

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA101

Course Title: Principles and Practices of Management

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 1	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T) = 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Describe fundamental concepts, nature and principles of Management.
2	Explain the role and responsibilities of managers and adapt to the various styles of management across organizations.
3	Develop analytical abilities to face the business situations.
4	Apply various tools that would facilitate the decision making process in the business
5	Develop peer based learning and working in groups and teams.

Contents

PART-A

UNIT-I

11(L) hrs

Management: Meaning, definition, nature and scope, levels, process and significance of management. Development of Management Thought: Classical, Neo – Systems, Contingency and Contemporary Approaches to Management.

UNIT-II

11(L) hrs

Planning: Concept, Process, Nature, Steps in Planning, Significance and Types

Decision Making: Concept and Process, Meaning, Types of Decisions, Management by Objective (MBO)

PART-B

UNIT-III

11(L) hrs

Organization: Concept, Nature, Process, Significance, Types, Organizational Structures, Committees, Span of control. Authority & Responsibility. Delegation, Decentralization & Departmentation.

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Direction: Concept, Features, Importance & Limitation of Direction. Element of Direction Supervision, Motivation, Leadership and Communication.

UNIT -IV

12(L) hrs

Coordination: Concept, Features, Importance and Limitations of Coordination. Internal and External Coordination

Control: Concept, Features, Importance and Limitations of Control. Control Process. Essentials of a Good Control System. Techniques of Control. Relationship between Planning and Control

Tutorial hours will be used for practice sessions for problems/presentations /case- studies etc.

Text Books

1. Ghuman and Ashwathapa, "Principles and Practices of Management", 1st Edition, Tata McGraw Hill Publishers, 2010.
2. L.M. Prasad, "Principles and Practices of Management", 7th Edition, Sultan Chand, 2013.

Reference Books

1. Heinz , Weihrich, Cannice and Koontz, "Essentials of Management", A Global Perspective, 8th Edition, TataMcGraw Hill .
2. P.C. Tripathi, P.N.Reddy "Principles of Management", 7th Edition, Mcgraw Higher Ed , 2022.

Online Learning Materials

1. <https://himpub.com/product/a-text-book-on-management-principles-and-practice-sem-1- nep-karnataka/>
Accessed on September 10, 2024.
2. <https://file-dhaka.portal.gov.bd/uploads/0283d03a-254c-4b8c-9db4-4060c02f16c2//629/c3c/ee6/629c3cee6adc6386614665.pdf> Accessed on September 10, 2024.

He

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA102

Course Code: Business Communication - I

Programme: BBA	L: 1T: 1 P: 0	Credits: 2
Semester: 1	Theory/Practical: Theory	Teaching Hours: 15(L)+15(T)= 30hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material Allowed in ESE: NIL

On Completion of the course, the student will have the ability to:

CO#	Course Outcomes
1.	Create awareness about the importance of effective communication skills at workplace.
2.	Face their fear of speaking
3.	Increase their understanding of using Non-Verbal Cues.
4.	Understand how to be an effective participant in Group Discussions.
5.	Facilitate better writing skills

Contents

PART-A

UNIT-I

3(L) hrs

Meaning, types, barriers and mechanism of communication, Non-verbal communication, organizational setting of executive communication, 7C's of communication.

UNIT- II

4(L) hrs

Everyday Communication: Non-Verbal Language (Symbols, Appearance, Paralanguage and Body Language, Proxemics, Chronemics), Listening Skills (Importance, Barriers, Essentials of Good Listening).

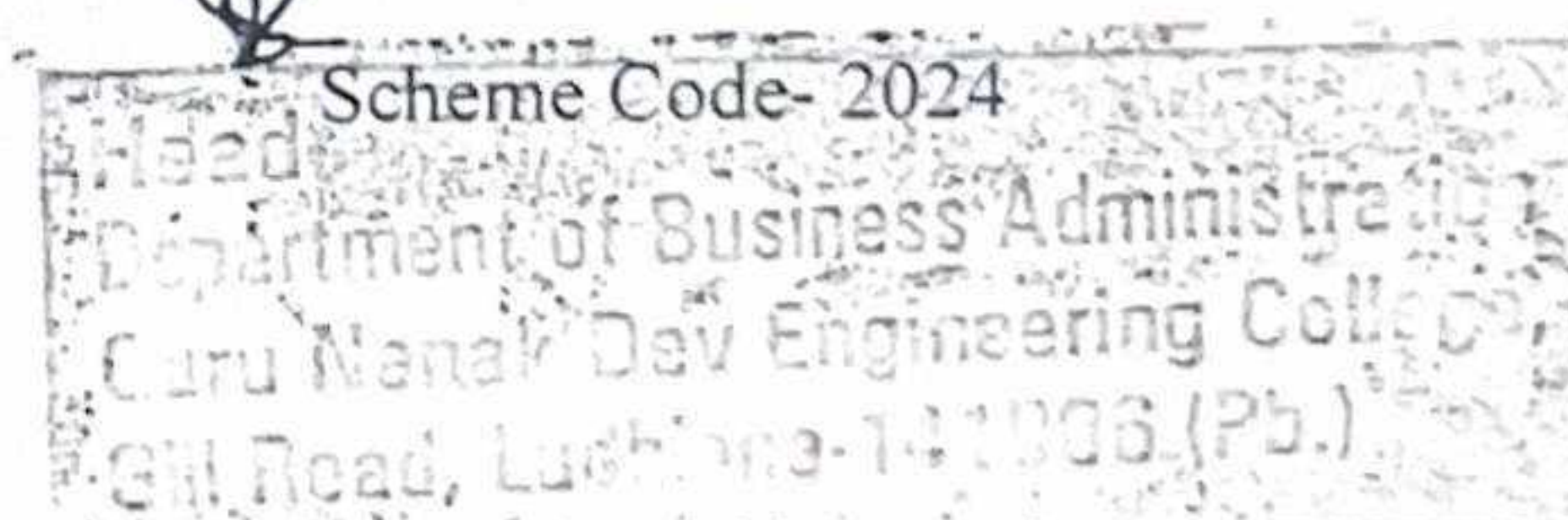
PART-B

UNIT- III

4(L) hrs

Effective Communication: Speaking Skills, Group Discussion (Purpose, Strategies, Guidelines etc.), Improving Language Efficiency (Vocabulary Building, Avoiding Common Errors).

Signature



Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

UNIT- IV

4(L) hrs

Written communication: Formal and Informal Writing, Basics of Paragraph Writing (Topic sentence, Introduction and the Conclusion, Variety in Sentences and Paragraphs), Email Writing (Formal and Informal).

Tutorial hours will be used for practice sessions for problems/presentations /case- studies etc.

Text Books

1. Kev Nair, "Fluency in English - Part II", 4th Edition, Oxford University Press, 2006
2. Orient Blackswan, "Language, Literature and Creativity", 2nd Edition, 2013.

Reference Books

1. William Zinsser, "On Writing Well", 2nd Edition, Harper Resource Book, 2001.
2. Liz Hamp-Lyons and Ben Heasley, "Study Writing", 2nd Edition, Cambridge University Press, 2012.

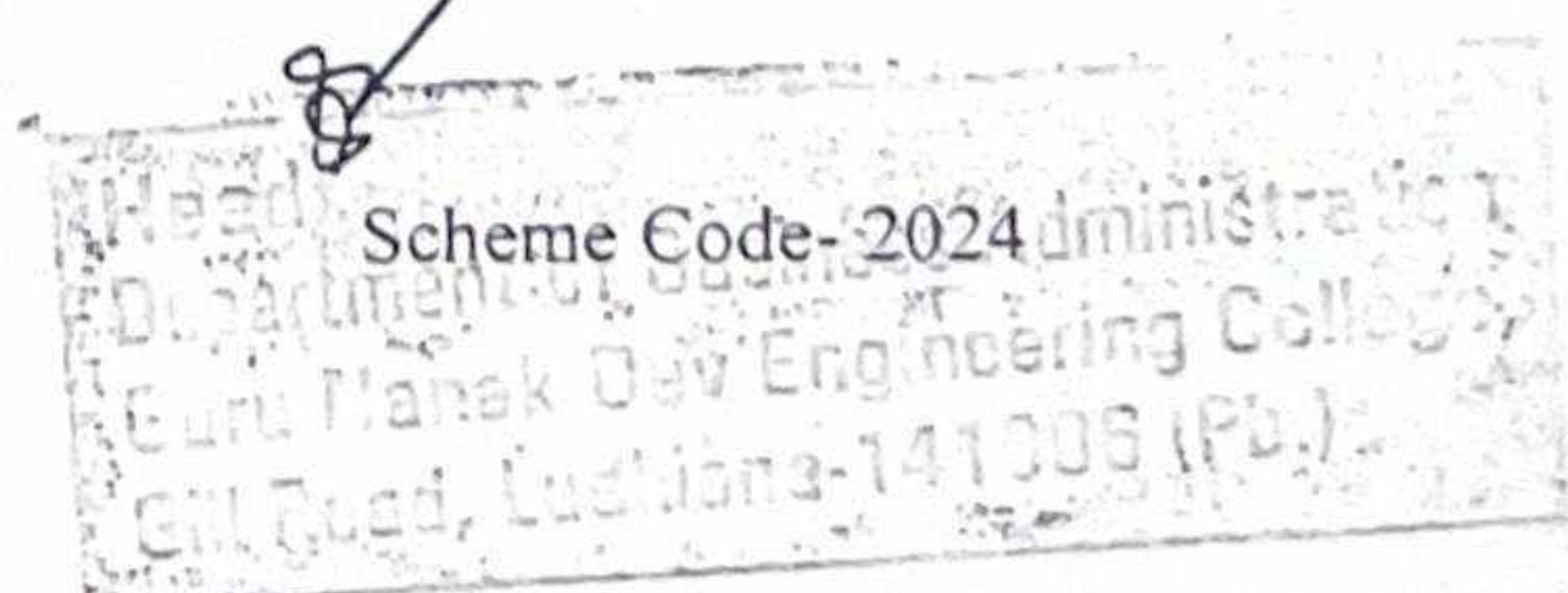
Online Learning Materials

<https://www.pdfdrive.com/business-communication-e18729927.html> Accessed on September 10, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Business Communication	Prof. A Malik	IIT Kharagpur	https://nptel.ac.in/courses/110105051

AK



Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA103

Course Codes: Financial Accounting

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 1	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T) = 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: 40%		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material Allowed in ESE: Simple Calculator

On Completion of the course, the student will have the ability to:

CO#	Course Outcomes
1.	Understand the basic underlying concepts, principles, standards and conventions of accounting.
2.	Prepare journal, ledger, Trial balance and final accounts of a firm.
3.	Get an overview of the regulatory framework of accounting in India.
4.	Prepare financial statements of sole Proprietor and Partnership firm
5.	Comprehend the concept of computerized accounting.

Contents

PART-A

UNIT- I

11(L) hrs

Introduction to Financial Accounting: Meaning, objectives and Scope of Financial Accounting, Limitations of Financial Accounting, Concept of Book Keeping, Meaning and uses of accounting information, Interrelationship of Accounting with other Disciplines, Branches of Accounting, , Accounting Equation. Accounting Principles, Accounting Concepts and Conventions, Accounting cycle.

Accounting Standards: Concept, objectives, benefits, brief review of Accounting Standards in India

UNIT- II

11(L) hrs

Accounting process: Recording Transactions in Journal, Preparation of Ledger Accounts, Subsidiary Books, and Preparation of Trial Balance.

Final Accounts: Preparation of Trading and Profit & Loss Account and Balance Sheet.

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

PART-B

UNIT- III

11(L) hrs

Sole Proprietor: Financial Statements of Sole Proprietor.

Partnership firm: Accounting for Consignment. Accounting for Joint Venture. Accounting for Dissolution of Partnership Firm; Insolvency of Partners (excluding Sale to a Company) and Piecemeal Distribution. Royalty Accounts

UNIT- IV

12(L) hrs

Introduction to Company Final Accounts: Important provisions of Companies Act, 1956 in respect of preparation of final accounts of a company. Understanding the Annual Report of a Company. Computerized Accounting: Computers and its application in accounting. Accounting software packages.

Tutorial hours will be used for practice sessions for numerical problems/presentations /case-studies etc.

Text Books

1. S.N. Maheshwari and S.K. Maheshwari, "Financial Accounting", 6th Edition, Vikas Publishing House, New Delhi, 2009.
2. A. Mukherjee and M. Hanif, "Financial Accounting", 1st Edition, Tata McGraw Hill, 2003.
3. I.M. Panday, "Financial Management", 11th Edition, Vikas Publishing House Pvt Ltd., 2015.

