



WAVOO WAJEEHA WOMEN'S COLLEGE OF ARTS & SCIENCE - KAYALPATNAM

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)
Run by Wavoo SAR Educational Trust
(Minority Institution)

CRITERION I

Curricular Aspects

CURRICULUM RELEVANT TO PROFESSIONAL ETHICS

Submitted to

**THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
(NAAC)**

Hrs/Week	Credits
4	4

Phonetics and Spoken English

Objectives:

1. To impart proficiency in pronunciation and oral communication.
2. To use appropriate language skills for various communicative functions in different socio-cultural contexts.

Unit - I

Organs of Speech & Vowels,

Unit - II

Consonants, Stress, & Intonation

Unit - III

Transcription of words, sentences and marking of stress

Unit - IV

At a Bank I – At a Bank, II – At a hotel reception Hall, Helping a friend to obtain a flat I, II and III – A discussion between two friends Booking Accommodation at an outstation hotel, Enquiring about flight/Arrivals. Enquiry for information. At the Restaurant, Visiting a Doctor, At the library.

Unit - V

Greeting, Introduction, Information, Invitation, Permission, Request, Offers, Compliments, Sympathy, Apology Complaint, Gratitude, Persuasion, Suggestion, Warning, Opinion, Turn taking, Interview, Group Discussion, Public Speaking.

Texts Prescribed:

1. P. Iyyadurai. *English Phonetics for Beginners*. Jones Publication.
2. Jayashree Balan. *Spoken English* (Vijaya Publication).
3. Saraswathy and Noorjahan. *Spoken English*

R. C. Vasuki

MSU/2020-2021/UG-College/Part-IV (B.A. English)/Semester-IV/Non-Major Elective - 2

Non-Major Elective - 2

Business English

Objectives:

1. To impart the young graduates the basic concepts and practices of business communication and their application in the business world today.

Unit I:

Language and Communication
Communication in Organisation

Unit II:

Audio-Visual Aids
E-Mail Drafting

Unit III:

Formal Report
Technical Proposals

Unit IV:

Business Correspondence
Notice, Agenda, Minutes and Manual

Unit V:

Advertising
Graphic Aids

Prescribed Text:

Krishna Mohan and Meera Benerjee. *Developing Communication Skills*. Macmillian.



R. C. Vasulani

MANONMANIAM SUNDARANAR UNIVERSITY

TIRUNELVELI -12

COMMON SKILL BASED SUBJECT FOR U.G. PROGRAMME

Personality Development

UNIT -I

PERSONALITY - Definition – Determinants – Personality Traits –Theories of Personality – Importance of Personality Development. **SELF AWARENESS** – Meaning – Benefits of Self – Awareness – Developing Self – Awareness. **SWOT** – Meaning – Importance- Application – Components. **GOAL SETTING** Meaning- Importance – Effective goal setting – Principles of goal setting – Goal setting at the Right level.

UNIT – II

SELF MONITORING – Meaning – High self – monitor versus low self monitor – Advantages and Disadvantages self monitor- Self –monitoring and job performance. **PERCEPTION**- Definition- Factor influencing perception- Perception process –Errors in perception – Avoiding perceptual errors. **ATTITUDE** – Meaning- Formation of attitude – Types of attitude – Measurement of Attitudes – Barriers to attitude change – Methods to attitude change. **ASSERTIVENESS** - Meaning – Assertiveness in Communication – Assertiveness Techniques – Benefits of being Assertive – Improving Assertiveness.

UNIT – III

TEAM BUILDING – Meaning – Types of teams – Importance of Team building- Creating Effective Team. **LEADERSHIP** – Definition – Leadership style- Theories of leadership – Qualities of an Effect leader. **NEGOTIATION SKILLS** – Meaning – Principles of Negotiation – Types of Negotiation – The Negotiation Process – Common mistakes in Negotiation process. **CONFLICT MANAGEMENT** – Definition- Types of Conflict- Levels of Conflict – Conflict Resolution – Conflict management .

UNIT –IV

COMMUNICATION – Definition – Importance of communication – Process of communication - Communication Symbols – Communication network – Barriers in communication – Overcoming Communication Barriers. **TRANSACTIONAL ANALYSIS** – Meaning – EGO States – Types of Transactions – Johari Window- Life Positions. **EMOTIONAL INTELLIGENCE**- Meaning – Components of Emotional Intelligence- Significance of managing Emotional intelligence – How to develop Emotional Quotient. **STRESS MANAGEMENT** – Meaning – Sources of Stress – Symptoms of Stress – Consequences of Stress – Managing Stress

MANONMANIAM SUNDARANAR UNIVERSITY

TIRUNELVELI

UG COURSES – AFFILIATED COLLEGES

Common Skill Based Courses

(For all UG Courses)

V Semester

Effective Communication

(For those who joined the course from the Academic year 2008-2009)

General Objective :-

The paper aims to fulfill the long felt need to help the undergraduate students, who share a common dream of achieving career success to improve their communicative competence in English both in speaking and writing , by providing them with down-to-earth sensible and stimulating guidance .

Specific Objectives :-

The course will enable the students to

1. Carry on conversation in different communication contexts such as face to face communication, telephonic communication viva voce interview etc.,
2. Participate actively in group discussions and exchange ideas or attempt to reach a decision on shared problems.
3. Improve their ability to read fast with better understanding,
4. Express themselves clearly and concisely using right words in right places, as they will be enabled to add new words to their present vocabulary. (words, phrases and idioms)
5. Prepare well- organized curriculum vitae(resume/bio-data) Project report, long essay, and term paper
6. Write effective formal and informal, letters applications, memos, Emails and faxes.

II. The Structure of the paper

The paper consists of the following five units:

- Unit One : Listening
- Unit Two : Speaking
- Unit Three: Reading
- Unit Four : Writing
- Unit Five : Vocabulary Building



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Hrs/Week	Credits
4	4

Writing for Media

Objectives:

1. To teach the fundamentals of good writing
2. To help the students aware of the basic conventions of fiction writing
3. To provide the students the tools for self expression in this medium

Unit I

The Making of a Writer
Writing for Print Media
News and News Writing

Unit II

Freelance Writer
The Art of Interviewing
Editorial Writing

Unit III

Script Writer
Play writing
Script Writing

Unit IV

Copy Writer
Writing for Advertisement
Copy Writing

Unit V

Writing Novels
Writing a Bestseller
Writing effectively

Text Book: *Writing for the Media*. Sunny Thomas, Vision Books Pvt. Ltd., New Delhi.



R. C. Vasuki

SYLLABUS

PROFESSIONAL ENGLISH FOR ARTS & SOCIAL SCIENCES

OBJECTIVES:

- To develop the language skills of students by offering adequate practice in professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registers and the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturally aware of the target situation.

LEARNING OUTCOMES:

- Recognise their own ability to improve their own competence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Read independently unfamiliar texts with comprehension
- Understand the importance of writing in academic life
- Write simple sentences without committing error of spelling or grammar

(Outcomes based on guidelines in UGC LOCF – Generic Elective)

NB: All four skills are taught based on texts/passages.

UNIT 1: COMMUNICATION

Listening: Listening to audio text and answering questions
- Listening to Instructions

Speaking: Pair work and small group work.

Reading: Comprehension passages –Differentiate between facts and opinion

Writing: Developing a story with pictures.

Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 2: DESCRIPTION

Listening: Listening to process description.-Drawing a flow chart.

Speaking: Role play (formal context)

Reading: Skimming/Scanning-

Reading passages on products, equipment and gadgets.

Writing: Process Description –Compare and Contrast

Paragraph-Sentence Definition and Extended definition-



SEMESTER I

COURSE OUTCOMES : At the end of the course students will be able to

	Course Outcomes	Cognitive Level
CO1	Enhance competence in the four skills – Writing, Speaking, Reading and Listening	K2, K3, K5
CO2	Provide ability to enrich their communicative skills.	K1, K2, K3
CO3	Study the usage of dictionaries, thesaurus and encyclopedias.	K1, K2, K3
CO4	Learn Internet as a resource for learning	K2, K3
CO5	Develop the habit of reading newspapers.	K2, K3, K4

K1 – Remember, K2 - Understand, K3 - Apply, K4 - Analyse, K5 - Evaluate,
K6 - Create.

COMMUNICATIVE ENGLISH

UNIT – I

1. Listening and Speaking

a. Introducing self and others

b. Listening for Specific information

c. Pronunciation (without phonetic symbols)

i. Essentials of pronunciation

ii. American and British pronunciation

2. Reading and Writing

a. Reading short articles – newspaper reports/fact based articles

i. Skimming and Scanning

ii. Diction and tone

iii. Identifying topic sentences

b. Reading aloud: Reading an article /report

c. Journal (Diary) Writing

3. Study Skills – 1

a. Using Dictionaries, Encyclopedias, Thesaurus

Grammar in Context:

Naming and Describing

. Nouns & Pronouns

. Adjectives

UNIT II

1. Listening and Speaking

a. Listening with a purpose

b. Effective Listening

c. Tonal Variation

d. Listening for information

e. Asking for Information

f. Giving Information

2. Reading and Writing

1. a) Strategies of Reading:

Skimming and Scanning

b) Types of Reading:

Extensive and Intensive Reading

c) Reading a prose passage

d) Reading a poem

e) Reading a short story

2. Paragraphs: Structure and types

a. What is a Paragraph?

b. Paragraph Structure

c. Topic Sentence

d. Unity

e. Coherence

f. Connections between Ideas: Using Transitional words and Expressions

g. Types of Paragraphs

3. Study Skills II:

Using the Internet as a Resource

a. Online search:

b. Know the keyword:

c. Refine your search:

d. Guidelines for using the resources:

e. e-learning resources of government of India

f. Terms to Know

4. Grammar in Context

Involving Action – I

a. Verbs

b. Concord

UNIT – III

1. Listening and Speaking

a. Giving and following instructions

b. Asking for and giving directions

c. Continuing discussions with connecting ideas

2. Reading and Writing

a. Reading feature articles (from newspapers and magazines)

b. Reading to identify point of view and perspective (opinion pieces, editorial etc)

c. Descriptive Writing – Writing a short descriptive essay of two three paragraphs.

3. Grammar in Context

Involving Action – II

. Verbals – Gerund, Participle, Infinitive

. Modals

UNIT – IV

1. Listening and Speaking

a. Giving and responding to opinions

2. Reading and Writing

a. Note- Making

b. Narrative Writing – writing narrative essays of two to three paragraphs

3. Grammar in Context:

Tense

. Present

. Past

. Future

Unit - V

1. Listening and Speaking

a. Participating in a Group Discussion

2. Reading and Writing

a. Reading diagrammatic information- interpretations maps, graphs and pie charts

b. Writing short essays using the language of comparison and contrast

3. Grammar in Context: Voice (showing the relationship between Tense and Voice)

MAPPING OF COURSE OUTCOMES

S – Strongly correlated, M – Moderately Correlated, w- weakly correlated, No Correlation - 0

CO/ PO/ POS	PO1	PO2	PO3	PO4	PO5	POS1	POS2	POS3	POS4	POS5
CO1	S	M	S	S	S	M	S	S	S	M
CO2	M	S	M	M	M	S	M	S	S	S
CO3	M	S	M	S	M	S	M	M	M	S
CO4	S	M	S	M	M	M	M	M	S	S
CO5	M	M	M	S	M	S	M	M	M	S

R. C. Yashni

SEMESTER II

COURSE OUTCOMES: At the end of the course students will be

CO	Course Outcomes	Cognitive Level
CO1	Apply the expressions at various life situation	K1, K2, K3
CO2	Memorise and practise the use of Word Power	K1, K2, K3, K4
CO3	Identify and use the different forms of figures of speech in poetry.	K1, K2, K3, K4
CO4	Practise and produce short speeches.	K3, K4
CO5	Develop writing skills	K2, K3, K4

K1- Remember, K2- Understand, K3- Application, K4- Analyse , k5 – Evaluate,
K5 - Create

COMMUNICATIVE ENGLISH

UNIT – I

1. Listening and Speaking

- a. Listening and Responding to Complaints (formal situation)
- b. Listening to problems and offering solutions (informal)

2. Reading and Writing

- a. Reading aloud (brief motivational anecdotes)

b. Writing a paragraph on a proverbial expression / motivational idea.

3. Word Power/Vocabulary

a. Synonyms & Antonyms

4. Grammar in Context

. Adverbs

. Preposition

UNIT – II

1. Listening and Speaking

a. Listening to famous speeches and poems

b. Making short speeches – Formal : Welcome Speech and Vote of Thanks

Informal occasions – Farewell party , graduation speech.

2. Reading and Writing

a. Writing opinion pieces (could be on travel, food, film/ book review or any contemporary topic)

b. Reading poetry:

b. i. Reading aloud : (Intonation and Voice Modulation)

b. ii. Identifying and using figures of speech- simile , metaphor,
personification

3. Word Power

a. Idioms & Phrases

4. Grammar in Context

Conjunctions and Interjections

Unit – III

1. Listening and Speaking

a. Listening to TED Talks

b. Making short presentations – Formal presentation with PPT,
analytical presentation of graphs and reports of multiple kinds

- c. Interactions during and after the presentations
- 2. Reading and Writing
 - a. Writing emails of complaint
 - b. Reading aloud famous speeches.
- 3. Word Power
 - a. One word Substitution
- 4. Grammar in Context: Sentence Patterns

Unit – IV

- 1. Listening and Speaking
 - a. Participating in a meeting : face to face and online
 - b. Listening with courtesy and adding ideas and giving opinions during the meeting and making concluding remarks
- 2. Reading and Writing
 - a. Reading visual texts – advertisements
 - b. Writing a Brochure
- 3. Word Power
 - a. Denotation and Connotation
- 4. Grammar in Context: Sentence Types

Unit – V

- 1. Listening and Speaking
 - a. Informal interview for feature writing
 - b. Listening and responding to question at a formal interview
- 2. Reading and Writing
 - a. Writing letters of application
 - b. Readers' Theatre (Script Reading)
 - c. Dramatizing everyday situations/ social issues through skits.

R. C. Vasanthi



ENGLISH FOR COMPETITIVE EXAMINATIONS

Objectives:

1. To enrich word power for framing flawless sentences.
2. To produce passages without any errors.

Course Outcomes:

CO No.	Upon the completion of this course, students will be able to	PSO Addressed	Cognitive Level
CO - 1	to understand the importance of grammar and its usage in our daily life.	C	K1, K2
CO - 2	learn the basic grammar rules to prepare for Competitive Examinations	E	K3
CO - 3	apply the knowledge of grammar to identify errors and reproduce correct patterns of expressions	F	K3
CO - 4	analyze the varied form of expressions, basic structures, verbal patterns and sentence patterns for the effective use of the English language	A	K4, K5
CO - 5	evaluate the structures and patterns learned and to know their distinctive usages	A	K4, K5
CO - 6	create situation-based and context-based expressions and sentences to clear Competitive Examinations	H	K6

K1 – Remember, K2 – Understand, K3 – Apply, K4 – Analyze, K5 – Evaluate, K6 – Create

Mapping with POs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1	M	L	S	L	M	M	M	S
CO 2	M	L	S	L	M	M	M	S
CO 3	M	L	S	L	M	M	M	S
CO 4	L	L	L	L	L	L	L	L
CO 5	M	M	M	M	M	M	M	M
CO 6	S	S	S	S	S	S	S	S

S – Strong, M – Medium, L – Low

Unit I:

Word Substitution (Pg: 151 – 163)
Idioms and Phrases (Pg: 180 – 193)

Unit II:

Synonyms (Pg: 233 - 250)
Antonyms (Pg: 251 – 263)

Unit III:

Proficiency Tests : Synonyms (Pg: 289 - 305)
Proficiency Tests : Antonyms (Pg: 306 – 340)

Unit IV:

Sentence Completion (Pg: 443 – 476)
Common Errors (Pg: 479 – 504)

Unit V:

Comprehension : Prose (Pg: 509 – 514)
Comprehension : Poetry (Pg: 515 – 522)

Prescribed Texts:

A.P. Bhardwaj. *General English for Competitive Examinations* (Banking, Insurance, SSC Examinations, Railway, Defence and MBA Entrance Examinations). Delhi: Pearson, 2013.

Reference Books:

Essential English for Competitive Examinations – 2nd Edition. Disha Publications, 2019.
General English for Competitive Exams – SSC / Banking / Defence / Insurance – 2nd Edition. Disha Publications, 2019.

II B. COM (III SEMESTER) – UNDER CBCS
PART III – MAJOR CORE -8
HUMAN RESOURCE MANAGEMENT

L	T	P
5	0	0

Objectives

1. To study about the importance of human resource.
2. To study the techniques of performance appraisal of employees.
3. To know the methods to redress the grievances of employees.

Unit I: Introduction- Concept – objectives – characteristics – functions – principles.

(8 hours)

Unit II: Man power planning – definition – need – process job analysis – job description - specification – job evaluation – recruitment and selection process.

