Quiz (Week 2)</i> Numbers (to 9999) Phonetic alphabet 2 Katakana(1) Asking material, ingredients Speaking about opening/closing timing	Vowel to Pa- line+n+long vowel Nan no N? (what kind of?) N wa Dore? (which one is?) Ikura (How much) From and To	Can write Katakana Can ask price of something Can tell and ask opening time and closing time

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	Session 6 S10-11	Phonetic alphabet 2 Katakana(2) Speaking about where you go/went	All Katakana and usual combination Verbs1 Particle “e” for direction Particle “ni” for timing conjugation of verbs affirmative past/non-past negative past/non-past	Can tell where you go and when and where you go (or went)
Week 4	Session 7 S12-14	<i>Review Quiz (week 3)</i> Phonetic alphabet 2 Katakana(3) Verbs which are usually used in daily life	How to write foreign name in Katakana Verbs2 Particle “o” for object marker Particle “de” for action place Particle “to” for accompany	Can write his/her name in Katakana Can tell daily schedule Can tell his/her non-past/past schedule

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	Session 8 S15-S16	All phonetic alphabet review(1) Extend invitation to others How to accept/refuse	Remember all katakana -masenka/ mashooka wa doo desu ka(how about?)	Can write all JPN phonetic character Can extend invitation Can refuse invitation and tell the reason
Week 5	Session 9 (S18)	<i>Monthly Test1 (Week 1 – 4 and characters)</i> Phonetic alphabet review(2) Review of all sessions before with new words expressions	Frequency Adverb(N5V)	Can understand previous sessions well
	Session 10 S18-20,S21	Phonetic alphabet review(2) Speaking about existence and position Speak about family member	ga aru/ iru(existence/have) family	

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Week 6	Session 11 S23-24+S25	<i>Review Quiz (Week 5)</i> Speaking his/her impression	Affirmative and negative form of i-adjective and na-adjective interrogative using adjectives	Can express his/her likes
	Session 12 S25-26,S28	Ideogram character Kanji(1) Speaking his/her impression of past and preference	Conjugation of i/na-adjective (past) Past tense of noun sentences Na adjective suki/kirai(like/dislike) and joozu/heta(good at/poor at)	Can tell impression which he/she felt in the past. Can tell his/her preference and skill
week 7	Session 13 S29	<i>Test (week 6)</i> Speaking his/her desire	Verb tai-form	Can tell what you want and wanted. Can tell what you want/wanted to do.

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	Session 14 S27,S30	Ideogram character Kanji(2) Speaking about the way	Verbs related to commuting/ showing the way Verbs for giving/taking	Can tell the way to others in a station Can explain giving and receiving
week 8	Session 15 S32-33	<i>Test(week7)</i> Speaking about your hobbies and skills	Verb groups Verb dictionary- form [dic]+koto (nominalizatio n) Dekiru/dekinai (ability)	Can tell one's hobbies and his/her ability
	Session 16	Ideogram character Kanji(3)		
Week 9	Session 17 S34	Monthly Test(week5-8) Speaking about a few events as sequence	Conjugation of verb te-form Sequence	Can make te form correctly Can tell the sequence of events

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	Session 18 S35-36	Ideogram character Kanji(4) Asking requests Speaking about on going action	Usage of te form(1) te+imasu Request form Ongoing action Habitual action Current weather	Can ask small requests Can tell what you are doing now using te form
Week 10	Session 19 S36 - S37 and review of te form	Review Quiz(week9) Speaking about what you do in university/where you live Speaking about purpose	Usage of te form(2) Action continuing certain period of time(sundeima su/benkyoo shiteimasu) Particle "ni" for purpose	Can give details when introducing family Can tell the purpose of going to a certain place

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

8. Statistics (Elective)

Course Credit: 03

Course Contents:

