

**MOUNT MARY COLLEGE  
DEPARTMENT OF COMMERCE**

**Introduction**

The department of commerce started with the establishment of the college in 2011. It offers under program (B.com general and honors) to equip the students about the basic foundation of commerce. It focuses on the theory and practical knowledge of the subject. The department of commerce believes that learning brings modification in the behavior of human beings and thus, strives to promote a learning attitude among the learners irrespective of caste, creed, and religion. The department shall have strong quality support system in order to provide effective teaching-learning process and to maintain high standard of quality education.

**Departmental profile:**

- Name of the Department: commerce
- Year of establishment : 2011
- Name of program/course offered: UG(B.com) with accounting/ management honors  
No. Of present teaching staff: 4

**Aims and objectives of the department:**

- It focuses on the theory and practical knowledge of the subject.
- It encourages a comprehensive study with an ability to critically analyze and understand the discipline.
- It aims to create awareness among the students about the issues at all levels-local, national and international and to engage the students in the studies on various dimensions.

**Faculty profile**

Name	Specialization	Duration
Merangjamir	Accounting	2011- 17
Vinsionkikon	Accounting	2011- 14
OnenTemjenAo	Entrepreneurship	2011- 15
Supongsangla	Accounting	2011- 13
EnibemoEzung	Accounting	2011-13
P. Shobha Rani Momin	Accounting	2013-16
Deepika Das	Accounting	2013- till date
Shakti Raj	Accounting	2013- 2018
MridulGurung	Accounting	2016- till date
Shilurenla	Management	2017- till date
Dokina Das	Accounting	2018-till date

**List of Book chapters published by faculty**

Sl no	Name	Publication	ISBN NO
1	Shilurenla Jamir	1.Change management strategies and models 56-60 2.women entrepreneurship in Nagaland page 70-81	978-93-90417-25-4
2	Shilurenla jamir	3.Entrepreneurship development in rural areas: How to understand and develop rural entrepreneurship page 72-78 4.Evolution and development of human resources management in India page 41-47	978-93-90417-25-4
3	Dokina Das	1. A study of the contribution by small scale industries of Nagaland economy with special references to Dimapur district. Page 86-	978-93-90417-25-4
4	Dokina Das	2.A study on the problems of higher education in Nagaland page 42-49  3.A study on the impact of Covid -19 outbreak in the business sectors page 123-128 4.A study on the cause of poor enrollment of commerce students in the state of Nagaland. Page 91-97	978-93-90417-25-4
5	Deepika Das	1.Formation of Balance sheet page 162-166	978-93-90417-25-4
6	Deepika Das	2.Accounting as an integral part of everyday life 75-77 3.Formation of income & expenditure account page 142-146 4.Reconstruction of partnership admission of a partner page 95-96	978-93-90417-25-4
7	Mridul Gurung	1. To identify the constraints faced by the existing small tea grower in Assam so as to create opportunities for the new small tea grower. Page 90-92	978-93-90417-25-4
8	Mridul Gurung	2.Comparative analysis of home loans provided by HDFC Ltd page 68-71 3. A study of direct and indirect tax system in India page 135-141 4.A study on computerised accounting system in India page 60-65	978-93-90417-25-4

**Student – Teacher Ratio**

Class	General program	Honors program
2 <sup>nd</sup> semester	11:1	11:1
4 <sup>th</sup> semester	6:1	6:1
6 <sup>th</sup> semester	7:1	7:1

**Book Chapters publication by lecturers:**

Sl.no	Name	No.ofresearch papers published
1	Mridul Gurung	4
2	Deepika Das	4
3	Shilurenla Jamir	4
4	Dokina Das	4

**Departmental activities:**

As per the syllabus of the Nagaland University, the department conducts the following activities:

1. **Class Test:** Teachers do conduct class tests unit wise in addition to internal exams for assessing students learning and improvements in the class.
2. **Presentation:** students are made to give presentation from each unit to assess the level of understanding and knowledge.
3. **Mentor-Mentee:** it is a daily mentoring activities, the purpose is to know the students problems and giving counseling. The mentors so keep the record of the mentees to extent of their personal issues.
4. **Assignment:** Teachers do give assignments on regular basis to make students consistent in studies and progress.
5. **Project:** project works are given on regular basis where the students are expected to do some research and survey themselves, it mean exploring new knowledge and ideas for students.
6. **Field Trip:** on yearly basis, students from each semester visit different places and companies. The purpose is to experience working environment which is absent in teaching-learning.