(15 hours)

Unit III: Employee's training – needs – importance – principles – training methods - promotion types – demotion – labour turnover - performance appraisal methods.

(22 hours)

Unit IV: Industrial relations – significance – causes of poor industrial relations suggestions – labour disputes and settlement.

(18 hours)

Unit V: Workers participation in management – collective bargaining and industrial relations – employee's grievances.

(12 hours)

(75 hours)

Text Books

1. J. Jaya Sankar, Human Resource Management, Margham Publications, Chennai
2. G.D. Maheshwari, Human Resource Management, Sultan Chand Publications.
3. T.S.Reddy & A.Murthy, Human Resource Management, Margham Publications, Chennai.

Reference Books

1. Wreather and Davis, Human Resource Management. Pearson Education.
2. TN Chhabra, Human Resource Management, Dhanpat Rai & Co., Delhi.
3. Biswajeet Pattanayak, Human Resource Management, PHI Learning.
4. Khurana Ashok, Human Resource Management, V.K. Publications.
5. Sankalp Gaurav, Human Resource Management, Sahitya Bhawan Publications



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Page

BANKING

Unit I: Banker and Customer : Relationship between banker and customer – General & Special relationship – Rights of the banker – Negotiable instruments – Promissory note, Bill of exchange & Cheque (Meaning & Features) – Proper Drawing of the cheque – Crossing (Definition & Types) – Endorsement (Definition & Kinds) – Material alteration – Statutory protection to the paying banker – Statutory protection to the collecting banker

Unit II: Banking System: Indigenous Bankers – Commercial Banks – Co-Operative Banks – Land development Banks – Industrial Development Banks - NABARD- EXIM Banks – Foreign Exchange Banks.

Unit III: Traditional Banking : Receiving Deposits – General Precaution – Kinds of deposits – Fixed – Current – Saving – Recurring & Others Lending Loans & Advances – Principles of sound lending – forms of advances – loan , cash credit , over draft & bills purchase & discounted. Mode of charging security – lien , pledge , mortgage , assignment & hypothecation.

Unit IV: Modernised Banking : Core banking – Home banking – Retail banking – Internet banking – Online banking and Offline banking – Mobile banking –Electronic Funds Transfer – ATM and Debit Card – Smart Card – Credit Card – E-Cash – Swift – RTGS.

Unit V: Reserve Bank of India : Functions of Reserve Bank of India – Methods of Credit Control – RBI'S Monetary policy – Opening New Branches – New Licence in Policy.

Text & Reference Books:

1. K.C.Sherlekar - Banking theory law and practice.
2. S.N.Lal - Banking theory law and practice.
3. M.C.Tannen - Banking theory law and practice.
4. E.Gordon and K.Natarajan - Banking theory law and practice.
5. S.S.Gulshan and Gulshan K.Kapoor - Banking theory law and practice.
6. S. Guruswamy – Banking Theory Law & Practice –3rd Edition, Vijay Nicole Imprints Private Limited, Chennai.



**II B. COM (III SEMESTER) – UNDER CBCS
PART III – SKILL BASED I - CORE
BUSINESS COMMUNICATION**

L	T	P	C
4	0	0	4

Objectives

1. To equip the students effectively to acquire skills in reading, writing, comprehension and communication
2. To make them use electronic media for business communication

Unit I: Introduction: Nature and Importance of communication – Types of communication (Verbal & Non Verbal) – Forms of communication – Barriers to communication. **(10 hours)**

Unit II: Business Correspondence: Letter Writing -- Principles of Letter Writing -- Quotations - Orders - Tenders - Sales Letters - Claims and Adjustment Letters – Credit and Collection Letters. **(20hours)**

Unit III: Job Related Communication: Letter of application - Drafting the Application - Elements of Structure of Application - Resume Preparation. **(15hours)**

Unit IV: Attending the Interviews: Types of Interviews - Preparation for Attending the Interview - Before and During the Interview - Interview Process – Tips for Successful Interview. **(5 hours)**

Unit V: Technology and Business Communication: Role and Effectiveness of Technology in Business Communication – Email, Text Messaging, Instant Messaging – Modern Techniques like Video Conferencing, Social Networking – Strategic Importance of E-Communication. **(10 hours)**
(60hours)

Text Books

1. Ragurathan & Santharam, Business Communication, Margham Publication.
2. Ashakaul, Effective Business Communication, Prentice Hall.

Reference Books

1. R.C. Sharma & Krishnamohan, Business Correspondence and Report Writing, Third edition, Tata McGraw Hill.
2. Penrosemesberry, Advanced Business Communication, Myers Thomson South Western.
3. Marry Ellan, Guffey, Thomson, Business Communication, South Western.
4. P.N. Ghose Rajendra Paul, J.S.Korlahalli, Business Correspondence and Office Management, Sultan Chand and Sons.
5. R.S.N. Pillai, Bagavathi, Office Management, S. Chand & Co.



BUSINESS TAXATION

Unit I: Indirect taxes – meaning – special features – merits and demerits – difference between direct and indirect taxes – major reforms in indirect taxes in India.

Unit II : Central Excise Duty - Types of Excise duty - Valuation of goods - Clearance of goods - exemptions from excise duty - procedure for assessment and payment of Excise duty.

Unit III: Customs Act - Objectives - Levy and Collections - Types of Customs Duty - Procedure for Assessment and payment of Customs Duty - Clearance of goods - Warehousing provisions - Duty drawback provisions.

Unit IV: Service Tax- Meaning- Persons liable to pay service tax- Elements of service tax- Taxable services- Value of taxable service- Different services on which tax is payable- Service tax procedures.

Unit V: Value Added Tax (VAT) - Meaning-Objectives- Merits- Demerits- Types- VAT Rates- Dealers liable to pay VAT - Tamil Nadu VAT.
Simple problems only.

Text & Reference Books:

1. V.Balachandran, Indirect taxation.
2. T.S. Reddy and Y. Hari Prasad Reddy, Business Taxation.
3. V.S. Datey, Central Excise, Taxman Publishers.
4. R.K.Jain, Customs law manual.
5. Sanjeev Aggarwal, A Handbook of Service Tax.



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ENTREPRENEURSHIP DEVELOPMENT

Unit I: Entrepreneurship – meaning – definition – importance – Entrepreneur – types of entrepreneurs – functions of entrepreneurs – qualities of entrepreneurs – entrepreneur as a career – role of entrepreneur in economic development.

Unit II: Factors affecting entrepreneurial growth – economic – social cultural – psychological and sociological factor – women entrepreneurship – functions and problems of women entrepreneurs

Unit III: MSME – definition – overview of MSME in India – Government policies & support measures – schemes and incentives – problems and prospects of MSME in India – entrepreneurship development programmes.

Unit IV: Industrial finance to entrepreneurs – TIIC, SIDBI and commercial banks. Institutional support to entrepreneurs – EDII – NAYE- KVIC- DIC and industrial estates.

Unit V: Project report – meaning and importance – contents of project report – project appraisal – market feasibility – technical feasibility – financial feasibility and economic feasibility.

Text & Reference Books:

1. Robert D Hisrich, Michael P Peters & Dean A Shephard, Entrepreneurship, TataMcgraw Hill Co.
2. N.P. Srinivasan, Entrepreneurship Development, Sultan Chand & Sons.
3. P. Saravanavel, Entrepreneurship Development, Esspeekay Publishing House.
4. S.S. Khanka, Entrepreneurial Development, S. Chand & Sons.



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CAREER PLANNING

Unit I: Career Planning-Meaning-How to get Employment-(Jobs through competitive examinations , Employment Exchanges , Advertisements and applications , contracts , vocational guidance Bureaus)-Main sources of information-Commerce graduates and careers.

Unit II: Speaking skills-Essentials of a good speech-Content of a speech- Qualities of a good speaker-Self introduction-Giving speech on a general topic-Group discussion-Meaning-Features of Group discussion-Requirement for effective group discussion-How to participate in Group discussion ?-Role of Group leader-Model of group discussion(class room practice)-Report Writing-Meaning of Report-Importance-Types-Features of a good report-Steps in preparing a general report.

Unit III: Interview-Meaning-Types-Significance-Interview techniques-Preparing before interview-How to participate in an interview-Model Interview (class room practice)-General Awareness preparation.

Unit IV: Test of Numerical Ability (simple questions)-Simplification-Percentage-Profit and loss-Ratio and proportion-Time and work-Time and distance-Calendar-Clock problems.

Unit V: Test of Reasoning Ability (verbal only)-Analogy-Odd man out, coding and decoding-Direction sense test-Position and order-Alphabet test-Blood Relation-Commonsense test-Puzzle test.

Text & Reference Books:

1. Dr Shuba Mitter and S.C.Agarwal Guide to careers for commerce graduates.
2. Prakash.J.Shaw, How to develop your personality.
3. Bevosh Bhiskshu, Steps to success.
- 4.Kochar.S.K, Educational and vocational Guidance in colleges and universities.
5. Mohan.K.Mani Ram Agarwal, General Knowledge Digest.
6. Arokian.J.B, Career counselling.
7. Agarwal.R.S, Mordern Approach to verbal Reasoning.
8. Agarwal.R.S, Quantitative Aptitude.



HUMAN RIGHTS

Unit I: Meaning - Definition of Human Rights - Characteristics of human rights - kinds of Human Rights - Civil and political – social, economic and cultural rights

Unit II: Violation of human rights - Patterns of violations and abuses - Action against violation of human rights as per Indian law

Unit III: Rights of the Disabled Persons - Declaration on the rights of disabled persons 1975 - International year of disabled persons 1981

Unit IV: Bonded labour - Concepts and definitions - Constitutional and legal provisions - Salient features of bonded labour system (abolition) Act 1976 - Role of the national human rights commission

Unit V: Minorities Rights commission & its functions - Definitions - National commission for minorities - Functions of the commissions

Text & Reference Books:

1. Paras Diwan, Peerushi Dewan , Human Rights and Law.
2. Dr. Giriraj Shah, IPS & K.N. Gupta, IPS, Human Rights.
3. Jagannath Mohany , Teaching of Human Rights.
4. C. Nirmala Devi, Human Rights
5. Praveen Vadkar, Concepts, Theories and Practice of Human Rights, Neha Publishers
6. Baradat Sergio and Swaranjali Ghosh, Teaching of Human Rights, Dominant Publishers and Distributors, New Delhi, 2009.
7. Roy.A.N. Human Rights Tasks, Duties and Functions: Aavishakar Publications and Distributors, Jaipur.
8. Asish Kumar Das and Prasant Kumar Mohanty, Human Rights in India: Sarup and sons, New Delhi, 2000



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II B.COM IV SEMESTER Major Elective(1Course)(Any One)

✓
1. Indirect Tax

Unit - I

Indirect Taxes-meaning- special features- merits-demerits- major reforms in indirect taxation in India.

Unit - II

Central Excise Act 1944- basis condition for excise liability - taxable event- types of excise duty- excisable goods- related buyer- manufacture - processes amounting to manufacture-rules for classification - rules for valuation- transaction value- inclusions and exclusion.

Unit III

Customs Act 1962 - nature of customs duty- taxable event- territorial waters of India-Indian customs waters- types of customs duty- customs value- inclusions and exclusion.

Unit IV

Value Added Tax (VAT)-Meaning- Special features- Need and Mechanism.

Unit - V

Service Tax- Meaning- Need- persons to whom service tax is charged- classification.

Text books:

1. Indirect Taxation - Dr. Balachadran, Sultan
2. Central Excise- V.S. Datey, Taxman publication
3. Indirection Taxes- V.S. Datey, Taxman publication
4. Central Excise for small scale industries- Gopinath Sarangi
5. Job work for central exercise- B.N. Gururaj
6. A hand book for service tax -- C. Parthasarathy & Sanjeev Agarwal
7. Customs Law Manual- R.K. Jain
8. Customs 'Tarifi' of India - R.K. Jain

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[Signature]

MSU/2016-17/UG-Colleges/Part-III (B.Com) Semester-V/ppr.no.27/Core -12

BUSINESS LAW

Unit I: Indian Contract Act 1872 – Fundamental essentials of a valid contract – classification of contracts – offer – acceptance – consideration – capacity – free consent – legality of object – contingent contracts

Unit II: Performance of contract – discharge of contract – breach of contract – remedies – quasi contracts

Unit III: Special contracts – indemnity – guarantee

Unit IV: Bailment – Pledge – contract of agency

Unit V: Sale of goods Act – differences between sale and agreement to sell – sale and hire purchase agreement – classification of goods – documents of title to goods – rights and duties of buyers and sellers – rights of unpaid seller

Text & References Books:

1. N.D.Kapoor, Business Law, Sultan Chand Publishers
2. N.D.Kapoor, Elements of Mercantile Law, Sultan Chand Publishers
3. P.C. Tulsian, Business Law, Tata McGraw Hill
4. R.S.N. Pillai, Business Law, Himalaya Publishing House
5. Srinivasan & C.D. Balaji, Industrial Law and Public Relationship, Margham Publications.
6. Tejpal Sheth, Business Law, Pearson's India Education Services Pvt. Ltd.



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MSU/2016-17/UG-Colleges/Part-III (B.Com) Semester-V/ppr.no.28,
Major Elective -2(A)

INCOME TAX, LAW & PRACTICE I

Unit I: Basic Concept – Person, Assessee, previous and assessment year, total income, gross total income– concept of income – Agricultural Income- Income exempted from tax – Residential status – problems.

Unit II: Income from Salary – different forms of salary and allowance – perquisites – problems in computation of salary income.

Unit III: Income from House property – Annual value – Standard deduction – Unrealized rent – problems in computation of house property income.

Unit IV: Income from under the Head Business or profession – deduction allowable – Expressly disallowed expenses – computations – problems in computation of business or professional income.

Unit V: Income from capital gain – Types – Exemption – Computation – problems in computation of capital gain.

Text & Reference Books:

1. Dr. H.C. Mehrotra and Dr. P. Mehrotra, Income tax law and accounts
2. V.P. Gaur, D.B. Narang, Pooja Ghai and Rajeev Puri, Income tax law and practice
3. A.Murthy, Income Tax Law and Practice Assessment Year - 3rd Edition, Vijay Nicole Imprints Private Limited, 2015-16.
4. B.B. Lal, Income Tax, Darling Kindersley Pvt. Ltd, Noida.



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AUDITING

Unit I: Introduction – meaning – objectives – difference between Accountancy and Auditing, advantages – limitations – Audit programme – Audit working papers – preliminaries before Audit – test checking and routine checking.

Unit II: Internal check – meaning – objectives – difference between internal control and internal Audit – Advantages and Disadvantages of internal check – internal check regarding cash, purchases, purchase returns, sales and sales returns.

Unit III: Vouching – meaning – objects – importance of vouchers – precautions to be taken by the Auditors while examining vouchers – vouching of various transactions.

Unit IV: Verification and valuation of assets and liabilities – classification of assets – verification of different types of assets – verification of liabilities – Valuation of investment, Stock -in -Trade and Book debts.

Unit V: Company Auditor - Appointment – qualification and disqualification – removal of an Auditor – status – rights – duties and liabilities – Auditor's Report – content – kinds of Auditors Report – general considerations for drafting the report.

Text & Reference Books:

1. B. N. Tandon, Auditing, S. Chand & Co., New Delhi
2. Dr. T.R. Sharma, Auditing, Sahitya Publication, Agra.
3. Dinkar Pagare, Principles and practice of Auditing, Sultan Chand & Sons, New Delhi.
4. Saxana, Reddy and Appannaiah, Text Book of Auditing, Himalaya Publishing House.
5. S.K. Basu, Auditing Principles and Techniques, Pearson India Education Services Pvt. Ltd, Noida.



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MSU/2016-17/UG-Colleges/Part-III (B.Com) Semester-V/ppr.no.34/
Major Elective-3(C)

VALUES AND ETHICS FOR BUSINESS

Unit I: Introduction to Values – as ideals that guide one's behaviour reflecting what one perceives as good in a decision or action – Values guide behaviour and could be terminal goals- Values in the society, politics, inter-personal relations, economics and business- Morals -Value and Vision statements in organizations - Focusing on Innovation, Reliability, Customer satisfaction, Quality assurance, Profitability, Utility, Productivity etc. and the continuous improvement in their standards.

Unit II: Ethics as the art of choosing between right and wrong – Interpreting the consequences and choosing the right- Ideas of freedom of choice, equality, justice, fairness in dealing with customers, society, environment .

Unit III: Application of Values and ethics in business – Examples from Business- Government interactions: Use and Misuse of government incentives, subsidies and licenses- Tax evasions- How to be ethical and still do good business. Human Resources employment in Business: in hiring, compensating, work assignments- discrimination; Marketing: Issues in Pricing policies and strategies, cartels between sellers, misleading advertisements; Policies relating to exchange and return of goods sold. How to give value for money and still do good business?