1. Meaning of Statistics
 - a. Origin of Statistics
 - b. Importance of Statistics
2. Classification and Tabulation of Data
3. Graphical Study of Statistical Data
4. Measures of Central Tendency
 - a. Mean, Combined Mean
 - b. Median , Quartiles, Deciles , Percentiles
 - c. Mode, Geometric Mean
5. Measures of Dispersion
 - a. Standard Deviation
 - b. Coefficient of Standard Deviation
 - c. Coefficient of Variation
 - d. Quartile Deviation
6. Index Number
7. Study of Correlation and Regression
8. Permutation & Combination
9. Probability and Probability Distribution

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

9. Rural Development in India (Elective)

Course Credit: 03

Course Rationale:

Rural development has always been an important issue in all discussions pertaining to economic development, especially of developing countries, throughout the world. In the developing countries, rural mass comprise a substantial majority of the population. Over 60% people in India live in rural areas. Although millions of rural people have escaped poverty as a result of rural development in many Asian countries, a large majority of rural people continue to suffer from persistent poverty. The socio-economic disparities between rural and urban areas are widening and creating tremendous pressure on the social and economic fabric of many developing Asian economies. The **Rural Development in India** is one of the most important factors for the growth of the Indian economy. India is primarily an agriculture-based country. Agriculture contributes nearly one-fifth of the gross domestic product in India. These factors, among many others, tend to highlight the importance of rural development.

Learner's Objective:

1. Students get an understanding of the evolving meaning of rural development and their awareness is enhanced about the complexities involved in defining and measuring rural development.
2. Students get a general view of the political-economic scenario in rural India in the post-independence period.
3. Students get an understanding of concepts, processes and relationships among social systems, political structures, and production systems.

Course Contents:

1. Rural Development:
 - a. Concepts and connotations
 - b. Paradigms and determinants
 - c. Policies and strategies
2. Rural Development Interventions:
 - a. Forms of Rural Development
 - b. Critical Analysis of the Development Interventions
3. Sector Reforms:
 - a. Financial Sector Reforms
 - b. Rural Institutions
 - c. Conflicts And Negotiations
4. Emergence of the agrarian structure:
 - a. Land Reforms in India

- b. Green Revolution and Rural Development
 - c. Caste, Class and Power – the emerging equations
5. Alternative Approach to Rural Development:
- a. State-led Rural Development interventions
 - b. Issues in Food Security
 - c. Issues in Income Generating Wage Employment Programmes

Reading List:

1. Bagchi, A.K. (1982): **Political Economy of Underdevelopment**, Cambridge, London
2. Bardhan, P., (1984): **Political Economy of Development in India**, OUP, Bombay
3. Desai, A. R., **Rural Sociology in India**
4. Dreze J. and Amartya Sen (ed.) (1990): **The Political Economy of Hunger**, Vol. I, Clarendon Press, Oxford
5. Kothari, Rajni, **Politics in India**
6. Sainath, P., (1996): **Everybody Loves a Good Drought**, Penguin, New Delhi
7. Sen, Amartya, (1999): **Development as Freedom**, OUP, New Delhi
8. Singh, Katar, (1999): **Rural Development: Principles, Policies and Management**, II Edition, Sage, New Delhi.

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

10. Cognitive Psychology (Elective)

Course Credit: 03

Course Objectives:

- The purpose of the course is to comprehend the mental processes such as learning, problem solving, perception, attention, memory, language, and decision-making.
- To discuss both theoretical and applied perspectives on attention, perception, memory the role of knowledge, language, and reasoning, problem solving and decision making
- To provide knowledge and understanding to students of well established theories in cognitive psychology

Course Deliverables:

- To provide students with knowledge of the fundamental issues in contemporary cognitive psychology.
- To provide students with an understanding of the research methods used to study cognitive processes.
- Understanding of importance of cognitive psychology within the broader context of scientific psychology and other associated areas of study.