Year	Month	Place of field trip/activities	No. Of students	No. Of faculty	Objective	outcomes
2021	23 <sup>rd</sup> oct	Comfiest 21	14	2	To provide platform to the students to showcase their talents and grow	The students has developed the skills and learned so many things about the teamwork and Various activities.
2021	6 <sup>th</sup> aug	Webinar	80	2	The objective of such webinar on financial literacy and money management to impart knowledge about investment,	The speaker has delivered the brief introduction of mutual funds and classification based on mutual funds.

					saving and public deposit.	
2021	4 <sup>th</sup> oct	Social parting	20	4	The objective was to bid farewell to the outgoing students.	The program was successful and had a last gathering with them.
2021	1 <sup>st</sup> oct	Mad Ad	30	4	To promote locally available products and converting them into useful products for economic benefits.	The outcome was positive as students has participated with innovative ideas and has promoted locally products creatively.
2022	7 <sup>th</sup> aug	Field trip	15	4	The purpose of such field trip to explore the students with knowledge and opportunity for the future.	The field trip was indeed a good and well experience for all the students.
2022	15 <sup>th</sup> March	Entrepreneurship and skill development	14		The main purpose in conducting was to promote the tribal enterprise through value addition, branding of market of minor forest produce.	The outcome of the program had a lot of informative knowledge on how to start up a business.
2022	8 <sup>th</sup> april	Paper presentation	9	5	The objective of the external paper presentation was to enable students to study about the business plan, objective and report.	The students had a wide knowledge about the business plan and preparation of feasibility report.
2023	18 <sup>th</sup> feb	Commvanga	14	2	The purpose of the inter college competition to grow students personality and development	The outcome was positive as the students had taken part in the inter college competition.
2023	19 <sup>th</sup> april	Business plan presentation	8	4	The presentation was based on a business plan that students want to set up in the future and it was part of their internal assessment.	The outcome of the program was good as students have presented well.
2023	6 <sup>th</sup> may	Farewell	28	4	The objective of the program to bid	The outcome of the program was positive as

					outgoing students.	the students have participated successfully.
2023	7 <sup>th</sup> may	Field trip	8	1	The purpose of field trip is to explore natural beauty of Chumoukedima hills.	The outcome of the program was positive to give the importance of mental and health awareness.
2024	21 <sup>st</sup> feb	Workshop	42	4	The purpose of the workshop was to give importance of preparation for competitive exam.	The outcome of the program was positive. He emphasized on the study plan, quality material and right mentor.
2024	15 <sup>th</sup> March	World consumers Rights Day	40	5	The purpose was to observe the students and society as a whole related to consumer's rights and responsibilities.	The outcome of the program was positive as the students have participated in various activities.
2024	20 <sup>th</sup> april	Field trip	23	5	The purpose of the visit to acquaint the practical knowledge of the organization.	The outcome was fruitful and productive as it has broadened the knowledge of the students by studying the insight of the working system.
2024	18 <sup>th</sup> April	Power point presentation	7	4	The purpose of the program is to enable students to do study and unearth the strength and weakness of the organization.	The outcome of the program was to present finding through PPT which is the part of the curriculum which carry 100 marks.
2025	4 <sup>th</sup> feb	Financial webinar	80	10	The purpose was to educate the young students about the stock markets and investment policy.	The webinar was successful with the participation from the students and teachers.
2025	8-11 <sup>th</sup> feb	Exposure trip	14	1	The purpose of the exposure Trip to experience new environment about the nature and environment.	The outcome was positive as part of learning apart from formal education.
2025	15 <sup>th</sup>	Consumers	28	5	The purpose was to	The outcome of the

	March	Rights Day			observe the importance of the consumer's right and educate the people.	program was successful as students have participated in every activity.
2025	12 April	Field trip	21	2	The purpose of the program was to equip students with the knowledge and information of the industrial activities.	The outcome was successful as the students have experience to see all the machinery, technology and tools the working environment of the workers and the quantity of the product on large scale.