Unit IV: Examples in Production: Poor quality, risky products, defective/un tested products, unauthorized copies/imitations, Quality Policy: Zero defect and quality of ingredients, components, ISI, AG Marks, Hall Mark, Patents, Copy rights, post-sales services. Guarantee for performance- Legal and self imposed norms for doing good business and earning goodwill.

Unit V: Handling customer complaints, Problems- examples from consumer goods and services oriented industries(Tourism, Travel, Telephones, Edible goods, Health etc.) -Consumer Protection Act 1986 and Some of the best Industry Practices- Code of Conduct for professions (Professional Ethics).

Text & Reference books:

1. Colin M. Fisher and Alan Lovell, Business Ethics and Values, F.T. Prentice Hall, 2006.
2. G.P. Martin, Glenn Martin, Human Values and Ethics in the work place, 2010.



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(2021) SACS423 - Allied
- E-Commerce - SACS41(2017)

L T P C
3 0 0 3

Objective: To impart knowledge about the web technologies and their applications and to understand the basics of web designing.

Unit I

History of E-Commerce : Electronic Commerce - Emergence of the Internet - Emergence of the World Wide Web - Advantages of E-commerce - Disadvantages of E-Commerce - Online Extension of a BAM Model - Transition to E-Commerce in India - The Internet and India.
(8L)

Unit II

Business Models for E-Commerce : Social Networking and Facebook - Business Model - E-business Models Based on the Relationship of Transaction Parties - E-business Models Based on the Relationship of Transaction Types.
(9L)

Unit III

e-Marketing - Google - Traditional Marketing - The Browsing Behaviour Model - Online Marketing - E-advertising - Internet Marketing Trends - E-branding - Marketing strategies.
(9L)

Unit IV

e-Security : Information System Security - Security on the Internet - E-business Risk Management Issues - Information Security Environments in India.
(9L)

Unit V

e-Payment Systems : E-banking at ICICI Bank - Main Concerns in Internet Banking - Digital Payment Requirements - Classification of New Payment Systems - Digital Signature - Online Financial Services in India.
(10L)

TEXT BOOK:

1. P.T. Joseph , S . J, E-Commerce - An Indian Perspective, PHI Learning Pvt Ltd., 2013

Reference Books:

1. CSV Murthy, E-Commerce - Concepts Models Strategies, Himalaya Publishing House.
2. Bharat Bhasker, Electronic Commerce Framework, Technologies and application, Tata Mcgraw Hill.

INFORMATION SECURITY - SMCS 42

L T P C
4 0 0 4

Objective: Information security focuses on the overview of information security, the tools and techniques used to secure information and the procedures and practices that must be followed by organizations to ensure information security.

Unit I

Basics of information security: Introduction – Information – Need for information security – What is an information security breach – What needs to be secured? – Who needs to be concerned on information security. Aspects of information security – Goals of information security – Establishing a Security Equation.

Information Security Threats: Introduction – What is a threat – Threats and Vulnerabilities – Threats, vulnerabilities and counter measures. – Types of threats (12L)

Unit II

Viruses: Introduction – Who creates a virus and why? – How does a virus spread. Types of viruses – Boot sector virus – file virus. Prevention from virus attacks – Impact of a virus attack – Security measures to prevent virus attacks. Antivirus Software – Types of Antivirus software – Deploying Antivirus software. Virus detection and recovery – Virus detection – Recovery from virus attack.

Backups: Introduction – Need for making backups – Types of backups – Backup media – Qualities of a good backup. Backup Strategy – What should be backed up – How frequently and what types of backups should be made – which backup medium should be used – For how long should backups be maintained – who is responsible for making a backup. Backup solutions - Backup solutions used in Linux - Backup solutions used in Windows 2000. (12L)

Unit III

Countermeasures for Information Security Breach: Cryptography – What is cryptography – Need for cryptography – Types of cryptography – Algorithms used in Cryptography – Authentication models used in cryptography – Implementation of cryptography. Biometrics – Biometrics Authentication process – Biometrics Authentication methods – Areas where Biometrics is used.

Risk Management: Introduction – What is Risk management – Need for risk management - Benefits of risk management – Important roles in risk management – The risk management process. Risk Assessment – Identifying the assets at risk – Assessing the value of assets – identifying the threats to the assets – identifying the vulnerabilities in an organization. Risk Analysis – Analyze the probability of threat occurrence – Analyze the impact of threat occurrence – Determine the levels of risk of each asset – Prepare for a Risk analysis report. Risk Mitigation – Devise an implementation plan and prioritize Assets – Identify security controls – Conduct cost benefit analysis – challenges in Risk management. (12L)

Unit IV

Security Policies: Introduction – What is security policy – need for security policy – people who are affected by security policies – Role of management in implementing security Policies- Components of a security policy – security policies and Trust. Security Policy Life Cycle –Prerequisites for creating a Security policy – Design and Creation – Implementation – Compliance – Monitor and Review. **Key Security Policies-** Acceptable use policy –P:assword policy – Remote Access policy – Virus prevention and Protection policy.

Intrusion Detec on: Introduction – What is intrusion – How intrusion happens – who can intrude –types of intrusions. Intrusion Detection Systems – Models on which IDS are based – types of IDS. Honeypots – types of honeypots – uses of honey pots. Firewalls-types of firewalls.

(12L)

Unit V

Security Audit: Introduction – Objectives of security audit – when is a security audit required. **Auditor** – Qualification of an auditor – role of an auditor – responsibilities of an auditor. Conducting Security Audits – Auditing strategies – Phases of a security audit – types of security audits. **Sample Security Policy:** Introduction – Security policy – Roles and responsibilities – policy documentation – security policy compliance – Standards and guidelines for the use of Company Resources and Network facilities V 1.0 - Standards and guidelines for email usage V 1.0 - Standards and guidelines for internet usage V 1.0. Sample Risk Analysis

(12L)

Text Book:

Information security, An overview. PHI, 2004.

Reference Books:

1. Information Security: Principles and Practice 2nd Edition, Mark Stamp , Wiley Publications.
2. Information Security: The Complete Reference 2nd Edition, Mark Rhodes & Ousley, Mcgraw Hill.

3

Common Paper for UG and PG Integrated Programmes

COMPUTERS FOR DIGITAL ERA

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2	0	0	2

Syllabus (For all U.G Courses & Integrated P.G. Programmes) w.e.f 2017-18 (MANDATORY COURSE)

(For the IV Semester UG/ Integrated PG Students of Departments and Affiliated Colleges of Manonmaniam Sundaranar University with effect from the Academic Year 2017-18.)

Objectives:

1. To create the awareness about the digital India among the student community.
2. To make the student to understand the role of computer in the day to day living.
3. To create the awareness about the e-learning and security issues.

Unit I FUNDAMENTALS OF COMPUTERS 5 Hrs (3L + 2P)

The role of computers in the modern society – Types of Computers and their specifications – Server – Desk Top Computers - Lap Top – Tablet – Smart Phones - Block diagram of Digital Computer –Working Principle of Computer, I/O Devices – Central Processing Unit – Types of Memory - Display – Port – UPS – Setting up and Maintenance of Computer.

Unit II TYPES OF SOFTWARE AND OFFICE AUTOMATION 6 Hrs (3L + 3P)

Types of Software with examples – System Software – Application Software – Utility Software - Operating System – Basics on Windows – Introduction to Android –Application Software - Free Open source software – Database and its applications – Office Automation Software – applications of Microsoft Word – Microsoft Power Point – Microsoft Excel.

Unit III INTERNET AND MOBILE APPLICATIONS 7 Hrs (4L + 3P)

Introduction to computer networks – LAN – WAN – MAN – Wired and wireless network – Wi Fi Networks - Network Devices – Modem – Switch – Router – Broad Band – Leased Lines- Internet – WWW – URL- Browser – e-mail – SMS – MMS - Client Server Computing - Cloud – Public and Private cloud – Mobile Applications.

Unit IV E – GOVERNANCE IN INDIA 7 Hrs (4L + 2P)

E-Governance initiative by the Government – Digital India Platform – Agencies enabling Digital India - Electronic Payment and Receipt – Digital Locker – e-district service – electronic signature service – Digital AIIMS – India BPO Scheme – Integrated Nutrient Management – GIS – Mobile Seva App Store- GARV- Grameen Vidyutikaran

Unit V E – LEARNING AND MOOC 5 Hrs (L)

E – Learning – Digital Library – E- Journals – Introduction to MOOC – Edex – Course era etc - SWAYAM – NPTEL – Cyber Security – Virus – Malware – Network Security - Hacking – Big Data – Data Analytics – Social Networks – Social Media Analytics- Introduction to IT Act.

Shameel
Head - dept of IT

R.C. Yasuki
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* 10 Hours Practical Sessions are to be allotted for Computer & Mobile Applications

Suggested List of Exercises:

1. Setting up of computers – Connecting I/O device, UPS, CPU, Printers, Mouse, Key Boards, Pen Drives, etc. (Mandatory)
2. Minor fault findings.
3. Preparing a word Document and saving, copying files, deleting files, renaming files, etc. (Mandatory)
4. Preparing slides – Animation – Slide Transition – Back Ground Changing – Word Art , etc. (Mandatory)
5. Preparing Mark Sheet with Excel - Calculating First Class, second class, etc. (Mandatory)
6. Browsing – Searching for documents – e-mail id creation - Useful mobile apps – downloading. (Mandatory)
7. Data/Wi-Fi Connectivity and Exchanging of Data.
8. Electronic Payment – Online Application Processing
9. Browsing for NPTEL/ SWAYAM Courses
10. Browsing the useful e-learning sites

Learning Outcomes:

At the end of the course the students will be able to:

1. apply the computing technology in their day to day life
2. create awareness regarding digital India initiatives to their surroundings
3. identify the areas where he can extend the digital computing for their benefits.

Text Book:

1. E- Materials of Manonmaniam Sundaranar University on “Computer for Digital Era”, <http://msuniv.ac.in>

References:

1. Andrew S. Tanenbaum, Computer Networks, 4th Edition, Eastern Economy Edition, PHI Private Ltd, New Delhi, 2003.
2. Gautam Shroff, Enterprise Cloud Computing, Technology, Architecture, Applications, Cambridge University Press, First Edition, 2010.
3. Reza B’Far, Mobile Computing Principles, Cambridge University Press, First Edition, 2005.
4. Charles P Pfleeger, Shari Lawrence Pfleeger, Security in Computing, I Edition, Pearson Education, 2003.
5. <https://swayam.gov.in>
6. <http://www.digitalindia.gov.in/content/social-media-analytics>

Scheme of Examination	
Internal – 25 Marks	External – 75 Marks
Internal Break Up - 15 for Continuous Assessment Test (CAT) + 5 for Assignment + 5 for Seminar. 3 CATs (Two tests on Theory and one on Practical)are to be conducted	

MAJOR ELECTIVE THEORY : INTERNET SECURITY

L T P C
4 0 0 4

PREAMBLE

- To learn the basic concepts of computer security.
- To know the different classes of attack in security.
- To make the students to get familiarized with firewalls, proxy servers & cryptography.
- Outcome: Knowledge will be obtained in internet security attacks, cryptography concepts.

Unit – I

Introduction : Why require a security? – Picking a Security Policy – Strategies for a Secure Network – The Ethics of Computer Security – Security Threats and levels – Security Plan (RFC 2196).

Unit – II

(12hrs)

Classes of Attack : Stealing Passwords – Social Engineering – Bugs and Backdoors – Authentication Failures – Protocol Failures : Information Leakage – Exponential Attacks – Viruses and Worms – Denial – of – Service Attacks – Botnets – Active Attacks.

Unit – III

(12hrs)

Computer Security : What are Viruse, Trojan Horse, Worms? – How to protect the computer against virus – What is the Structure of Viruse?

Unit – IV

(12hrs)

Firewalls and Proxy Servers : Kinds of Firewalls : Packet Filters – Application – Level Filtering – Circuit – Level Gateways – Dynamic Packet Filters – Distributed Firewalls – What Firewalls Cannot Do – Filtering Services : Reasonable Services to Filter – Digging for Worms – Packet – Filtering – Implementing Polices (Default allow, Default Deny) on Proxy.

Unit – V

(12hrs)

Cryptography : Introduction to Basic Encryption and Decryption, Diffie – Hellman Key Exchange – Concept of Public Key and Private Key – Digital Signatures.

(12hrs)

Text Book :

1. William R. Cheswick, Steven M. Bellovin and Aviel D. Rubin, "Firewalls and Internet Security: Repelling the Wily Hacker", Second Edition, Pearson Education.

Reference :

1. Speed, "Internet Security : A Jumpstart For Systems Administrators And IT Managers", Elsevier India.
2. BehrouzForouzan, "Cryptography And Network Security E/2", Tata McGraw Hill Education.

MAJOR THEORY SOFTWARE ENGINEERING

Preamble

L T P C
4 0 0 4

- To learn the methodologies involved in the development and maintenance of software over its entire life cycle and
- To understand the concepts of modeling, implementation and various testing strategies and the use of CASE Tools.
- Outcome : Obtain knowledge in software development process, testing & maintenance as well as CASE Tools.

Unit – I

Software Engineering : Definition ,Software Engineering Activities, Skills and challenge – Components of Software Engineering : SSAD and OOSAD – Software Life Cycle Model – Software Development Model – CMM for Process Improvement- Software Process Model – Software Estimation : Size Effort and Cost : Software Metrics : Introduction – Estimation of Effect and Schedule – COCOMO – Software Cost Estimation.

(13hrs)

Unit – II

Software Quality Assurance : Testing Techniques for SQA – Software Testing Strategies – Software Engineering Tools – Introduction – Analysis Tools – Requirements Engineering – Work Breakdown Structure – Prototyping – System Analysis – System Modeling – Structure System Analysis – Software Requirement Specification.

(11hrs)

Unit – III

System Design : Introduction – Data Structure and Database Design- Design Development Process – System Design Architecture – System Behavior design – Architecture and Choices – Architecture and Non – Functional Requirements – Design Specification Documentation – User Interface Design – User Interface Analysis and Design – Guidelines for Designing UI Components – Procedural Design.

(11hrs)

Unit – IV

Object Oriented Approach and Technology : Basis of Objects – Object Properties – Object Oriented System Development Cycle – UML – Static Class Diagrams – Use Case Diagrams – Behavior Diagrams.

(12hrs)

ALLIED THEORY IV
OPERATION RESEARCH AND NUMERICAL ANALYSIS

LTPC

3003

PREAMBLE

- To know about transportation and assignment problems in Operation Research
- To solve sequencing problem and simultaneous equations.
- Outcome : Students will able to solve Transportation Problem, Assignment Problem, & Sequencing Problem.

Unit – I

Transportation Problem : Introduction – General Transportation Problem – The Transportation Table – Formulation of the Transportation Problem – Triangular Basis in a Transportation Problem – Finding an initial basic feasible solution : North West Corner rule – Least – Cost Method or Matrix Minima Method – Vogel's Approximation Method. (10hrs)

Unit – II

Assignment Problem : Introduction – Mathematical formulation of the problem – The Assignment method – The Travelling Salesman Problem. (8hrs)

Unit – III

Sequencing Problem : Introduction – Problem of Sequencing – Basic Terms used in sequencing – Processing n jobs through two machines – Processing n jobs through k machines – Processing 2 jobs through k machines. (9hrs)

Unit – IV

Simultaneous equations : Back substitutions – Gauss Jordan elimination method – Calculation of inverse of a matrix – Gauss – Seidel iteration method. (9hrs)

Unit – V

Difference Operators : Newton's interpolation formula – Lagrange's interpolation formula – Divide difference interpolation – Inverse interpolation. (9hrs)

Text Books :

1. KantiSwarup, P.K. Gupta and Man Mohan, "Operations Research", Sultan Chand A Sons, New Delhi – Unit I, II and III.
2. S. Arumugam, A. Thangapandilssac and A. Somasundaram, "Numerical Analysis", New Gamma Publishing House, Palayamkottai – Unit IV & V.

Reference :

1. T. Sankaranarayanan, Joseph A. Mangaladoss, "Operations Research", Suja Publishing House, Tirunelveli.
2. R. Panneerselvam, "Operations Research", 2nd Edition, PHI Learning (2011), New Delhi.
3. Vasishtha, "Numerical Analysis", Krishna Prakashan Media (P) Ltd. (2010) , Meerut.

2021-2022

B. Sc. Information Technology / Semester V / Core 7

Software Engineering and Testing

L T P C
4 0 0 4

COURSE OBJECTIVE:

1. To impart knowledge on software engineering process
2. To understand software design concept, rules for designing UIs
3. To acquire knowledge of the basic concepts of software testing, testing tools and integration tools.