Course Contents:

Unit 1: Introduction

1. Meaning and Nature
2. Domains of Cognitive Psychology
3. Approaches to Cognition: Information-Processing and Connectionist Approaches

Unit 2: Learning

1. Definition and Basic Concept
2. Classical Conditioning
3. Instrumental Conditioning
4. Schedules of Positive Reinforcement
5. Cognitive Learning
6. Verbal Learning

Unit 3: Memory

1. Basic Concept
2. Sensory Memory
3. Short-Term Memory
4. Long-Term Memory
5. Theories of Memory
 - a. Information-Processing Theory
 - b. The Levels-of-Processing Theory
 - c. Organization of Long-Term Memory
 - d. The Tip-of-the-Tongue (TOT) Phenomenon
 - e. Semantic and Episodic Memory
 - f. Encoding and Storing Long-Term Memories:
The Role of Organization/The Role of Imagery/
The Role of Constructive Processes/Forgetting

Unit 4: Perceptual and Attention Processes

1. Meaning and Nature
2. Sensory Channels
3. Perceptual Processes:
 - a. Sensation and Perception
 - b. Perceptual Selectivity
 - c. Form Perception and Visual Depth Perception
4. Theories of Selective and Sustained Attention

Unit 5: Thinking and Problem Solving

1. Thinking Process:
 - a. Images and Thinking
 - b. Language and Thinking
2. Concept Formation
3. Problem Solving:
 - a. Rules in Problem Solving
 - b. Habit and Set in Problem Solving
 - c. Decision Making
 - d. Creative Thinking

Unit 6: Intelligence

1. Nature
2. Theories of Intelligence:
 - a. Factor and Process Theories of Intelligence
3. Assessing Intelligence: Stanford-Binet Intelligence Scale and Wechsler Tests

Recommended Reading:

1. Dember, W. N. & Warm, J. S. *Psychology of Perception*. Holt, Rinehart & Winston of Canada Ltd, 1979
2. Hulse, S. H., Egeth, H., & Deese, J. *The Psychology of Learning*. McGraw Hill Book Company, 1980.
3. Morgan, C. T., King, R. A., Weisz, J. R., & Schopler, J. *Introduction to Psychology*. Tata McGraw-Hill, 1993.
4. Riegler, G. R., & Riegler, B. R. *Cognitive Psychology: Applying the Science of the Mind*. Pearson (South Asia Edition), 2008.
5. Solso, R. L. *Cognitive Psychology*. Pearson (South Asia Edition), 2001.
6. Sternberg, R. J. *Cognitive Psychology*. Cengage Learning, 2010.

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

11. Educational Psychology (Elective)

Course Credit: 03

Course Objectives:

- To discuss nature and scope of Educational Psychology
- To explain role of Learning environment, Teacher and teaching- Significance of Educational Psychology to the teacher.
- To discuss various intelligence and creativity models.

Course Deliverables:

- Identify and discuss the major components and techniques of classroom planning, management and instruction and how these components and techniques address individual differences.
- Describe how teachers, parents, and students all contribute to a productive learning environment
- Give constructive critiques on Educational psychology studies and articles.
- Recognize types of learning and in their applications;
- Demonstrate skills of measuring and evaluating teaching/learning processes.

Course Contents:

UNIT 1: Nature of Educational Psychology

- a. Definition
- b. Nature and Scope of Educational Psychology: Learning environment, Teacher and teaching
- c. Significance of Educational Psychology to the teacher

UNIT 2: Learning-Nature and importance of learning

- a. The Learner, Learning, Process, Learning Experience
- b. Individual differences in learning
- c. Learning Curves Factors influencing the learning
- d. Theories of learning
- e. Conditioning:
 - a. Classical and Operant (Pavlov, Skinner)
 - b. Trial and Error (Thorndike)
 - c. Learning by Insight (Kohler)
 - d. Transfer of Learning- Learning by Imitation

- e. Levels of Learning: Gagne- Remembering and Forgetting: Curve of forgetting.

UNIT 3: Guidance and Counselling

- a. Nature, Types and Need of Guidance and Counselling
- b. Educational, Vocational and Personal. Identification of Children with Counselling Needs
- c. Counselling Techniques: Individual and Group Techniques
- d. Guidance for the children with Learning Difficulties
- e. Under Achievers and Gifted Problems and Approaches to Managing Classroom Behavior

UNIT 4: Growth and Development

- a. Meaning, stages; Mental, Emotional and Social Development during - childhood, adolescence.
- b. Individual Differences - Meaning, significance and causes.