**Report on exposure Trip 2025**



**Report on consumers Rights Day 2025**



### Report on International Day for the Eradication of poverty 2024



### Report on Departmental Farewell program 2024



**Report on Annual farewell 2023**



**Report on Annual Picnic 2023**



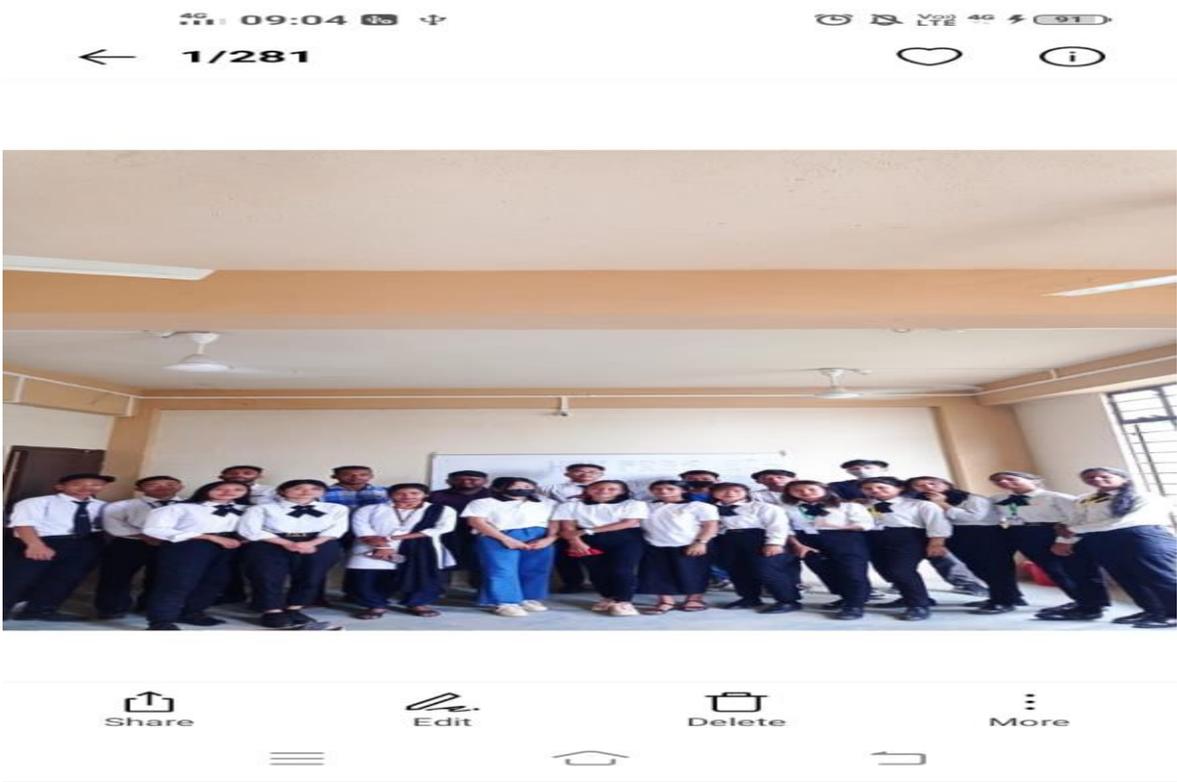
### Report on extempore speech



### Report on Educational Field Trip 2022



**REPORT ON QUIZ COMPETITION 2022**



## Report on Mad-Ad 2021



### Head of commerce Department

Sl no.	Name	Duration
1	Merang Jamir	2011-17
2	Vision kikon	2011-14
3	Onen Jamir	2011- 14
4	SobhaMomin	2014- 16
5	Shakti Raj	2013- 18
6	Deepika Das	2013-
7	MridulGurung	2013-

### Current strength of the students

Sl no.	Class	Semesters	No. Of students
1	B.com	2 <sup>nd</sup>	11

2	B.com	4 <sup>th</sup>	6
3	B.com	6 <sup>th</sup>	7

**Student's attendance percentage in accounting & finance management (last 5 years)**

Year	2020-21	2021-22	2022-23	2023-24	2024--2025
1 year( average of 1 <sup>st</sup> and 2 <sup>nd</sup> semester)	82	83	84	82	85
2 <sup>nd</sup> year ( average of 3 <sup>rd</sup> and 4 <sup>th</sup> semester)	81	85	85	86	87
3 <sup>rd</sup> year ( average of 5 <sup>th</sup> and 6 <sup>th</sup> semester)	84	82	81	84	85

**Students attendance percentage in commerce General ( last 5 years)**

Year	2020-21	2021-22	2022-23	2023-24	2024-25
1 <sup>st</sup> year ( average of 1 <sup>st</sup> and 2 <sup>nd</sup> semester)	81	83	82	83	81
2 <sup>nd</sup> year ( average of 3 <sup>rd</sup> and 4 <sup>th</sup> semester)	81	85	85	86	85
3 <sup>rd</sup> year ( average of 5 <sup>th</sup> and 6 <sup>th</sup> semester)	85	86	89	88	87

**Strength:**

- Healthy and approachable atmosphere between teachers and students
- Dedicated and experienced teaching staff.
- Good educational environment
- Attending to the problem of the students.