COURSE OUTCOME:

On successful completion of the course, the learners will be able to

- CO 1. Understand Software Process models
- CO 2. Analyze Software Engineering Practices
- CO 3. Agile development.
- CO 4. Develop Software
- CO 5. Apply appropriate Software testing strategies

- 12 hours

UNIT - I

SOFTWARE ENGINEERING: The Nature of Software – The Changing Nature of Software – Software Engineering – Defining the Discipline – The Software Process – Software Engineering Practice – Software Development Myths – Software Process Structure – A Generic Process Model – Defining a Framework Activity – Identifying a Task Set.

Process Patterns – Process Assessment and Improvement – Process Models – Prescriptive Process Models – Specialized Process Models – The Unified Process – Personal and Team Process Models – Process Technology – Product and Process – Agile Development – Agility and the Cost of Change – Extreme Programming – Other Agile Process Models.

- 12 hours

UNIT - II

MODELING: Requirements Engineering – Establishing the Groundwork – Eliciting Requirements – Developing Use Cases – Building the Analysis Model – Negotiating Requirements – Requirements Monitoring – Validating Requirements.

Avoiding Common Mistakes – Requirements Modelling: Scenario – Based Methods – Requirements Analysis – Scenario-Based Modelling – UML Models That Supplement the Use Case.

- 12 hours

UNIT - III

DESIGN CONCEPTS: The Design Process – Design Concepts – The Design Model – Architectural Design – Software Architecture – Architectural Styles – Architectural Design – Agility and Architecture – Component Level Design – Designing Class-Based

Components – Conducting Component Level Design – Component Level Design for WebApps – Component-Level Design for Mobile Apps.

Designing Traditional Components – Component-Based Development – User Interface Design – The Golden Rules – User Interface Analysis and Design – Interface Analysis – Interface Design Steps – WebApp and Mobile Interface Design – Design Evaluation.

UNIT – IV

- 12 hours

SOFTWARE TESTING: AN OVERVIEW: Introduction – Software Testing – The Three Step Process to Become a World-Class Testing Organization – Software Testing Guidelines – Software Testing Tools – Selecting and Installing Software Testing Tools – Integrating Tools into the Tester’s Work Process – Selecting and Using Test Tools – Training Testers in Tool Usage.

UNIT – V

- 12

hours VERIFICATION AND VALIDATION TESTING: The Seven-step Testing Process – Overview of the Software Testing Process – Verification Testing – Validation Testing – Rapid Application Development Testing – Testing a Multiplatform Environment.

CO - PO - PSO Mapping

Software Engineering and Testing											
CO	PO					PSO					COGNITIVE LEVEL
	1	2	3	4	5	1	2	3	4	5	
CO 1	S	S	S	M	S	S	S	M	S	S	K – 2
CO 2	S	S	S	S	S	S	S	S	S	S	K – 6
CO 3	S	S	M	S	S	S	S	S	S	S	K – 4
CO 4	S	S	S	S	S	S	S	S	S	S	K – 6
CO 5	S	S	M	S	S	S	S	S	S	S	K – 6

Strongly Correlated – S, Moderately Correlated – M, Weekly Correlated - L

TEXT BOOKS

1. Roger S. Pressman, Software Engineering: A Practitioner Approach, Eighth Edition, McGraw Hill, 2015.

B. Sc. Information Technology /Semester III - Core 3

NUMERICAL METHODS AND OPERATIONS RESEARCH

L T P C
4 1 0 4

COURSE OBJECTIVE:

1. To introduce the concept of solving equations using different methods
2. To understand the use of Assignment and Transportation problems

COURSE OUTCOME

- On successful completion of the course, the learners will be able to
- CO 1. Obtain numerical solution of nonlinear equations
 - CO 2. Solve system of linear equations using direct and iterative methods
 - CO 3. Apply various optimization techniques for decision making
 - CO 4. Able to identify, formulate, and solve complex real world problems
 - CO 5. Determine the optimal solution for Assignment and Transportation problems

UNIT - I **- 15 hours**

Solution of Algebraic and Transcendental Equations: Introduction - Basic properties of equations - Bisection method - Regula Falsi method - Secant method - Iteration method - Newton Raphson method

UNIT - II **- 15 Hours**

Solution Of Simultaneous Algebraic Equations: Solution of linear simultaneous equations - Direct methods of solution - Gauss elimination method, Gauss - Jordan method, Gauss Jacobi Method - Gauss Seidal Method

UNIT - III **- 15 Hours**

Numerical Integration: Trapezoidal rule, Simpson's one - third rule - Simpson's three - eighth rule

UNIT - IV **- 15 Hours**

Assignment Problem:Mathematical formulation - Hungarian method - Unbalanced assignment problem - various types.

UNIT - V **- 15 Hours**

Transportation Model: Methods for finding Initial Basic Feasible Solution- North West Corner Rule - Least Cost Method - Vogel approximation Method - Degeneracy in Transportation problems - Unbalanced Transportation problem.

CO - PO - PSO Mapping

NUMERICAL METHODS AND OPERATIONS RESEARCH											COGNITIVE LEVEL
CO	PO					PSO					
	1	2	3	4	5	1	2	3	4	5	
											K-5
CO1	S	S	S	M	M	S	S	S	S	S	K-3
CO2	S	S	S	S	S	S	S	S	M	S	K-3
CO3	S	S	S	S	S	S	S	S	M	S	K-3
CO4	S	S	M	S	S	S	S	S	S	S	K-5
CO5	S	S	S	S	S	S	S	S	S	S	K-3

Strongly Correlated – S, Moderately Correlated – M, Weekly Correlated - L

TEXT BOOKS

1. B. S. Grewal, "Numerical Methods in Engineering & Science", Khanna Publishers, Fifth Edition, April 1999.
2. S. D. Sharma, "Operations Research", KadamathRamnath& Co. Meerut.

SEMESTER - III/ Non-Major Elective 1

Other than B. Sc. (CS), B. Sc. (IT), B. Sc. (C&IT) and BCA

SOFTWARE FUNDAMENTALS

L T P C

2 0 0 2

COURSE OBJECTIVE:

1. To introduce the fundamentals of computersoftware
2. To understand the difference between hardware and software
3. To get an idea of Windows Operating System

COURSE OUTCOME:

On successful completion of the course, the learners will be able to

- CO 1. Gain knowledge on the basic concepts of Software
- CO 2. Differentiate the different program paradigms
- CO 3. Understand the graphical user interface of Windows Operating System
- CO 4. Organize Files and Folders in Windows Explorer
- CO 5. Set Date and Time in a Computer

6 Hours

Unit-I

Computer Program: Introduction - Developing a program - Algorithm - Flowchart - Decision Tables.

6 Hours

Unit-II

Program Testing and Debugging - Program Documentation - Program Paradigms: Unstructured programming, Structured programming and Object Oriented Programming - Characteristics of Good Programming.

6 Hours

Unit-III

Computer Languages: Evolution Programming Languages - Classification of Programming Languages - Generation of Programming Languages - Features of Good Programming language.

6 Hours

Unit-IV

Computer Software: Software Definition - Relationship between Software and Hardware - Software Categories : System Software and Application Software - Terminology Software Firmware, Liveware, Freeware, Public Domain Software, Shareware, Commercial Software and Proprietary Software.

6 Hours

Unit V

WINDOWS:GUI, Desktop and its elements, Anatomy of a window - Title Bar, Minimize, Maximize, Restore and Close Buttons, Scroll Bars, Menus and Tool - Starting and shutting down of windows.

WINDOWS Explorer, working with organization of files and folders, Copy, Move and Print files – setting time and date -6 hrs

CO - PO - PSO Mapping

SOFTWARE FUNDAMENTALS											
CO	PO					PSO					COGNITIVE LEVEL
	1	2	3	4	5	1	2	3	4	5	
CO 1	S	S	S	M	S	S	S	M	S	S	K-2
CO 2	S	S	S	S	S	S	S	S	S	S	K-4
CO 3	S	S	M	S	S	S	S	S	S	S	K-2
CO 4	S	S	M	S	S	S	M	M	M	M	K-3
CO 5	S	S	M	M	M	S	S	M	M	M	K-3

Strongly Correlated – S, Moderately Correlated – M, Weekly Correlated - L

Text Book:

Introduction to Computer Science, ITL Education Solutions Limited, 2/e, Pearson

Reference Books:

1. Fundamentals of Computers, V. Rajaram, 5th Edition, PHI
2. Introduction to Computers, Peter Norton, 7/e, TMH.

<https://edu.gcfglobal.org/en/windowsbasics/navigating-windows/1/>

Semester IV / Non-Major Elective 2

Other than B. Sc. (CS), B. Sc. (IT), B. Sc. (C & IT) and BCA

FUNDAMENTALS OF INTERNET

L T P C
2 0 0 2

COURSE OBJECTIVE:

Understand the basics of Internet and Web Services.

COURSE OUTCOME:

- On successful completion of the course, the learners will be able to
- CO 1. Browse efficiently
 - CO 2. Host websites
 - CO 3. Efficiently perform e-transactions
 - CO 4. Create Blogs
 - CO 5. Analyze the use of Antivirus software and Firewalls

Unit I

6 Hours

The Internet: Introduction – From Computers to the Internet - Advantages of the Internet – Major Internet Services – Hardware and Software in the Internet Age. Evolution and Growth of the Internet: Birth of the Internet – Current Networking Technologies – Next Generation Networking. Working of the Internet: The Internet Architecture – Client Server Computing – TCP/IP - The Protocols of the Internet.

Unit II 6 Hours

Getting Online: Types of Internet Accounts – Selecting Internet Service Providers – Electronic Mail: Advantages of E-mails – E-mail addresses – Mail transfer protocols – Working of E-mail system. World Wide Web: Architecture of the World Wide Web – Types of websites – Uniform Resource Locator – Domain Name System – Web Pages and Web Links – Visiting Web Pages – Using Internet Explorer – Searching the Web – Google and Yahoo Search Engines.

Unit III 6 Hours

Hosting and Promoting Websites: Structure of Websites – Web Development tools – Microsoft Front Page – Adobe Dreamweaver – Visual Studio.NET – Hosting Websites – Getting a Domain / name – Visitor Analysis and Statistics – Website Promoting methods.

Unit IV

6 Hours

Electronic Commerce: E-Business and E-Commerce – Types of business in the internet – M-Commerce - Marketing Strategies on the Web – Making Payments in Virtual Stores – Shopping in Virtual Stores – Cookies and E-Commerce – Major issues of E-commerce and M-Commerce – Future of E-commerce.

Unit V**6 Hours**

Blogs and Social Networking: Blogs – Uses of Blogs – Blogs System Components – Steps for Blogging – Building a Blog site – Social Networking – Etiquette in networking sites. Internet Security: Importance of Internet Security – Internet Threats – Identity theft and Cybersquatting – Hacking – Spamming and Spoofing – Phishing and Pharming – Denial of Service – spyware – Viruses and worms- Security solutions – Firewalls and Intrusion Prevention Systems –Internet Security Precautions- The Information Technology Act.

CO - PO - PSO Mapping

FUNDAMENTALS OF INTERNET											
CO	PO					PSO					COGNITIVE LEVEL
	1	2	3	4	5	1	2	3	4	5	
CO 1	S	S	M	M	S	S	S	M	M	S	K-3
CO 2	S	S	S	S	S	S	S	M	S	S	K-6
CO 3	S	S	M	S	S	S	S	S	S	S	K-3
CO 4	S	S	M	S	S	S	S	S	S	S	K-6
CO 5	S	S	S	S	S	S	S	S	S	S	K-4

Strongly Correlated – S, Moderately Correlated – M, Weekly Correlated - L

Text Book:

The Internet: A User's Guide Second Edition K. L. James – PHI Learning Private Limited

Reference Books:

1. Internet, World Wide Web, How to program, Paul Deitel, Harvey M Deitel, 4th Edition, Pearson
2. Learning Internet & Email, 4th Revised Edition, Ramesh Bangia, Khanna Book Publishing Co Pvt Ltd.
3. Internet & E-commerce, C. Nellai Kannan, NELS Publications.

MSU/ 2017-18 / UG-Colleges /Part-III (B.Sc. Mathematics) / Semester – I / Allied –I
SEMESTER – I/III

Statistics
(For Mathematics Students)
Paper – I (90 Hours)

- Unit I** Moments, Skewness and Kurtosis - Curve fitting - method of least squares – Fitting lines – Parabolic, Exponential and Logarithmic curves.
- Unit II** Correlation and Regression – Scatter Diagram – Karl Pearson’s coefficient of correlation – Properties – Lines of Regression – Coefficient of Regression and properties – Rank Correlation.
- Unit III** Association of Attributes – Consistency of data – criteria for independence – Yule’s coefficient of Association.
- Unit IV** Random variable – Distribution function – properties of Distribution function – Mathematical Expectation – Addition theorem of Expectation – Multiplication theorem of Expectation – Moment generating function – cumulants – characteristic function – Properties of characteristic function.
- Unit V** Discrete and continuous Probability Distributions - Binomial and Poisson Distribution and their moments, Generating function, characteristic function, properties and simple applications. Normal Distribution – Standard normal distribution and their properties – simple problems.

Text Book:

Gupta .S.C and V.K. Kapoor – Fundamentals of Mathematical Statistics – (2002)
Sultan Chand & Sons, New Delhi.

Books for Reference :

- Vittal, V.R. – Mathematical Statistics (2004) Maragatham Publications
- D.C. Sancheti & Kapoor – Statistics
- M.L. Khanna – Statistics
- S. Arumugam & others – Statistics

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SEMESTER – II / IV

L T P C
0 6 0 3

Statistics

(For Mathematics Students)

Paper – II (90 Hours)

Objectives:

- To know the concept of index numbers
- To study the distribution functions
- To understand the Analysis of variance

- Unit I** Characteristics of index numbers – Laspeyer’s and Paasche’s – Fisher’s and Bowley’s Marshall and Edgeworth’s index numbers – Tests – Unit test, Commodity Reversal test, Time Reversal test, circular test. **12L**
- Unit II** Testing of Hypothesis – Null hypothesis and Alternate hypothesis – Type I and Type II errors - Critical Region, Level of significance – Test of significance for large samples – Testing a single proportion – Difference of proportions. Testing a single mean and Difference of means. **18L**
- Unit III** Tests based on t-distribution – single mean and Difference of means – Tests based on F-distribution – Variance Ratio test – Tests based on Chi-square Distribution – Independence – Goodness of fit. **16L**
- Unit IV** Analysis of variance – one way and two way classified data – Basis of experimental design – Randomized Block Design – Latin square – simple problems. **22L**
- Unit V** Statistical Quality control – Definition – Advantages, Process control – Control chart, Mean chart, Range chart, P-chart, Product Control – Sampling Inspection Plans . . **22L**

Text Book:

- Gupta .S.C & V.K. Kapoor – Fundamentals of Mathematical Statistics – (2002) Sultan Chand & Sons, New Delhi.

Books for Reference :

- Vittal .P.R – Mathematical Statistic (2004) – Maragatham Publications
- DC Sancheti & Kapoor – Statistics
- M.L. Khanna – Statistics
- S. Arumugam & others – Statistics

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L T P C
2 0 0 2

SEMESTER – III

Non – Major Elective Paper – I

Fundamentals of Statistics - I (30 Hours) (SNMA3B)

Objectives:

- To introduce measures of central tendency to other major students
- To study correlation and regression and solving simple problems

Unit I	Classification of datas – Bar diagram – Pie chart	7L
Unit II	Measures of Central tendency : Mean, median, mode (with frequency)	5L
Unit III	Measures of dispersion : Range – standard deviation, variance – Quartile deviation 7L.	
Unit IV	Correlation – rank correlation (Problems only)	6L
Unit V	Regression equations (Problem only)	5L

Text Book:

- Dr. S. Arumugam – Statistics

Books for Reference :

- S.P. Gupta – Statistics
- M.L. Khanna – Statistics
- T.Veerarajan-Fundamentals of Mathematical Statistics

SEMESTER -IV
Non-Major Elective -II
FUNDAMENTALS OF STATISTICS-II

Category	Course Type	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical	Credit (C)
Part-IV	Non Major		Fundamentals of Statistics-II	30	-	-	4

Contact hours per semester:30

Contact hours per week:2

Year	Semester	Internal Marks	External Marks	Total marks
II	IV	25	75	100

Objective: To know the concept of attributes and to study the index numbers and simple problems.

Course Outcomes: On successful completion of the course, the students should be able to

CO No.	Course Outcome	Knowledge Level
CO1	Explain the theory of Attributes	K3
CO2	Illustrate about index numbers and to determine the weighted index numbers.	K1,K5
CO3	Analyse and predict consumer price index numbers	K6
CO4	Evaluate Time series	K4
CO5	Apply curve fitting for straight line ,parabola and exponential curve	K2

K1-Remember, K2-Understand, K3-Apply, K4-Analyze, K5-Evaluate, K6-Create

CO-PSO mapping (Course Articulation Method)

PSOs	PSO1	PSO2	PSO3	PSO4	PSO5
Cos					
CO1	2	3	3	3	3
CO2	2	2	3	3	3
CO3	3	3	2	2	2
CO4	3	2	1	2	3
CO5	2	3	1	3	3
Total contribution of COs to PSOs	12	13	11	13	14
Weighted Percentage of COs contribution to PSOs	80	86.67	73.33	86.67	93.33

Course Content:

UNIT-I

Theory of attributes—two attributes.

