

**DEPARTMENT OF MANAGEMENT (DOM)**  
**I. K. GUJRAL PUNJAB TECHNICAL UNIVERSITY MAIN CAMPUS**

**D. No. IKGPTU/DOM/449**

**DATED: 4/1/19**

**Subject: Regarding approval of Minutes of Meeting of BOS, Faculty of Management.**

A meeting of BOS, Faculty of Management was held on 14/12/18 to finalise the syllabus of 2<sup>nd</sup> sem of various courses of management of IKGPTU. Minutes of meeting are attached herewith. You are requested to approve minutes of meeting.

Dean Academic  
 No. 37  
 Date 7/1/2019

*[Signature]*  
 (Dr. Pooja Mehta)  
 Assistant Professor



*[Signature]*  
 (Harmeem Soch) 4/1/19  
 Head of Department & Chairperson, BOS

*[Signature]*  
 (Dr. Balkar Singh) 4/1/19  
 Director, Academics, IKGPTU

~~Tinwar Lal AR(A)~~  
~~For Mgt~~

IKGPTU/DOM/1104  
26/2/19

Dean Academic  
 No. 265  
 Date 6/1/2019

*[Signature]* 7/1/19  
 MOM prepared by BOS with all necessary details for  
 HOD Mgt & for BOS with all details

~~AR (Acad)~~ *[Signature]* 7-1-19  
 DR (Acad) *[Signature]*  
 Director (Acad) *[Signature]*

HOD (Mgt) *[Signature]*

SA (BOS) 7/1/2019

## Minutes of meeting of BOS Management

Venue: Meeting Room, 4<sup>th</sup> Floor, CB II, IKGPTU, Main Campus, Kapurthala

Date: 14<sup>th</sup> December, 2018

### Following members were present:

**Dr. Harmeen Soch**, HOD, Department of Management, IKGPTU Main Campus, Kapurthala, (Chairperson)

**Dr. S. K Singla**, Professor, GNAIMT, Phagwara (Member)

**Dr. A.S Chawla**, Professor, RIMT University, Mandi Gobindgarh (Member)

**Dr. B.S Mann**, Professor, UBS, GNDU, Amritsar (Member)

**Dr. Sandhya Mehta**, Associate Professor, GNIMT, Ludhiana (Member)

**Dr. Pooja Mehta**, Asstt. Professor, IKGPTU Main Campus, Kapurthala (Member)

**Dr. Kapil Gupta**, Asstt. Professor IKGPTU Main Campus, Kapurthala (Member)

The members discussed in detail the agenda of the meeting and following decisions were taken:

1. Syllabus of MBA 2<sup>nd</sup> Semester was finalized and Attached as **Annexure A**.
2. Syllabus of 2<sup>nd</sup> Semester of BBA (**Annexure B**), BBA (Business Economics) (**Annexure C**), BBA (Events Management) (**Annexure D**), BBA (Rural Development) (**Annexure E**), BBA (Service Industry Management) (**Annexure F**), BBA (Retail Management) (**Annexure G**), BBA (Health, Spa and Resort) (**Annexure H**), BBA (Sales, Marketing, Advertising and PR) (**Annexure I**) is attached.
3. Syllabus of 2<sup>nd</sup> Semester of B.Com (Hons.) (**Annexure J**), B.Com (E-Commerce) (**Annexure K**) is attached.
4. Syllabus of 2<sup>nd</sup> Semester of MBA (IB) was finalized and Attached as **Annexure L**.
5. With reference to the agenda item no. 3, BOS is of the opinion that although the program with nomenclature Master of Management Studies does exist in the list of programs of UGC but BOS is neither having expertise nor is empowered to comment on any further details on the program Master in Management Studies (Hospital Management) offered by Vidya Jyoti Educational Society.
6. With reference to the file no. IKGPTU/DDE/19528A dated 29/11/2018, BOS recommends PPRs as approved and forwarded by Director, ODL, IKGPTU, Kapurthala.

*Soch*

*Sandhya Mehta*

*B.S. Mann*

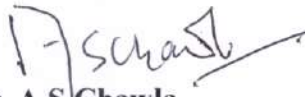
*Kapil Gupta*

*Harmeen Soch*

*Harmeen Soch*  
19/12/18

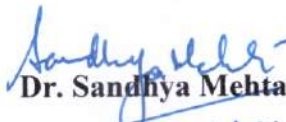
7. With reference to the file no. IKGPTU/DDE/19574 dated 11/12/2018, BOS recommended that since development of new SLMs as per current syllabi shall take time, the previous SLMs approved by the Content Development Committee for Distance Education, IKGPTU may be continued for the current session and new SLMs be developed as soon as possible.

  
Dr. Harmeem Soch


  
Dr. A.S Chawla

  
Dr. S. K Singla

  
Dr B.S Mann  
14/12/2019

  
Dr. Sandhya Mehta  
14/12/18

  
Dr. Kapil Gupta

  
Dr. Pooja Mehta  
14/12/18



## MBA 201-18

### Business Analytics for Decision Making

**Course Objective:** The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

#### Unit I

**Introduction to Statistics:** Meaning, Importance, Applications of inferential statistics in managerial decision making. **Collection of Data:** concept of primary data and secondary data, sources of primary data and secondary data, **Classification and Tabulation of Data:** Concept and types of classification, construction of frequency distributions, tabulation of data: role of tabulation, parts of table, rules of tabulation, review of table, types of table.

**Sampling:** Concept, definitions, census and sampling, probability and non probability methods of sampling, relationship between sample size and errors.

#### Unit II

**Sampling Distributions:** Concept and standard error.

**Hypothesis Testing:** Formulation of hypothesis, procedure of hypothesis testing, errors in testing of hypothesis, tests of significance for large samples, tests of significance for small samples, application of t-test, Z-test, F-test and Chi-square test and Goodness of fit, ANOVA.

Techniques of association of attributes.

#### Unit III

**Business Forecasting:** Introduction, Role of forecasting in business, Steps in forecasting and methods of forecasting.

**Correlation:** Partial and Multiple correlation.

**Regression Analysis:** Multiple regression analysis, Testing the assumptions of regression: multicollinearity, heteroscedasticity and autocorrelation.

#### Unit IV

**Index Number:** Definition, importance of index number in managerial decision making, methods of construction, tests of consistency, base shifting, splicing and deflation, problems in construction.

**Time Series Analysis:** Meaning, component and, methods of time series analysis. Trend analysis: Least square method, linear and non linear equations, applications of time series in business decision making.

**Suggested Readings:**





- Levins, Krehbiel, *Business Statistics*, Pearson Berenson
- Levin & Rubin, *Statistics for Management*, Prentice Hall
- S P Gupta, *Statistical Methods*, Sultan Chand
- Beri, *Business Statistics*, Tata Mc Graw Hill
- Croucher, *Statistics: Making Business Decisions*, Tata McGraw Hill
- C.R. Reddy, *Quantitative Techniques for Management Decisions*, Himalaya Publishing
- Anderson Statistics for Business & Economics, Cengage Learning
- Levin, Richard and David S. Rubin. “*Statistics for Management*”. 7th Edition, Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., “*Quantitative Analysis for Management*”, 7th Edition, Prentice–Hall of India, New Delhi.
- Siegel, Andrew F, *Practical Business Statistics*. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., “*Business Statistics: A First Course*”, 4th Edition (2008), Pearson Education.



**MBA 202-18**  
**Legal Environment for Business**

**Course Objective:** The objective of this paper is to give an exposure to students about important commercial, corporate and taxation laws, so that they are able to relate the impact of these legal enactments on business in an integrated manner.

**UNIT-I**

**Introduction to Business Laws:-** Business Management and Jurisprudence; Structure of the Indian Legal Systems: sources of Law. **Law of Contract:** Definition, features of a valid contract, offer and Acceptance, Consideration, Capacity of parties, Free consent, Legality of Object, Performance and Discharge of Contract, breach of a contract and its remedies. Meaning and types of agents. Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity.

**UNIT-II**

**Sales of Goods Act-** Principles of Sales of Goods- Transfer of Ownership & Property- Performance of contract.

**Unit III**

**Partnership Act:** Introduction to Partnership Act, admission of partner, retirement and death of partner, dissolution of partnership firm.

**Negotiable Instrument:** Bills of Exchange, Promissory Note, Cheque and Rules Regarding the Crossing of Cheques, Dishonour of cheques and liability of banker and drawer.

**UNIT-IV**

**Company law:** Definition and features of company; concept of corporate veil; distinction between company and partnership firm; type of companies, Process of formation and incorporation of Company, Memorandum of Association and Articles of Association, Definition, qualification, rights, duties and position of Directors, Constitution of Board of Directors, Chairman of Board, independent and executive directors, Introduction to meetings and resolution.