**Weakness:**

- Insufficiency teaching staff
- Lack of commercial workshop

- Poor socio-economic status of students which leads to drop out.

### **Opportunities**

- Mentorship program is provided in the college for the guidance of the students.
- Colleges also have counseling department to help the students.
- Business exposure opportunities (field trip, study tour etc)
- Skills enhancement opportunities (commerce festival, exhibition program etc)

### **Threats:**

- Declining enrollment
- Increasing numbers of accessible commerce College institutions.
- Less awareness on the career advancement and problems among the students.

### **Future plans:**

- To organize seminars, conference, workshops
- To maintain database progress record of the graduating students from the department.
- To encourage the lectures and students to carry out Mentor-Mentee.
- To publish more research papers in the college journal as well as in other important journals.

### **Student's enrolment in commerce honors**

Year	2020-21	2021-22	2022-23	2023-24	2024-2025
	14	9	8	9	7

### **Commerce Honors final results**

Year	No. Of students appeared	No.ofpassed
2020-21	14	14
2021-22	9	9

2022-23	8	5
2023-24	7	5
2024-25	7	

**Facilities:**

1. Library with good collection of books for the students.
2. Mentoring class for the weak, average and good students as per the categories.
3. Audio visual class / ICT to enhance the better understanding of the learning.
4. E-learning app for the students in addition to offline classes.

**C21: International Business**

Marks: 100; Credit: 4 (L-3 T-1 P-0)

**Course Outcomes (COs):** The successful completion of this course shall enable the students:

- To analyze the importance and implications of international business in a globalized economy.
- To evaluate different theories of international trade and their applications.
- To understand the roles of various international economic institutions and their impact on global trade.
- To assess the balance of payments and trade policies, particularly in the context of India.
- To examine the influence of multinational corporations in international markets and to explore regional economic integration and its effects on global trade dynamics.

**Course contents:**

**Unit I: Introduction to International Business**

- Importance, nature, and scope of international business.
- Modes of entry into international markets- export, licensing, franchising, joint ventures, wholly-owned subsidiaries.
- Managerial implications of the internationalization process.
- International business environment- Economic, political, cultural, and legal factors.
- Framework for analyzing the international business environment.

**Unit II: Theories of International Trade**

- Theoretical foundations of international trade- Reasons for international trade, Trade Theories- Absolute Advantage theory (Adam Smith), Comparative Advantage theory (David Ricardo), Heckscher-Ohlin Theory, New Trade Theory- Economies of scale and network effects, Porter's Diamond Model- National competitive advantage.
- Gains from trade and the foreign trade multiplier, Understanding terms of trade.

**Unit III: International Liquidity and Economic Institutions**

- Role and functions of international economic institutions- IMF, World Bank, IFC, IDA, ADB.
- Historical context and evolution of GATT and GATS.
- Recent developments in global trade- WTO, UNCTAD, EU, ASEAN.
- Policies of international institutions in facilitating trade.

**Unit IV: Balance of Payments and Trade Policy**

- Balance of Payments- Meaning, principles, and conceptual framework, Components of the Balance of Payments- Current Account, Capital Account, Financial Account
- Balance of Payments disequilibrium- Factors and methods of correction.
- Trade policy and performance of India- Overview of India's foreign trade policy, Regulation and promotion of foreign trade in India, Composition and direction of India's foreign trade.

**Unit V: Multinational Corporations (MNCs) and Regional Economic**

- Multinational Corporations (MNCs)- Definition and significance, Regional Economic Corporations (MNCs), Organizational models and structures of MNCs.



**C20: Marketing Management****Marks: 100; Credit: 4 (L-3 T-1 P-0)**

**Course Outcomes (COs):** The successful completion of this course shall enable the students:

- To understand the fundamental marketing principles including product development, pricing strategies, distribution channels, and promotion.
- To understand the psychological and social factors that influence consumer behaviour and decision-making processes.
- To conduct market research, analyse consumer behaviour, and interpret market trends.