UNIT -II

Index number –weighted index number.

UNIT - III

Consumer Price index number –conversion of index number.

UNIT -IV

Time series –measurement of trends.

UNIT-V

Curve fitting–Straight line –Parabola –Exponential curve.

TextBook:

- ❖ Dr. S. Arumugam, A.ThangapandiIssac- Statistics, New Gamma Publishing House,Palayamkottai (2016).

Books for Reference:

- S.P.Gupta-Elementary Statistical Methods,Sultan Chand & Sons,(2017).
- T. Veerarajan Fundamentals of mathematical Statistics, YesDee Publishing Pvt.Ltd.Edition .(2017)

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MSU/2016-17/UG-Colleges/Part-IV (B.Sc. Mathematics) /
Semester-V/ Major Elective - II (C)

Coding Theory

- Unit I** Basic assumptions – Correcting and detecting error patterns – information rate – effects of error correction and detection – finding the most likely code word transmitted.
- Unit II** Linear codes – two important – subspaces independence – basic, dimension – matrices – Bases for C and C^+ generating matrices on coding.
- Unit III** Parity check matrices – equivalent codes – distance of a linear code – Linear codes – cosets – MLD for linear codes – Reliability of IMLD for linear codes.
- Unit IV** Some bounds for codes – perfect codes – hamming codes – extended codes – The extended Golay code – decoding the extended Golay code – Golay code.
- Unit V** Polynomials and words – introduction to cyclic codes – introduction to cyclic codes – Polynomial encoding and decoding – finding cyclic codes – Dual cyclic codes.

Text Book :

1. Coding theory, the essentials – Marcel Dekker, Inc. Madtrison Avenue, Newyork.

2.6.3 PARTIAL DIFFERENTIAL EQUATIONS

Text Book: Elements Of Partial Differential Equations, IAN N. SNEDDON, McGraw Hill, New Delhi, 1983.

Unit I: Methods of Solution of $\frac{dx}{P} + \frac{dy}{Q} + \frac{dz}{R}$ - Pfaffian Differential Forms and Equations
- Solution of Pfaffian Differential Equations in three variables.

Chapter 1: Section: 3, 5 and 6 (all problems)

Unit II: Partial Differential equations - Origins of first order Partial Differential equations - Linear equations of the first order - Integral surfaces passing through a given curve.

Chapter 2: Section: 1, 2, 4 and 5 (all problems)

Unit III: Cauchy's Method of Characteristics - Compatible systems of First order Equations - Charpit's Method.

Chapter 2: Section: 8 - 10 (all problems)

Unit IV: Second order equations in Physics - Linear Partial Differential equations with Constant Coefficients.

Chapter 3: Section: 2 and 4 (all problems)

Unit V: Characteristics of Equations in three variables - Separation of variables.

Chapter 3: Section: 7 and 9 (all problems)

1.4 Paper 4: ORDINARY DIFFERENTIAL EQUATIONS

Text Book: Differential Equations with application and historical notes, G.F. Simmons, Second Edition, Tata McGraw Hill.

Unit I: **Second Order linear equations :** General solution of the Homogeneous equations – The use of a known solution to find another – The method of variation of parameters.
Sections: 14 – 16.

Unit II: **Power series solutions:** A review of power series solutions – Series solution of first order equations – Second order equations – Ordinary points.
Sections: 26 – 28.

Unit III: Regular singular points – Legendre polynomials- Properties of Legendre polynomials
Sections: 29, 30, 44, 45.

Unit IV: Bessel functions – The Gamma functions – Properties of Bessel functions.
Sections: 46, 47.

Unit V: **Linear systems :** Homogeneous linear systems with constant coefficients
Sections: 55, 56.

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Research Methodology: (60 Hours)

L	T	P	C
4	0	0	4

Objectives:

- To understand the Basic aspects in research
- To learn Mathematical and Statistical technique for research
- To acquire basic knowledge about various instruments and techniques in Mathematical research.

Prerequisite:

Basic knowledge in Statistics and related information to be useful for research.

Outcome:

- Training and participating in active research activities for their academic and professional levels.
- Creation of novel ideas and simple technique useful to society(R/D)
- Acquire background knowledge in research publication and thesis writing.

Unit I :

Research Project :Research Project – Difference between a dissertation and a thesis– Basic requirements of a research degree –Writing a proposal –Ethical considerations

Chapter 5 :Sec: 5.1, 5.2, 5.3,5.6,5.13 in Text Book 1.

L10

Unit II :

Components of a Research Project:Different components of a research project– Literature review – Methodology – Results / data – Conclusions – Bibliography - Appendices.

Chapter 6 : Sec: 6.1-6.6,6.7,6.8.1, 6.9.1,6.11, 6.12, 6.13 in Text Book

L10

1.

Unit III : Some Special Distributions : The Gamma and Chi - Square distribution - The normal distribution.

Chapter 3: Sec: 3.3, 3.4 in Text Book 2.

Exercise Problems:Chapter 3: 3.28 - 3.33, 3.40 - 3.46.

L13

Unit IV : **Sampling Theory :** Transformation of variables - t & F distributions.

Chapter 4:Sec : 4.1 - 4.4 in Text Book 2.

Exercise Problems:Chapter 4: 4.1 - 4.8, 4.14 - 4.17, 4.20 - 4.25, 4.34 - 4.41.

L14

Unit V : **Random variables:**The MGF technique - Distributions of \bar{X} and $\frac{ns^2}{\sigma^2}$ - Expectations of functions of random variables-The Central Limit Theorem.

Chapter 4:Sec : 4.7 - 4.9 in Book 2. **Chapter 5:** Sec 5.4 in Text Book 2

Exercise Problems: Chapter 4 :4.68 - 4.74, 4.83 - 4.93.

Exercise Problems:Chapter 5: 5.20 - 5.22, 5.25 - 5.27.

L13

Text Book: 1. Writing up your University Assignments and Research Projects - A Practical handbook, Neil Murray and Geraldine Hughes, McGraw Hill Open University Press.

2. Introduction to Mathematical Statistics, Fourth Edition, Robert V. Hogg and Allen T. Craig, Pearson Education Asia.

Books for Reference:

1. Research Methodology(2nd revised methods and techniques edition)- C.R.Kothari, New Age International Publications, New Delhi.
2. Fundamentals of Mathematics statistics-S.C.Gupta, V.K.Kapoor, Eleventh edition 2002,Sultanchand& sons Publishers, New Delhi.

SEMESTER -VI
CORE -XV
MAJOR PAPER -XVII

L	T	P	C
4	0	0	4

NUMERICAL METHODS (60 Hours) (SMMA65)

Objectives:

- To introduce the finite differences
- To solve numerical problems by different methods

- Unit I** Solution of Numerical algebraic and Transcendental Equations : bisection method – Newton’s method. Criterion of order of convergence of Newton’s method. Regula False method – Gauss elimination – Gauss Jacobi – Gauss Seidal method
13L
- Unit II** **Finite Difference** : First and higher order differences – Forward and backward differences – Properties of Operator – Differences of a polynomial –Factorial Polynomial
11L
- Unit III** Interpolation : Newton’s Forward – backward, Gauss forward – backward interpolation formula – Bessel’s formula. Divided differences – Newton’s divided difference formula – Legrange’s interpolation formulè
11L
- Unit IV** Numerical Differentation and Integration : Newtons forward and backward differences for differentiation – Derivatives using Bessel’s formula -- Trapezoidal rule, simpson’s 1/3 rule & 3/8 rule
13L
- Unit V** **Difference Equations** : Definition – order and degree of difference equation – Linear difference equation – Finding complementary function – particular Integral –simpleapplications.
12L

Text Book:

- Venkatraman .M.L - Numerical methods in Science and Engineering National Publishing Company V Edition 1998

Books for Reference :

- Kandasamy .P.K. Thilagavathy and K. Gunavathy ‘Numerical Methods’ S. Chand & Company Ltd. Edn. 2006.
- B. Stephen John – Numerical Analysis
- Autar Kaw- and Egwwn Enc Kalu - Numerical methods with Application Abidet. Autokaw.com 2nd 2011.

Operations Research(75 Hours)

L	T	P	C
3	2	0	4

Objectives:

- To modify real life into Standard Mathematical Models
- To learn different optimization techniques.
- To know classification of different structured problems.

Prerequisite:

Basic computing knowledge and techniques at undergraduate level.

Outcome:

- Identification of actual problems and its equivalent mathematical models.
- Application to different optimization techniques in real life situations.
- Knowledge gained in utilization of Optimum Resources.

Unit I:

Transportation Models And Its Variants: Definition Of The Transportation Model – Nontraditional Transportation Model – Transportation Algorithm – The Assignment Model.

Chapter 5 – Sections 5.1, 5.2, 5.3, 5.4 and Exercise problems.

L 16

Unit II:

Network Analysis: Network Definitions – Minimal Spanning Tree Algorithm – Shortest Route Problem – Maximum Flow Model – CPM – PERT.

Chapter 6 – Sections 6.2, 6.3, 6.4, 6.5, 6.7 and Exercise problems.

L 15

Unit III:

Integer Linear Programming: Introduction – Applications – Integer Programming Solutions – Algorithms.

Chapter 9 – Sections 9.1, 9.2, 9.3 and Exercise problems.

L 17

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Tiruch... 328 204

SKILL BASED SUBJECT – CORE -II

22

MANAGERIAL SKILL DEVELOPMENT

No. of Credits : 4

No. of instructional Hours : 4 Hours per week

Course objective :

- The primary objective of the course is to familiarize the students with the basic Conceptual skills and Applicative domains of Managerial skills
- To enable students for understand the basic concepts of Emotional intelligence and Public relations
- To practice them for good Speeches and Presentation.

UNIT – I

Managerial skills – Technical, Human relations, Conceptual skills – Managing environment – Human and Non-Human factors – Applicative domains of Managerial skills.

UNIT – II

Communication Management: Verbal and Non-verbal communication – Meta communication – Non-verbal behaviour – Body language of Kinesics behaviour – Touching Behaviour – Physical characteristics, paralanguage and proxemics.

UNIT-III

Expressions and Emotions – Managing emotions – Types – Face and expressions of emotions- Emotional intelligence – Public relations – Objectives of Public relations – Internal and External Public relations – Use of mass media for PR.

UNIT-IV

Stress Management: Stress – Types – Stressors – Coping strategies or techniques – Role conflict – Conflict management styles – Role play – Johari window – Transaction analysis (TA).

UNIT –V

Speeches and Presentation – Finding out about the environment - Preparing the Text – Composition of presentation – Speaker's appearance and Personality – Profile of a good speaker.

REFERENCE BOOKS:

1. Organisational Behaviour – Stephen p. Robbins
2. Business Communication – Urmila Rai, S.M. Rai
3. Non-verbal Communication – K. L. Knapp
4. Commercial correspondence and Office management – R.S.N.Pillai and Baghavathi
5. Organisational Behaviour – Fred Luthans
6. Organisational Behaviour – K. Aswathappa

L	T	P	C
3	1	0	4

Course Objective: To acquaint students with the fundamentals of Human Resource Management and the recent developments in Human Resource Management.

UNIT- I: INTRODUCTION

HRM-meaning, nature, objectives and scope, Functions of Human Resource Management, Significance of Human Resource Management-Role and Qualities of HR manager. (12 hrs)

UNIT -II: HUMAN RESOURCE PLANNING

Importance of Human Resource Planning – Forecasting human resource requirement – matching supply and demand - process of HRP- Job analysis- Job description- Job design- Recruitment – meaning- sources- Selection- meaning and importance –steps in selection procedure- interview- types of interview- Induction- Placement. (12 hrs)

UNIT- III: TRAINING AND DEVELOPMENT

Training and Development-Meaning, Importance-Training-types, methods of Training-Learning-Learning principles- Management Development programme-Job evaluation- Performance appraisal and career planning- Need and importance- objectives-process-methods and problems of performance appraisal- Concept of career planning –features methods–uses career Development-Transfer-Promotion-code of conduct (12hrs)

UNIT- IV: COMPENSATION MANAGEMENT

Compensation management - Compensation Planning-Objectives-Principles of compensation – Pay Structure – Incentives- Rewards, Intrinsic, extrinsic- Fringe Benefits-Stress Management- Quality of Work Life. (12hrs)

UNIT- V:GRIEVANCE HANDLING

Grievance redressal procedure - Discipline- essentials of a good discipline system-Disciplinary Process -approaches- punishment-exit interview-.Legislative Framework – Trade Unions -Managing Conflicts - - Collective Bargaining - Labour participation in management and workers empowerment. (12hrs)

Reference Books:

1. Human Resource Management- Gupta ,C.B
2. Personnel and Human Resource Management - SubbaRao, P
3. Human Resource Management - Prasad, L.M.
4. Human Resource Management - Aswathappa, K.

ENTREPRENEURSHIP

L	T	P	C
2	0	0	2

Course Objectives: To equip and develop the learners entrepreneurial skills and qualities essential to undertake business.

UNIT -I: INTRODUCTION

Concept and Evolution of entrepreneurship, Core elements of entrepreneurship, Factors affecting Entrepreneurship development- Role of entrepreneurship in the developing economy. (6 hrs)

UNIT- II: THE ENTREPRENEURIAL MINDSET

Attributes of entrepreneurs, Types of entrepreneurs - Distinction between entrepreneur and manager, Distinction between entrepreneur and intreprenuer. (6 hrs)

UNIT- III: GENERATION OF IDEAS

Methods and process of generating ideas, sources of ideas and screening process Assessing opportunities: Challenges, pitfalls and critical factors of new venture; Business and Entrepreneurial development organizations. (6 hrs)

UNIT- IV: SOURCE OF FUNDING

Search for entrepreneurial capital- Debt vs. Equity; Venture Capital Market; Angel Financing and Alternative sources of finance for Entrepreneurs. (6 hrs)

UNIT- V: DRAFTING BUSINESS PLAN

Introduction - Idea Selection - Selection of the Product / Service - Aspects of a Project - Phases of a Project - Project Report - Contents of a Project Report (6 hrs)

Reference Books:

1. Entrepreneurial Development - S.S.Khanka, Entrepreneurship- Rajeev Roy
2. Small scale Industries and Entrepreneurship.-Dr. Vasant Desai Entrepreneurship- Arya Kumar Pearson
3. Projects: Planning, Analysis, Selection, Implementation - Prasanna Chandra

ENTREPRENEURSHIP DEVELOPMENT

L	T	P	C
4	1	0	4

Course Objective: To equip and develop the learners entrepreneurial skills and qualities essential to undertake business and to impart the learner's entrepreneurial competencies needed for managing business efficiently and effectively.

UNIT I INTRODUCTION

Definition of Entrepreneurship – Concept of Entrepreneurship – Role of Entrepreneurship in Economic development – Types of Entrepreneurs – Barriers – ED cycle - Characteristics of Successful Entrepreneurs. (15hrs)

UNIT II ENTREPRENEURIAL ENVIRONMENT

EDP in India – Phases of Entrepreneurial programs — Industrial Estates –Industrial clusters – Incentives and subsidies – Advantages - Needs & Problems – Promotional agencies – NMCC,SIDO, NSIC, NAYE, TCO, SISI's- Khadi& Village Commission- STEP – NIESBUDKITCO–SIDCO- TIIC- MSME & DICs- Business Incubators& Start-ups (15hrs)

UNIT III BUSINESS PLAN PREPARATION

Sources of Product for Business - Prefeasibility Study - Criteria for Selection of Product - Ownership - Capital Budgeting- Project Profile Preparation - Matching Entrepreneur with the Project - Feasibility Report Preparation and Evaluation Criteria. (15 hrs)

UNIT IV FINANCING OF SMALL BUSINESS

Financing Options - Bridge capital, Seed capital assistance, Margin money scheme, Sickness, Causes-Remedies- An overview on the roles of institutions/schemes in entrepreneurial development- SIDBI, TIIC,IFCI, TNSFC, - commercial banks - .Scheme MUDRA, CGMSE,CLCS,SWARNA JAYANTHI Rozgar Schemes, PMRY -- Other financing options - venture capital, crowd funding, Angel Investors (15hrs)

.UNIT V MANAGEMENT OF SMALL BUSINESS

Monitoring and Evaluation of Business - Business Sickness - Prevention and Rehabilitation of Business Units - Effective Management of small Business - Case Studies. (15 hrs)

Reference Books:

1. Entrepreneurial Development - S.S.Khanka,
2. Small Scale Industries and Entrepreneurship.S. Vasant Desai
3. Entrepreneurship-R.D.Hisrich
4. Entrepreneurship - Rajeev Roy
5. Projects – Planning, Analysis, Selection, Implementation - Prasanna Chandra

V SEMESTER

25

CORE 13 - CASE ANALYSIS

No. of Credits : 4

No. of instructional Hours : 4 Hours per week

Course Objective :

- To analyse the different functional areas of management.
- To discuss the 'case' in groups for identifying the problems
- To develop leadership and communication skills of the students
- To know the decision making capacity of the students and solving methods of the problems.