**SUGGESTED READINGS:**

1. Bansal, C. L. 'Business Laws' Taxmann Publishers (Edition-2011)
2. Kuchhal, M. C. and Kuchhal, Vivek-'Business Legislations for Management' Vikas Publications (4<sup>th</sup> Edition 2014).
3. Maheshwari, S.N. and Maheshwari, S.K.-A Manual of Business Laws- Himalya Publishing House Pvt. Ltd. (7th Edition-2018)
4. Singhania, V. and K., Singhania, K. and Singhania, M. 'Direct Taxes – Law & Practice', Taxmann's Publication, Pvt. Ltd. (60<sup>th</sup> Edition 2018-19)



5. **Swain, Dr. Anil Kumar and Agrawal, Mr. Gopal Prasad**, GST Concepts and Applications, Himalya Publishing House Pvt. Ltd. (1<sup>st</sup> Edition-2018)
6. **Tulsian, P.C. and Tulsian, Bharat**, Business Laws, McGraw Hills Education, (3<sup>rd</sup> Edition-2014)

*Pm*



**MBA 203-18**  
**Marketing Management**

**Course Objective:** The course aims at making students understand concepts, philosophies, processes and techniques of managing the marketing operations of a firm in turbulent business environment. This course will provide better understanding of the complexities associated with marketing functions, strategies and provides students with the opportunity to apply the key concepts to practical business situations.

**Unit –I**

**Understanding Marketing and Consumers:** Introduction to Marketing Management. Definition, Importance, Scope, Basic Marketing Concepts, Marketing Mix, Marketing vs Selling, Customer Value, techniques and relevance. **Marketing Environment and Competition:** Analyzing Marketing Environment-Micro, Macro, Impact of environment on marketing. **Corporate Strategic Planning:** Defining role of marketing strategies, marketing planning process. **Marketing Information System:** Concept and Components. **Consumer Behaviour:** Consumer buying process, Factors Influencing Consumer Buying Behaviour,

**Unit –II**

**Market Segmentation & Targeting:** Product differentiation, Positioning for competitive advantage, Product Decisions: Product Mix, Packaging and Labelling Decisions, Branding, Brand value & Brand Equity. **New Product Development,** Consumer Adoption Process, Product Life Cycle and marketing mix strategies. **Services Marketing** and 7Ps framework. **Pricing Decisions:** Objectives, Factors Affecting Pricing Decisions, Pricing Methods, Price Changes, Pricing Strategies.

**Unit –III**

**Delivering and Promoting Product:** Supply Chain Decisions Nature, Types, Channel Design and Channel Management Decisions, Retailing, Wholesaling, **Personal Selling:** Personal Selling Process, Managing the Sales Force. **Promotion Mix:** Advertising, Sales Promotion, Public Relations. **Emerging Trends in Marketing:** Green Marketing, Event Marketing, Network Marketing, Social Marketing, Buzz Marketing/ Viral Marketing, Customer Relationship Management (CRM), Global Marketing, Rural Marketing, E-Commerce: Marketing In The Digital Age.

**Unit -IV**

**Bottom of Pyramid Marketing:** Understanding poverty and the Base of the Pyramid, understanding the BoP consumer: their basic needs wants and demands, Design-Develop-Distribute approach towards BoP. Consumption and marketing practices in BoP contexts: few challenges-The institutional context of BoP markets.-Conducting Marketing Research in BoP Markets-BoP Consumers and Producers-Producers and Entrepreneurs at the BoP. Concept of Informal Economy-Alternative Market initiatives at BoP-Ethical issues associated with BoP.

**Suggested Readings:**



- Kotler & Koshy, *Marketing Management*, Pearsons Education
- Ramaswamy & Namakumari, *Marketing Management*, McMillian.
- McMETzel, Walker, Stanton, and Pandit, *Marketing Management*, Tata McGraw Hill
- Kurtz & Boone, *Principles of Marketing*, Cengage Learning
- Kotler & Armstrong, *Principles of Marketing*, Prentice Hall
- Biplab S. Bose, *Marketing Management*, Himalaya Publications
- Subhash c. Jain, *Marketing Management*, Cengage Learning
- Rajan Saxena,, *Marketing Management*, Tata McGraw Hill.





## MBA 204-18

### Human Resource Management

**Course Objective:** The objective of the paper is to make student aware of the various functions and importance of HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization.

#### Unit I

**Human Resource Management (HRM):** Nature, Scope, Objectives and functions of HRM. Evolution of HRM, HR as a factor of competitive advantage. Organization of HR department, Line and staff responsibility of HR managers, competencies of HR Manager. Personnel Policies and Principles. **Strategic HRM:** Introduction, Integrating HR strategy with Business Strategy, Difference between SHRM and HRM. HRM Environment and Environment Scanning. **Human Resource Planning:** Meaning, Process and importance, factors affecting Human Resource Planning. **Job Analysis:** Process, methods of Job Description & Job Specification.

#### Unit 2

**Recruitment & Selection:** Meaning & Concept, Process & Methods Recruitment & Selection, Induction & Placement. **Training & Development:** Meaning & Concept of Training & Development, Methods of Training & Development, Evaluating training effectiveness. HRM vs. HRD. **Career Planning & Development:** concept of career, career planning, career development, process of career planning and development, factors affecting career choices, responsibilities of Employers / managers, organization and employees in career planning and development, career counseling. **Internal Mobility:** Promotion, Transfer, Demotion, Separation, downsizing and outplacement.

#### Unit 3

**Performance Appraisal:** Meaning & Concept of Performance Appraisal, Methods & Process of Performance Appraisal, Issues in Performance Appraisal, Potential Appraisal. **Compensation Management-** Concept and elements of compensation, Job evaluation, Wage / Salary fixation, Incentives Plans & Fringe Benefits. **Quality of work life (QWL):** Meaning, Concept, Techniques to improve QWL. Health, Safety & Employee Welfare, Social Security. **Quality Circles:** Concept, Structure, Role of Management, QCs in India.

#### Unit 4

**Industrial Relations:** Government's concerns, Union's concerns, Management concerns; Approaches of IR; Dispute Resolution Machinery. **Collective Bargaining:** Meaning, Scope, Objectives, Issues and Strategies, steps of collective bargaining, negotiation skills. Participative Management, Grievance Handling, Disciplining and Counseling of employees, HRIS, HR Audit. Ethical Issues in HRM. Human Resource Management practices in India.

**Suggested Readings:**





- Dessler, Gary, "Human Resource Management", New Delhi, Pearson Education Asia. 2017 15<sup>th</sup> Edition
- Aswathappa, K.. Human Resource Management, Text and Cases (7<sup>th</sup> ed.). Mc Graw Hill.
- Flippo, E. Human Resource Management (5<sup>th</sup> ed.). McGraw Hill.
- Ivancevich, J. Human Resource Management (12<sup>th</sup> ed.). Tata Mc Graw Hill.
- Gomez Mejia, L. Managing Human Resources (8<sup>th</sup> ed.). Pearson Education.
- Bratton, J. and Gold, J. Human Resource Management: Theory and Practice (6<sup>th</sup> ed.). Palgrave.
- Mirza S. Saiyadain. Human Resources Management (4<sup>th</sup> ed.). Tata McGraw Hill.
- Dale Yoder, Personal Management & Industrial Relations, Tata McGraw Hill



## MBA 205-18

### Production & Operations Management

**Course Objective:** It is a subject where a student learns various steps of product design, development, production, plant location, storage, production planning and control. The students are motivated to apply concepts and principles of management to become more effective professional

#### Unit- I

**Operations management:** concept, functions, transformation process model: inputs, process and outputs; classification of operations; responsibilities of operations manager, contribution of Henryford, Deming, Crossby, Taguchi.

**Facility Location** – importance, factors in location analysis, location analysis techniques. **Product Design and Development** – product design and its characteristics, product development process (technical), product development techniques. **Process selection-** project, job, batch, mass and process types of production systems. operations management in corporate profitability and competitiveness

#### Unit- II

**Facility Layout** – Objectives, Advantages, Basic Types of Layouts, Problems in facility layout. **Production Planning & Control (PPC):** –Concepts, Objectives, and Functions, work study – Productivity: Method study; Work measurement. **Capacity Planning** – Concepts, Factors affecting Capacity Planning, Capacity Planning Decisions.

#### Unit- III

**Quality Management:** Introduction, Meaning, Quality Characteristics of Goods and Services, Juran's Quality Trilogy, Deming's 14 principles, Tools and Techniques for Quality Improvement, Statistical Process Control Chart, Quality Assurance, Total Quality Management (TQM) Model Concept of Six Sigma and its Application. **Acceptance Sampling** – Meaning, Objectives, Single Sample, Double Sample and Multiple Sample Plans with sated risk, Control charts for variables – Averages and Ranges, Control Charts for Defectives – Fraction Defective and Numbers Defective.

#### Unit- IV

**JIT and Lean Production System:** JIT Approach, Implementation requirements, Services, Kanban System. **Inventory Management:** Concepts, Classification, Objectives, Factors affecting Inventory Control Policy, Inventory Costs, Basic EOQ Model, Re-order level, ABC analysis. Logistics and Franchising. **Purchasing Management** – Objectives, Functions, Methods, Procedure.

**Value Analysis:** Concepts, Stock Control Systems, Virtual Factory Concept and Production Worksheets.

Note : Relevant Case Studies should be discussed in class.