**Course contents:****Unit I: Understanding the Marketing Process**

Marketing- Meaning, nature, scope and importance; Selling vs. Marketing; Evolution of marketing concept; Marketing Mix; Marketing Environment-Micro and Macro components; Market segmentation; Marketing organisation; Ethics in marketing.

**Unit II: Consumer Behavior and Marketing Research**

Buying motives; Determinants of consumer buying behaviour; Buying process and consumer adoption process; Consumer Behaviour Theories; Marketing research- Meaning, nature, scope and importance; Marketing Research process; Managerial decision areas covered by Marketing Research; Differences between Marketing Research and Marketing Information System.

**Unit III: Product and Pricing Decisions**

Concept of a product; Product Line and Product Mix; Branding; Packaging and Labelling; Product Life Cycle; New Product Development and Consumer Adoption Process; Factors influencing pricing decisions; Pricing policies and strategies; Kinds of pricing decisions; Procedure for price determination.

**Unit IV: Distribution and Promotion Decisions**

**Channels of Distribution-** Functions and types; Distribution Channel Intermediaries; Channel choice; Retailing and Wholesaling.

**Promotion-** Meaning and objectives; Kinds of promotion; Promotion Mix- Personal Selling, Sales Promotion, Advertising and Publicity.

**Unit V: Emerging Trends in Marketing**

Marketing of Services; Global Marketing; Green Marketing; Cyber Marketing; Relationship Marketing; Rural Marketing in India (Elementary Introduction only).

**Suggested readings:**

1. Sherlekar, S.A. and Krishnamoorthy, R. *Marketing Management*, Himalaya Publishing House Pvt. Ltd.
2. Kotler, P., Armstrong, G., Balasubramanian, S. and Agnihotri, P. *Principles of Marketing*, Pearson.
3. Ramaswamy, V.S. and Namakumari, S. *Marketing Management*, Sage Publications.
4. Srinivasan, R. *Case Studies in Marketing: The Indian Context*, PHI Learning.
5. Saxena, R. *Marketing Management*, McGraw Hill.

**Note: The latest edition of the textbooks should be used.**

**Min-7: Business Environment****Marks: 100; Credit: 4 (L-3 T-1 P-0)**

**Course Outcomes (COs):** Upon successful completion of this course, students will be able to:

- Understand the importance of internal and external environment for business
- Comprehend the various laws applicable to businesses
- To draw the relationship between business and the society at large.

**Course contents:****Unit I: Introduction**

Concept, nature, significance of business environment, Types of business environment- elements of internal and external environment; Techniques of environmental analysis- SWOT, ETOP and Quest; Techniques of environmental forecasting.

**Unit II: Economic Environment of Business**

Elements of economic environment; economic system- meaning and characteristics, types- capitalism, socialism and mixed economy; economic policy- industrial, monetary, fiscal and foreign trade policy; economic reforms in India.

**Unit III: Legal Environment - I**

**Environment (Protection) Act, 1986-** Objectives, Powers of the Central Government, Major Provisions.

**Air (Prevention and Control of Pollution) Act, 1981-** Objectives of the Act, Powers and Functions of Central Board, Penalties and Procedures under the Air Act 1981.

**Water (Prevention and Control of Pollution) Act, 1974-** Objectives of the Act, Central and State Boards for Prevention and Control of Water Pollution and their power, Penalties and Procedure.

**Unit IV: Legal Environment – II**

**Patent Act, 1970-** Definition of Patent, Inventions not Patentable, Applications for Patents, Opposition Proceedings to Grant of Patents, Grant of Patents and Rights of Patents, Enforcement of Patent Rights, Restoration of Lapsed Patents.

**Copyright Act, 1957-** Objective and Scope, Classes of work for which Copyright Act is applicable, Protection to Authors, Assignment and Term of the protection of Copyright, Exceptions to the use of Copyright, Application for registration of copyright, Administration of the Copyright Law, Rights of the Registrar of Copyrights, Infringement of Copyright, Penalty for infringement.

**Trade Mark Act, 1999-** Meaning of Trademark, Procedure for and Duration of Registration, Infringement of Trademark, Penalty for applying false trademarks, trade descriptions, etc.

**Unit V: Business and Society**

Overview, business-society interaction, benefits, socio-economic objectives of business; Business- labour and government; Consumer protection; Investor protection.