One case per week is to be discussed by the students. The cases could be from different functional areas of management.

The students would be provided with the case lets. They would discuss the 'case' in groups. The teacher would guide and facilitate group discussions so as to impart, develop and hone the GD Skills.

Since, this subject focuses on developing GD Skills, the scheme of examination has two main components' and respective sub - components and marks. The marks are to be distributed as follows:

Components	External (3 Hours Examination)	Internal (25 Marks)			Test
		Skill Components			
		Communica tion Skill	Leadership Skill	Inter Personal Skill	
Marks	75	5	5	5	10
Total	75	15			10

CORE 12 - SALESMANSHIP

No. of Credits : 4

No. of instructional Hours : 5 Hours per week

Course objective :

- Providing the students with an understanding of the various duties and responsibilities of salesman
- To learn importance of sales presentation and sales aids
- To enable them to analyse sales forecasting and its methods
- To help them to know the factors affecting sales decision

UNIT – I

Salesmanship - Functions of Salesman - Importance - Duties and Responsibilities of salesman - Qualities of a successful salesman .

UNIT – II

Essentials of Sales: Knowledge of Industry and Company-Knowledge of Products-Knowledge of Customer – Study of buying motives.

UNIT – III

Sales presentations - Sales Aids- Use of Technology in sales- market survey- Importance of market survey to salesman and producer.

UNIT – IV

Sales Forecasting- Definition- Methods of sales forecasting- Uses - Advantages and Disadvantages of Sales forecasting – Sales Quota .

UNIT – V

Sales management: Definition - Roles and techniques - Sales decisions - Factors affecting sales decision – Sales force decision- Sales Territory -Tele Marketing.

Reference Books:

1. Sales Management - Richard Rstill, Edward W. Cundiff
- 2 ✓ 2. SALESMANSHIP - Prof. Bholanath Dutta & Dr. Girish C.
- 2 ✓ 3. Advertising and Salesmanship- P.Saravanavel and S. Sumathi
4. Salesmanship and Sales Management - P.K. Sahu , K.C. Raut
5. Salesmanship – William Maxwell
6. Professional Sales Management – Anderson, Hair and Bush
7. Sales management and Personal Selling - Prof. Anil Keskar &Dr. Suresh Abhyankar
8. Sales Management – Thomas

L	T	P	C
3	1	1	4

Course objective: To develop the language skills of students by offering adequate practice in professional contexts and to focus on developing student's knowledge of domain specific registers and the required language skills

UNIT I- COMMUNICATION

- Listening : Listening to audio text and answering questions - Listening to Instructions
- Speaking : Pair work and small group work.
- Reading : Comprehension passages –Differentiate between facts and opinion
- Writing : Developing a story with pictures.
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT II – DESCRIPTION

- Listening : Listening to process description.-Drawing a flow chart.
- Speaking : Role play (formal context)
- Reading : Skimming/Scanning- Reading passages on products, equipment and gadgets.
- Writing : Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.
- Vocabulary : Register specific -Incorporated into the LSRW tasks. (15 hrs)

UNIT III- NEGOTIATION STRATEGIES

- Listening : Listening to interviews of specialists / Inventors in fields (Subject specific)
- Speaking : Brainstorming. (Mind mapping). Small group discussions (Subject-Specific)
- Reading : Longer Reading text.
- Writing : Essay writing (250 words)
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT IV- PRESENTATION SKILLS

- Listening : Listening to lectures.
- Speaking : Short talks.
- Reading : Reading Comprehension passages
- Writing : Writing Recommendations Interpreting Visuals inputs
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT - V CRITICAL THINKING SKILLS

- Listening : Listening comprehension- Listening for information.

Speaking : Making presentations (with PPT- practice).
Reading : Comprehension passages –Note making. Comprehension:
Motivational article on Professional Competence, Professional Ethics
and Life Skills
Writing : Problem and Solution essay– Creative writing –Summary writing
Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

References:

1. Shiv Khera – You Can Win
2. Robin Sharma – The Monk Who Sold His Ferrari
3. A.P.J.AbdulKalam – Ignited Minds - Wings of Fire
4. Richard Back – Jonathan Livingston Seagull
5. Med Serif – How to Manage Yourself

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L	T	P	C
3	0	2	4

Course Objectives: The Professional Communication Skills Course is intended to help the business Administration students Develop their competence in the use of English with particular reference to the workplace situation. Enhance the creativity of the students, which will enable them to think of innovative ways to solve issues in the workplace.

Unit 1- Communicative Competence

Listening – Listening to two talks/lectures by specialists on selected subject specific topics -(TED Talks) and answering comprehension exercises (inferential questions).
Speaking: Small group discussions (the discussions could be based on the listening and reading passages- open ended questions. **Reading:** Two subject-based reading texts followed by comprehension activities/exercises

Writing: Summary writing based on the reading passages.

Grammar and vocabulary exercises/tasks to be designed based on the discourse patterns of the listening and reading texts in the book. This is applicable for all the units. (15 hrs)

Unit II Persuasive Communication

Listening: listening to a product launch- sensitizing learners to the nuances of persuasive communication. **Speaking:** debates – Just-A Minute Activities. **Reading:** reading texts on advertisements (on products relevant to the subject areas) and answering inferential questions. **Writing:** dialogue writing- writing an argumentative /persuasive essay. (15 hrs)

Unit III - Digital Competence

Listening: Listening to interviews (subject related). **Speaking:** Interviews with subject specialists (using video conferencing skills) Creating Blogs (How to become a blogger and use Blogging to nurture interests – subject related). **Reading:** Selected sample of Web Page (subject area). **Writing:** Creating Web Pages. **Reading Comprehension:** Essay on Digital Competence for Academic and Professional Life. The essay will address all aspects of digital competence in relation to MS Office and how they can be utilized in relation to work in the subject area (15 hrs)

Unit IV- Creativity and Imagination

Listening to short (2 to 5 minutes) academic videos (prepared by EMRC/ other MOOC videos on Indian academic sites – (E.g. <https://www.youtube.com/watch?v=tpvicScuDy0>). **Speaking:** Making oral presentations through short films – subject based. **Reading:** Essay on Creativity and Imagination (subject based). **Writing** – Basic Script Writing for short films (subject

based). - Creating web pages, blogs, flyers and brochures (subject based). - Poster making – writing slogans/ captions (subject based) (15 hrs)

Unit V - Workplace Communication & Basics of Academic Writing

Speaking: Short academic presentation using PowerPoint .**Reading & Writing:** Product Profiles, Circulars, Minutes of Meeting. Writing an introduction, paraphrasing Punctuation(period, question mark, exclamation point, comma, semicolon, colon, dash, hyphen, parentheses, brackets, braces, apostrophe, quotation marks, and ellipsis) Capitalization (use of upper case) (15 hrs)

Reference Books:

1. Essentials of Business Communication - Rajendra Paland Korahill,
2. Speaking and Writing for Effective Business Communication - Francis Soundararaj
3. Effective Technical communication - Ashraf Rivi
- 4., Essentials of Business Skills- Shalini Aggarwal
5. Business Communication - Madhukar, R K

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CORE 8 - ORGANISATIONAL BEHAVIOUR

No. of Credits : 4

No. of instructional Hours : 5 Hours per week

Course Objective :

- The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behaviour at the individual, group and organizational levels in the changing global scenario
- To enable the students to understand the Organizational culture and defensive behaviour.
- To study the reason for Organizational Change and dynamic of groups .
- To expose them to the concepts of motivation and acquire interpersonal skills

UNIT -I

Organisational Behaviour – Nature And Importance – Process of OB –Organisational Behaviour And Management – Hawthorne studies - System Approach To Management.

UNIT -II

Individual Behaviour – Process and Causes of Human Behaviour -Learning - Process – Attitudes And Values - Morale – Importance – Steps to improve Morale in an organization.

UNIT -III

Perception – Implications - Motivation Theories (Maslow's Hierarchy Theory, Herzberg Two Factor Theory, Vrooms Theory) – Groups – Characteristics And Processes – Group Dynamics – Group Cohesiveness- Decision Making In Groups.

UNIT -IV

Leadership styles and Theories (Trait Theory, Behavioural Theory, Managerial Grid) – Change Management – Nature – Causes – Process - Counselling .

UNIT -V

Organisational Culture – Levels of Culture – Strategies for Sustaining Organisational Culture- Organisational Development – Objectives and Characteristics – Defensive Behaviour .

REFERENCE BOOKS:

1. Concepts and Contrivances And Applications – Robbins S.P
2. Organisational Behaviour - Umasekaran
3. Organisational Behaviour – Luthans . F
4. Organisational Behaviour - Schemerhorn
5. Organisational Behaviour – Text and cases – K. Aswathappa.
6. Organisational Behaviour – R.D. Agarwal
7. Organisational Behaviour – V.S.P.Rao.

L	T	P	C
3	1	0	3

Course Objective: To impart in depth knowledge of the law of contracts, and the legal framework influencing business operations.

UNIT -I: INDIAN CONTRACT ACT, 1872

Definition of Contract - Law of Contracts – Nature of Contract - Classifications - Essential Elements of Contract - Offer and Acceptance - Consideration –Capacity of Parties - Free Consent - Legality of Object and Considerations - Performance of Contract - Discharge of Contract - Breach of Contract - Remedies for Breach of Contract (12 hrs)

UNIT- II:- INDIAN PARTNERSHIP ACT 1932.

Definition – formation – test of partnership – partnership and other associations – registration of firms- Relation of partners – rights – duties – relation of partners to third parties – types of partners. Dissolution of Firm – without the order of court – dissolution by court – rights of partner on dissolution. (12 hrs)

UNIT- III: THE COMPANIES ACT 2013

Company- Meaning - Characteristics – Advantages - Kinds Of Companies — Promotion Of A Company – Memorandum Of Association – Significance - Clauses – Articles Of Association - Contents – Prospectus – Contents – Statement In-Lieu Of Prospectus. Company Meeting – Types Of Meeting – Agenda – Resolutions — Minutes. (12 hrs)

UNIT- IV: CONSUMER PROTECTION ACT 11986

Consumer Protection Act-Consumerism- Objectives of the Act- Rights of A Consumer Consumer Protection Council-Central and State- Dispute Redressal Agencies - Forums and Commission-Filing of Appeals at The District Level – State Level - National Level- Other legislations: National Food Security Act, 2013 (10 hrs) (12 hrs)

UNIT-V: GOODS AND SERVICES TAX ACT 2017

Evolution of GST in India Meaning - Definitions - Objectives - Features - Basic Concepts- Challenges and Opportunities – Dual GST- Applicability of CGST and SGST- indirect taxes include under GST. (12 hrs)

Reference Books:

1. Business Law. - Kapoor, N.D
2. Business Law. - M.C. Kuchhal and VivekKuchhal
3. Business law - R.S. N. Pillai
4. Business Law - Lakshmi
5. Business and Corporate Law - Saravanel, S. Mohapatra, S.R. and Balakumar,S.

CORE 10 - INDUSTRIAL LAW

No. of Credits : 4
No. of instructional Hours : 5 Hours per week

Course Objective :

- To acquaint the students with the legal framework influencing industrial Operations
- To enlighten the students on the basic principles and legal aspects of industrial laws
- To promote the understanding of various legislations relating to industries
- To make them acquire knowledge on the legal aspects in the industrial.

UNIT-I

Factories Act, 1948 - Workmen Compensation Act, 1923.

UNIT -II

Payment of Wages Act 1936 - The Maternity Benefit Act, 1961.

UNIT -III

Employee's Provident Fund and Miscellaneous Provisions Act, 1952 - Employee's State Insurance Act, 1948.

UNIT -IV

The Industrial Disputes Act, 1947 - The payment of Gratuity Act, 1972.

UNIT -V

Trade Unions Act, 1926 - The Industrial Employment (Standing Order) Act, 1946.

REFERENCE BOOKS:

1. Kucchal, M.C., "Business Law", Vikas Publishing, House (P) Ltd., New Delhi.
2. Singh, Avtar, "The Principles of Mercantile Law", Eastern Book Company, Lucknow.
3. Maheshwari & Maheshwari, "Business Law", National Publishing House, New Delhi.
4. Kapoor, N. D., "Business Law", Sultan Chand & Sons, New Delhi.

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SKILL BASED SUBJECT – CORE -II

MANAGERIAL SKILL DEVELOPMENT

No. of Credits : 4

No. of instructional Hours : 4 Hours per week

Course objective :

- The primary objective of the course is to familiarize the students with the basic Conceptual skills and Applicative domains of Managerial skills
- To enable students for understand the basic concepts of Emotional intelligence and Public relations
- To practice them for good Speeches and Presentation.

UNIT – I

Managerial skills – Technical, Human relations, Conceptual skills – Managing environment – Human and Non-Human factors – Applicative domains of Managerial skills.

UNIT – II

Communication Management: Verbal and Non-verbal communication – Meta communication – Non-verbal behaviour – Body language of Kinesics behaviour – Touching Behaviour – Physical characteristics, paralanguage and proxemics.

UNIT-III

Expressions and Emotions – Managing emotions – Types – Face and expressions of emotions- Emotional intelligence – Public relations – Objectives of Public relations – Internal and External Public relations – Use of mass media for PR.

UNIT-IV

Stress Management: Stress – Types – Stressors – Coping strategies or techniques – Role conflict – Conflict management styles – Role play – Johari window – Transaction analysis (TA).

UNIT –V

Speeches and Presentation – Finding out about the environment - Preparing the Text – Composition of presentation – Speaker's appearance and Personality – Profile of a good speaker.

REFERENCE BOOKS:

1. Organisational Behaviour – Stephen p. Robbins
2. Business Communication – Urmila Rai, S.M. Rai
3. Non-verbal Communication – K. L. Knapp
4. Commercial correspondence and Office management – R.S.N.Pillai and Baghavathi
5. Organisational Behaviour – Fred Luthans
6. Organisational Behaviour – K. Aswathappa

V SEMESTER

CORE 13 - CASE ANALYSIS

No. of Credits : 4

No. of instructional Hours : 4 Hours per week

Course Objective :

- To analyse the different functional areas of management.
- To discuss the 'case' in groups for identifying the problems
- To develop leadership and communication skills of the students
- To know the decision making capacity of the students and solving methods of the problems.

One case per week is to be discussed by the students. The cases could be from different functional areas of management.

The students would be provided with the case lets. They would discuss the 'case' in groups. The teacher would guide and facilitate group discussions so as to impart, develop and hone the GD Skills.

Since, this subject focuses on developing GD Skills, the scheme of examination has two main components' and respective sub - components and marks. The marks are to be distributed as follows:

Components	External (3 Hours Examination)	Internal (25 Marks)			Test
		Communication Skill	Leadership Skill	Inter Personal Skill	
Marks	75	5	5	5	10
Total	75	15			10

L	T	P	C
3	1	0	3

Course Objective: To provide an insight into the fundamentals of social science research and to impart practical knowledge and required skills in carrying out research projects independently.

Unit I INTRODUCTION

Research- Meaning, Nature, Scope, Significance, Objectives and Utilities - Types of Research- Fundamental, Applied, Exploratory, Descriptive, Predictive, Analytical, Experimental, Diagnostic, Qualitative and Quantitative Research- Ex-post Facto Research - Case Study- Censes Study- Action Research- Surveys and Field Studies -Research Process and its Steps. (12hrs)

UNIT II RESEARCH DESIGN

Identifying a Research Problem - Review of Literature - Identifying Research Gap -Research Questions - Setting of Objectives and Hypotheses - Need, Significance and Types of Hypotheses- Variables and types- Research Design- Steps in developing a Research Design- Qualities of Good Research Design (12hrs)

UNIT III DATA COLLECTION AND SAMPLING

Sources of Data - Primary and Secondary Data -Tools for Data Collection- Observations, Interviews and Experiments -Questionnaire Vs, Schedules- construction of questionnaire- Scaling Techniques and Construction of Scales -Sampling- Probability and Non-Probability Sampling Techniques -Determinants of sample size - sampling errors and sources - Pre-testing and Pilot Study (12hrs)

UNIT IV DATA ANALYSIS

Data Analysis- Statistical Tools and Techniques for Data Analysis- - Parametric and Non Parametric Tests (Concepts and types only) -Introduction to Statistical Packages - SPSS, Uses of SPSS- Precaution on using SPSS -Interpretation of analysed data (12hrs)

UNIT V RESEARCH REPORTING

Research Report - types of reports - content of report -Style of Reporting - Steps in Drafting Reports - Qualities of a good report -References -Bibliography - APA Format in writing references and bibliography (12hrs)

Reference Books:

1. Social Research Methods - Alan Bryman and Edward Allan Bell
2. Research Methodology- Methods and Techniques- . Kothari, C
3. Research Methodology in Social Science-KrishnaswamyOR&Ranganatham, M.
4. Research Methodology-Panneerselvam, R.
5. Market Research,-NreshMalhotra, John Hall, Mike Shaw & Peter

L	T	P	C
2	0	0	2

Course Objectives: To equip and develop the learners entrepreneurial skills and qualities essential to undertake business.