Reference Books

1. N. Ramchandran and R.K. Kakani, "Financial Accounting for Management", 2nd Edition, Tata McGraw Hill, 2007.

Online Learning Materials

1. https://www.sultanchandandsons.com/Images/BookImages/Chapters/626_TC%201270%20Booklet.pdf
Accessed on September 10, 2024
2. <https://www.toppr.com/guides/business-environment/business-functions/financial-management/>
Accessed on September 10, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Financial Accounting	Prof. Varadraj Bapat	IIT Bombay	https://onlinecourses.nptel.ac.in/noc24_mg81/preview

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA104

Course Title: Business Statistics and Logic

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 1	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)=60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: 40%		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material Allowed in ESE: NIL

On Completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Learn the basic concepts of statistics and develop the tables to present the data in the tabular, pictorial & graph.
2	Learn the applications and implications of central tendency i.e. Arithmetic mean, median, mode and dispersion, skewness and kurtosis.
3	Appraise the concepts of population distributions and sample i.e. Probability and Non Probability Sampling Methods.
4	Understand the concept of analytical techniques i.e. correlation analysis and linear regression analysis and its managerial implications.
5	Construct and compute the various indices and their role in research applications.

Contents

PART-A
UNIT-I

11(L) hrs

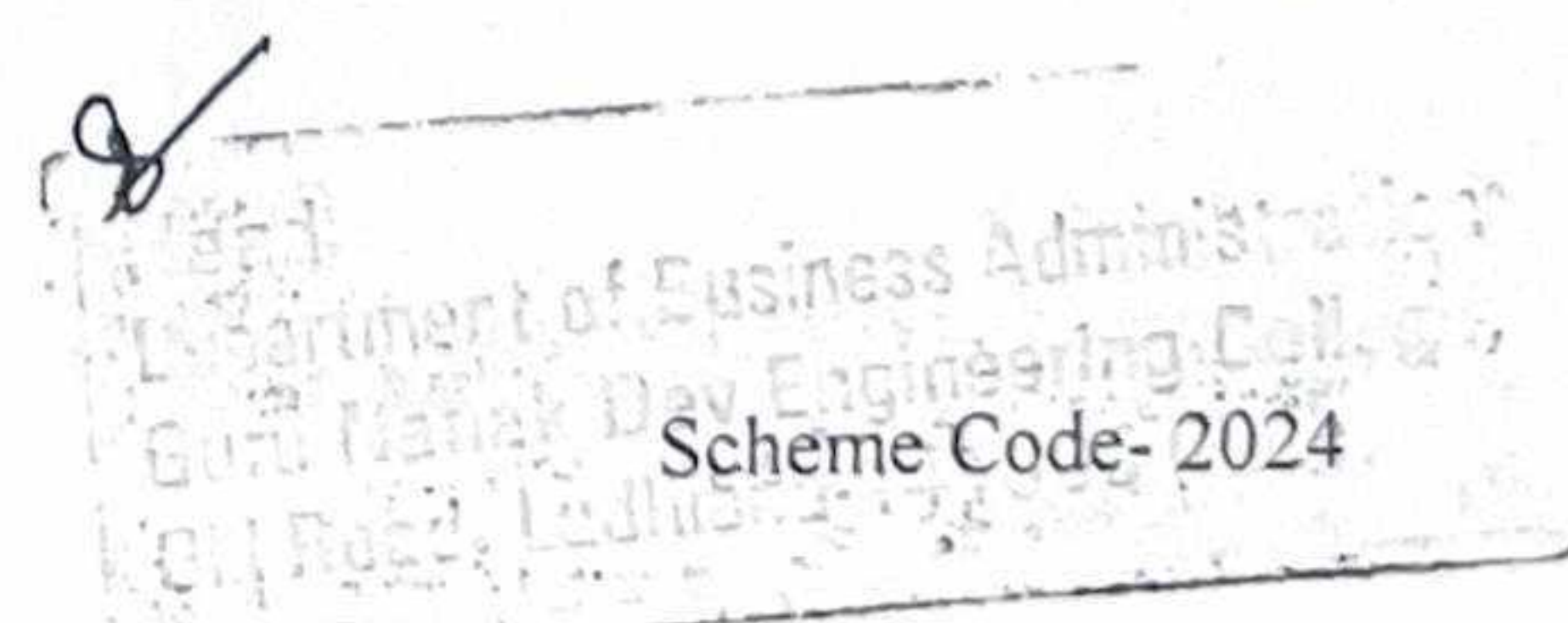
Introduction to Statistics: Meaning, Definitions, Features of statistics, Importance, Functions, Scope and Limitations of Statistics.

Data Collection: Sources of Primary and Secondary data. Presentation of Data. Frequency distribution.

Measures of Central Tendency: Mathematical averages including arithmetic mean, geometric mean and harmonic mean, properties and applications.

Positional Averages: Mode and median (and other partition values including quartiles, deciles and percentile. Graphic presentation of measures of central tendency.

SK



Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

UNIT-II

12(L) hrs

Sampling Concepts: Meaning of Population and Sample, Parameters and Statistics, Descriptive and Inferential Statistics, Probability and Non Probability Sampling Methods including Simple Random Sample, Stratified Sampling, Systematic Sampling, Judgment Sampling and Convenience Sampling.

Measures of Variation: Absolute and relative measures. Range, quartile deviation, mean deviation, standard deviation and their coefficients. Properties of Standard Deviation and Variance

PART-B

UNIT-III

11(L) hrs

Simple Correlation Analysis: Meaning of Correlation, Simple, multiple and partial, linear and nonlinear correlation, correlation and causation, scatter diagram, Pearson's correlation coefficient and Rank Correlation

UNIT-IV

11(L) hrs

Simple Regression Analysis: Meaning of Regression, Principle of least square and regression analysis, Calculation of regression coefficient, properties of regression coefficient, Relationship between correlation and regression coefficient.

Tutorial hours will be used for practice sessions for numerical problems/presentations /case-studies etc.

Text Books

1. S.C. Gupta, "Business Statistics", 2nd Edition, Himalaya Publishing House Pvt. Ltd., 2013.
2. Amir D Aczel and J. Sounderpandian, "Complete Business Statistics", 7th Edition, Tata McGraw Hill, 2017.

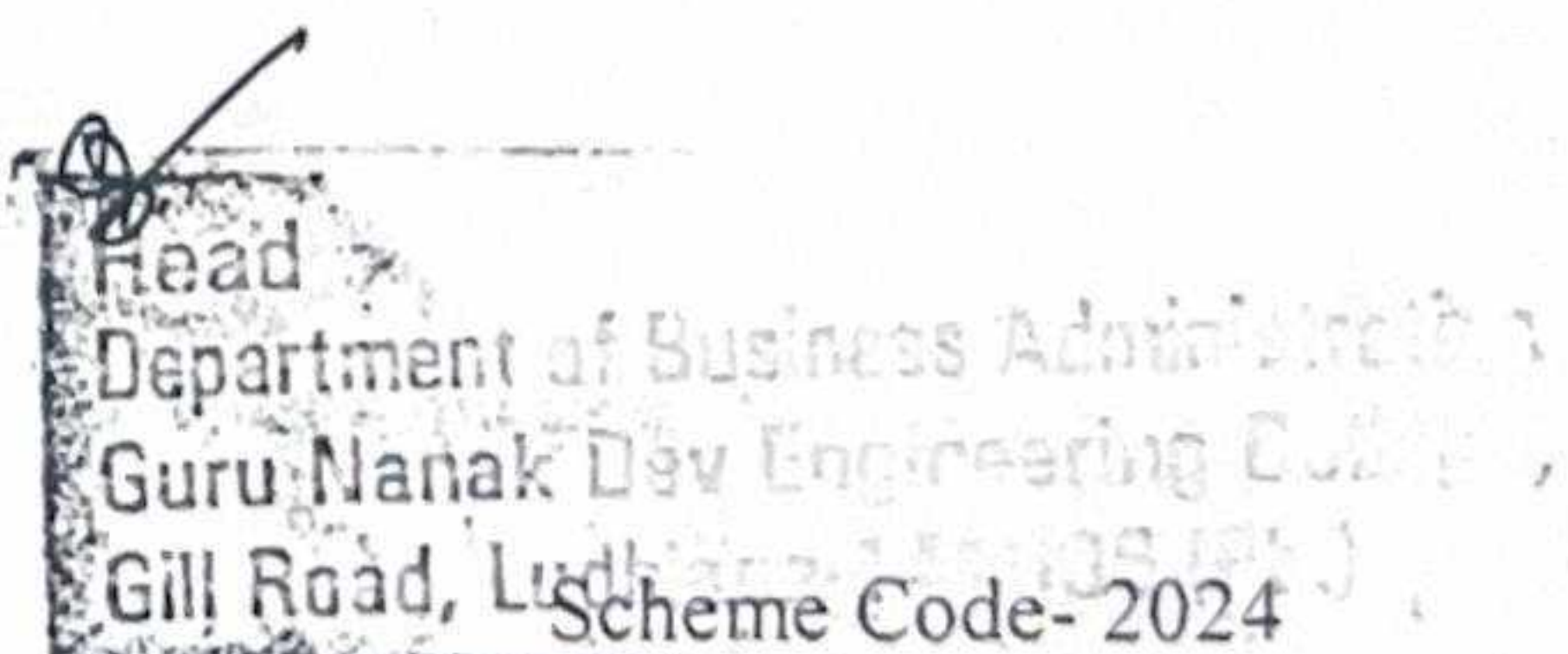
References Books

1. P.N. Arora and S. Arora "Statistics for Management", 6th Edition, Sultan Chand and Sons, 2007
2. R. V. Hogg, J. McKean and A. Craig, "Introduction to Mathematical Statistics", 8th Edition, Pearson, 2021.

Online Learning Materials

1. <https://ug.its.edu.in/sites/default/files/Business%20Statistics.pdf> Accessed on September 10, 2024.
2. https://ddceutkal.ac.in/Downloads/UG_SLM/Commerce/Business_Statistics.pdf Accessed on September 10, 2024.

AK



Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Course Code: BBA105

Course Title: General English

Programme: BBA	L: 1 T: 1 P: 0	Credits: 2
Semester: 1	Theory/Practical: Theory	Teaching Hours: 15(L)+15(T)=30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1.	Apply the basics of Grammar, Sentences and their usage.
2.	Utilize the effective techniques to be a good listener.
3.	Present in academic as well as professional environment
4.	Grasp the concepts of effective writing skills.
5.	Develop vital speaking skills, so that they can become independent users of English language.

Contents

PART-A

4(L) hrs

UNIT- I: Grammar and Reading

Basic Grammar: Parts of speech, Sentence structure, Tenses and their usage. Common Errors, Subject-verb agreement, Pronoun usage, Prepositions and conjunctions. Vocabulary Building: Word formation, Synonyms and antonyms, Usage of idioms and phrases. Reading Comprehension: Techniques for effective reading, Practice of grammar usage with various remedial exercises.

UNIT-II: Listening Skills

3(L) hrs

Importance of Listening: Role of listening in communication, Difference between hearings and listening. Listening Techniques: Active listening strategies, Note-taking methods. Listening Practice: Audio and video materials (lectures, interviews, discussions).

Practice Exercises to improve listening accuracy and comprehension.

Head
Department of Business Administration
Guru Nanak Dev Engineering College
Gill Road, Ludhiana-141005
Scheme Code- 2024

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

PART-B

UNIT-III: Speaking Skills

4(L) hrs

Basics of Effective Speaking: Pronunciation and intonation, Clarity and fluency. Public Speaking: Structure of a speech, Techniques for engaging the audience.

Interpersonal Communication: Conversational skills, Group discussions and role-plays. Presentation Skills: Preparing effective presentations, Use of visual aids.

Practice exercises to improve speaking and presentation skills.

UNIT-IV: Writing Skills

4(L) hrs

Writing Basics: Sentence and paragraph structure, Coherence and cohesion in writing. Formal Writing: Business letters and emails, Report writing. Creative Writing: Essay writing, Writing articles and blogs. Revising and Editing: Techniques for proof reading Common errors in writing and how to correct them.

Tutorial hours will be used for practice sessions for problems/presentations /case- studies etc.

Text Books

1. K. Nair, "Fluency in English- Part II", 4th Edition, Oxford University Press, 2006.
2. G. Mishra, R.Kaul and B. Biswas, "Language through Literature (forthcoming)" 3rd Edition, 2014.

Reference Books

1. W. Zinsser, "On Writing Well", 1st Edition, Harper Resource Book, 2001.
2. Liz Hamp-Lyons and Ben Heasley, "Study Writing", 2nd Edition, Cambridge University Press, 2006.

Online Learning Materials

<https://ellalanguage.com/general-english/>

Accessed on September 10, 2024.