**Suggested Readings / Books:**

- Mahadevan B, Operations Management: Theory and Practice (2nd Ed.). Pearson Education
- Krajewski & Ritzman, Operations Management (5<sup>th</sup> Ed.) Pearson Education
- Buffa & Sarin, Modern Production/Operations Management, (8<sup>th</sup> Ed.) John Wiley
- Chary, Production and Operations Management, Tata McGraw-Hill
- Johnston R et al , Cases in Operations Management, Pitman
- McGregor D, Operations Management, McGraw-Hill
- Nair, Production & Operations Management. Tata McGraw





## MBA 206-18

### Corporate Finance and Indian Financial System

To provide an in-depth understanding of the core finance functions and decisions in the area of corporate financial management. Further provide a practical and problem insight for effective financial decision-making.

#### Unit-I

**Introduction to Financial Management and Corporate Finance:** Meaning, nature, evolution, objectives, functions and scope of corporate finance. Interface of financial management with other functional areas, environment of corporate finance, functions and role of financial manager.

**Time Value of Money-**Introduction, types of cash flows, future value of single cash flow, multiple flows and Annuity.

**Valuation of Securities:** Concept of Valuation, Methods for valuation of equity, debt and hybrid securities.

#### Unit-II

**Capital Structure Decision-Capital Structure Theories:** Meaning and features of capital structure decision, Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani-Miller Hypotheses with special reference to the process of arbitrage and Agency Cost.

**Capital Budgeting Decision:** Nature of investment decisions; process of capital budgeting, investment evaluation criteria: Discounted and Non-Discounted Methods (Pay-Back Period, Average rate of return, Net Present Value, Benefit Cost Ratio and Internal Rate of Return). Risk analysis in capital budgeting and Capital rationing.

#### Unit-III

**Dividend Decision-:** Issues in dividend decisions. forms of dividend, theories of relevance and irrelevance of dividends.

**Management of Working Capital:** Meaning, nature, objectives and Approaches of Working Capital (Conservative, Matching and Aggressive approaches), Static vs. Dynamic View of Working Capital. Factors determining the amount and composition of Working Capital .Methods for financing of working capital.

#### Unit-IV

**Introduction to Financial System:** Overview, evolution of Indian financial system. Structure and functions of Indian financial system. Financial sector reforms-major reforms in the last decade. **Financial Institutions:** Introduction to Reserve Bank of India, Securities and Exchange Board of India, Insurance Regulatory and Development Authority of India, Introduction to commercial banks, co-operative banks, NBFCs, insurance companies, mutual funds, stock exchanges, commodity exchanges, and Depositories.

**Financial Markets:** Introduction, evolution, capital market and money market, functions and operations of primary market and secondary market. **Financial Instruments:** Shares, Debentures, Bonds, Money Market Instruments, Derivatives, Global Depository Receipts, Foreign Currency Convertible Bonds



### Suggested Readings:

1. Pandey, I. M. (2015). Financial Management, 11<sup>th</sup> Edition. Vikas Publishing House.
2. Khan, MY. and Jain, PK. (2014). Financial Management, 7<sup>th</sup> Edition. Tata McGraw Hill, New Delhi.
3. Chandra, Prasanna. (2015). Financial Management: Theory and Practice, 9<sup>th</sup> Edition. Tata McGraw Hill, Delhi.
4. Van Horne. J.C. and J.M. Wachowicz. (2015). Fundamentals of Financial Management, 13<sup>th</sup> Edition. Prentice Hall, Delhi.
5. Brealey, Richard A; Stewart, C. Myers and Allen, F. (2017). Principles of Corporate Finance, 11<sup>th</sup> Edition. McGraw Hill, New York.
6. Bhole, L. M. (2017). Financial Institutions and Markets, 6<sup>th</sup> Edition. McGraw Hill.
7. Srivastava, R. M and Divya, N. (2014). Management of Indian Financial Institutions, 9<sup>th</sup> Edition. Himalaya Publishing House.
8. Varshney, P. N. and Mittal, DK. (2010). Indian Financial System, 11<sup>th</sup> Edition. Sultan Chand & Sons.





## MBA 207-18

### Entrepreneurship Development and Project Management

**Course Objective:** To provide a comprehensive understanding of the concept of an Entrepreneur and intricacies involved in managing entrepreneurial projects. The prime aim is to imbibe the necessary entrepreneurial competencies among students and motivate them choose Entrepreneurship as a feasible and desirable career option.

#### Unit I

**Introduction to Entrepreneur:** Concept, Characteristics, functions of an entrepreneur, Entrepreneur Vs Manager, Types of entrepreneur, Entrepreneurial Mind Set, Key attributes of an entrepreneur, desirable and acquirable traits and behaviours, Readiness of the entrepreneur: Right age, right time and right conditions, Myths and Realities of entrepreneurship. **Entrepreneurship and Intrapreneurship:** Similarities and variance, Developing Corporate Entrepreneurship. **Women entrepreneurs:-** Meaning, role, problems for women entrepreneurs, **Rural entrepreneurship, social entrepreneurship,** Entrepreneurship Development, Entrepreneurial support systems and role of government in Entrepreneurship Development..

#### Unit II

**Entrepreneurial Motivation:** Concept and Theories, **Entrepreneurial Strategy: Generating and Exploiting New Entry Opportunities,** Generation of new Entry Opportunity, entry Strategy, Risk reduction strategies for New Entry Exploitation

**Creativity and Business Idea Generation:** Concept of creativity, ideas from trend analysis, sources of new ideas, Methods of generating new ideas, Creative problem solving, creativity and entrepreneurship. **Entrepreneurial Innovation:** Concept and types, Opportunity Recognition and opportunity assessment plan, product planning and development process..

#### Unit III

**Protecting Ideas and Legal issues for the entrepreneur.** Concept of IPR, Patents, Trademarks, Copyrights, Licensing, Product Safety, Other Legal Issues in Setting Up An Organisation.

**Business Plan Creating and Starting the Venture:** Concept of Business Plan, Scope and Value, Writing the business plan, Using and implementing business plan. **Succession Planning and Strategies for Harvesting and Ending Venture:** Exit Strategy , succession of Business, Selling off, bankruptcy

**Reasons of failure of business plan,** Reasons for the failure of entrepreneurial ventures.

#### Unit IV

**Project Management:** Concept, facets and Key Issues of project management. **Generation and screening of project ideas, Project Analysis:** Market and demand analysis, Technical analysis, Financial estimates and projection, **Project Selection:** Investment criteria, Risk analysis, Social Cost Benefit analysis.

**Project Financing:** Financing of projects, Concept of Venture Capital in detail, Difference between Venture Capital and Private Equity. **Project Implementation:** Project planning and control, Network techniques for project management: PERT and CPM Models, **Project Review:** Post Audit and Administrative Aspects.





**Relevant case studies related to the topics should be discussed.**

**Suggested readings:**

- Chandra, P. (2017). *Projects: Preparation, Appraisal, Budgeting and Implementation*. New Delhi: 8<sup>th</sup> Edition, Tata Mcgraw .
- Desai, V. (2017). *Project Management and Entrepreneurship*. New Delhi: 2<sup>nd</sup> Edition, Himalaya Publishing House.
- Fyffe, D. S. (2001). *Project Feasibility Analysis*. New York: John Wiley and Sons.
- Hisrich, R. D, Peters, M.P, and Shephers, D.A.(2016). *Entrepreneurship*. New Delhi: 10<sup>th</sup> Edition, Tata mc graw.
- Mohanty, Sangram Keshari (2017). *Fundamentals of Entrepreneurship*, Revised Edition, PHI Learning Pvt Ltd.
- Natrajan, K. and Gordon, E. (2017). *Entrepreneurship Development*. New Delhi: 6<sup>th</sup> Edition , Himalaya Publishing House.
- Chandra, P. (2017). *Projects: Preparation, Appraisal, Budgeting and Implementation*.



## MBAGE 201-18

### Computer Applications for Business

**Course Objective:** The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows -XP and MS -Office.

#### Unit I

**Introduction to Computer:** Definition of Computer, Features of Modern Computer, Classification of Computer on the Basis of Generation.

**Components of Computer:** Input Unit, Output unit, Central Processing Unit Various Input Devices and Output Devices, Internal and External Memory Storage, RAM, ROM, PROM, EPROM, Hard Disc, Magnetic Tapes

#### Unit II

**Operating System:** Concepts, Definition of Operating System (as Resource Manager, Processor Manager and Information Manager)

**Window:** Introduction to Window (Working of Windows, Manipulation of Icon, Menus and opening different applications simultaneously), Various Versions of Windows, Basic commands of windows (Creating, Moving, Renaming, Deleting Files/Folders). **MS-Office:** Introduction, Components of Office.

#### Unit III

**MS-Word:** History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections.

Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

**MS-PowerPoint:** History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

#### Unit IV

**MS-Excel:** Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

**MS Access:** Introduction to Data Base and Access: Viewing and Editing Data; Sorting and Indexing Printing Reports and Labels, Managing Multiple Tables. Forms, Queries, Reports.



### **Suggested Readings:**

- Ram, B.(2018).*Computer Fundamentals Architecture and Organization*. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017).*Foundation of computing*. New Delhi: BPB Publications.
- Arora, A.(2015) *Computer fundamentals and applications*. Vikas Publishing.
- Rajaraman, V.(2014).*Fundamentals of Computers*. Delhi: Prentice-Hall.
- Roger,J. (2010).*Microsoft Access2010*.Delhi:PearsonEducation.
- Forouzan,(2009).*Basics of Computer Science*. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) *Designing and Managing the Supply Chain*. McGraw Hill
- Turban. E., Aronson JE., Liang, TP. (2005). *Decision Support Systems and Intelligent Systems* (7th Edition). Pearson Publishers.