UNIT -I: INTRODUCTION

Concept and Evolution of entrepreneurship, Core elements of entrepreneurship, Factors affecting Entrepreneurship development- Role of entrepreneurship in the developing economy. (6 hrs)

UNIT- II: THE ENTREPRENEURIAL MINDSET

Attributes of entrepreneurs, Types of entrepreneurs - Distinction between entrepreneur and manager, Distinction between entrepreneur and intrepeneur. (6 hrs)

UNIT- III: GENERATION OF IDEAS

Methods and process of generating ideas, sources of ideas and screening process Assessing opportunities: Challenges, pitfalls and critical factors of new venture; Business and Entrepreneurial development organizations. (6 hrs)

UNIT- IV: SOURCE OF FUNDING

Search for entrepreneurial capital- Debt vs. Equity; Venture Capital Market; Angel Financing and Alternative sources of finance for Entrepreneurs. (6 hrs)

UNIT- V: DRAFTING BUSINESS PLAN

Introduction - Idea Selection - Selection of the Product / Service - Aspects of a Project - Phases of a Project - Project Report - Contents of a Project Report (6 hrs)

Reference Books:

1. Entrepreneurial Development - S.S.Khanka, Entrepreneurship- Rajeev Roy
2. Small scale Industries and Entrepreneurship.-Dr. Vasant Desai Entrepreneurship- Arya Kumar Pearson
3. Projects: Planning, Analysis, Selection, Implementation - Prasanna Chandra

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CORE 19 - HUMAN RESOURCE MANAGEMENT

No. of Credits : 4

No. of instructional Hours : 4 Hours per week

Course Objective :

- The objective of this course is to familiarize students with the Principles of Human Resources Management
- To make the students familiar with the concept of Industrial Relations and the related labour legislations.
- To familiarize and acquaint the students with the knowledge of Organisational culture and to enlighten the students with the HRD Practices followed in various organizations
- To make the students understand the importance and direction of performance in the organizational context
- To acquire knowledge on the recent trends in HRM.

UNIT -I

Human Resource - Definition – Characteristics and Objectives – Principles of HRM– Functions of Personnel Department – Managerial and Operative Functions.

UNIT -II

HR Planning - Basics and needs – Factors - Steps in HR Planning – Job Analysis, Job Description and Job Specification .

UNIT-III

Recruitment-Selection– Interviews and Tests - Placement of Personnel - Training – Objectives –Importance - Methods .

UNIT -IV

Performance Evaluation- Importance – Methods – Promotion- Criteria and Types – Transfer - Types .

UNIT -V

Industrial relations – Significance -Causes - Suggestion to improve industrial relations - Workers participation in Management - Collective Bargaining - Disciplinary procedure – Grievances - Steps in Grievance Handling.

REFERENCE BOOKS:

1. Personnel Management - EDWIN& FLIPPO
2. Personnel Management - C.B.MAMORIA
3. Human Resource Management – C. B. GUPTA
4. Human Resource Management- S.S. Khanka
5. Human Resource Management – P.S. SUBBORAO
6. Human Resource Management – L. NATARAJAN

L	T	P	C
3	1	1	4

Course objective: To develop the language skills of students by offering adequate practice in professional contexts and to focus on developing student's knowledge of domain specific registers and the required language skills

UNIT I- COMMUNICATION

- Listening : Listening to audio text and answering questions - Listening to Instructions
- Speaking : Pair work and small group work.
- Reading : Comprehension passages –Differentiate between facts and opinion
- Writing : Developing a story with pictures.
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT II – DESCRIPTION

- Listening : Listening to process description.-Drawing a flow chart.
- Speaking : Role play (formal context)
- Reading : Skimming/Scanning- Reading passages on products, equipment and gadgets.
- Writing : Process Description –Compare and Contrast Paragraph-Sentence Definition and Extended definition- Free Writing.
- Vocabulary : Register specific -Incorporated into the LSRW tasks. (15 hrs)

UNIT III- NEGOTIATION STRATEGIES

- Listening : Listening to interviews of specialists / Inventors in fields (Subject specific)
- Speaking : Brainstorming. (Mind mapping). Small group discussions (Subject-Specific)
- Reading : Longer Reading text.
- Writing : Essay writing (250 words)
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT IV- PRESENTATION SKILLS

- Listening : Listening to lectures.
- Speaking : Short talks.
- Reading : Reading Comprehension passages
- Writing : Writing Recommendations Interpreting Visuals inputs
- Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

UNIT - V CRITICAL THINKING SKILLS

- Listening : Listening comprehension- Listening for information.

- Speaking : Making presentations (with PPT- practice).
Reading : Comprehension passages –Note making. Comprehension:
Motivational article on Professional Competence, Professional Ethics
and Life Skills
Writing : Problem and Solution essay– Creative writing –Summary writing
Vocabulary : Register specific - Incorporated into the LSRW tasks (15 hrs)

References:

1. Shiv Khera – You Can Win
2. Robin Sharma – The Monk Who Sold His Ferrari
3. A.P.J.AbdulKalam – Ignited Minds - Wings of Fire
4. Richard Back – Jonathan Livingston Seagull
5. Med Serif – How to Manage Yourself

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L	T	P	C
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Course Objectives: The Professional Communication Skills Course is intended to help the business Administration students Develop their competence in the use of English with particular reference to the workplace situation. Enhance the creativity of the students, which will enable them to think of innovative ways to solve issues in the workplace.

Unit 1- Communicative Competence

Listening – Listening to two talks/lectures by specialists on selected subject specific topics -(TED Talks) and answering comprehension exercises (inferential questions). Speaking: Small group discussions (the discussions could be based on the listening and reading passages- open ended questions. Reading: Two subject-based reading texts followed by comprehension activities/exercises

Writing: Summary writing based on the reading passages.

Grammar and vocabulary exercises/tasks to be designed based on the discourse patterns of the listening and reading texts in the book. This is applicable for all the units.
(15 hrs)

Unit II Persuasive Communication

Listening: listening to a product launch- sensitizing learners to the nuances of persuasive communication. Speaking: debates – Just-A Minute Activities. Reading: reading texts on advertisements (on products relevant to the subject areas) and answering inferential questions. Writing: dialogue writing- writing an argumentative /persuasive essay.
(15 hrs)

Unit III - Digital Competence

Listening: Listening to interviews (subject related). Speaking: Interviews with subject specialists (using video conferencing skills) Creating Blogs (How to become a blogger and use Blogging to nurture interests – subject related).Reading: Selected sample of Web Page (subject area). Writing: Creating Web Pages. Reading Comprehension: Essay on Digital Competence for Academic and Professional Life. The essay will address all aspects of digital competence in relation to MS Office and how they can be utilized in relation to work in the subject area
(15 hrs)

Unit IV- Creativity and Imagination

Listening to short (2 to 5 minutes) academic videos (prepared by EMRC/ other MOOC videos on Indian academic sites - (E.g. <https://www.youtube.com/watch?v=tpvicScuDy0>). Speaking: Making oral presentations through short films – subject based. Reading: Essay on Creativity and Imagination (subject based). Writing – Basic Script Writing for short films (subject

based). - Creating web pages, blogs, flyers and brochures (subject based). - Poster making – writing slogans/ captions (subject based) (15 hrs)

Unit V - Workplace Communication & Basics of Academic Writing

Speaking: Short academic presentation using PowerPoint .Reading & Writing: Product Profiles, Circulars, Minutes of Meeting. Writing an introduction, paraphrasing Punctuation(period, question mark, exclamation point, comma, semicolon, colon, dash, hyphen, parentheses, brackets, braces, apostrophe, quotation marks, and ellipsis) Capitalization (use of upper case) (15 hrs)

Reference Books:

1. Essentials of Business Communication - Rajendra Paland Korahill,
2. Speaking and Writing for Effective Business Communication - Francis Soundararaj
3. Effective Technical communication - Ashraf Rivi
- 4., Essentials of Business Skills- Shalini Aggarwal
5. Business Communication - Madhukar, R K

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MSU/2020-21/UG-Colleges/Part-III (B.B.A.)/ Semester-III / Ppr.no.14/ Core-6
ORGANIZATIONAL BEHAVIOR

L	T	P	C
3	1	0	4

Course Objective: To acquaint students with the fundamentals of Organisational Behavior and the recent developments in Organizational Behavior.

Unit- I: Introduction

Definition, Nature and Scope of organizational behavior – Need for studying organizational Behavior - Disciplines that contribute to OB- OB models – Challenges and Opportunities of OB
(12hrs)

Unit- II: Individual Behavior

Perception: meaning- process- improving perception, Personality development- determinants of personality- personality traits. Learning- Theories and principles of Learning. Motivation: meaning and Importance - Theories of Motivation
(12 hrs)

Unit -III: Group Behavior

Groups- definition- types - Group development; - Groups norms –Group cohesiveness – Group decision making -Conflict- Individual Conflict – Interpersonal conflict- group conflict – Resolving conflict.
(12 hrs)

Unit -IV: Organizational Culture

Organisational Culture - Meaning - definition - concept - characteristics - types of culture - functions of culture - creating and sustaining culture - learning culture - measuring culture - communicating culture.
(12hrs)

Unit -V: Organizational Change and Organizational development

Forces of change; Planned change; Resistance; Approaches (Lewin's model, Organization development); Organizational development – OD interventions.
(12hrs)

Reference Books:

1. Organizational Behaviour- S.S.Khanga.
2. Organizational Behaviour - Stephen P. Robbins
3. Organizational Behaviour – K. Aswathappa
4. Organizational Behaviour – L.M. Prasad
5. Organizational Behaviour - Saiyadin

MSU/2020-21/UG-Colleges/Part-III (B.B.A.) / Semester-III / Ppr.no.16/ Core-8
INTERNATIONAL BUSINESS

L	T	P
3	1	0

Course Objectives: Providing students awareness about International business and its different dimensions.

UNIT- I: INTRODUCTION

International business- Meaning -modes-scope-importance-benefits-International business environment (12hrs)

UNIT- II: MODE OF ENTRY IN INTERNATIONAL MARKETS

Entry strategies-Licensing- Franchising- Joint ventures -Acquisitions-Strategic Alliances- Trade barriers-Trade blocks .Multinational Corporations- its nature and characteristics-Indian companies become Global- problems and prospects (12hrs)

UNIT - III DOCUMENTATION IN INTERNATIONAL BUSINESS

Export Import procedures and documentation- Terms of export import order-documentary bill (D/A, D/P bill) -Letter of credit-Bill of lading (12 hrs)

UNIT- IV: INTERNATIONAL FINANCIAL ORGANIATIONS

UNO,WTO, IMF, World Bank, ADB, IFC, UNCTAD,IDA and IBRD (12 hrs)

UNIT- V: GLOBALISATION OF INDIAN BUSINESS

India's competitive advantage in Industries like IT, Textiles, Gems and Jewellery - India's strength and weakness in International Business (12hrs)

Reference Books:

1. Global Business Today- Charles W L Hill,
2. International Business - VK Bhalla.
3. International Business- . Francis Cherunilam
4. International Business: Text and Cases - P SubbaRao
5. International Business: Environments & Operations- John Daniels, Lee Radebaugh, DanielSullivan

L	T	P	C
3	1	0	3

Course Objective: To impart in depth knowledge of the law of contracts, and the legal framework influencing business operations.

UNIT -I: INDIAN CONTRACT ACT, 1872

Definition of Contract - Law of Contracts – Nature of Contract - Classifications - Essential Elements of Contract - Offer and Acceptance - Consideration –Capacity of Parties - Free Consent - Legality of Object and Considerations - Performance of Contract - Discharge of Contract - Breach of Contract - Remedies for Breach of Contract (12 hrs)

UNIT- II:- INDIAN PARTNERSHIP ACT 1932.

Definition – formation – test of partnership – partnership and other associations – registration of firms- Relation of partners – rights – duties – relation of partners to third parties – types of partners. Dissolution of Firm – without the order of court – dissolution by court – rights of partner on dissolution. (12 hrs)

UNIT- III: THE COMPANIES ACT 2013

Company- Meaning - Characteristics – Advantages - Kinds Of Companies — Promotion Of A Company – Memorandum Of Association – Significance - Clauses – Articles Of Association - Contents – Prospectus – Contents – Statement In-Lieu Of Prospectus. Company Meeting – Types Of Meeting – Agenda – Resolutions — Minutes. (12 hrs)

UNIT- IV: CONSUMER PROTECTION ACT 11986

Consumer Protection Act-Consumerism- Objectives of the Act- Rights of A Consumer Consumer Protection Council-Central and State- Dispute Redressal Agencies - Forums and Commission-Filing of Appeals at The District Level – State Level - National Level- Other legislations: National Food Security Act, 2013 (10 hrs) (12 hrs)

UNIT-V: GOODS AND SERVICES TAX ACT 2017

Evolution of GST in India Meaning - Definitions - Objectives - Features - Basic Concepts- Challenges and Opportunities – Dual GST- Applicability of CGST and SGST- indirect taxes include under GST. (12 hrs)

Reference Books:

1. Business Law. - Kapoor, N.D
2. Business Law. - M.C. Kuchhal and VivekKuchhal
3. Business law - R.S. N. Pillai
4. Business Law - Lakshmi
5. Business and Corporate Law - Saravanavel, S. Mohapatra, S.R. and Balakumar,S.

MSU/2020-21/UG-Colleges/Part-III (B.B.A.)/ Semester-IV / Ppr.no.26/ Skill based subject-2
EFFECTIVE EMPLOYABILITY SKILLS
(PRACTICAL SUBJECT)

L	T	P	C
1	1	2	3

Course Objective: To impart the knowledge and skills for enhancing the career opportunities to the Business Administration students.

To achieve the above objective, the suggestive list of activities to be conducted are

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

UNIT- 1: TEST OF ENGLISH

Reading Comprehension--- Cloze Test---Synonyms & Antonyms---Rearranging the Sentence
-error detection - preposition rules -idioms and phrases- tenses rules- Paragraph completion.
(12 hrs)

UNIT- II:TEST OF REASONING

Alphabet Test---Coding& Decoding---Ranking (Or)Arranging in Order---Analogy -Assigning
Artificial Values to Arithmetical Series --- Series Completion Test--- Syllogism - Blood
relations---Distance & Direction--- Number Test & Time Sequence- Puzzles. (12 hrs)

UNIT-III : QUANTITATIVE APTITUDE

Number System---squares & cubes---simplification -Average ---Simple Interest---Compound
Interest- Profit & loss -Ratio & partnership -Data Interpretation. (12 hrs)

UNIT- IV: GENERAL KNOWLEDGE

Important days in a year ---Abbreviations ---Countries , Capital & Currency - historical
important events- Current events across the world - Corporate Head quarters - CEOs- Books
and Authors - Invention and Inventors -Celebrities- World records in sports and games.
(12 hrs)

UNIT -V: INTERVIEW SKILLS

Resume writing - Meaning - Features of a good resume, Model (Exercise) . Key Skills to
attend the Interview, Answering interview Questions, Handling Tricks situations. (12 hrs)

L	T	P	C
2	2	0	3

Course Objective:

1. To equip the students with knowledge, skills and competencies required to manage people.
2. To acquaint the students with various functions and processes related to human resource management.
3. To provide conceptual framework required for human resource planning and development.

COURSE OUTCOMES:

CO 1: Develop an understanding of the human resource functions and environment to manage human resource effectively.

CO 2: Identify the human resource requirement and select suitable work force.

CO 3: Evaluate the performance of human resource and develop suitable training, development and career planning programs

CO 4: Frame sound compensation policy for high employee retention

CO 5: Develop an effective grievance handling procedure

UNIT- I: INTRODUCTION

HRM-meaning, nature, objectives and scope – Importance – Functions of HRM – Environment of HRM - Strategic HRM – Meaning- Objectives- Personnel Management Vs Human Resources Management - Difference between Traditional HRM and Strategic HRM.

UNIT –II: HUMAN RESOURCE PLANNING

Meaning and Importance - Job Analysis, Job Description and Job Specification - Recruitment: Meaning and Sources of recruitment. Selection - Meaning and Methods of selection – Interview - Kinds of interview – Steps in interview Procedure – Tests - Kinds and Importance of Tests- Induction – Placement.