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Practical English: Learning and Teaching	Dr. Bhaskar Dasgupta	IIT Kanpur	https://nptel.ac.in/courses/109104090

Guru Nanak Dev Engineering College, Ludhiana
 An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA106

Course Title: Business Environment and Public Policy

Programme: BBA	L: 2 T: 0 P: 0	Credits: 2
Semester: 1	Theory/Practical: Theory	Teaching Hours: 30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Identify and evaluate the complexities of business environment and their impact on the business.
2	Understand the current economic conditions in emerging markets, and evaluate present and future opportunities.
3	Understand the key concepts and processes involved in Indian public policy.
4	Analyze the role of government institutions and other actors in policy formulation and implementation.
5	Evaluate key economic, social, and sectoral policies in India.

Contents

PART -A

Unit-I

Introduction to Business Environment: Nature and Significance of Business Environment. Components of Business Environment, Techniques of Environment Scanning. Economic Environment of Business: Economic Systems. Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy. 6(L) hrs

Unit-II

Political and Legal Environment of Business: Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization. Socio- Cultural. Environment: Critical elements of socio- cultural Environment. Business Ethics and Corporate Social Responsibility. International Business Environment: Multinational Corporations- Benefits and Problems, WTO, IMF, Regional Groupings. 8(L) hrs

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

PART-B

Unit-III

8(L) hrs

Introduction to Public Policy: Definition, scope, and importance, Public policy Approaches: Rational choice theory, incrementalism and public choice theory. Stages of public policy, Institutional Framework in India: Role of the Legislature, Executive, and Judiciary in policy- making.

Unit-IV

8(L) hrs

Economic and Social Policy in India: Economic Policy: Post-Independence economic policies: Five-Year Plans and mixed economy model. Economic reforms of 1991: Liberalization, Privatization, Globalization (LPG). Key contemporary economic policies: Make in India, Startup India, Atmanirbhar Bharat, and fiscal policies. Key social policies: Food Security Act, MNREGA, Right to Education, Ayushman Bharat, Swachh Bharat Abhiyan. Role of social welfare schemes in poverty alleviation. Public Service Delivery.

Text Books

1. K. Aswathappa, "Essentials of Business Environment-Text, Cases and Exercises", 13th Revised Edition, Himalya Publishing House, 2016.
2. F. Cherunilam, "Business Environment- Text and Cases", 20th Edition, Himalya Publishing House Pvt. Ltd., 2011.

Reference Books

1. P. Wetherly and D. Otter, "Business Environment: Themes and Issues in a Globalizing World", Oxford Publishing, 2012 Edition.
2. Michael E. Kraft and Scott R. Furlong, "Public Policy: Politics, Analysis, and Alternatives", 6th Edition, CQ Press, 2017.

Online Learning Materials

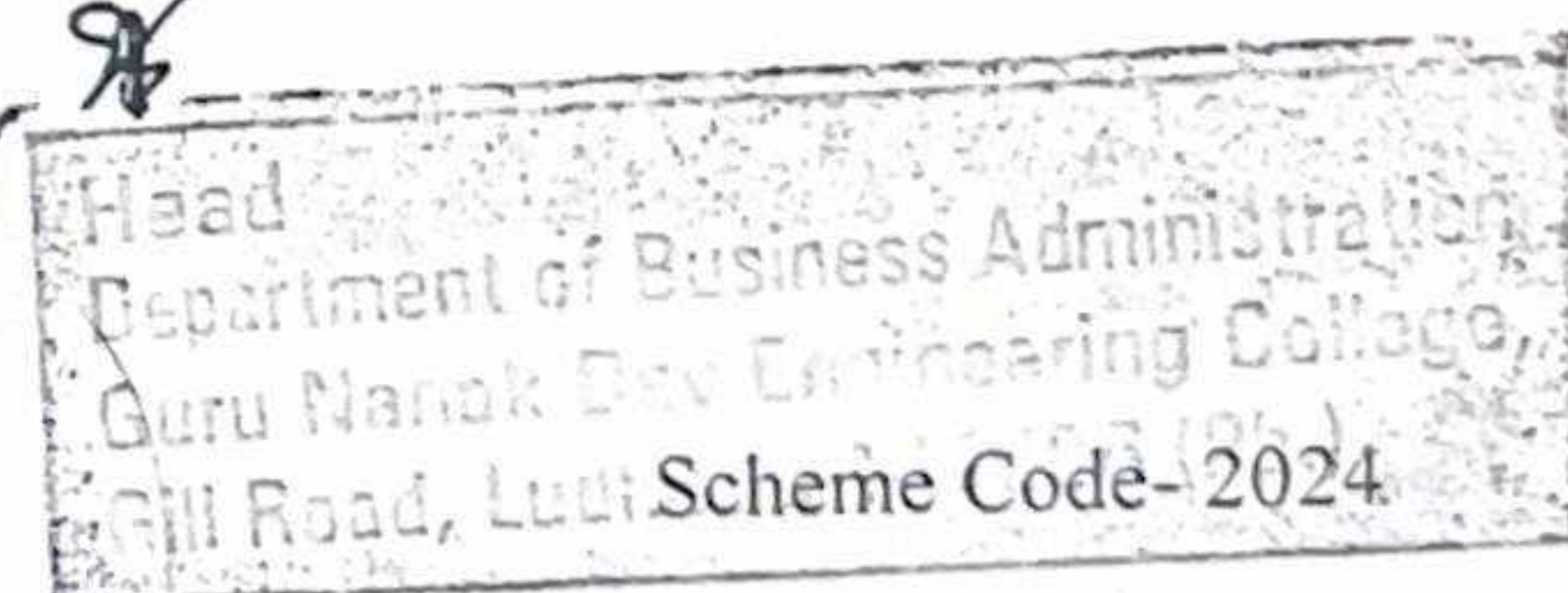
1. <https://www.elgaronline.com/edcollbook/edcoll/9781788979115/9781788979115.xml>

Accessed on November 06, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Business Environment	Chhavi Jain	IIS (deemed to be University), Jaipur	https://onlinecourses.swayam2.ac.in/imb22_mg02/preview4

AK



Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA107

Course Title: Environmental Science and Sustainability

Programme: BBA	L: 2 T: 0 P: 0	Credits: 2
Semester: 1	Theory/Practical: Theory	Teaching Hours: 30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		
Prerequisites: NIL		

Additional Material Allowed in ESE: NIL

On Completion of the course, the student will have the ability to:

CO#	Course Outcomes
1.	Develop an understanding about environmental problems at local and national level through literature and general awareness.
2.	Understand how an ecosystem works and how humans can help in maintaining a better ecosystem.
3.	Apply interdisciplinary approach to understand key environmental issues and critically analyze them.
4.	Analyze the roles of mankind as citizens, consumers and environmental actors in a complex, interconnected world.
5.	Gain practical knowledge by visiting wildlife areas, environmental institutes.

Contents

PART-A

UNIT-I

8(L) hrs

Introduction to Environmental Studies: State of Environment, Need for Sustainable Development, Traditional conservation systems in India, Need for an attitudinal change and ethics, Need for Environmental Education, Multidisciplinary nature of Environmental Studies: Scope & Importance Need for Public Awareness.
Biodiversity: Species, Genetic & Ecosystem Examples of Endangered & Endemic species of India, Red data book.

UNIT-II

8(L) hrs

Ecosystems and Natural Resources: Concept of an Ecosystem: Structure & functions of an ecosystem (Producers, Consumers & Decomposers) Food Chain, Food web and Ecological Pyramids, Natural Resources: Their uses, functions, Deforestation, Water Resources: Their uses, functions & values, Pollution of Ground Water, Rainwater Harvesting, Land Resources: Land as a resource; Land degradation, Energy Resources: Renewable & non-renewable energy resources, use of alternate energy resources (Solar, Wind, Biomass, Thermal)

13 of 15

Scheme Code: 2021
Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

PART-B

UNIT-III

6(L) hrs

Environmental Pollution & Social Issues: Types, Causes, Effects & Control of Air, Water, Soil & Noise Pollution.
Nuclear Global Climate Change: Global warming. Environmental disasters: Earthquakes, Floods, Cyclones,
Landslides

UNIT-IV

8(L) hrs

Sustainability And Management : Sustainability- concept, needs and challenges-economic, social and aspects of sustainability-from unsustainability to sustainability-millennium development goals, and protocols Sustainable Development Goals-targets, indicators and intervention areas Climate change- Global, Regional and local environmental issues and possible solutions-case studies. Concept of Carbon Credit, Carbon Footprint. **Field Work:** Visit to a National Park, Biosphere Reserve, Wildlife Sanctuary Documentation & preparation of a Biodiversity (flora & fauna)

Text Books

1. E. Bharucha, "Text Book for Environmental Studies", 4th Edition, University Grants Commission, New Delhi, 2012.
2. K.C. Agarwal, "Environmental Biology" 2001 Edition, Nidi Publ. Ltd. Bikaner.
3. E. Bharucha, "The Biodiversity of India", 6th Edition, Mapin Publishing Pvt. Ltd., Ahmedabad, India, 2017.

Reference Books

1. R.C. Brunner, "Hazardous Waste Incineration", 2nd Edition, McGraw Hill Inc., 2007.
2. R.S. Clark, "Marine Pollution", 4th Edition, Clanderson Press Oxford (TB), 2009.
3. W.P. Cunningham, T.H. Cooper, E. Gorhani, and M.T. Hepworth, "Environmental Encyclopedia", 3rd Edition, 2010.

AK

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Online Learning Materials .
<https://www.pdfdrive.com/business-communication-e18729927.html>

Accessed on September 10, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Environment Management	Prof. T.V. Ramachandra	IISc Bangalore	https://nptel.ac.in/courses/120108004

[Handwritten signature]

[Handwritten signature]
Head,
Department of Business Administration,
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA108

Course Title: Human Behaviour and Organization

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 2	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the role of personality, learning, perception and emotions at work.
2	Discover and understand the concept of motivation, leadership, power and ethics.
3	Understand the foundation of group behaviour and concept of conflict and power.
4	Gain understanding organizational change techniques.
5	Understand the approaches to stress management and organizational development.

Contents

Part-A

Unit-I

11(L) hrs

Meaning and concept of Organizational behavior; Personality: meaning, factors affecting personality, Big five model of personality; Attitude; Values; Emotions
Learning: concept and theories of learning (Classical conditioning, Operant conditioning and social learning theory), concept of reinforcement.
Perception: concept, factors affecting perception, process of perception, perceptual errors.

Unit-II

11(L) hrs

Motivation: Concept, importance, Process, theories (Goal Setting theory, MBO, Self Efficacy theory, Self Determination theory, Equity theory, Vroom's expectancy theory)
Leadership: Concept, Theories (Trait, Behavioral, Contingency, Charismatic, Transactional, Transformational Leadership and Servant Leadership)
Ethical Leadership: Concept, Importance, Dimensions.

Part-B

Unit-III

12(L) hrs

Groups: Definition, Stages of Group Development, Group Cohesiveness; Analysis of Interpersonal Relationship, Transactional Analysis, Johari Window.
Conflict: Concept, Sources, Types and Stages of Conflict, Management of Conflict, approaches to conflict management.

Organizational Power: Sources of Power and Dysfunctional uses of Power.

1 of 1

Scheme Code- 2024

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Am
01/11/2025

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Unit-IV

11(L) hrs

Organizational Change: Concept, Resistance to change, Managing resistance to change, Kurt Lewin's Theory of Change.

Stress Management: sources of stress, approaches for stress management.

Organizational Development: Meaning and types of OD Interventions, Learning Organizations.

Tutorial hours will be used for practice sessions for problems/programming/case-studies etc.

Text Books

1. Robbins, "Organization Behaviour", 18th Edition, Pearson, 2019.
2. Lathan's, "Organization Behaviour", 12th Edition, Tata McGraw Hill, 2010.
3. Newstrom, "Organization Behaviour", 10th Edition, Tata McGraw Hill, 2001.