**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

### Unit I

**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.

**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, Judgement Sampling and Convenience Sampling.

### Unit II

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

### Unit III

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

**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.

### Unit IV

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).





**IK Gujral Punjab Technical University**

**BBA**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve.Calculation of Probabilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**IK Gujral Punjab Technical University**

**BBA**

**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector-**Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Francis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.

**BBAGE 201-18 Managerial Economics-II**



## IK Gujral Punjab Technical University

### BBA

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

#### Unit I

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

#### Unit II

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Okun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

#### Unit III

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

#### Unit IV

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

#### SUGGESTED READINGS:

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.

AECC

EVS102-18 Environment Studies





**IK Gujral Punjab Technical University**  
**BBA**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.  
(2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
  - a) Forest ecosystem
  - b) Grassland ecosystem
  - c) Desert ecosystem
  - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)(6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.  
(8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.  
(8 lectures)

**Unit 5 : Environmental Pollution**





**IK Gujral Punjab Technical University**

**BBA**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36--37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29--64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.



**IK Gujral Punjab Technical University**

**BBA**

9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzuhl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

**Part – A**



**IK Gujral Punjab Technical University**

**BBA**

**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**

**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.





**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required). Conditional Probability and Bayes' Theorem (Proof not required).



**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice–Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**

**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**Unit I**

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.





**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.

**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**

**AECC**  
**EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.





**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**

- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.





**I.K.G. Punjab Technical University**  
**BBA (Business Economics)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.



**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A  
(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B  
(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



**I.K.G. Punjab Technical University**  
**BBA (Events Management)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision-making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).





**I.K.G. Punjab Technical University**  
**BBA (Events Management)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice–Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**I.K.G. Punjab Technical University**  
**BBA (Events Management)**

**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector-Changing Role of Public Sector -** Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.



**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Okun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.



**I.K.G. Punjab Technical University**  
**BBA (Events Management)**

**AECC**  
**EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources. use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.



**I.K.G. Punjab Technical University**  
**BBA (Events Management)**

- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.





**I.K.G. Punjab Technical University**  
**BBA (Events Management)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

DR. PRADEEP K. SHARMA, I.K.G. PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

\* *Voices from the Tropics*: John Wiley & Sons





**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A**  
**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**  
**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

4. Quiz (General/Technical)

**I.K.G. Punjab Technical University**  
**BBA (Rural Development)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).



**I.K.G. Punjab Technical University  
BBA (Rural Development)**

**Probabability Distribution:** Binomial Distribution: Prbabability Distribution function, Constants, Shape, Fitting of Binomial Distribution, Poission Distribution: Probbability Function (including Poission approximation to binomial distribution) Constatnts, Fitting of Poission Distribution, Normal Distribution: Probabability Distribution Function, Properties of Normal Curve, Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.





**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages.WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.

**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Okun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
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5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.





**I.K.G. Punjab Technical University  
BBA (Rural Development)**

**AECC  
EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.





**I.K.G. Punjab Technical University  
BBA (Rural Development)**

- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- **Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.**
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. II. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. **Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.**



**I.K.G. Punjab Technical University**  
**BBA (Rural Development)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
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10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.



**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A  
(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B  
(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.





**I.K.G. Punjab Technical University**  
**BBA (Service Industry Management)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).



**I.K.G. Punjab Technical University**  
**BBA (Service Industry Management)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice–Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages.WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.



**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.



AECC  
EVS102-18 Environment Studies

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of **alternate energy sources, growing energy needs, case studies.**
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.





**I.K.G. Punjab Technical University**  
**BBA (Service Industry Management)**

- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.





**L.K.G. Punjab Technical University**  
**BBA (Service Industry Management)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
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9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
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14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.



**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A**  
**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**  
**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



**I.K.G. Punjab Technical University**  
**BBA (Retail Management)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required). Conditional Probability and Bayes' Theorem (Proof not required).





**I.K.G. Punjab Technical University**  
**BBA (Retail Management)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B. Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**I.K.G. Punjab Technical University  
BBA (Retail Management)**

**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.



**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.



**I.K.G. Punjab Technical University  
BBA (Retail Management)**

**AECC  
EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.



**I.K.G. Punjab Technical University**  
**BBA (Retail Management)**

- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.



- Study of common plants, insects, birds and basic principles of identification.



**I.K.G. Punjab Technical University  
BBA (Retail Management)**

**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A  
(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B  
(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.





**I.K.G. Punjab Technical University**  
**BBA (Health, Spa & Resort)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required); Conditional Probability and Bayes' Theorem (Proof not required).



**I.K.G. Punjab Technical University**  
**BBA (Health, Spa & Resort)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.



**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages.WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.





**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation **Meaning and types of unemployment. - Cost of unemployment and Oakun's Law** Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy –** Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy–Public Finance–Tax system in India–** Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.

I.K.G. Punjab Technical University  
BBA (Health, Spa & Resort)

AECC  
EVS102-18 Environment Studies

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non-renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.



**I.K.G. Punjab Technical University**  
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- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.





**I.K.G. Punjab Technical University**  
**BBA (Health, Spa & Resort)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.



**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A**  
**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**  
**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



**I.K.G. Punjab Technical University**  
**BBA (Sales, Marketing, Advertising & PR)**  
**BBA 201-18 Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).





**I.K.G. Punjab Technical University**  
**BBA (Sales, Marketing, Advertising & PR)**

**Probabability Distribution:** Binomial Distribution:Prbabability Distribution function,Constants,Shape ,Fitting of Binomial Distribution, Poission Distribution:Probbability Function (including Poission approximation to binomial distribution) Constatnts,Fitting of Poission Distribution, Normal Distribution:Probabability Distribution Function,Properties of Normal Curve,Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. “*Statistics for Management*”. Prentice Hall of India, New Delhi.
2. Chandan, J.S., “*Statistics for Business and Economics*”, Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., “*Quantitative Analysis for Management*”, Prentice–Hall of India, New Delhi.
4. Gupta C B, Gupta V, “*An Introduction to Statistical Methods*”, Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.

*Statistics: A First Course*, Pearson Education.



**BBA202-18 Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector**-Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.



**BBAGE 201-18 Managerial Economics-II**

**Course Objectives:** The objective of this paper is to equip the students with a framework that will be useful for understanding broad features of the behaviour of macroeconomic situation of an economy for better decision making.

**Unit I**

**National Income:** Measuring National Income. Problems in the measurement of National Income. **Theories of Money:** Nature and functions of money – Types of money: Near money, inside money and outside money. Theories of demand for money – defining demand for money – Classical theories of demand for money – Friedman's re-statement of Quantity Theory of Money; Liquidity preference theory and Keynesian Liquidity Trap. Theories of Supply of money; Defining supply of money; Measuring supply of money.

**Unit II**

**Theories of Inflation and Unemployment:** Meaning, Types and Theories of Inflation. - Cost of inflation and sacrifice ratio. - Measurement of Inflation in India - Policies to control inflation Meaning and types of unemployment. - Cost of unemployment and Oakun's Law Measurement of unemployment in India. - Concept of Stagflation - Concept of Philips Curve.

**Unit III**

**Business cycle:** Meaning, types and phases. **Monetary, Fiscal and Income policy** – Meaning and instruments. **Multiplier:** Concept, Features and Leakages. Foreign trade multiplier.

**Unit IV**

**Macro-economic Framework in Indian Economy**–Public Finance–Tax system in India–Financial Administration: Finance Commission.

**SUGGESTED READINGS:**

1. Ahuja, H.L. (2015) *Macroeconomics-Theory and Policy*. New Delhi: Sultan Chand.
2. Jhingan, M.L. (2016) *Macro Economic Theory*. Delhi: Vrinda Publications Pvt. Ltd
3. Dwivedi, D.N. (2017) *Macroeconomics: Theory and Practice: Theory & Practice*. New Delhi: McGraw Hill.
4. Jain, T.R., Khanna, O.P. (2014) *Managerial Economics*: V.K. Publications
5. Dewett, K.K., Navalur, M.H., (2006) *Modern Economic Theory*: New Delhi: Sultan Chand.



**AECC**  
**EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions: Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.



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- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R.1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999.*Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll.*Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.





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**BBA (Sales, Marketing, Advertising & PR)**

7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.





**I.K.G. Punjab Technical University  
BBA (Sales, Marketing, Advertising & PR)**

**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

**Part – A  
(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B  
(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**  
**BCOM 201-18**  
**Cost Accounting**

**Course Objective:** The main aim of this Paper is to familiarize the students with the basics of Cost Accounting and acquaint them with the application of Cost Accounting tools and techniques to aid managerial decision-making. It also aims at making them aware of various latest developments in this field.

**UNIT I**

**Cost Accounting: Meaning,** Objectives, Nature and Scope, . Comparison between Cost, financial and management accounting – Application of Cost Accounting – Designing and Installation of Cost Accounting System –**Cost Concepts:** Cost Classification, Cost Unit – Cost Center –Elements of Cost –Preparation of Cost Sheet, Tenders and Quotations

**UNIT-II**

**Material:** Purchase, Storage and Material Control, Setting of Levels of Stock, Inventory Control Techniques. Methods of Pricing Material Issues. **Labour:** Meaning and Components of Labour Cost. Accounting and Control of Idle time and Overtime. Methods of Wage Payment and Incentive Plans, Labour Turnover, **Overheads:** Collection, Classification, Allocation, Apportionment and Absorption of Overheads, Machine Hour Rate.