**Suggested readings:**

1. Fernando, A.C. *Business Environment*, Pearson.
2. Gupta, C.B. *Business Environment*, Sultan Chand & Sons.
3. Cherunilam, F. *Business Environment Text & Cases*, Himalaya Publishing House.





Relevance of dividend- Walter's Model, Gordon's Model, Irrelevance of Dividend- M.M. Hypothesis.

**Unit V: Working capital Planning and Management**

Concepts of working capital; Determinants of working capital; Financing of working capital needs; Calculation of operating cycle period.

**Suggested readings:**

1. Pandey, I.M. *Financial Management*, Vikas Publishing House.
2. Chandra, P. *Financial Management: Theory and Practice*, McGraw Hill.
3. Horne, J.C.V. *Financial Management and Policy*, Prentice Hall.
4. Khan, M.Y. and Jain, P.K. *Financial Management Text, Problems and Cases*, McGraw Hill.
5. Hampton, J.J. *Financial Decision Making: Concepts, Problems and Cases*, PHI Learning.

**Note: The latest edition of the textbooks should be used.**

**Course Title: RESEARCH METHODOLOGY**

**Paper Code: C-19**

**Credit: 4; Marks: 100**

**Course Objectives:** This course intends to provide a comprehensive understanding of the diverse research methods and their relevance for the study of contemporary research problems in the discipline of Social Sciences and Management.

**Course Outcome:** Upon successful completion of the course, the students will acquire relevant knowledge of major scientific research methods, skills and their applications in conducting scientific enquiry and to solve research problems.

**Unit I: INTRODUCTION TO RESEARCH**

Meaning, types and process of research, Review of Literature, Research Problems and Objectives- meaning and formulation, Hypotheses- meaning and formulation.

**Unit II: RESEARCH DESIGN & DATA COLLECTION**

Concept, importance & types of Research Design  
Types of data, data collection methods and tools

**UNIT III: SAMPLING & MEASUREMENT SCALE**

Concept and importance of Sampling, Types of Sampling and Sampling Errors.  
Measurement Scale- meaning, classification & evaluation of scales



### **C17: Financial Statement Analysis and Reporting**

**Marks: 100; Credit: 4 (L-3 T-0 P-1)**

**Course Outcomes (COs):** The successful completion of this course shall enable the students:

- To understand the importance of financial statement analysis in reviewing the performance of a business enterprise.
- To apply the knowledge of analytical tools in measuring the performance of a business.
- To communicate the financial performance of the organization to the stakeholders.

#### **Course contents:**

##### **Unit I: Financial Statement Analysis**

Business Analysis- Meaning, types, components; Financial statements- Types and basis of analysis; Analytical tools- comparative and common size financial statements, trend analysis, cash flow analysis and ratio analysis.

##### **Unit II: Cash Flow Analysis**

Statement of cash flows- Relevance of cash, reporting by activities, constructing the cash flow statement with direct and indirect method; Implications of cash flows- limitations, cash flows and net income; Cash flow ratios- Cash flow adequacy ratio and cash reinvestment ratio.

##### **Unit III: Ratio and Financial Analysis**

Meaning, purpose, use and limitations of ratio analysis; ratios by category- activity and liquidity analysis, long-term debt and solvency analysis, profitability analysis, operating and financial leverage; ratios used in valuation.

##### **Unit IV: Financial Reporting and Analysis**

Statutory financial reports, factors affecting statutory financial reports; Nature and purpose of financial accounting; Accrual accounting- concept, relevance and limitations; Economic and accounting concept of income; Fair value accounting; Need for accounting analysis and earnings management.

##### **Unit V: Financial Reporting for Financial Institutions**

Financial Reporting- Meaning, objectives; Meaning of Financial Institution; Mutual funds- Meaning, valuation, annual reporting; NBFCs- Meaning, prudential norms; Merchant Bankers- Meaning, SEBI Regulations; Stock brokers- Meaning, registration, capital adequacy norms, General obligations and responsibilities.



### C16: Organisational Behaviour

Marks: 100; Credit: 4 (L-3 T-1 P-0)

**Course Outcomes (COs):** The successful completion of this course shall enable the students:

- To understand the importance of organizational behaviour in managing people in a work place.
- To understand the individual and group level behaviour of the people in an organization.
- To apply the theories of motivation in achieving the goals of the organization.
- To communicate effectively with the people in the organization and manage them with the leadership skills.