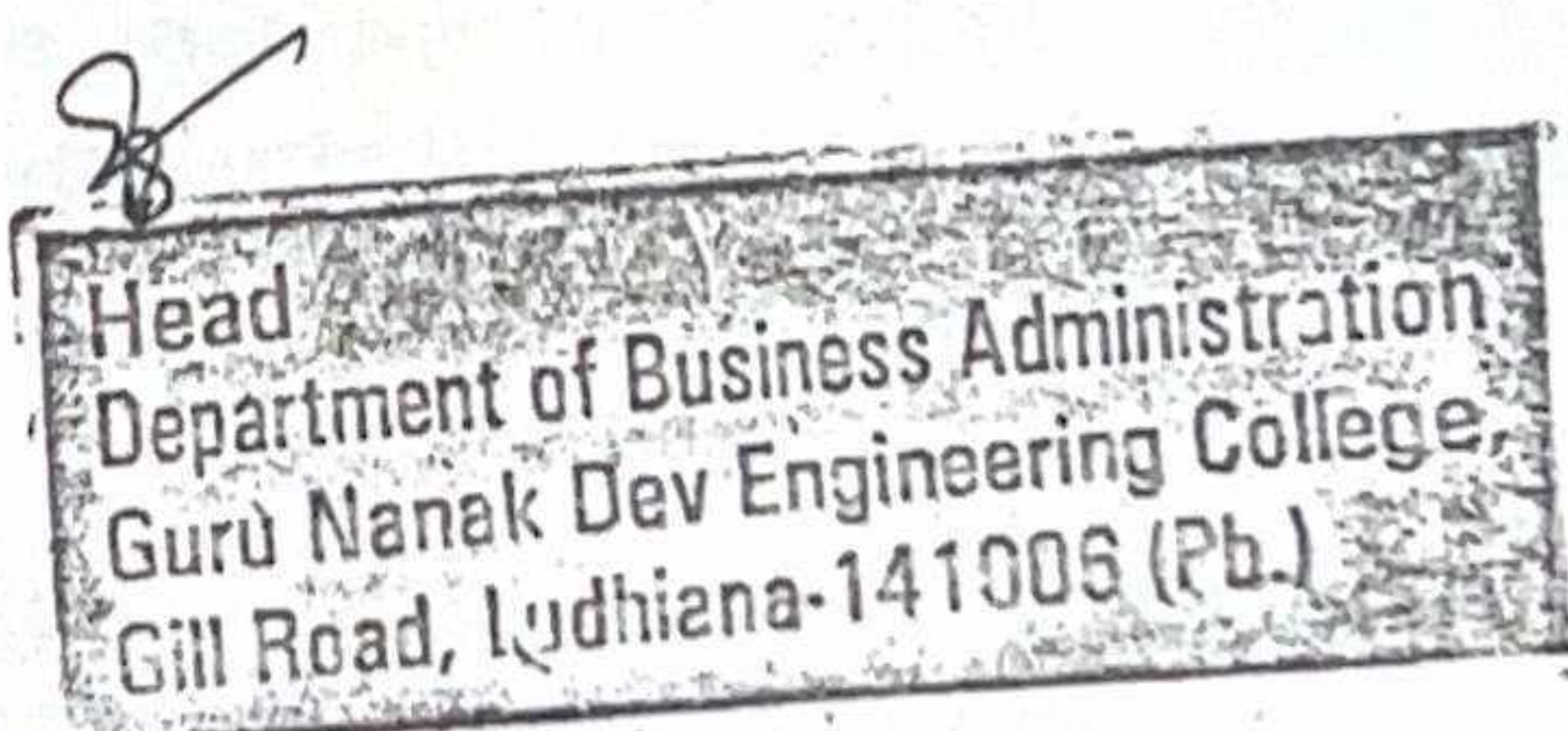
Reference Books

1. L.M.Prasad, "Organization Behaviour", 5th Edition, Sultan Chand, 2014.
2. Parikh and Gupta, "Organization Behaviour", 1st Edition, Tata McGraw Hill, 2017.
3. Aswathappa, "Organization Behaviour", 1st Edition, Himalaya Publishing House, 2022.

Online Learning Materials

1. https://mdu.ac.in/UpFiles/UpPdfFiles/2021/Jul/4_07-01-2021_12-32-15_Organizational%20Behaviour.pdf
Accessed on December 02, 2024
2. <https://old.mu.ac.in/wp-content/uploads/2014/04/Management-PAPER-II-Organizational-Behavior-final-book.pdf>
Accessed on December 02, 2024

AK
01/05/2025



Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Course Code: BBA109

Course Title: Marketing Management

Program: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 2	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Explain the basics of marketing, selling, marketing mix and its core concepts.
2	Describe the intricacies of the marketing segmentation, methods and marketing mix
3	Develop necessary skills for product formulation, Labelling and pricing the products.
4	Illustrate various components of product distribution.
5	Develop an understanding of promotion mix and strategies for successful promotion

Contents

Part – A

11(L) hrs

Unit-I

Marketing: Nature and Scope of Marketing, Difference in needs, wants and demand. Emerging Marketing Concepts: production, product, selling, marketing and societal marketing, Analyzing marketing environment: micro, macro environment.

Unit- II

11(L) hrs

Market Segmentation: Need, concept, nature, basis and strategies, mass marketing vs. Segmentation.
Marketing Mix: 4Ps of products and 7Ps of services, components and factors affecting mix.

Part-B

Unit- III

11(L) hrs

Product Decisions: Product definition, new product development process, and product life cycle, positioning, branding, packaging and labeling decisions.

Pricing Decisions: Importance, objectives, designing strategies, Pricing Techniques.

Unit-IV

12(L) hrs

Distribution: Types of channel, factors affecting decision, Designing and Managing Marketing Channel, Managing Retailing, physical distribution system and its components.

Product Promotion: Promotion mix- introduction, importance, advantages and disadvantages of various components and factors affecting designing and managing Integrated Marketing Communications.

Tutorial hours will be used for practice sessions for problems/programming/case-studies etc.

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Text Books

1. P. Kotler, K.L. Keller, A. Koshy and M. Jha. "Marketing Management: A South Asian Perspective", 13th Edition, Pearson Education, 2013.
2. M. Etzel, B. Walker, W. Stanton and Pandit, "A Marketing Management", 14th Edition, Tata McGraw Hill, 2017.

Reference Books

1. V.S Ramaswamy and S. Namakumari, "Marketing Management: Global Perspective Indian Context", Macmillan Publishers India Ltd.
2. R. Saxena, "Marketing Management", 4th Edition, Tata McGraw Hill Education Pvt. Ltd, 2009.

Online Learning Materials

1. <https://htbiblio.yolasite.com/resources/Marketing%20Book.pdf> Accessed on January 10, 2025
2. https://assets.openstax.org/oscms-prodcms/media/documents/Principles_Marketing-WEB.pdf Accessed on January 17, 2025

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Innovation in Marketing and Marketing of Innovation	Prof. Vinay Sharma	IIT Roorkee	https://nptel.ac.in/courses/110107432

Handwritten signature and date:
01/05/2025

Stamp:
Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Course Code: BBA110

Course Title: Business Economics

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 2	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Study the basic concepts of micro and macroeconomics relevant for business decision making.
2	Measure price elasticity of demand, understand the determinants of elasticity and apply the concepts of price, cross and income elasticity of demand.
3	Understand and explain four basic market models of perfect competition, monopoly, monopolistic competition, and oligopoly, and how price and quantity are determined in each model.
4	Help to describe and analyze the National Income Statistics of an economy in quantitative terms.
5	Interpret macroeconomic issues like money, inflation and business cycles.

Contents

Part-A

Unit – I

12(L) hrs

Micro Economics vs. Macro Economics, Fundamental concepts used in Business Decision making, Opportunity Cost Principle, Incremental Principle, Law of Demand: Movement along vs. Shift in Demand Curve, Concept of Elasticity of Demand – Types of Elasticity of Demand (Price, Income and cross), Factors affecting elasticity of demand.

Unit-II

11(L) hrs

Indifference Curve Analysis: Meaning, Assumptions, Properties, Importance of Indifference Analysis, Limitations of Indifference Theory; **Market Structure**: Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition. Oligopoly (Meaning & Types)

Part-B

Unit-III

11(L) hrs

Nature and Scope of Macro Economics, National Income: Measuring National Income. Problems in the measurement of National Income. Nature and Functions of Money, Liquidity preference theory and Keynesian Liquidity Trap. Inflation: Meaning, Types, Causes, Effects and Policies to control inflation.

Unit-IV

11(L) hrs

Business cycle: Meaning, types and phases. Monetary and Fiscal Policy. Multiplier: Concept, Features and Leakages. Macro-economic Framework in Indian Economy, Financial Administration: Finance Commission.

Tutorial hours will be used for practice sessions for problems/programming/case-studies etc.

Text Books

5 of 14

Scheme Code- 2024

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

1. H.L. Ahuja "Advanced Economic Theory", 21st Edition, Sultan Chand 2019.
2. M.L. Jhingan "Macro Economic Theory", 13th Edition, PHI, 2016

Reference Books

1. D.N. Dwivedi, "Macroeconomics Theory and Policy", 5th Edition McGraw Hill, 2019.
2. T.R. Jain and V.K. Ohri, "Introductory Microeconomics", V K Publications, 2019.

Online Learning Materials

1. https://ddceutkal.ac.in/Downloads/UG_SLM/Commerce/GE_1.pdf
2. https://mpbou.edu.in/uploads/files/MACRO_ECONOMICS.pdf

Accessed on December 10, 2024

Accessed on December 10, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Introduction to Microeconomics	Prof. Vimal Kumar	IIT Kanpur	https://onlinecourses.nptel.ac.in/noc21_hs52/preview

He
01/05/2025

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Course Code: BBA111

Course Title: Emerging Technologies and Application

Programme: BBA	L: 1 T: 0 P: 2	Credits: 2
Semester: 2	Theory/Practical: Theory	Teaching Hours: 15(L)+30(P)= 45 hrs
Total Max. Marks: 150	Continuous Assessment (CA) Marks: 90	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1.	Introduce emerging technologies and industrial revolution
2.	Describe and learn basics of web technologies
3.	Understand and implement basics of html and css
4.	Explain the concepts of AI and IoT
5.	Acquaint with the facets of Cybersecurity and various types of cyber threats

Contents

Part A

Unit-I

4(L) hrs

Introduction to Emerging Technologies: Introduction to emerging technologies, introduction to industrial revolution, role of data for emerging technologies, Applications of Emerging Technologies.

Unit-II

4(L) hrs

Introduction to Web programming: Introduction to Web programming, HTML Basic concepts, understanding and creation of css, creation of HTML webpage, Creation of Tables in HTML.

Part-B

Unit-III

4(L) hrs

Introduction to AI: Introduction to AI, need, foundations of AI, Sub areas of AI, advantages, disadvantages; Introduction to IoT, need, architecture, devices and networks, advantages, disadvantages.

Unit-IV

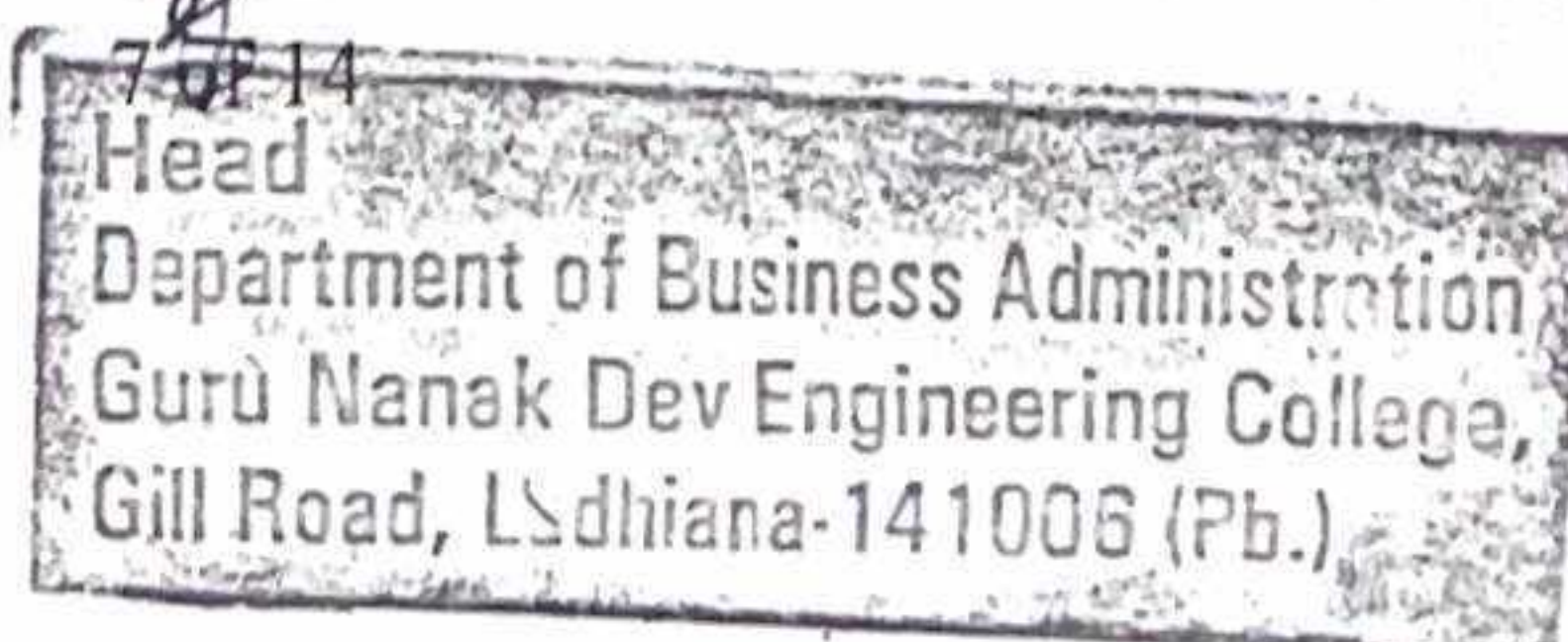
3(L) hrs

Cyber Security: Cyber Security, definition, types of cyber security threats, benefits of cyber security.