**UNIT III:**

**Reconciliation of Cost and Financial Accounts:** Need for reconciliation – Reasons for difference in profits – Problems on preparation of Reconciliation statements, **Methods of Costing:** Process Costing, Contract Costing, **Marginal Costing and Cost-Volume Profit Analysis (Basics)**

**UNIT IV**

**Budgetary Control:** Concept, Classification, Cash and flexible budgets, Zero Base Budgeting.

**Contemporary Developments in Costing:** Activity-Based Costing, Just In Time (JIT), Target Costing , Life Cycle Costing, Value Analysis, Kaizen Costing, Total Quality Management, Back-flush Costing.

**SUGGESTED READINGS:**

**UNIT-I**

- Arora, M. N. (2017). *Cost Accounting: Principles & Practice. 12<sup>th</sup> Edition,* Vikas publishing house.
- Dutta , M. (2013), *Cost Accounting – Principles & Practice, 12<sup>th</sup> Edition,* Pearson
- Horngren, C. T. (2017). *Cost accounting: A Managerial Emphasis, 16<sup>th</sup> Edition* Pearson Education India.
- Jain S.P & Narang K.L. (2017). *Advanced Cost Accounting, 17/e,* Kalyani Publishers.



**SUGGESTED READINGS:**

**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**

- Jain, P. K. & Khan, M,Y,(2017). *Cost Accounting. 2<sup>nd</sup> Edition*, Tata McGraw-Hill Education.
- Kishore, R. M. (2016). *Cost and Management Accounting.6<sup>th</sup> Edition*, Taxmann Publications.
- Kishore, R. M. (2017). *Strategic Cost Management. 5<sup>th</sup> Edition*, Taxmann Publications.
- Lall, Nigam and Jain I.C. (2013). *Cost Accounting, Principles, Methods and Techniques*, PHI Pvt. Ltd, New Delhi.
- Saxena VK & Vashist CD (2015). *Advanced Cost & Management Accounting*, Sultan Chand.





**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**  
**BCOM 202-18**  
**Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector-** Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.



**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**  
**BCOM GE201-18**  
**Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Systemetic Sampling, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

**Simple Correlation Analysis:** Meaning of Correlation, Simple, multiple and partial, linear and non linear correlation, correlation and causation, scatter diagram, pearson's correlation coefficient and Rank Correlation.

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).



**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**

**Probabability Distribution:** Binomial Distribution: Prbabability Distribution function, Constants, Shape, Fitting of Binomial Distribution, Poission Distribution: Probbability Function (including Poission approximation to binomial distribution) Constatnts, Fitting of Poission Distribution, Normal Distribution: Probabability Distribution Function, Properties of Normal Curve, Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics*. International Edition, McGraw Hill
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., *Business Statistics: A First Course*, Pearson Education.





**I.K.G. Punjab Technical University**  
**Bachelor of Commerce (Hons.)**  
**AECC**  
**EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
- Scope and importance; Concept of sustainability and sustainable development.  
(2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
  - a) Forest ecosystem
  - b) Grassland ecosystem
  - c) Desert ecosystem
  - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)(6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
- Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.  
(8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.



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(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates. 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36--37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29--64). Zed Books.



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8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.





**I.K.G. Punjab Technical University**  
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**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.  
For achieving the above, suggestive list of activities to be conducted are:

**Part – A**  
**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**  
**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



**I.K.G. Punjab Technical University**  
**Bachelor of E-commerce**  
**BCOM 201-18**  
**Cost Accounting**

**Course Objective:** The main aim of this Paper is to familiarize the students with the basics of Cost Accounting and acquaint them with the application of Cost Accounting tools and techniques to aid managerial decision-making. It also aims at making them aware of various latest developments in this field.

**UNIT I**

**Cost Accounting: Meaning, Objectives, Nature and Scope, , Comparison between Cost, financial and management accounting – Application of Cost Accounting – Designing and Installation of Cost Accounting System –Cost Concepts: Cost Classification, Cost Unit – Cost Center –Elements of Cost –Preparation of Cost Sheet, Tenders and Quotations**

**UNIT-II**

**Material:** Purchase, Storage and Material Control, Setting of Levels of Stock, Inventory Control Techniques. Methods of Pricing Material Issues. **Labour:** Meaning and Components of Labour Cost. Accounting and Control of Idle time and Overtime. Methods of Wage Payment and Incentive Plans, Labour Turnover, **Overheads:** Collection, Classification, Allocation, Apportionment and Absorption of Overheads, Machine Hour Rate.

**UNIT III:**

**Reconciliation of Cost and Financial Accounts:** Need for reconciliation – Reasons for difference in profits – Problems on preparation of Reconciliation statements. **Methods of Costing:** Process Costing, Contract Costing, **Marginal Costing and Cost-Volume Profit Analysis (Basics)**

**UNIT IV**

**Budgetary Control:** Concept, Classification, Cash and flexible budgets, Zero Base Budgeting.

**Contemporary Developments in Costing:.** Activity-Based Costing, Just In Time (JIT), Target Costing , Life Cycle Costing, Value Analysis, Kaizen Costing, Total Quality Management, Back-flush Costing.

**SUGGESTED READINGS:**

- Arora, M. N. (2017). *Cost Accounting: Principles & Practice. 12<sup>th</sup> Edition,* Vikas publishing house.
- Dutta , M. (2013), *Cost Accounting – Principles & Practice, 12<sup>th</sup> Edition,* Pearson
- Horngren, C. T. (2017). *Cost accounting: A Managerial Emphasis, 16<sup>th</sup> Edition* Pearson Education India.
- Jain S.P & Narang K.L. (2017). *Advanced Cost Accounting, 17/e,* Kalyani Publishers.



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- Jain, P. K. & Khan, M,Y,(2017). *Cost Accounting. 2<sup>nd</sup> Edition*, Tata McGraw-Hill Education.
- Kishore, R. M. (2016). *Cost and Management Accounting.6<sup>th</sup> Edition*, Taxmann Publications.
- Kishore, R. M. (2017). *Strategic Cost Management. 5<sup>th</sup> Edition*, Taxmann Publications.
- Lall, Nigam and Jain I.C. (2013). *Cost Accounting, Principles, Methods and Techniques*, PHI Pvt. Ltd, New Delhi.
- Saxena VK & Vashist CD (2015). *Advanced Cost & Management Accounting*, Sultan Chand.





**I.K.G. Punjab Technical University**  
**Bachelor of E-commerce**  
**BCOM 202-18**  
**Business Environment**

**Course Objective:** The objective of this paper is to acquaint students with the issues of business environment in which corporate sector has to operate. It will also familiarize them with the techniques available for scanning and monitoring the environment. It also aims at providing some basic knowledge about international environment pertaining to business.

**Unit I**

**Introduction to Business Environment:** Nature and Significance Business Environment. Components of Business Environment, Techniques of Environment Scanning. **Economic Environment of Business:** Economic Systems. Economic Planning in India, Brief idea of Industrial Policy, Fiscal policy, Monetary policy and EXIM policy.

**Unit II**

**Political and Legal Environment of Business:** Three political institutions: Legislature, Executive and Judiciary. Foreign Exchange Management Act (FEMA), Consumer Protection Act. Introduction to Liberalization, Privatization and Globalization: Factors facilitating and impeding globalization in India.

**Unit III**

**Socio- Cultural Environment:** Critical elements of socio-cultural Environment. Social responsibility of business. Business Ethics and Corporate Social Responsibility. **Public Sector-** Changing Role of Public Sector - Relevance of public sector – Public Sector reforms. Regulatory framework with reference to Banking and Security Market. Technological Environment.

**Unit IV**

**International Business Environment:** Multinational Corporations-Benefits and Problems. Mergers and acquisitions - reasons - trends - Advantages and Disadvantages. WTO ,Consequences of WTO for India. IMF. Regional Groupings.

**SUGGESTED READINGS:**

- Aswathappa, K : Essentials of Business Environment-Text, Cases and Exercises - Himalya Publishing House(13<sup>th</sup> Revised Edition-2016)
- Cherunilam, Fransis– Business Environment- Text and Cases ,Himalya Publishing House Pvt. Ltd.(20<sup>th</sup> Edition-2011)
- Paul, Justin-Business Environment- Text and Cases-McGraw Hill Education (India) Private Limited.(4<sup>th</sup> Revised Edition-2018)
- Ramachandara, Archana and Ravi-Business Environment. Himalya Publishing House Pvt. Ltd.(New Edition-2017)
- Sheikh, Saleem and Sahu Jayadev, Business Environment, Pearson.

Technological Environment



**I.K.G. Punjab Technical University**  
**Bachelor of E-commerce**  
**BCOM GE201-18**  
**Business Statistics**

**Course Objective:** The course aims to familiarize students with the basic statistical tools used to summarize and analyze quantitative information for decision making. Analysis of numbers is required for taking decisions related to every aspect of business.