3 / 19

#### Course contents:

##### Unit I: Introduction

Meaning of Organizational Behaviour; Theoretical Foundation for Organizational Behaviour; Challenges and Opportunities for Organizational Behaviour; OB Model; Diversity in Organizations; Managing Diversity.

##### Unit II: Attitudes, Personality and Perception

**Attitudes-** Meaning; Components; Attitude and Behaviour; Major job attitudes.

**Personality-** Meaning; Herdity and the Brain; MBTI; Big Five Model; Dark Triad; Type A and Type B personality.

**Perception-** Meaning; Process; Making judgement- Attribution theory, selective perception, Halo effect and Horns effects, contrast effects, stereotyping.

##### Unit III: Learning and Motivation

**Learning-** Meaning; Theories of learning- Behavioristic, Cognitive and Social; Principles of learning- Reinforcement and Punishment.

**Motivation-** Meaning; Motivation process- primary, secondary, intrinsic v/s extrinsic motives; Theories of motivation- Maslow's hierarchy of needs, Herzberg's Two-Factor theory, McGregor's Theory X and Theory Y, McClelland's theory, Equity theory and Vroom's Expectancy theory.

##### Unit IV: Leadership and Power

**Leadership-** Meaning; Theories of leadership- Trait, Fiedler Contingency model, Path-Goal theory, Charismatic and Transformational leadership.

**Power-** Meaning; Bases of power- Formal and Personal; Dependence, Power Tactics; Sexual harassment.

##### Unit V: Communication and Group Dynamics

**Communication-** Meaning, process and direction of communication; Interpersonal communication; Organizational communication; Barriers to communication.

**Group Behaviour-** Concept; Stages of group development; Group properties; Dynamics of informal groups; Dysfunction of groups and teams; Group decision making.

#### Suggested readings:

1. Robbins, S.P., Judge, T.A. and Vohra, N. *Organizational Behaviour*, Pearson.
2. Luthans, F. *Organizational Behaviour An Evidence-Based Approach*, McGraw Hill Education (India) Pvt Ltd.



## C22: Statistical Analysis

Marks: 100; Credit: 4 (L-3 T-0 P-1)

**Course Outcomes (COs):** The successful completion of this course shall enable the students:

- To understand the importance of probability and probability distribution in decision making.
- To comprehend the importance of sampling, estimation theory and hypothesis testing in solving a business problem.
- To use relevant software for forecasting in a real-life business situation.

### Course contents:

#### Unit I: Probability and Probability Distributions

Definition of Probability- Unconditional Probability statement, Conditional Probability statement and its implications; Bayes Theorem and its applications; Joint Probabilities and its implications; Mathematical Expectations; Theoretical Probability Distributions – Binomial, Poisson and Normal.

#### Unit II: Sampling Distributions and Estimation

Concept of Population and samples; Types of Sampling; Sampling and Sampling Distributions; Sampling and Non-sampling Error; Selection of a Random Sample; Estimation theory- Point and Interval.

#### Unit III: Hypothesis Testing

Concept and Errors of Hypothesis Testing; Hypothesis Test Construction and Testing Procedure; Parametric Tests- z-test, t-test, and f-test; Non-parametric Tests- Wilcoxon signed rank test, Mann-Whitney U test, and Kruskal-Wallis test.

#### Unit IV: Chi-square Tests and Analysis of variance

Chi-Square Tests- Tests of association and Tests of Goodness of Fit; Concept and Types of factorial experiments; One-way and two-way ANOVA.

#### Unit V: Forecasting Techniques

Correlation Analysis- Covariance, Pearson's Correlation Coefficient, Spearman's rank Correlation; Linear Regression Analysis- Assumptions, common errors, simple and multiple regression analysis.

#### Suggested readings:

1. Mathai, A.M. and Rathie, P.N. *Probability and Statistics*, Macmillan India Ltd.
2. Elhance, D.N., Elhance, V. and Aggarwal, B.M. *Fundamentals of Statistics*, Kitab Mahal.
3. Mustafi, C.K. *Statistical Methods in Managerial Decisions*, Macmillan India Inc.
4. Aczel, A.D., Sounderpandian, J., Saavanan, P. and Joshi, R. *Complete Business Statistics*, McGraw Hill Education (India) Pvt. Ltd.
5. Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm, J.D. and Cochran, J.J. *Statistics for Business & Economics*, Cengage Learning Custom Publishing.

**Note: The latest edition of the textbooks should be used.**