Laboratory work

To perform web programming using HTML basic concepts.

01/05/2024



Scheme Code- 2024

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Text Books

1. P. Kumar, "Web Design with HTML and CSS", Notion Press, 2021.
2. S. Kaushik, "Artificial Intelligence", 2nd edition, Cengage Learning India, 2023.
3. S. Belapure and N. Godbole, "Cyber Security", 1st edition, Wiley, 2011.

Reference Books

1. Thomas A. Johnson, Cyber Security, 1st edition, CNC Press, 2015.

Online Learning Materials

1. https://onlinecourses.nptel.ac.in/noc24_cs121/preview
2. https://onlinecourses.nptel.ac.in/noc22_cs53/preview
3. https://onlinecourses.swayam2.ac.in/aic20_sp11/preview

Accessed on January 14, 2025

Accessed on January 14, 2025

Accessed on January 14, 2025

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	An Introduction to Artificial Intelligence	Prof. Mausam	IIT Delhi	https://onlinecourses.nptel.ac.in/noc22_cs56/preview

He
01/05/2025

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Course Code: BBA112

Course Title: Media Literacy and Critical Thinking

Programme: BBA	L: 1 T: 1 P: 0	Credits: 2
Semester: 2	Theory/Practical: Theory	Teaching Hours: 15(L)+15(T)= 30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		
Prerequisites (if any): NIL		

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the basic concepts of Media literacy and media content
2	Understand fundamentals of critical thinking
3	Develop understanding about media evaluation, advertising and digital literacy
4	Study the concept of media production and associated ethical issues
5	Study the emerging trends in media literacy

Contents

Part-A

Unit -I

4 (L) hrs

Introduction to Media Literacy: Understanding Media Literacy: Definition and importance, Media Influence and Society: Role of media in shaping public opinion, culture and democracy. Media in the Indian Context: Evolution of Indian media, Major Indian media outlets and their influence. Analyzing Media Content: Techniques for deconstructing media messages.

Unit-II

4 (L) hrs

Media Analysis and Evaluation: Media Ownership and Control: Structure of media ownership in India, Influence of ownership on media content. News Media and Journalism: Principles of ethical journalism, evaluating news sources for credibility

Part-B

Unit-III

3 (L) hrs

Advertising and Commercial Media: Techniques used in advertising, Influence of advertising on consumer behavior. Social Media and Digital Literacy: Role of social media in contemporary media landscape, evaluating information on social media platform.

Unit-IV

4 (L) hrs

Media Production and Participation: Basics of Media Production: Introduction to media production processes, Understanding different media formats (print, broadcast, digital), Ethical and Legal Aspects of Media: Ethical issues in media production and consumption, Overview of media laws and regulations in India. Future Trends in Media: Emerging technologies in media, Future of media in India.

Tutorial hours will be used for practice sessions for problems/programming/case-studies etc.

9 of 14

Scheme Code- 2024

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Text Books

1. D. Guha, "Critical Thinking: An Indian Perspective", 3rd Edition, Tata McGraw Hill, 2003.
2. V. Kohli-Khandekar, "Indian Media Business", 3rd Edition, PHI, 1995.

Reference Books

1. A. Silverblatt, "Media Literacy: Key to Interpreting Media Messages", 4th Edition, Pearson, 2015.
2. N. Pernisco, "Media literacy; An essential guide to the critical thinking skills for our digital world", 3rd Edition, New York Understand Media, 2021.

Online Learning Materials

1. <https://www.thinkinghabitats.com/blog/the-importance-of-critical-thinking-for-news-media-literacy>
Accessed on November 26, 2024
2. <https://dlhsblropac.koha.manipal.edu/cgi-bin/koha/opac-detail.pl?biblionumber>
Accessed on November 27, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Digital Media Literacy	Prof. K S Arul Selvan	IGNOU, New Delhi	https://onlinecourses.swayam2.ac.in/nou24_ge43/preview

AC
01/05/2024

S
Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: UGNE101
Course Title: Indian Constitution

Programme: BBA	L: 2 T: 0 P: 0	Credits: 2
Semester: 2	Theory/Practical: Theory	Teaching Hours: 30(L) hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Acquaint with legacies of constitutional development in India and help those to understand the most diversified legal document of India and Philosophy behind it.
2	Explain the Preamble & Directive principles of State Policy.
3	Recognize Fundamental Rights and duties
4	Describe the structure of the Union Government and outline the role of President, Vice President, Prime Minister and Council of Ministers.
5	Describe the structure of State Government and analyze the role of Governor and Chief Minister, Election Commissioner, NHRC.

Contents

Part-A

Unit -I

8(L) hrs

Historical Background: Constituent Assembly of India, Philosophical foundations of the Indian Constitution, Salient features and nature of the constitution, Preamble, Directive Principles of State Policy, Citizenship, Constitutional Remedies for citizens.

Unit-II

7(L) hrs

Fundamental Rights: Introduction & its scheme, Right to Equality (Art.14), Right to Fundamental Freedoms (Art. 19), Right to Life (Art. 21), Directive Principles of State Policy: importance and implementation, Fundamental Duties and its legal status.

Part-B

Unit-III

8(L) hrs

Union Government and its Administration Structure: President and Vice President: Role, power and position, PM and Council of ministers, Cabinet and Central Secretariat, Lok Sabha, Rajya Sabha, The Supreme Court and High Court: Powers and Functions.

Unit-IV

7(L)hrs

State Government and its Administration: Governor, Role and Position, CM and Council of ministers, Relation between the Union and the States. Elections, Election Commission of India, National Human Rights Commission, National Commission for Women.

Handwritten signature and date: 01/02/2024

1 of 14
Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Scheme Code- 2024

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Text Books

- 1.D. Dass "Introduction to The Constitution of India", 26th Edition, Prentice Hall of India Pvt. Ltd.
- 2.S. Kashyap "Our Constitution", 27th Edition, Lexis Nexis, 2024
- 3.J.N. Pandey, "Constitutional Law of India", Central Edition, 52nd Edition, 2015

Reference Books

1. D.C. Gupta, "Indian Government and Politics", 8th Edition Vikas Publishing, 2018.
2. H.M. Seervai, "Constitutional Law of India", 4th Edition, Law & Justice Publishing, 2021.
3. V.N. Shukla, "Constitution of India", 10th Edition, Eastern Book Company, 2006.

Online Learning Materials

1. https://mrcet.com/downloads/digital_notes/EEE/24082023/INDIAN%20CONSTITUTION%20%20DIGITAL%20NOTES.pdf
Accessed on July 23, 2024
2. https://www.kpscvaani.com/media/study_materials/Indian%20Constitution/Indian%20Constitution/IndianConstitution_r8nYyhV.pdf
Accessed on July 25, 2024

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Constitutional Studies	Prof. Sudhir Krishnaswami	National Law School of India University	https://onlinecourses.nptel.ac.in/noc20_lw03/preview

He
01/07/2025

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana
 An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA114

Course Title: Business Communication-II

Programme: BBA	L: 1 T: 1 P: 0	Credits: 2
Semester: 2	Theory/Practical: Theory	Teaching Hours: 15(L) + 15(T) = 30 hrs.
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		
Prerequisites (if any): BBA102		

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Deliver a structured public talk.
2	Engage professionally in group communication, especially in group discussions and Group meetings.
3	Produce effectively different forms of business writing.
4	Express in structured and coherent manner in written form.
5	Compose resume and perform satisfactorily in job interviews.

Contents

Part-A

Unit -I

4(L)hrs

Presentation Skills: Principles of effective power-point presentation-planning, preparation & delivery, Outlining and structuring, role of nonverbal communication, usage of visual aids in presentation, Activity: Practice presentation skills.

Unit-II

4(L)hrs

Group Communication: Nature, importance and steps in conducting group discussion. Various functions of participants in group discussion, group discussion strategies, component of evaluation in a selection GD, and use of body language in group discussion. Group discussion based on topics and case studies

Group Meeting: Need and importance of meeting in an organizational environment, conduct of meeting, role of chairperson and secretary, preparation of agenda and minutes. Activity: conducting group discussion and meeting sessions.

Part-B

Unit-III

4(L) hrs

Business Correspondence: Business Letters: Inquiry letter, order placement letter, complaint letter, claims and adjustment letters, collection letter, sales letter.

Reports: Types of reports, structure of a formal report, writing a formal business report. Activity: Writing sessions for practicing letter and report writing.

Handwritten signature and date: 01/05/2021

Head
 Department of Business Administration
 Guru Nanak Dev Engineering College,
 Gill Road, Ludhiana-141006 (Pb.)

Guru Nanak Dev Engineering College, Ludhiana

An Autonomous College under UGC Act 1956

Bachelor of Business Administration (BBA)

Unit-IV

3(L) hrs

Employment Communication: Job application letter and preparation of resume.

Interview Skills: Preparing for a selection Interview, interview process, answering techniques, preparing frequently asked questions.

Tutorial hours will be used for practice sessions for problems/ programming/case-studies etc.

Text Books

1. M. Ashraf Rizvi, "Effective Technical Communication", 2nd Edition, McGraw Hill.
2. M. Raman and S. Sharma, "Technical Communication-Principles and Practices", 3rd Edition, Oxford University Press, 2015.
3. A. Ashley, "A Handbook of Commercial Correspondence", 2nd Edition, Oxford University Press, 1992.

Reference Books

1. J.C. Bahl and S.M. Nagamia, "Modern Business Correspondence and Minute Writing", 11th Edition, Tripathi Pvt. Ltd., 1974.
2. K.R. Balan and C.S. Rayudu, "Effective Communication", 1st Edition, Beacon Books, New Delhi, 1996.

Online Learning Materials

1. <https://www.bradford.ac.uk/careers/develop-skills/communication> Accessed on January 23, 2025
2. <https://srrecvr.ac.in/admin/uploads/2894Chapter-1%20Business%20Correspondance.pdf>
Accessed on January 23, 2025

AU
01/05/2025

Head
Department of Business Administration
Guru Nanak Dev Engineering College,
Gill Road, Ludhiana-141006 (Pb.)

III

SEMESTER

SYLLABUS

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA201

Course Title: Management Accounting

Programme: BBA	L: 3 T:1 P: 0	Credits: 4
Semester: 3	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60hrs
Total Max. Marks: 100	Continuous Assessment (CA)Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum percentage of Numerical / Design / Programming Problems in ESE: 40%		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the nature and scope of management accounting and differentiate management accounting, financial accounting and cost accounting.
2	Interpretation of financial statements and their analysis using various tools.
3	Compute ratios and draw inferences
4	Analyze the performance of the organization by preparing funds flow statement.
5	Analyze the performance of the organization by preparing cash flow statements

Contents

PART-A

UNIT-I

11(L)hrs

Introduction: Meaning – objectives – nature and scope of management accounting – role of management accountant – management reporting as a duty of management accountant- relationship between financial accounting, cost accounting and management accounting.

UNIT-II

11(L)hrs

Financial Statement Analysis: Meaning – types – meaning and concept of financial analysis – types of financial analysis – methods of financial analysis – problems on comparative statements – common size statements

UNIT-III

11(L)hrs

Ratio Analysis: Meaning – importance – utility of ratios – limitation of ratio analysis-classification of ratios – calculation and interpretation of ratios- Du pont Analysis.

UNIT-IV

12(L)hrs

Funds Flow and Cash Flow Analysis: Meaning – concept of fund and funds flow statement – uses and significance of funds flow statement – procedure for preparing FFS – schedule of changes in working capital – statement of sources and application of funds – cash flow analysis – meaning and concept – comparison between funds flow and cash flow statements – uses and significances of CFS – preparation of cash flow statement as per accounting standards. (Indirect method only)

Tutorial hours will be used for practice sessions for problems/presentations/case- studies etc.