**Unit I**

**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.

**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, Judgement Sampling and Convenience Sampling.

**Unit II**

**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.

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

**Sampling Distribution:** Concept of Sampling Distribution, Formulation of Sampling Distribution of Mean and Sampling distribution of standard deviation/Variance.

**Unit III**

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

**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.

**Unit IV**

**Theory of Probability:** Meaning of Probability, Approaches to the calculation of probability, calculation of event probabilities, Addition and Multiplication, Laws of Probability (Proof not required), Conditional Probability and Bayes' Theorem (Proof not required).



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**Bachelor of E-commerce**

**Probabability Distribution:** Binomial Distribution: Prbabability Distribution function, Constants, Shape, Fitting of Binomial Distribution, Poission Distribution: Probbability Function (including Poission approximation to binomial distribution) Constatnts, Fitting of Poission Distribution, Normal Distribution: Probabability Distribution Function, Properties of Normal Curve, Calculation of Probababilities.

**Suggested Readings:**

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". Prentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", Vikas Publications.
5. Siegel, Andrew F, "*Practical Business Statistics. International Edition, McGraw Hill*"
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., "*Business Statistics: A First Course*", Pearson Education.

5. Siegel, Andrew F, "*Practical Business Statistics. International Edition, McGraw Hill*"





**I.K.G. Punjab Technical University**  
**Bachelor of E-commerce**  
**AECC**  
**EVS102-18 Environment Studies**

**Course Outcomes:**

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

**Unit 1 : Introduction to environmental studies**

- Multidisciplinary nature of environmental studies;
  - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

**Unit 2 : Ecosystems**

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
    - a) Forest ecosystem
    - b) Grassland ecosystem
    - c) Desert ecosystem
    - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
- (6 lectures)

**Unit 3 : Natural Resources : Renewable and Non---renewable Resources**

- Land resources and land use change; Land degradation, soil erosion and desertification.
  - Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
  - Water : Use and over---exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter---state).
  - Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
- (8 lectures)

**Unit 4 : Biodiversity and Conservation**

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega---biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man---wildlife conflicts, biological invasions; Conservation of biodiversity : In---situ and Ex---situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

• Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.



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(8 lectures)

**Unit 5 : Environmental Pollution**

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.

(8 lectures)

**Unit 6: Environmental Policies & Practices**

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

**Unit 7: Human Communities and the Environment**

- **Human population growth; Impacts on environment, human health and welfare.**
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

**Unit 8 : Field work**

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

**Suggested Readings:**

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36--37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29--64). Zed Books.



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8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzuhl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India. Tripathi 1992*.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.





**I.K.G. Punjab Technical University**  
**Bachelor of E-commerce**  
**BMPD202-18 Mentoring and Professional Development**

**Guidelines regarding Mentoring and Professional Development**

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

**Part – A**  
**(Class Activities)**

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

**Part – B**  
**(Outdoor Activities)**

4. Sports/NSS/NCC
5. Field Project
6. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

**Note:** Evaluation shall be based on rubrics for Part – A & B.

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.



14.12.2018

## MBA 201-18

### Business Analytics for Decision Making

**Course Objective:** The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision making.

#### Unit I

**Introduction to Statistics:** Meaning, Importance, Applications of inferential statistics in managerial decision making. **Collection of Data:** concept of primary data and secondary data, sources of primary data and secondary data, **Classification and Tabulation of Data:** Concept and types of classification, construction of frequency distributions, tabulation of data: role of tabulation, parts of table, rules of tabulation, review of table, types of table.

**Sampling:** Concept, definitions, census and sampling, probability and non probability methods of sampling, relationship between sample size and errors.

#### Unit II

**Sampling Distributions:** Concept and standard error.

**Hypothesis Testing:** Formulation of hypothesis, procedure of hypothesis testing, errors in testing of hypothesis, tests of significance for large samples, tests of significance for small samples, application of t-test, Z-test, F-test and Chi-square test and Goodness of fit, ANOVA.

Techniques of association of attributes.

#### Unit III

**Business Forecasting:** Introduction, Role of forecasting in business, Steps in forecasting and methods of forecasting.

**Correlation:** Partial and Multiple correlation.

**Regression Analysis:** Multiple regression analysis, Testing the assumptions of regression: multicollinearity, heteroscedasticity and autocorrelation.

#### Unit IV

**Index Number:** Definition, importance of index number in managerial decision making, methods of construction, tests of consistency, base shifting, splicing and deflation, problems in construction.

**Time Series Analysis:** Meaning, component and, methods of time series analysis. Trend analysis: Least square method, linear and non linear equations, applications of time series in business decision making.

**Suggested Readings:**



- Levins, Krehbiel, *Business Statistics*, Pearson Berenson
- Levin & Rubin, *Statistics for Management*, Prentice Hall
- S P Gupta, *Statistical Methods*, Sultan Chand
- Beri, *Business Statistics*, Tata Mc Graw Hill
- Croucher, *Statistics: Making Business Decisions*, Tata McGraw Hill
- C.R. Reddy, *Quantitative Techniques for Management Decisions*, Himalaya Publishing
- Anderson *Statistics for Business & Economics*, Cengage Learning
- Levin, Richard and David S. Rubin. "*Statistics for Management*". 7th Edition, Prentice Hall of India, New Delhi.
- Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", 7th Edition, Prentice–Hall of India, New Delhi.
- Siegel, Andrew F, *Practical Business Statistics*. International Edition, 5th Edition (2001), McGraw Hill Irwin.
- Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., "*Business Statistics: A First Course*", 4th Edition (2008), Pearson Education.





**MBA 202-18**  
**Legal Environment for Business**

**Course Objective:** The objective of this paper is to give an exposure to students about important commercial, corporate and taxation laws, so that they are able to relate the impact of these legal enactments on business in an integrated manner.

**UNIT-I**

**Introduction to Business Laws:-** Business Management and Jurisprudence; Structure of the Indian Legal Systems: sources of Law. **Law of Contract:** Definition, features of a valid contract, offer and Acceptance, Consideration, Capacity of parties, Free consent, Legality of Object, Performance and Discharge of Contract, breach of a contract and its remedies. Meaning and types of agents. Special Contracts-Laws of Agency; Principal-Agent Problem-Bailment, Pledge, Guarantee and Indemnity.

**UNIT-II**

**Sales of Goods Act-** Principles of Sales of Goods- Transfer of Ownership & Property-Performance of contract.

**Unit III**

**Partnership Act:** Introduction to Partnership Act, admission of partner, retirement and death of partner, dissolution of partnership firm.

**Negotiable Instrument:** Bills of Exchange, Promissory Note, Cheque and Rules Regarding the Crossing of Cheques, Dishonour of cheques and liability of banker and drawer.

**UNIT-IV**

**Company law:** Definition and features of company; concept of corporate veil; distinction between company and partnership firm; type of companies, Process of formation and incorporation of Company, Memorandum of Association and Articles of Association, Definition, qualification, rights, duties and position of Directors, Constitution of Board of Directors, Chairman of Board, independent and executive directors, Introduction to meetings and resolution.

**SUGGESTED READINGS:**

1. Bansal, C. L. 'Business Laws' Taxmann Publishers (Edition-2011)
2. Kuchhal, M. C. and Kuchhal, Vivek-'Business Legislations for Management' Vikas Publications (4<sup>th</sup> Edition 2014).
3. Maheshwari, S.N. and Maheshwari, S.K.-A Manual of Business Laws- Himalya Publishing House Pvt. Ltd. (7<sup>th</sup> Edition-2018)
4. Singhania, V. and K., Singhania, K. and Singhania, M. 'Direct Taxes – Law & Practice', Taxmann's Publication, Pvt. Ltd. (60<sup>th</sup> Edition 2018-19)



5. **Swain , Dr. Anil Kumar and Agrawal, Mr. Gopal Prasad**, GST Concepts and Applications,Himalya Publishing House Pvt. Ltd. (1<sup>st</sup>Edition-2018)
6. Tulsian,P.C. and Tulsian, Bharat, Business Laws, McGraw Hills Education, (3<sup>rd</sup>Edition-2014)



**MBA 203-18**  
**Marketing Management**

**Course Objective:** The course aims at making students understand concepts, philosophies, processes and techniques of managing the marketing operations of a firm in turbulent business environment. This course will provide better understanding of the complexities associated with marketing functions, strategies and provides students with the opportunity to apply the key concepts to practical business situations.

**Unit –I**

**Understanding Marketing and Consumers:** Introduction to Marketing Management. Definition, Importance, Scope, Basic Marketing Concepts, Marketing Mix, Marketing vs Selling, Customer Value, techniques and relevance. **Marketing Environment and Competition:** Analyzing Marketing Environment-Micro, Macro, Impact of environment on marketing. **Corporate Strategic Planning:** Defining role of marketing strategies, marketing planning process. **Marketing Information System:** Concept and Components. **Consumer Behaviour:** Consumer buying process, Factors Influencing Consumer Buying Behaviour,

**Unit –II**

**Market Segmentation & Targeting:** Product differentiation, Positioning for competitive advantage, Product Decisions: Product Mix, Packaging and Labelling Decisions, Branding, Brand value & Brand Equity. **New Product Development,** Consumer Adoption Process, Product Life Cycle and marketing mix strategies. **Services Marketing** and 7Ps framework. **Pricing Decisions:** Objectives, Factors Affecting Pricing Decisions, Pricing Methods, Price Changes, Pricing Strategies.