UNIT 5: Intelligence and Creativity:

- a. Concept, Gardner's Theory of Multiple Intelligence
- b. Emotional Intelligence Concept
- c. Educational implications
- d. Creativity - concept, educational implications

UNIT 6: Emerging Trends:

- a. Complexity, challenges and choices in the future

Reference:

- Baron J. and Sternberg, R. (eds.) (1987) Teaching Thinking Skills: Theory and Practice New York, W.H. Freeman.
- Costa, A. (2001) The Vision: Developing Minds (3rd ed.) Alexandria, VA.
- Sharma R.N. & Sharma R.K. (2003) Advanced Educational Psychology, Atlantic Publishers and Distributors, New Delhi.
- Sharma, P.N. & R. K. Sharma (1996) Advanced Educational Psychology, Surjeet Publications, Delhi.
- Aggarwal J. C., Essentials of Educational Psychology, Vikas Publishing House.
- Aggarwal J. C., (1995) Essentials of Educational Psychology, Shipra Publishers, Delhi.
- Bhatia & Bhatia (1981) Textbook of Educational Psychology, Doaba House, Delhi.

- Bhatia H. R. (1997) A Textbook of Educational Psychology, MacMillan, New Delhi.
- Dandekar W. N. (1995) Fundamentals of Educational Psychology, M. Prakashan, Poona.
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- Mangal, S.K. (2004) Educational Psychology, Tandon Publishers, Ludhiana.
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Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

12. Soft Skills (Elective)

Course Credit: 03

Course Objective:

The course aims to develop competencies and capabilities in students to handle tasks effectively and efficiently. The learning process through Soft Skills course brings behavioral changes among students in order to develop skills related to interpersonal communication, team building and leadership.

Learning Outcomes:

At the end of the programme, the participants should be able to:

1. Enhance productivity and performance at the workplace
2. Acquire employability skills

Course Content:

Unit 1: Team Building

- a) To know the nature of the team
- b) To understand personal as well as professional goals of the members of the group
- c) To work effectively in a team through building relation and interpersonal communication

Unit 2: Art of Negotiation

- a) To understand what is negotiation
- b) Ways of negotiating and being successful in it
- c) To understand the power of language and non-verbal communication

Unit 3: Dress for Success

- a) To learn selection of proper attire as per the situation
- b) How to carry one's self
- c) How to project one's self in the right frame and spirit

Unit 4: Table Manners

- a) To learn the manners during professional meetings over lunch/dinner
- b) Basics of the table manner

Unit 5: Organizing Meetings

- a) How to call the meeting
- b) How to organize a meeting in the smooth manner
- c) How to design the agenda and prepare minutes of the meeting

Unit 6: Stress Management

- a) To learn kinds of stress
- b) To identify the right reason/s of stress
- c) How to handle the pressure and perform efficiently in such situations
- d) Techniques to cope with the stressful situation at a workplace

Unit 7: Telephone etiquettes

- a) Students learn the telephonic etiquettes; tone and pitch of the voice
- b) How to send a voice mail
- c) Students are also exposed to the netiquettes

Unit 8: Time Management

- a) Goal setting
- b) To make students understand the importance of time
- c) How to prepare the time line and allocate time to complete different tasks
- d) How to successfully follow the prepared time-schedule

Unit 9: Multi-Tasking

- a) How to prioritize the work
- b) Importance of multi-tasking and concerns related to multi-tasking
- c) To identify what to multi-task

Unit 10: Presentation Skills

- a) To learn the skill of presentation
- b) How to prepare the presentation
- c) Knowing the audience, their requirements
- d) Effective ways to deliver the presentation
- e) How to prepare the multi-media presentation

Unit 11: Organizational Skills

- a) To understand the nature of the organization
- b) To understand the structure and communication channel of the organization
- c) Clarity about the roles and responsibilities in an organization
- d) How to be a team member
- e) How to draft reports

Unit 12: Group Discussion

- a) Understanding the nature of discussion
- b) Difference between debate and discussion
- c) Ways to form and present the arguments

d) Ways to defend

Unit 13: Personal Interviews

a) To learn the skills of appearing in an interview and being successful in it

Unit 14: Public Speaking

a) To get acquainted with the art of public speaking

b) To know the rhetoric of making a public speech

c) Exploring rhetorical elements through various videos

Recommended Books:

1. Peggy Klaus, The Hard Truth about Soft Skills.
2. Nitin Bhatnagar. Effective Communication and Soft Skills. Pearson Education India.
3. Eric Garner. Team Building.
4. Wendy Palmer and Janet Crawford. Leadership Embodiment.