Text Books

1. Anthony Robert, Reece, “Principles of Management Accounting”, 8th Edition, Richard D. Irwin Inc. Illinois, 2010
2. Khan M.Y. and Jain P.K., “Management Accounting”, 7th Edition, Tata McGraw Hill, New Delhi, 2014
3. Kaplan R.S. and Atkinson A.A., “Advanced Management Accounting”, 4th Edition, Prentice India International, New Delhi, 2010
4. Dr. S.N. Maheshwari, “Principles of Management Accounting”, 5th Edition, Sultan Chand & Sons, New Delhi, 2010
5. I.M. Pandey, “Management Accounting”, 8th Edition, Vikas Publication, 2010
6. Debarshi Bhattacharya, “Management Accounting”, 2nd Edition, Pearson Publication, 2012

Reference Books

1. Dr.S.N.Maheswari, “Management Accounting”, 5th Edition, Vikas Publishing House Pvt. Ltd, 2022
2. Saxena, “Management Accounting”, 7th Edition, Sultan Chand Pvt. Ltd., 2010
3. Made Gowda, “Management Accounting” 7th Edition, Himalaya Publishing House, 2010
4. Dr.S.N.Goyal and Manmohan, “Management Accounting”, S.N. Publications
5. B.S.Raman, “Management Accounting”, United Publishers, 2010
6. R.S.N. Pillai and Bagavathi, “Management Accounting”, 4th Edition S Chand & Co. Ltd., 2012

Online Learning Materials

<https://vskub.ac.in/wp-content/uploads/2020/04/Management-accounting-B.com-6th-sem.pdf>

Accessed on April 21, 2025

<https://www.scribd.com/document/433589678/6-SEM-BCOM-MANAGEMENT-ACCOUNTING-pdf>

Accessed on April 21, 2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Management Accounting	Prof. Anil. K. Sharma	IIT Roorkee	https://onlinecourses.nptel.ac.in/noc23_mg101/preview?utm_source=chatgpt.com

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA202

Course Title: Legal and Ethical issues in Business

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 3	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: Nil		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the key legal and ethical issues in the business context of India
2	Analyze ethical dilemmas in business decisions
3	Deal in negotiable instruments and electronic fund transfers
4	Evaluate the legal and regulatory aspects of business ethics that concern the financial, competitive and ethical responsibilities of organisations
5	Propose solutions to ethical dilemmas based on ethical theories and principles that align with corporate social responsibility

Contents

Part-A

Unit – I

11 (L) hrs

Introduction to Business Laws: Business law – definition, scope, importance of understanding the role of law in business; Elements of a contract – offer and acceptance, consideration, contractual capacity; Essentials of valid contract; Types of contracts; Performance obligations; Types of contract breaches and remedies; Consumer protection Act

Unit-II

10(L) hrs

Formation of Sales Contract: Contracts for Leasing Goods, Title and Risk of loss, Performance and remedies, Warranties and Product liability; Introduction to Negotiable Instruments, Negotiability, Negotiation and Holders in due course; Bank customer Relations/Electronic Fund Transfers.

Part-B

Unit-III

12(L) hrs

Introduction to Business Ethics: The definition and importance of business ethics, business ethics in the Indian context; benefits of Ethical Conduct in Business, Ethical Issues and Stakeholder Concerns; Social Responsibility and Regulatory Framework: Corporate social responsibility; Environment & business; Issues related to Business Ethics in marketing, finance & human resource functions. Ethical responsibilities of multinational corporations;

Unit-IV

12 (L) hrs

The Ethical Decision-Making Process: Philosophical approaches to ethical decision making; Moral & Legal aspects of ethical decision making; Swami Vivekanand on Ethics; Ethical Decision Making in Organizations: Individual and Organizational Factors Influencing Ethical Decisions; Indian philosophy of work ethics; Introduction to Integral Humanism; Ethical Decision-Making Frameworks to Improve Decision-Making Outcomes; Corporate Governance and its Impact on Ethical Decision-Making; Whistleblowing; Conflict Resolution.

Tutorial hours will be used for practice sessions for problems/presentations/case studies, etc.

Text Books

1. N.D. Kapoor "Elements of Business Law", 2nd Edition, Sultan Chand Publications, 2018
2. B.N. Ghosh "Business Ethics and Corporate Governance", 1st Edition, McGraw-Hill 2017
3. Lorenzo Sacconi, "The Social Contract of the Firm", 1st Edition, Springer, 2012
4. Brian L. Nelson, "Law and ethics in Global Business", 1st Edition, Routledge, 2006

Reference Books

1. Patrick Bishop, Carmel Connors and Charles Sampford, "Management, Organisation and Ethics", in the public sector, 1st Edition, Routledge Revivals, 2019
2. M.C. Kuchhal, "Business Law", 7th Edition Sultan Chand Publishing, 2018.
3. Swami Vivekananda, "Karma Yoga", Advaita Ashrama, India, 2010
4. S.K. Chakraborty, "Values and Ethics for Organizations", Latest Edition, Oxford University Press, 1999

Online Learning Materials

1. <https://ddceutkal.ac.in/Syllabus/BECG-MBA.pdf>

Accessed on April 5, 2025

2. https://ddceutkal.ac.in/Downloads/UG_SLM/Commerce/Core_2.pdf

Accessed on April 7, 2025

[Online links must also display practical applications of topics covered in Syllabus]

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	The Ethical Corporation	Prof. Chhanda Chakraborti	IIT Kharagpur	https://archive.nptel.ac.in/courses/110/105/110105138/

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA203
Course Title: Human Resource Management

Program: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: III	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 Hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: Nil		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the basics of Human Resource Management, analyze the evolution of HRM and human resource planning
2	Appraise various functions of HRM that facilitate employee hiring viz. job analysis, recruitment, selection and training methods.
3	Examine the role of performance appraisal functions in human resource development.
4	Analyze the functions of compensation management namely, wages and salary administration, incentives and fringe benefits.
5	Comprehend HRIS design, computerized systems, HR records, research, and audit processes.

Contents

Part-A

Unit -I

11(L) hrs

Human Resource Management: Introduction, Meaning and Definitions, Brief History, Nature, Functions, Importance and Limitations of HRM. Challenges faced by Modern HR Managers.

Human Resource Planning: Introduction, Definitions, Features, Need for HR Planning, Objectives, Process, Factors affecting HR Planning, Types, Benefits, Problems in HR planning and Suggestions for Making HR Planning Effective.

Unit-II

11(L) hrs

Job Analysis and Job Design: Steps in analyzing job, Job description, Job specification, Job enrichment, Job enlargement, Job rotation and Job simplification.

Recruitment: Sources of recruitment, Policies and procedure of recruitment.

Selection: Process of Selection, Selection errors, testing and interviews, Placement and Induction.

Part-B

Unit-III

12(L) hrs

Training and Development: Concepts, Importance, Identification of Training Needs. Types of Training: On the Job and Off the Job Methods of Training, designing and evaluation of training programmes, Meaning of Development, Difference between Training and Development.

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Internal Mobility and Transfers: Promotions, Demotions and Other Forms of Separations, Definitions, Purpose, and Basis of Promotions. Transfer: Definitions, Purpose, Types and Transfer Policy
Career Planning and Development: Career life cycle, Process of career planning and development.

Unit-IV

11(L) hrs

Industrial Relations: Meaning & Concept of Industrial Relations.

HR Information System and accounting: Meaning, Need, Objectives, Designing of HRIS, Computerized HRIS, Personnel Inventory.

HR Records: Meaning, Purpose, types, Essentials of Good Record Keeping, Significance.

HR Research: Objectives, Kinds and Techniques.

HR Audit: Need, Process, Types and Approaches.

Tutorial hours will be used for practice sessions for problems/presentations/case studies, etc.

Text Books

1. K. Aswathappa, "Human Resource Management", 10th edition, Tata McGrawHill, 2023.
2. C.B. Memoria, "Personal Management Himalaya", 31st revised edition, Himalaya publishing house, 2023.
3. M S Saiyadain, "Human Resource Management", 4th edition, Tata McGraw, 2018.

Reference Books

1. VSP Rao, "Human Resource Management", 3rd edition, Excel Books, 2010.
2. Dessler and Varrkey, "Human Resource Management", 15th edition, Pearson, 2017.

Online Learning Materials

1. https://www.opentextbooks.org.hk/system/files/export/32/32088/pdf/Human_Resource_Management_32088.pdf Accessed on 12/04/2025
2. <https://www.emgywomenscollege.ac.in/templateEditor/kcfinder/upload/files/Human-Resource-Management-by-Pravin-Durai.pdf> Accessed on 12/04/2025

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Management of Human Resources	Dr. Nayantara Padhi	IGNOU, New Delhi	https://onlinecourses.swayam2.ac.in/nou25_mg01/prview

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code- BBA204

Course Title- Indian Systems of Health and Wellness

Programme: BBA	L: 1 T: 1 P: 0	Credits: 2
Semester: 3	Theory/Practical: Theory	Teaching Hours: 15(L)+15(T) = 30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 Hrs		
Course Type: Multi-Disciplinary Elective Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand concepts of health and wellness.
2	Study determinants of holistic wellness, including mental, physical, and spiritual aspects.
3	Analyze the mind-body connection and the impact of digital behavior on overall well-being.
4	Understand common health risks related to nutrition, lifestyle, and modern habits.
5	Evaluate Indian systems of wellness, including AYUSH.

Contents

Part-A

Unit-I

04 (L)hrs

Introduction to Health & Wellness: Definition of Health , Importance of health in everyday life, Components of health – physical, social, mental, spiritual and its relevance. Concept of wellness, Mental health and wellness. Determinants of wellness.

Unit-II

04(L) hrs

Mind Body and Well-Being : Mind body connection in health – concept and relation. Implications of mind-body connection . Wellbeing – why it matters? Digital wellbeing : Impact of digital exposure on physical and mental health.

Part-B

Unit-III

03(L) hrs

Deficiency & Diseases: Malnutrition, under nutrition and over nutrition, Body system and common diseases. Sedentary lifestyle and risk of disease, Modern lifestyle and associated health risks.

Unit-IV

04(L)hrs

Indian System Of Well Being: Health beliefs of India, Health systems in India – AYUSH. Perspective of indigenous people towards health. Happiness and well-being in India. Importance of exercise in well being.

Tutorial hours will be used for practice sessions for problems/presentations/case studies, etc.

Text Books

1. Dr. A. Ghai & Dr. R. Choudhary Kalyani Publishers 2nd Edition, 2022.
2. V.K. Sharma & A. Kaushik, R. Lal Book Depot, Meerut, 3rd Edition, 2020

Reference Books

1. “Health and Wellness”, Concepts and Applications, Anjali Jain, PHI Learning Pvt. Ltd. 1st Edition, 2019
2. “Yoga and Wellness”, Dr. M. L. Gharote, Kaivalyadhama Yoga Institute, 4th Edition, 2020.
3. “Fundamentals of Health Education and Promotion”, Manoj Sharma, CBS Publishers & Distributor, 1st Indian Edition, 2021.

Online Learning Materials

<https://iris.who.int/bitstream/handle/10665/352685/9789290229049-eng.pdf?sequence=1>

<https://ayush.gov.in/#/>

<https://namayush.gov.in/>

Accessed on 10th April, 2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: *OBBAXXX
Course Title: Management Information System

Programme: BBA	L: 3 T: 0 P: 0	Credits: 3
Semester: 3	Theory/Practical: Theory	Teaching Hours: 45(L) = 45hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Open Elective		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the basic concepts, types, dimensions, and components of MIS, and evaluate the benefits and evolution of IT infrastructure in the digital firm era.
2	Apply database management principles by setting up and managing DBMS packages, creating Entity-Relationship diagrams, and understanding data models.
3	Analyze various MIS applications, including DSS, GDSS, and knowledge management systems, and develop e-commerce solutions by leveraging enterprise models.
4	Evaluate project management objectives and methodologies, including agile practices such as SCRUM
5	Understand application of various components of MIS in social, political and ethical issues.

Contents

Part-A

Unit-I

11(L) hrs

Fundamentals concepts of MIS: Basics concepts of MIS/ Types of MIS, Dimension and components of IS, Benefits of MIS, IT infrastructure, and IT infrastructure evolution, Components of IT infrastructure, New approaches for system building in the digital firm era.

Unit-II

11(L) hrs

Data Base Management System: Objectives of data base approach- Characters of database Management systems- Data processing system- Components of DBMS packages - Data base administration- Entity – Relationship (conceptual).

Part B

Unit-III

11(L) hrs

Information System Applications: MIS applications, DSS – GDSS - DSS applications in Enterprise -

Knowledge Management System and Knowledge Based Expert System - Enterprise Model System and E-Business, E- Commerce, E-communication, Business Process Reengineering.

Unit-IV

12(L) hrs

Managing Projects Objectives Of Project Management: Fundamentals of project management information systems with agile methodologies -Introduction of SCRUM, Roles and meetings, User stories, Project risk, Controlling risk factors, Ethical, social, and political issues in the information era.