**Unit –III**

**Delivering and Promoting Product:** Supply Chain Decisions Nature, Types, Channel Design and Channel Management Decisions, Retailing, Wholesaling, **Personal Selling:** Personal Selling Process, Managing the Sales Force. **Promotion Mix:** Advertising, Sales Promotion, Public Relations. **Emerging Trends in Marketing:** Green Marketing, Event Marketing, Network Marketing, Social Marketing, Buzz Marketing/ Viral Marketing, Customer Relationship Management (CRM), Global Marketing, Rural Marketing, E-Commerce: Marketing In The Digital Age.

**Unit -IV**

**Bottom of Pyramid Marketing:** Understanding poverty and the Base of the Pyramid, understanding the BoP consumer: their basic needs wants and demands, Design-Develop-Distribute approach towards BoP. Consumption and marketing practices in BoP contexts: few challenges-The institutional context of BoP markets.-Conducting Marketing Research in BoP Markets-BoP Consumers and Producers-Producers and Entrepreneurs at the BoP. Concept of Informal Economy-Alternative Market initiatives at BoP-Ethical issues associated with BoP.

**Suggested Readings:**





- Kotler & Koshy, *Marketing Management*, Pearsons Education
- Ramaswamy & Namakumari, *Marketing Management*, McMillian.
- McMETzel, Walker, Stanton, and Pandit, *Marketing Management*, Tata McGraw Hill
- Kurtz & Boone, *Principles of Marketing*, Cengage Learning
- Kotler & Armstrong, *Principles of Marketing*, Prentice Hall
- Biplab S. Bose, *Marketing Management*, Himalaya Publications
- Subhash c. Jain, *Marketing Management*, Cengage Learning
- Rajan Saxena,, *Marketing Management*, Tata McGraw Hill.



## MBA 204-18

### Human Resource Management

**Course Objective:** The objective of the paper is to make student aware of the various functions and importance of HR department in any organization. It is basically concerned with managing the human resources, whereby the underlying objective is to attract retain and motivate the human resources in any organization.

#### Unit I

**Human Resource Management (HRM):** Nature, Scope, Objectives and functions of HRM. Evolution of HRM, HR as a factor of competitive advantage. Organization of HR department, Line and staff responsibility of HR managers, competencies of HR Manager. Personnel Policies and Principles. **Strategic HRM:** Introduction, Integrating HR strategy with Business Strategy, Difference between SHRM and HRM. HRM Environment and Environment Scanning. **Human Resource Planning:** Meaning, Process and importance, factors affecting Human Resource Planning. **Job Analysis:** Process, methods of Job Description & Job Specification.

#### Unit 2

**Recruitment & Selection:** Meaning & Concept, Process & Methods Recruitment & Selection, Induction & Placement. **Training & Development:** Meaning & Concept of Training & Development, Methods of Training & Development, Evaluating training effectiveness. HRM vs. HRD. **Career Planning & Development:** concept of career, career planning, career development, process of career planning and development, factors affecting career choices, responsibilities of Employers / managers, organization and employees in career planning and development, career counseling. **Internal Mobility:** Promotion, Transfer, Demotion, Separation, downsizing and outplacement.

#### Unit 3

**Performance Appraisal:** Meaning & Concept of Performance Appraisal, Methods & Process of Performance Appraisal, Issues in Performance Appraisal, Potential Appraisal. **Compensation Management-** Concept and elements of compensation, Job evaluation, Wage / Salary fixation, Incentives Plans & Fringe Benefits. **Quality of work life (QWL):** Meaning, Concept, Techniques to improve QWL. Health, Safety & Employee Welfare, Social Security. **Quality Circles:** Concept, Structure, Role of Management, QCs in India.

#### Unit 4

**Industrial Relations:** Government's concerns, Union's concerns, Management concerns; Approaches of IR; Dispute Resolution Machinery. **Collective Bargaining:** Meaning, Scope, Objectives, Issues and Strategies, steps of collective bargaining, negotiation skills. Participative Management, Grievance Handling, Disciplining and Counseling of employees, HRIS, HR Audit. Ethical Issues in HRM. Human Resource Management practices in India.

**Suggested Readings:**



- Dessler, Gary, "Human Resource Management", New Delhi, Pearson Education Asia. 2017 15<sup>th</sup> Edition
- Aswathappa, K.. Human Resource Management, Text and Cases (7<sup>th</sup> ed.). Mc Graw Hill.
- Flippo, E. Human Resource Management (5<sup>th</sup> ed.). McGraw Hill.
- Ivancevich, J. Human Resource Management (12<sup>th</sup> ed.). Tata Mc Graw Hill.
- Gomez Mejia, L. Managing Human Resources (8<sup>th</sup> ed.). Pearson Education.
- Bratton, J. and Gold, J. Human Resource Management: Theory and Practice (6<sup>th</sup> ed.). Palgrave.
- Mirza S. Saiyadain. Human Resources Management (4<sup>th</sup> ed.). Tata McGraw Hill.
- Dale Yoder, Personal Management & Industrial Relations, Tata McGraw Hill





## MBA 205-18

### Production & Operations Management

**Course Objective:** It is a subject where a student learns various steps of product design, development, production, plant location, storage, production planning and control. The students are motivated to apply concepts and principles of management to become more effective professional

#### Unit- I

**Operations management:** concept, functions, transformation process model: inputs, process and outputs; classification of operations; responsibilities of operations manager, contribution of Henryford, Deming, Crosby, Taguchi.

**Facility Location** – importance, factors in location analysis, location analysis techniques. **Product Design and Development** – product design and its characteristics, product development process (technical), product development techniques. **Process selection-** project, job, batch, mass and process types of production systems. operations management in corporate profitability and competitiveness

#### Unit- II

**Facility Layout** – Objectives, Advantages, Basic Types of Layouts, Problems in facility layout. **Production Planning & Control (PPC):** –Concepts, Objectives, and Functions, work study – Productivity: Method study; Work measurement. **Capacity Planning** – Concepts, Factors affecting Capacity Planning, Capacity Planning Decisions.

#### Unit- III

**Quality Management:** Introduction, Meaning, Quality Characteristics of Goods and Services, Juran's Quality Trilogy, Deming's 14 principles, Tools and Techniques for Quality Improvement, Statistical Process Control Chart, Quality Assurance, Total Quality Management (TQM) Model Concept of Six Sigma and its Application. **Acceptance Sampling** – Meaning, Objectives, Single Sample, Double Sample and Multiple Sample Plans with sated risk, Control charts for variables – Averages and Ranges, Control Charts for Defectives – Fraction Defective and Numbers Defective.

#### Unit- IV

**JIT and Lean Production System:** JIT Approach, Implementation requirements, Services, Kanban System. **Inventory Management:** Concepts, Classification, Objectives, Factors affecting Inventory Control Policy, Inventory Costs, Basic EOQ Model, Re-order level, ABC analysis. Logistics and Franchising. **Purchasing Management** – Objectives, Functions, Methods, Procedure.

**Value Analysis:** Concepts, Stock Control Systems, Virtual Factory Concept and Production Worksheets.

Note : Relevant Case Studies should be discussed in class.



**Suggested Readings / Books:**

- Mahadevan B, Operations Management: Theory and Practice (2nd Ed.). Pearson Education
- Krajewski & Ritzman, Operations Management (5<sup>th</sup> Ed.) Pearson Education
- Buffa & Sarin, Modern Production/Operations Management, (8<sup>th</sup> Ed.) John Wiley
- Chary, Production and Operations Management, Tata McGraw-Hill
- Johnston R et al , Cases in Operations Management, Pitman
- McGregor D, Operations Management, McGraw-Hill
- Nair, Production & Operations Management. Tata McGraw

A handwritten signature in blue ink, consisting of a stylized 'M' followed by a checkmark-like stroke.A handwritten signature in blue ink, appearing to be 'K. Gupta' with a horizontal line underneath.

## MBA 206-18

### Corporate Finance and Indian Financial System

To provide an in-depth understanding of the core finance functions and decisions in the area of corporate financial management. Further provide a practical and problem insight for effective financial decision-making.

#### Unit-I

**Introduction to Financial Management and Corporate Finance:** Meaning, nature, evolution, objectives, functions and scope of corporate finance. Interface of financial management with other functional areas, environment of corporate finance, functions and role of financial manager.

**Time Value of Money-**Introduction, types of cash flows, future value of single cash flow, multiple flows and Annuity.

**Valuation of Securities:** Concept of Valuation, Methods for valuation of equity, debt and hybrid securities.

#### Unit-II

**Capital Structure Decision-Capital Structure Theories:** Meaning and features of capital structure decision, Net Income Approach, Net Operating Income Approach, Traditional Approach, Modigliani-Miller Hypotheses with special reference to the process of arbitrage and Agency Cost.

**Capital Budgeting Decision:** Nature of investment decisions; process of capital budgeting, investment evaluation criteria: Discounted and Non-Discounted Methods (Pay-Back Period, Average rate of return, Net Present Value, Benefit Cost Ratio and Internal Rate of Return). Risk analysis in capital budgeting and Capital rationing.