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

13. Advanced Atmospheric Science (Elective)

Course Credit: 03

Course Contents:

Unit I: Paleoclimatology

Basic principles of Paleoclimatology, Sampling and Dating techniques, Radioactivity, Isotopic Fractionation, Mass Spectrometry, Rayleigh Equation, Use of Stable Isotopes as Tracers

Unit II: Proxies for Paleoclimatology

Various Proxies used for Paleoclimatology (such as ice cores, ocean sediment cores, cave deposits), Paleoclimatological Records from various Proxies, Data Interpretation, Orbital scale Climate Change and Last Glacial Maxima.

Unit III: Meteorological Instruments

Principles of Measurement, International Protocols to measure various Atmospheric Parameters, In Situ Measurement of Atmospheric Temperature, Humidity, Pressure, Wind, Radiation, Precipitation and Aerosols, Upper Air Observations, Radiosonde Techniques, Measurements in the Ocean, CTD and ARGO

Unit IV: Radiative Transfer in the Atmosphere

Electromagnetic spectrum, Solar Radiation, Terrestrial Radiation, Blackbody Radiation, Emissivity, Absorptions and Albedo of Surface, Kirchhoff's law, Rayleigh and Mie Scattering, Radiation Budget

Satellite Meteorology

Meteorological Satellite Orbits, Introduction to Radiative Transfer, Radiative Properties of Surface, Radiative Properties of the Atmosphere, Thermal, Infrared and Microwave Techniques for Measurement of Temperature, Humidity and Cloud Height, Some important results from Satellite Observations

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage

14. Principles of Financial Management (Elective)

Course Credit: 03

Objectives:

To familiarize the students with fundamental principles of financial management. The students are expected to understand the financial statements. It is expected that students start developing analytical ability

Course Contents:

Unit -1 INTRODUCTION

1. Meaning of Financial Management – Definitions
2. Scope and content of financial management
3. Evolution of Corporate Finance
4. Relation of financial management with other disciplines of business
5. Fundamental Principles of Financial Management

Unit- 2 OBJECTIVES & FUNCTIONS

1. Profit maximization
2. Shareholder's Wealth Maximisation
3. Economic Value Added and Market Value Added
4. Functions of Finance Manager
5. Financial Management Process and organisation of finance function

Unit – 3 UNDERSTANDING FINANCIAL STATEMENTS

1. Meaning and Nature of Financial statements
2. Objectives of Financial Statements
3. Form and Contents of Income Statement, Balance Sheet and Cash Flow Statement
4. Statutory Provisions pertaining to Financial Statements
5. Limitations of Financial Statements

Unit – 4 ANALYSIS OF FINANCIAL STATEMENTS

1. Importance of Financial analysis
2. Types of Financial analysis
3. Comparative Statements
4. Ratio Analysis
5. Du Pont Identity

Unit-5 TIME VALUE OF MONEY

1. Basic Concept
2. Compounding Technique
3. Discounting Technique
4. Effective Rate of Interest
5. Practical Applications of Techniques

Recommended Books:

1. Financial Management – Theory and Practice
Author: Prof. Prasanna Chandra
Publisher: TATA McGraw Hill
2. Fundamentals of Financial management
Author: Prof. Sheeba Kapil
Publisher: Pearson
3. Financial Management – Theory and Practice
Author: Prof. Shashi K Gupta and R.K. Sharma
Publisher: Kalyani Publishers

Evaluation Method:

- Mid-Semester Examination: 25% weightage
- End-Semester Examination: 50% weightage
- Internal Evaluation: 25% weightage