Text Books

1. Laudon, K. C., & Laudon, J. P..., "Management information systems", managing the digital firm, 5th Edition, Pearson, 2002
2. Coronel C., & Morris, S., "Database systems: design, implementation, & management", 14th Edition, Cengage Learning, 2022
3. Olson, D., "Information systems project management" 1st Edition, US: Business Expert Press, 2014
4. Schiel, J. The Scrum Master Study Guide, 1st Edition, Auerbach Publications, The Scrum Master Guidebook, 2011

Reference Books:

1. Kenneth C. Laudon & Jane P. Laudon, "Essentials of Management Information Systems", 12th Edition (2017), Pearson Education.
2. D.P. Goyal., "*Management Information Systems*", *Text and Cases*, 4th Edition (2014), Vikas Publishing House

Online learning material

Enterprise-Wide Business-IT Engagement In An Empowered Business Environment: The Case of FedEx Express EMEA, Stijn Viaene; Steven De Hertogh, <https://hbsp.harvard.edu/product/JIT025-PDF-ENG?Ntt=MIS>

Accessed on April 7,2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA205

Course Title: Disaster Management

Programme: BBA	L: 0 T: 0 P: 4	Credits: 2
Semester: 3	Theory/Practical: Theory	Teaching Hours: 30(L) = 30 hrs
Total Max. Marks: 50	Continuous Assessment (CA) Marks: 50	End Semester Examination (ESE) Marks: 0
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): Nil		
Course Type: Value Added Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understanding of the concepts related to disaster management
2	Highlight the importance and role of disaster management
3	Understand prediction and preparedness for various disasters.
4	Develop disaster management plans for specific scenarios
5	Identify key institutional frameworks and processes involved in disaster management.

Contents

Part-A

Unit-I

08(L)hrs

Understanding key concepts of Hazards, disasters; Disaster types and causes (Geophysical, Hydrological, Meteorological, Biological and Atmospheric; Human-made, Defining Vulnerability (Physical Vulnerability; Economic Vulnerability; Social Vulnerability). Case study analysis of recent natural disasters with classification by type and impact, Group presentation on types of vulnerability with examples from local or global contexts.

Unit-II

07(L) hrs

Disaster Management Cycle: Components of disaster management cycle (Phases: Response and recovery, Risk assessment, Mitigation and prevention, Preparedness planning, Prediction and warning); Disaster risk reduction (DRR), Community based disaster risk reduction. Mock drill planning and observation for emergency response. Mapping community disaster risks using local survey data

Part-B

Unit-III

08(L) hrs

Initiatives at national and international level Disaster Risk Management in India and at international level: Related policies, plans, programmes and legislation; International strategy for disaster reduction and other initiatives. Report writing on India's National Disaster Management Plan

(NDMP) or Sendai Framework. Role-play or simulation exercise of a UN or government disaster response coordination

Unit-IV

07(L) hrs

Emergency Management Explosion and accidents (Industrial, Nuclear, Transport and Mining) - Spill (Oil and Hazardous material); Threats (Bomb and terrorist attacks) Stampede and conflicts. Training and Demonstration Workshops /Lectures be organized in association with the NIDM, NDRF, NCDC, Fire Brigade, CISF, local administration etc. On-site visit or demonstration with local fire department or NDRF on handling industrial accidents. Emergency evacuation drill conducted in collaboration with a relevant agency (fire, police, or CISF)

Text Books

1. Sharma, S.C. , “Disaster Management”, Khanna Book Publishing 2010, 4th Edition.
2. Clements, B. W, “Disasters and Public Health”, Planning and Response, Elsevier Inc, 2015, 2nd edition.
3. Duncan, K., and Brebbia, C. A., (Eds.), “Disaster Management”, and Human Health Risk, Reducing Risk, Improving Outcomes, 1st Edition WIT Press, UK. 2013.

Reference Books

1. Singh, R. B. (ed.), Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi, 2014, 2nd Edition.
2. Ramkumar, Mu, Geological Hazards: Causes, Consequences and Methods of Containment, New India Publishing Agency, New Delhi, 2016, 5th edition.
3. Modh, S., “Managing Natural Disaster”, Hydrological, Marine and Geological Disasters, Macmillan, Delhi, 2010, 1st Edition.

Online Learning Materials

E-Resources <http://www.ndma.gov.in/en/> <http://nidm.gov.in/> <https://www.unisdr.org/>
<http://www.emdat.be> <https://www.preventionweb.net/risk/vulnerabilit>
<https://www.weather.gov/safety/>

Accessed on 8 April, 2025

IV SEMESTER SYLLABUS

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA206

Course Title: Entrepreneurship and Start up Ecosystem

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 4	Theory/Practical: Theory	Teaching Hours: 45(L)+ 15(T) = 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NA		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: Nil

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand and articulate the key concepts and evolution of entrepreneurship, and explain how entrepreneurs contribute to economic development.
2	Analyze the motivational factors, identify viable business opportunities, and apply creativity and innovation in idea generation.
3	Evaluate the components of the start up ecosystem and prepare a comprehensive business plan with a clear value proposition.
4	Identify various sources of start up funding and demonstrate an understanding of legal, financial, and managerial aspects of running a start up.
5	Apply entrepreneurial strategies for team management, customer acquisition, and sustainable scaling of start ups.

Content

Part-A

Unit –I

11(L)hrs

Entrepreneurship: Concept and Evolution: Definition and characteristics of entrepreneurship, evolution of the concept of entrepreneurship, types of entrepreneurs i.e. women , social, innovative, role of entrepreneurs in economic development, qualities and competencies of an entrepreneur, myths of entrepreneurship, ethics and social responsibility of entrepreneurs.

Activities will include targeted quizzes to reinforce definitions, group discussions to explore whether entrepreneurial skills are innate or learned, and a mini case study of a social entrepreneur whose work exemplifies ethical success.

UNIT-II

12(L)hrs

Entrepreneurial Motivation and Idea Generation: Entrepreneurial motivation: theories and influencing factors; Idea generation and opportunity recognition: sources of business ideas, environmental scanning, creativity and innovation in entrepreneurship, feasibility study and SWOT analysis, business modeling using Business Model Canvas (BMC).

In-class exercises include brainstorming sessions where teams pitch three business concepts, performing SWOT analysis on a peer's idea, and building a BMC with peer presentations and feedback

Part-B

Unit-III

11(L) hrs

Startup Ecosystem and Business Planning: Overview of the startup ecosystem: stakeholders, funding agencies, incubators, accelerators, government initiatives (Startup India, Atal Innovation Mission, etc., legal and regulatory framework for startups. Business plan: purpose, structure, components, and pitching to investors.

Case studies include the Foxhog–SIIC partnership at IIT-Kanpur and Bihar's "Ideas Yatra," showcasing real-world systemic support for startups. Assignments include writing an executive summary and producing a pitch deck, followed by mock investor pitches evaluated by peers and mentors.

Unit-IV

11(L)hrs

Financing and Managing Startups: Sources of startup financing: bootstrapping, angel investors, venture capital, crowd funding, bank finance. Financial planning and budgeting for startups. Challenges in managing startups: team building, marketing strategies, customer acquisition, scaling up, pivoting, and exit strategies such as M&A and IPOs.

This unit features two in-depth case studies: Zepto's rapid hypergrowth via VC funding, and Milk Mantra's journey balancing social mission with profitability. Students will also complete exercises on financial modeling (6–12 month projections), participate in pivot simulations based on hypothetical market disruptions, and draft an exit strategy presentation outlining potential acquisition or IPO plans.

Tutorial hours will be used for practice sessions for problems/presentations/case-studies etc.

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Text Books

1. Hisrich, R. D., Peters, M. P., & Shepherd, D. A., "Entrepreneurship", 11th Edition, McGraw-Hill Education, 2020.
2. Kuratko, D. F., "Entrepreneurship: Theory, Process, and Practice", 11th Edition, Cengage Learning, 2022.
3. Scarborough, N. M., & Cornwall, J. R., "Essentials of Entrepreneurship and Small Business Management", 9th Edition, Pearson Education, 2019.

Reference Books

1. Timmons, J. A., & Spinelli, S., "New Venture Creation: Entrepreneurship for the 21st Century", 10th Edition, McGraw-Hill, 2016.
2. Ries, E., "The Lean Startup", 1st Edition, Crown Business, 2011.

Online Learning Material

<https://egyankosh.ac.in/bitstream/123456789/79264/3/Unit-2.pdf>

Accessed on April 10, 2025.

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1.	Entrepreneurship	Prof. S. S. S. Kumar	IIT Madras	https://onlinecourses.nptel.ac.in/no_c24_mg57/preview

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA207
Course Title: Operations Management

Program: BBA(Entrepreneurship)	L: 3 T: 1 P: 0	Credits: 4
Semester: 4	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)=60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the core principles of operations management and their significance in enhancing efficiency, quality, and customer satisfaction.
2	Analyze different production systems and develop strategies aligned with business objectives.
3	Optimize operational processes through effective process design, layout decisions, and capacity planning.
4	Implement inventory/quality management principles to enhance operations efficiency and optimize costs.
5	Evaluate emerging trends in operations management, such as sustainable operations and technological advancements.

Contents

PART-A

UNIT-I

13(L) Hrs

Introduction to Operations Management- Concept, nature, scope, Historical evolution; Functions; Transformation process model - inputs, process and outputs; Difference between manufacturing and service operations; Strategic role of Operations;

Operations strategies for Competitive Advantage - Strategic planning for production and Operations, Productivity and Quality, Degree of Technology and automation,

Designing Products, Services And Processes- New product design; Product development process; Basic types of manufacturing process technologies; product-process mix; design of services and service processes- Design of Services, difference in Process technologies for services vis a vis products.

UNIT-II

10(L) Hrs

Location Planning - Need for location planning; effects of location of costs and revenues; procedure for facility location planning; behavioural impact in facility location.

Layout planning – Concept; basic layout types; Cellular Layout –concept.

Capacity planning - Concept; need for capacity planning; process of capacity planning; strategies for modifying capacity.

PART-B

UNIT-III

12(L) Hrs.

Inventory Management – Inventory concept; need for inventory; inventory management concept; Objectives; Inventory control operating doctrine; Inventory systems; Inventory costs; Basic stock control methods; Basic EOQ Model. ABC & VED analysis

Quality Management- concept of quality; dimensions of quality; Quality control concept; benefits of quality control; Difference between Inspection, Quality Control, & Quality Assurance;

Total Quality Management(TQM) – Quality circles concept; TQM concept; principles of TQM; Six Sigma concept.

UNIT-IV

10(L) Hrs.

JIT and Lean Production System - concept; characteristics; implementation of JIT; Kanban System; JIT system in services, 5S and Lean systems

Sustainable Operations Management – concept; key trends in Sustainable Operations Management; Industry 4.0, smart manufacturing, Benefits of Sustainable operations; Industry 5.0.- concept, characteristics; Role of AI, IOT, Big data analytics, Robotics, Cloud computing & Blockchain in achieving industry 5.0; benefits of industry 5.0.

Tutorial hours will be used for practice sessions for presentations/case studies/ quiz etc.

Text Books

1. William J Stevenson, “Operations Management”, 14th Edition, McGraw-Hill Education, 2020.
2. Adam Everett E.(JR.) and Ebert Ronald J., “Production and Operations Management”, Concepts, Models and Behavior”, 5th Edition, PHI Learning, 1992.
3. Lee J. Krajewski, Manoj K. Malhotra, and Larry P. Ritzman, “Operations Management- Processes and Supply Chains”, 12th Edition, Pearson Education, 2018.

Reference Books

1. N.G. Nair, “Production and Operations Management”, 18th Edition, Mc Graw Hill Education, 2002.

Online Learning Materials

1. <https://egyankosh.ac.in/handle/123456789/4758>

Accessed on April 10, 2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA208

Course Title: Financial Management

Programme: BBA	L: 3 T:1 P: 0	Credits: 4
Semester: 4	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60hrs
Total Max. Marks: 100	Continuous Assessment (CA)Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum percentage of Numerical / Design / Programming Problems in ESE: 40%		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Apply foundational finance theories and to analyse a forecast using relevant data and to conduct preliminary measurement of leverage analysis.
2	Apply modern techniques in capital budgeting analysis.
3	Understand the application of Working capital in real world.
4	Assess dividend policy's impacts on share prices and to understand the implications of Dividend decisions in financial decision making.
5	Understand the application of capital structure in the industry.

Contents

PART-A

UNIT-I

11(L) hrs.

Evaluation of Finance, Objectives of the Firm-Profit Max, And Wealth Max, Functions of Financial Management, Organisation of the Finance Function, Cost of Capital: Definition and Concepts, Measurement, the weighted average cost of Capital; Leverage: Operating and Financial, Combined Leverage.