#### Unit-III

**Dividend Decision-:** Issues in dividend decisions. forms of dividend, theories of relevance and irrelevance of dividends.

**Management of Working Capital:** Meaning, nature, objectives and Approaches of Working Capital (Conservative, Matching and Aggressive approaches), Static vs. Dynamic View of Working Capital. Factors determining the amount and composition of Working Capital .Methods for financing of working capital.

#### Unit-IV

**Introduction to Financial System:** Overview, evolution of Indian financial system. Structure and functions of Indian financial system. Financial sector reforms-major reforms in the last decade. **Financial Institutions:** Introduction to Reserve Bank of India, Securities and Exchange Board of India, Insurance Regulatory and Development Authority of India, Introduction to commercial banks, co-operative banks, NBFCs, insurance companies, mutual funds, stock exchanges, commodity exchanges, and Depositories.

**Financial Markets:** Introduction, evolution, capital market and money market, functions and operations of primary market and secondary market. **Financial Instruments:** Shares, Debentures, Bonds, Money Market Instruments, Derivatives, Global Depository Receipts, Foreign Currency Convertible Bonds





**Suggested Readings:**

1. Pandey, I. M. (2015). Financial Management, 11<sup>th</sup> Edition. Vikas Publishing House.
2. Khan, MY. and Jain, PK. (2014). Financial Management, 7<sup>th</sup> Edition. Tata McGraw Hill, New Delhi.
3. Chandra, Prasanna. (2015). Financial Management: Theory and Practice, 9<sup>th</sup> Edition. Tata McGraw Hill, Delhi.
4. Van Horne. J.C. and J.M. Wachowicz. (2015). Fundamentals of Financial Management, 13<sup>th</sup> Edition. Prentice Hall, Delhi.
5. Brealey, Richard A; Stewart, C. Myers and Allen, F. (2017). Principles of Corporate Finance, 11<sup>th</sup> Edition. McGraw Hill, New York.
6. Bhole, L. M. (2017). Financial Institutions and Markets, 6<sup>th</sup> Edition. McGraw Hill.
7. Srivastava, R. M and Divya, N. (2014). Management of Indian Financial Institutions, 9<sup>th</sup> Edition. Himalaya Publishing House.
8. Varshney, P. N. and Mittal, DK. (2010). Indian Financial System, 11<sup>th</sup> Edition. Sultan Chand & Sons.



## MBA 207-18

### Entrepreneurship Development and Project Management

**Course Objective:** To provide a comprehensive understanding of the concept of an Entrepreneur and intricacies involved in managing entrepreneurial projects. The prime aim is to imbibe the necessary entrepreneurial competencies among students and motivate them choose Entrepreneurship as a feasible and desirable career option.

#### Unit I

**Introduction to Entrepreneur:** Concept, Characteristics, functions of an entrepreneur, Entrepreneur Vs Manager, Types of entrepreneur, Entrepreneurial Mind Set, Key attributes of an entrepreneur, desirable and acquirable traits and behaviours, Readiness of the entrepreneur: Right age, right time and right conditions, Myths and Realities of entrepreneurship. **Entrepreneurship and Intrapreneurship:** Similarities and variance, Developing Corporate Entrepreneurship.

**Women entrepreneurs:**-Meaning, role, problems for women entrepreneurs, **Rural entrepreneurship, social entrepreneurship,** Entrepreneurship Development, Entrepreneurial support systems and role of government in Entrepreneurship Development..

#### Unit II

**Entrepreneurial Motivation:** Concept and Theories, **Entrepreneurial Strategy: Generating and Exploiting New Entry Opportunities,** Generation of new Entry Opportunity, entry Strategy, Risk reduction strategies for New Entry Exploitation

**Creativity and Business Idea Generation:** Concept of creativity, ideas from trend analysis, sources of new ideas, Methods of generating new ideas, Creative problem solving, creativity and entrepreneurship. **Entrepreneurial Innovation:** Concept and types, Opportunity Recognition and opportunity assessment plan, product planning and development process..

#### Unit III

**Protecting Ideas and Legal issues for the entrepreneur.** Concept of IPR, Patents, Trademarks, Copyrights, Licensing, Product Safety, Other Legal Issues in Setting Up An Organisation.

**Business Plan Creating and Starting the Venture:** Concept of Business Plan, Scope and Value, Writing the business plan, Using and implementing business plan. **Succession Planning and Strategies for Harvesting and Ending Venture:** Exit Strategy , succession of Business, Selling off, bankruptcy

**Reasons of failure of business plan,** Reasons for the failure of entrepreneurial ventures.

#### Unit IV

**Project Management:** Concept, facets and Key Issues of project management. **Generation and screening of project ideas, Project Analysis:** Market and demand analysis, Technical analysis, Financial estimates and projection, **Project Selection:** Investment criteria, Risk analysis, Social Cost Benefit analysis.

**Project Financing:** Financing of projects, Concept of Venture Capital in detail, Difference between Venture Capital and Private Equity. **Project Implementation:** Project planning and control, Network techniques for project management: PERT and CPM Models, **Project Review:** Post Audit and Administrative Aspects.

**Relevant case studies related to the topics should be discussed.**

**Suggested readings:**

- Chandra, P. (2017). *Projects: Preparation, Appraisal, Budgeting and Implementation*. New Delhi: 8<sup>th</sup> Edition, Tata Mcgraw .
- Desai, V. (2017). *Project Management and Entrepreneurship*. New Delhi: 2<sup>nd</sup> Edition, Himalaya Publishing House.
- Fyffe, D. S. (2001). *Project Feasibility Analysis*. New York: John Wiley and Sns.
- Hisrich, R. D, Peters, M.P, and Shephers, D.A.(2016). *Entrepreneurship*. New Delhi: 10<sup>th</sup> Edition, Tata mc graw.
- Mohanty, Sangram Keshari (2017). *Fundamentals of Entrepreneurship*, Revised Edition, PHI Learning Pvt Ltd.
- Natrajan, K. and Gordon, E. (2017). *Entrepreneuership Development*. New Delhi: 6<sup>th</sup> Edition , Himalaya Publishing House.





## MBAGE 201-18

### Computer Applications for Business

**Course Objective:** The purpose of this course is to provide a through exposure to the operating and office management tools available in different packages. A student can be exposed to the working knowledge of Windows based operating systems and software packages such as Windows-95, 98, 2000-Professional, windows -XP and MS -Office.

#### Unit I

**Introduction to Computer:** Definition of Computer, Features of Modern Computer, Classification of Computer on the Basis of Generation.

**Components of Computer:** Input Unit, Output unit, Central Processing Unit Various Input Devices and Output Devices, Internal and External Memory Storage, RAM, ROM, PROM, EPROM, Hard Disc, Magnetic Tapes

#### Unit II

**Operating System:** Concepts, Definition of Operating System (as Resource Manager, Processor Manager and Information Manager)

**Window:** Introduction to Window (Working of Windows, Manipulation of Icon, Menus and opening different applications simultaneously), Various Versions of Windows, Basic commands of windows (Creating, Moving, Renaming, Deleting Files/Folders). **MS-Office:** Introduction, Components of Office.

#### Unit III

**MS-Word:** History, Creating, Saving, Opening, Importing, Exporting and Inserting document, Formatting pages, Alignment, Paragraphs and Sections.

Indents and Outdents, creating lists and numberings Formatting Commands: Headings, Styles, Fonts and Size editing, Viewing Text, Finding and Replacing text, Headers and Footers, Inserting page breaks, Page numbers, Special Symbols and Dates Mail merge, Preview and Printings command.

**MS-PowerPoint:** History, Creating, Saving, Opening, existing presentation, Creating and Saving a Presentation using Auto Content Wizard, Design Template, Blank Presentation the Slide Sorter View, Slide Show, Inserting pictures and graphics and Printing Slides.

#### Unit IV

**MS-Excel:** Introduction, Components of Excel History, Creating, Saving, Opening, Spreadsheet, Formatting numbers and Text, Graph and Chart Formatting Commands, Menu Bar, Toolbars, Producing Charges, Protecting Cell Macro and Printing Operation, Spell Checking, Cell Editing, Calculation of various Financial and Statistical Functions using Formulas.

**MS Access:** Introduction to Data Base and Access: Viewing and Editing Data; Sorting and Indexing Printing Reports and Labels, Managing Multiple Tables. Forms, Queries, Reports.

### **Suggested Readings:**

- Ram, B.(2018).*Computer Fundamentals Architecture and Organization*. New Delhi: Age Publications
- Sinha, P.K. and Sinha, P. (2017).*Foundation of computing*. New Delhi: BPB Publications.
- Arora, A.(2015) *Computer fundamentals and applications*. Vikas Publishing.
- Rajaraman, V.(2014).*Fundamentals of Computers*. Delhi: Prentice-Hall.
- Roger,J. (2010).*MicrosoftAccess2010*.Delhi:PearsonEducation.
- Forouzan,(2009).*Basics of Computer Science*. India: Cengage Learning
- Levi, D.S., Kaminsky, P. (2007) *Designing and Managing the Supply Chain*. McGraw Hill
- Turban, E., Aronson JE., Liang, TP. (2005). *Decision Support Systems and Intelligent Systems* (7th Edition). Pearson Publishers.