UNIT-II

11(L)hrs.

Cost of Capital: Meaning and significance of cost of capital; cost of equity shares; cost of preference shares; cost of debt, weighted average cost of capital

Capital Budgeting: Meaning, Importance, Rational of Capital Budget, Nature of Investment Decision, The Administrative framework, methods of appraisal, Capital Rationing, Inflation and Capital Budgeting; Capital budgeting under Risk and Uncertainties.

PART-B

UNIT-III

11(L) hrs.

Working Capital Management: Concept, Need, Determinants, Finance mix for working capital, Estimating working capital needs, Cash management; The Cash Budget, Techniques of cash management and marketable securities; Management of receivables; Objectives, Factors affecting policies for managing accounts receivables; Inventory Management; Objectives, Inventory Management techniques

UNIT-IV

12(L) hrs.

Financing Decisions: Capital Structure Theories, taxation and capital structure; Planning the capital structure, Factors affecting capital structure, E.B.I.T.-E.P.S. analysis, ROI-ROE analysis.

Dividend Decision: Theories of Dividends-traditional position, Gordon Model, Walter model, M.M. Model, Radical Model, Factors affecting dividend policy, stock dividends and stock splits.

Tutorial hours will be used for practice sessions for problems/presentations/case- studies etc.

Text Books

1. Khan, M. Y. and Jain P. K.(2011), “Financial Management”, 6th Edition, Text, Problems & Cases”, Tata McGraw Hill Company, New Delhi. II.
2. Pandey, I.M.(2015), “Essentials of Financial Management”, 4th Edition, Vikas Publishing House Pvt. Ltd., New Delhi. III.
3. Maheshwari, S.N.(2019), “Financial Management – Principles & Practice”, 15th Edition, Sultan Chand & Sons, New Delhi. IV.
4. Rustagi, Dr.R.P.(2017), “Basic Financial Management”, 8th Edition, Sultan Chand & Sons, New Delhi. V. Patel, Bhavesh(2014),” Fundamentals of Financial Management”, Vikas Publishing House Pvt. Ltd., New Delhi.

Reference Books

1. Dr.S.N.Maheswari, “Management Accounting”, 5th Edition, Vikas Publishing House Pvt. Ltd., 2022
2. Saxena, “Management Accounting”, 7th Edition, Sultan Chand Pvt. Ltd., 2010
3. Made Gowda, “Management Accounting” 7th Edition, 2010

Online Learning Materials

<https://rccmindore.com/wp-content/uploads/2015/06/Financial-Management-unit-I-IV-V.pdf>

Accessed on April 21, 2025

https://sde.uoc.ac.in/sites/default/files/sde_videos/SLM-19617-B%20Com-Financial%20Management.pdf

Accessed on April 21, 2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Fundamentals of Financial Management	Dr. Rupali Bipin Sheth	Savitribai Phule Pune University	https://onlinecourses.swayam2.ac.in/cec25_mg06/preview?utm_source=chatgpt.com

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA209

Course Title: Business Research Methodology

Programme: BBA	L: 3 T: 1 P: 0	Credits: 4
Semester: 4	Theory/Practical: Theory	Teaching Hours: 45(L)+15(T)= 60 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NA		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: Nil

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Explain the objectives and process of conducting research and its application in business.
2	Analyse the different types of research design and experimental errors
3	Understand various techniques of sampling and methods of data collection.
4	Examine different types of scales and appraise about data preparation and analysis.
5	Identify and prepare various types of reports.

Contents

Part-A

Unit –I

11(L) hrs.

Research Methodology: Definition, objectives, scope in management research, process of Research and limitations.

Research Design: Formulating the Research Problem, Choice of Research Design, Types of Research Design, Sources of Experimental Errors.

Unit-II

11(L) hrs.

Sampling: Advantages and Limitation of Sampling, Sampling process, Types of Sampling: Non-probability sampling techniques, Probability sampling techniques, Sampling and non sampling errors.

Data collection: Primary, secondary data collection, observation methods and survey method:

Part-B

Unit-III

11(L) hrs.

Measurement Concept, Levels of measurement—Nominal, Ordinal, Interval and Ratio Attitude Measurement: Comparative scaling techniques, Non-comparative scaling techniques.

Questionnaire Designing: Types, Guidelines for developing a good questionnaire.

Unit-IV

12(L) hrs.

Data Preparation and Analysis: Editing, Coding, Cross Tabulation and Practices through Excel (Basic Concepts)

Report Writing: Types of Research Reports, Guidelines for Writing a Report, Report Format, Guidelines for evaluating a report.

Tutorial hours will be used for practice sessions for problems/presentations/case- studies etc.

Text Books

1. Joe Hair Jr., Michael Page, Niek Brunsveld, Adam Merkle, Natalie Cleton,” Essentials of Business Research Methods”, 5th Edition, Routledge,2003.
2. Pamela S. Schindler, “Business Research Methods”, 13th Edition, McGraw Hill,2020.

References book

1. Christina Quinlan, “Business Research Methods”, 1st Edition, Cengage Learning,2018.
2. S. L. Gupta, Hitesh Gupta., “Business Research Methods”, 1st Edition, McGraw Hill,2014.

Online Learning Material

https://sde.uoc.ac.in/sites/default/files/sde_videos/SLM-19664-BBA-Business%20Research%20Methods.pdf

Accessed on April 12, 2025.

<https://nhck.in/wp-content/uploads/2020/06/IV-BBA-BRM-1.pdf>

Accessed on April 12, 2025.

Supplementary SWAYAM Course

Sr. No.	Course Name	Instructor	Host Institute	URL
1	Business Research Methods	Dr. G. Parameshwari	PES College of Science Arts and Commerce, Mandya, Karnataka	https://onlinecourses.swayam2.ac.in/cec25_mg04/preview

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course Code: BBA210

Course Title: Indian Knowledge System

Programme: BBA	L: 2 T: 0 P: 0	Credits: 2
Semester: 4	Theory/Practical: Theory	Teaching Hours: 30(L)= 30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 40	End Semester Examination (ESE) Marks: 60
Minimum Percentage of Numerical / Design / Programming Problems in ESE: NIL		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Core Course		

Prerequisites (if any): NIL

Additional Material Allowed in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Provide students with a fundamental understanding of the rich heritage of Indian knowledge systems.
2	Explore the contributions of IKS to various fields, including Management, science and technology,
3	Foster an appreciation for the cultural and societal values embedded in IKS.
4	Encourage critical thinking and interdisciplinary perspectives.
5	Various approaches for Protection, preservation, conservation and Management of Indian Knowledge System

Contents

Part-A

Unit-I

08(L) hrs.

Definition and scope of Indian Knowledge System: Importance of Indian Knowledge System in the modern world, Historical context and evolution of Indian Knowledge System, Indian Knowledge System based approaches on Knowledge Paradigms , Indian Knowledge System in ancient India and in modern India .

Unit-II

07(L) hrs.

Indian Knowledge System and Indian Scholars: Ancient Indian advancements in mathematics, and management. Philosophy and Literature (Maharishi Vyas, Manu, Kanad), and Astronomy (Aryabhata, Mahaviracharya, Bodhayan,), Medicine and Yoga (Charak, Susruta).

Part-B

Unit-III

07(L) hrs.

Indian Knowledge System and Indian Literature: Sahitya (Vedas, Upavedas) Puran and Upnishad ,Shastra, Indian philosophy and its impact on society, Linguistics and literature, Indian art, music, and dance, Ethical and moral values in Indian Knowledge System. Indian perspectives on nature and the

astronomy.

Unit-IV

08(L)hrs

Indian Traditional/Tribal/Ethnic Communities, their Livelihood and Local Wisdom: Geophysical aspects, Resources and Vulnerability; Resource availability, utilization pattern and limitations; Socio-Cultural linkages with Traditional Knowledge System, Approaches for Protection, preservation, conservation and Management of Indian Knowledge System

Text Books

1. Om prakash Mishra, "Essence of Indian Traditions", 2nd Edition, Khanna Publishers, 2021.
2. Mahadevan, B. Vinayak Rajat Bhat, and PAVANA RN NAGENDRA, "Introduction to Indian knowledge system: concepts and applications", 1st Edition, PHI Learning Pvt. Ltd., Delhi, 2022.

Reference Books

1. Frifj of Capra, "Tao of The Physics", 3rd Edition, HarperCollins Publishers, 2007.
2. Om prakash Mishra, "Essence of Indian Traditions", 2nd Edition, Khanna Publishers, 2021.

Online Learning Materials

1. <https://www.education.gov.in/nep/indian-knowledge-systems>
2. https://onlinecourses.swayam2.ac.in/imb23_mg53/preview
3. https://onlinecourses.swayam2.ac.in/imb24_mg21/preview
4. https://onlinecourses.swayam2.ac.in/imb24_mg20/preview

Accessed on April 15th, 2025

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Course code: BBA211

Course Name: Design Thinking and Innovation

Program: BBA	L: 0 T: 0 P: 2	Credits: 1
Semester: 4	Theory/Practical: Theory	Teaching Hours: 15(L)+15(T)=30 hrs
Total Max. Marks: 100	Continuous Assessment (CA) Marks: 50	End Semester Examination (ESE) Marks: 0
Minimum percentage of Numerical / Design / Programming Problems: Nil		
Duration of End Semester Examination (ESE): 3 hours		
Course Type: Skill Enhancement Course		

Prerequisites: NIL

Additional Material required in ESE: NIL

On completion of the course, the student will have the ability to:

CO#	Course Outcomes
1	Understand the implications of digital disruption and the role of innovation
2	Identify and decide on the innovation opportunity to pursue
3	Familiarize with the different tools and techniques for design thinking
4	Design, develop and implement an innovation product or service or process
5	Identify key success factors and characteristics of successful innovation projects.

Contents

PART-A

Unit-I

4(L) Hrs

Introduction: Understand the concept of innovation and creative thinking and its significance in business, Design Thinking and customer centricity – real world examples of customer challenges, Discussion of a few global success stories like Air BnB, Apple, IDEO, Netflix etc. Four stages of Design Thinking Process – Empathize, Define, Ideate, Prototype, Implement

Unit- II

4(L) Hrs

Creative Thinking: Concepts of creative thinking, Divergent and convergent thinking, Lateral thinking (Edward de Bono), Role of empathy and observation (design thinking), Mind mapping and reverse thinking, Creating Point of View (POV) Statements.

Unit- III

4(L) Hrs.

Ideate, Prototype and Implement: Various templates of ideation like brainstorming, systems thinking, Concept of brainstorming. Mapping customer experience for ideation, Critical items diagrams, SCAMPER, Mind Mapping, and other Ideation tools. Methods of prototyping, purpose of rapid prototyping, Implementation.

Unit-IV

3(L) Hrs

Testing Methods: Usability Testing, A/B Testing, Collecting and Analyzing User Feedback, Feedback, Re-Design & Re-Create, Final concept testing, Final Presentation, Solving Problems through innovative design concepts & creative solutions.

Tutorial hours will be used for practice sessions for problems/presentations/case- studies etc.

Text Books

1. Dr. Dheeraj Mehrotra, “Design Thinking and Innovations”, 1s Edition, Notion Press, 2023
2. DM Arvind Mallik and Dr. Lakshmi Mallik DM, “Design Innovation for Human Thinking”, 1st Edition, Bluerose Publishers Pvt. Ltd, 2023

Reference Books

1. Christian Muller-Roterberg, “Design Thinking for Dummies”, 1st Edition, Wiley, 2021

Online Learning Materials

1. [https://www.aitskadapa.ac.in/ebooks/CSE/DESIGN%20THINKING/Design%20Thinking%20for%20Strategic%20Innovation_%20What%20They%20Can_t%20Teach%20You%20at%20Business%20or%20Design%20School%20\(%20PDFDrive%20\).pdf](https://www.aitskadapa.ac.in/ebooks/CSE/DESIGN%20THINKING/Design%20Thinking%20for%20Strategic%20Innovation_%20What%20They%20Can_t%20Teach%20You%20at%20Business%20or%20Design%20School%20(%20PDFDrive%20).pdf)

Accessed on March 10th 2025.

2. <https://vtu.ac.in/pdf/sm/idt.pdf>

Accessed on March 10th 2025.

Guru Nanak Dev Engineering College, Ludhiana
An Autonomous College under UGC Act 1956
Bachelor of Business Administration (BBA)

Supplementary SWAYAM Course

Sr . No.	Course Name	Instructor	Host Institute	URL
1	Design Thinking and Innovation	Ravi Poovaiah	IIT Bombay	https://onlinecourses.swayam2.ac.in/aic25_ge11/preview