UNIT-III: TRAINING AND DEVELOPMENT

Meaning and Importance – Methods of Performance Appraisal. Training – Importance- Benefits - Methods of Training - Executive Development - Meaning and Methods - Career Planning - Meaning and Objectives

UNIT-IV: COMPENSATION MANAGEMENT

Wage and salary administration – Objectives - Essentials of a sound wage and salary structure – Components of compensation – Executive compensation – Profit sharing – Labour co-partnership – Employee Stock Option Plans Wage and salary administration – Objectives - Essentials of a sound wage and salary structure – Components of compensation – Executive compensation – Profit sharing – Labour co-partnership – Employee Stock Option Plans(ESOP).

UNIT-V: GRIEVANCE HANDLING

Grievance redressal procedure - Discipline- essentials of a good discipline system- Disciplinary Process – approaches – punishment – exit interview- Legislative Framework – Trade Unions - Collective Bargaining - Labour participation in management and worker empowerment.

TEXT BOOKS:

1. Dr. C B. Gupta, Human Resource Management - Sultan Chand & Sons, New Delhi
2. K. Aswathappa, Human Resource Management - Mc Graw Hill, India Pvt Ltd.,

REFERENCE BOOKS:

1. Monnappa and Saiyadan, Personnel Management, Tata Mcgraw Hill.
2. Rao V.S.P. Human Resource Management, Excel books
3. C.B. Memoria, Personal Management- Himalaya Publishing House
4. Dr. S S. Khanka, Human Resource Management- S. Chand & company ltd., New Delhi

WEB RESOURCES:

1. <https://www.citehr.com>,
2. <https://www.whatishumanresource.com>
3. <https://shrm.org>
4. <https://www.coursera.org>

MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME

CO/PO & PSO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	S	M	L	L	M	S	M	L	M	L
CO 2	M	S	L	S	M	S	M	M	L	L
CO3	S	M	M	L	S	S	S	M	M	L
CO4	S	M	L	L	M	S	S	L	M	L
CO5	S	M	M	L	L	S	M	M	L	L

S – Strong

M – Medium

L- Low

RESEARCH METHODOLOGY

L	T	P	C
4	0	0	4

Course Objective:

1. Develop an understanding of Role of Business Research, Process of Research and types of research.
2. Explain the mechanism for defining the Research problems and develop Research proposals.
3. Develop an understanding of merits and limitations of various research designs, types of data and methods of data collection.

COURSE OUTCOMES:

- CO 1: Gain the Knowledge & understanding of concept / fundamentals for different types of research.
- CO 2: Applying relevant research techniques.
- CO 3: Evaluating relevant data collection techniques and displaying of data collected
- CO 4: Classifying different techniques of sampling.
- CO 5: Applying Interpretation and prepare research report.

Unit-I: INTRODUCTION

Research – Meaning – objectives –Importance of research– Features of good research – Types of Research - Problems encountered by researchers in India. Nature and Scope of Business Research – Role of Business Research in decision making. Applications of Business Research

UNIT-II: RESEARCH DESIGN

Research process – Steps involved .Research Design: meaning, need, Features of a good design, important concepts relating to research design- different Research designs - Exploratory, Descriptive, Experimental Research Designs

UNIT-III: DATA COLLECTION AND SAMPLING

- primary Data - Observation, Questionnaire, Schedule, Interview. Other methods of data collection: Pantry Audit, Consumer panels, mechanical devices, projective techniques, In depth interviews - Case study method - Secondary data - Documentary Sources. Sampling - Design of Sample – How to select Sample – Types of Sampling.

UNIT-IV: DATA ANALYSIS

Measurement & Scaling: Primary scales of Measurement-Nominal, Ordinal, Interval & Ratio - Test of sound measurement - Scaling techniques- paired comparison, rank order, constant sum, semantic differential, itemized ratings, Likert's Scale – Introduction to Statistical Packages–SPSS, Uses of SPSS – Precaution on using SPSS.

UNIT- V: RESEARCH REPORTING

Research Report - types of reports – content of report –Style of Reporting – Steps in Drafting Reports – Qualities of a good report –References -Bibliography – APA Format in writing references and bibliography.

Text Books:

1. Rajinder Nargundhkar, Marketing Research- Tata McGraw Hill
2. C.R. Kothari, Research Methodology-New Age International Publishers

Reference Books:

1. K.V. Rao, Research Methodology-Sterling Publishers
2. Cooper and Schindler, Business Research Methods-Tata McGraw Hill
3. R.Panneerselvam, Research Methodology-PHI Learning Private Ltd.; New Delhi
4. S.Nakkiran, M.Nazer, FissehaGirmay; Business Research Methods-Avinash Paperbacks, Delhi

Web Resources:

1. <https://ala.org>
2. <http://edutechwiki.unige>
3. <https://www.ijlist.org>
4. <https://www.researchgate.net>

MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME

CO/PO & PSO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	S	M	L	L	M	S	M	L	M	L
CO 2	M	S	L	S	M	S	M	M	L	L
CO3	S	M	M	L	S	S	S	M	M	L
CO4	S	M	L	L	M	S	S	L	M	L
CO5	S	M	M	L	L	S	M	M	L	L

S – Strong

M – Medium

L- Low

EFFECTIVE EMPLOYABILITY SKILLS- 1

(Practical Subject)

L	T	P	C
0	0	4	2

COURSE OBJECTIVES:

1. To identify the knowledge and skills required for obtaining and keeping employment.
2. To emphasize individual skill assessments, interpersonal communication skills, workplace responsibilities, teamwork skills,
3. To impart the knowledge and skills for enhancing the career opportunities.

COURSE OUTCOMES

CO 1: To help students explore their values and career choices through individual skill assessments.

CO 2: To make realistic employment choices and to identify the steps necessary to achieve a goal.

CO 3: To explore and practice basic communication skills

CO 4: To learn skills for discussing and resolving problems on the work site

CO 5: To assess and improve personal grooming

UNIT- 1: ENGLISH

Spotting errors-Fill in the blank Cloze Test-Idioms & Phrases-Synonyms & Antonyms---
Rearranging the Sentence – One word substitution- Phrase substitution- jumbled sentences-
Double blank sentences- Commonly misspelled words - Comprehensions

UNIT-II:TEST OF REASONING –I

Symbols and their relationships- Arithmetical computation – Decision making- verbal and figure classification- Analytical functions -Space visualization- Judgement- Problem Solving- Discrimination

UNIT-III: TEST OF REASONING –II

Assigning Artificial Values to Arithmetical Series -Series Completion Test – Visual memory – Observation – Arithmetical reasoning- Relationship concepts- Differences- Analysis_ Similarities-Analogies

UNIT -IV: QUANTITATIVE APTITUDE I

Number System:Decimals and Fractions- Whole numbers- Relationship between numbers- Ratio & Proportion – HCF & LCM- Simplification – Profit & Loss –Time and Work-

UNIT-V: QUANTITATIVE APTITUDE II

Average ---Simple Interest---Compound Interest– Time and Distance – Permutations & combinations- Probability- Data interpretation – Data sufficiency

Note: Examination Pattern:

- The Effective employability Skills IPaper is 100 marks (50 Continuous Internal Assessment Marks + 50 End Semester PRACTICAL Examinations marks).
- For Continuous Internal Assessment Examination ONE test is to be conducted with 50 MCOQs.
- For **End Semester PRACTICAL Examinations**;Seventy five multiple choice objective type questions are to be asked. (with one correct and three incorrect alternatives and no deduction for wrong or un-attempted questions)
- The paper consists of five units. 15 MCOQs are to be asked from each unit.
- The question paper setter is requested to set the questions strictly according to the syllabus.

Text Books:

1. Dr.Lal&Jain,Upkar's Mental Ability Test --- ,UpkarPrakasan Publications Pvt Ltd – Agra.
2. Dr.Lal&A.K.Singh Quicker Reasoning Test--- -UpkarPrakasan Publications Pvt Ltd –Agra. V.P.Mishra-Objective Arithmetic, New light Publishers,Newdelhi.
3. Dr.K.Alex ,Soft Skills

E-RESOURCES:

1. www.bankersadda.com
2. www.gktoday.comwww.jagranjosh.com/bankexams/bank_recruitment-study_material
3. www.affairscloud.com/studymaterial-pdf-download/

MAPPING-COURSE OUTCOME WITH PROGRAMME SPECIFIC OUTCOME

CO/PO & PSO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	S	M	L	L	M	S	M	L	M	L
CO 2	M	S	L	S	M	S	M	M	L	L
CO3	S	M	M	L	S	S	S	M	M	L
CO4	S	M	L	L	M	S	S	L	M	L
CO5	S	M	M	L	L	S	M	M	L	L

S – Strong M – Medium L- Low

PRINCIPLES OF ADVERTISEMENT- I

ALLIED I

Course Objectives:

This course will help the students

1. To enable the students to know the significance of Advertising and Advertising Media.
2. To identify aspects related to the Benefits of Advertising, Ad Agency, Careers in advertising & Agency selection criteria.
3. To examine the impact of consumption on Advertising in Electronic media.

Unit I - Introduction

Meaning- definition - features and importance of advertising - types of advertising.

Unit II - Advertising media - meaning - selection - Factors influencing selection of media
- Display advertising.

Unit III - Press advertising

Newspapers, Foreign papers, magazines - magazine circulation.

Unit IV - Outdoor advertising

Features - Forms of outdoor advertising - merits & Demerits - indoor vs outdoor

Unit V - Electronic media

Radio Advertising - Television advertising - Film advertising - Internet - Audio
- visual cassettes - screen slides - Electronic signs.

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: The learner focuses on aspects related to the Benefits of Advertising, Ad Agency, Careers in advertising & Agency selection criteria.

CO 2: The student examines the impact of Consumption in Electronic media Advertising.

Course Objectives:

This course will help the students

1. To enable the students to understand the various aspects of Advertising.
2. To identify the various media options available for advertisers as also the New Age Media Options.
3. To analyze the factors determining Ad Budget & Media Objectives.
4. To explain the learner the role of creativity in Advertising, concepts like Buying Motives & Selling Points.

- Unit I - Advertising budget
Advertising Budget - methods of Budgeting - importance and factors affecting advertising Budget.
- Unit II - Advertising copy
Preparation of an effective advertising copy - Qualities of a good advertising copy - classification - elements.
- Unit III - Layout : Meaning - preparation of layout - types of layout - components - Printing - Typography - Proof reading & proof correction - Language for advertisement - correction marks
- Unit IV - Advertising Appeal - meaning - types - Buying motives - Evaluation of Advertising effectiveness - methods of Advertising effectiveness.
- Unit V - Advertising agency
Advertising agency - Types and structure of advertising agency - functions - selection of advertising agency - services of advertising agency.

Reference Books

- Advertising planning and Implementation - Sangeetha Sharma Advertising - Dr. Pazhani & Dr. Jessi
- Advertising management - R.K. Chandran
- Advertising as career - Subrata Bannerjee
- Marketing - Rajan Nair
- Principles of Marketing - Rajan Nair & Ranjit Nair

ENTREPRENEURIAL DEVELOPMENT - I

Course Objectives:

L T P C
3 0 0 3

This course will help the students

1. To enable the students of understand the concepts, foundations and methods of entrepreneurships.
2. To develop the skill in establishing and managing business venture.

Unit – I Entrepreneurship

Entrepreneurship – Evolution of the Concept of entrepreneur – Definitions of Entrepreneurship and Entrepreneur, Types of entrepreneurship, Functions of Entrepreneur, Characteristics of Entrepreneur. **(10L)**

Unit – II Entrepreneurial growth

Entrepreneurial growth – Factors affecting entrepreneurial growth – economic, non – economic and governmental – Barriers to Entrepreneurship, Environmental Factors affecting Entrepreneurship. **(10L)**

Unit – III Theories of Entrepreneurs

Kao's Conceptual model of Entrepreneurs – David McClelland's Achievement Motivation Theory – Role of Entrepreneur in Indian Economy With reference to Self employment development. **(10L)**

Unit – IV Women Entrepreneurship

Women Entrepreneurship – Conceptual model of Entrepreneurs – David McClelland's Achievement Motivation Theory – Role of Entrepreneur in Indian Economy With reference to Self employment development. **(08L)**

Unit – V Entrepreneurial Development

Qualities of a successful Entrepreneur – Distinction between an Entrepreneurship and a Manager – Nature and types of promoters – steps to start a small scale Industry – Incentives and subsidies available. **(07L)**

(Total: 45L)

Text Books:

1. Entrepreneurial Development - Dr.N.Srinivasan
2. Entrepreneurial Development - Dr.Radha

Reference Books:

- | | | |
|--------------------------------|---|---------------------------|
| 1. Entrepreneurial Development | - | S.S.Kanaka |
| 2. Entrepreneurial Development | - | Garden, Nararajan |
| 3. Entrepreneurial Development | - | C.B.Gupta, N.P.Srinivasan |

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Define Entrepreneur, Entrepreneurship, and list out the functions of entrepreneurs.

CO 2: Recognize the factors affecting entrepreneurship and develop the skills to overcome them.

ENTREPRENEURIAL DEVELOPMENT – II

L T P C
3 0 0 3

Course Objectives:

This course will help the students

1. To enable the students to acquire skills in respect of entrepreneurship for entrepreneurial opportunities.
2. To help the students understand the importance of institutional supports from the Government.

Unit – I Forms of Entrepreneurship

Forms of Entrepreneurship – Small scale entrepreneurship – role of government in the development of small – scale entrepreneurship corporate entrepreneurship and Cooperative Form of entrepreneurship – Government as Entrepreneurs, Role of MNCS as entrepreneurs. (10L)

Unit – II General Attitudes of Entrepreneurship

Attitudes and motivation – Self efficacy, Creativity, Risk Taking, Leadership, Communication and influencing ability – planning action – Entrepreneurship as a desirable and Feasible Career option – Characteristics of a successful Entrepreneur. (10L)

Unit – III Entrepreneurial opportunities

Overview of Entrepreneur opportunities in contemporary business environment in the early 21 century – Enterprise types - Case studies of entrepreneurship in local tiny, small scale and rural Industries – Factors that influence Entrepreneurship development. (10L)

Unit – IV Institutional Supports in Tamil nadu

Institutions and schemes in Tamilnadu For SSI Support – State level Financial Corporations – schemes and programmes : small Industry Development Corporation – other allied schemes and programmes in Tamilnadu. (08L)

Unit – V Programmes and Schemes

DIC, DRDA, Roles, Schemes and programmes – Local Commercial Banks, Non – governmental Financial Companies in the Entrepreneur development growth process. (08L)

(Total: 45L)

Text Books:

1. Entrepreneurial Development - Dr.N.Srinivasan
2. Entrepreneurial Development - Dr.Radha

Reference Books:

- | | | |
|--------------------------------|---|---------------------------|
| 1. Entrepreneurial Development | - | S.S.Kanaka |
| 2. Entrepreneurial Development | - | Garden, Nararajan |
| 3. Entrepreneurial Development | - | C.B.Gupta, N.P.Srinivasan |

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Define Entrepreneur, Entrepreneurship, and list out the functions of entrepreneurs.

CO 2: Recognize the factors affecting entrepreneurship and develop the skills to overcome them.

CO 3: Appraise the role of government and non-governmental organizations in creating entrepreneurial spirit, develop the skills in establishing and managing business ventures and become a successful entrepreneur.

ECONOMICS FOR COMPETITIVE EXAMINATIONS – I

L T P C
2 0 0 2

Course Objectives:

This course will help the students

1. To understand the fundamental concepts of Economics.
2. To gain knowledge on consumption and demand in economics.
3. To know more about the various factors of production.
4. To study the features of different market structures.
5. To gather knowledge about the pricing of the products.

Unit – I Introduction to Economics

Meaning and scope of economics – basic concepts in Economics – Human wants – Goods - Utility – Value – Price – Income – Wealth – welfare – Market – Supply – Demand – Cost – Revenue – Capital. (08L)

Unit – II Consumption

Meaning of the terms – consumer – consumption – utility maximization – Law of diminishing Marginal utility – Law of Demand – Law of Equi-marginal Utility – The concept of Consumer's Surplus. (07L)

Unit – III Production and Distribution

Meaning of the terms – producer – production – Factors of production – law of returns – Meaning of the Rent, wages, interest, profit. (05L)

Unit – IV Product pricing

Perfect competition – Imperfect Competition – Monopoly – Oligopoly. (05L)

Unit – V Investment

Meaning of the term investment – Investment opportunities in shares, Bank Deposits, Realestates, Small savings schemes. insurance schemes, investment in companies and investment in gold. (05L)

(Total: 30L)

Text Books:

1. Micro Economics – S.Sankaran
2. Micro Economics – Dr.N.Srinivasan

Reference Books:

- | | | |
|------------------------------|---|----------------|
| 1. Micro Economics | - | M.L.Seth |
| 2. Principles of Economics | - | K.P.M.Sundaram |
| 3. Advanced Economic Theory- | | M.L.Jhingan |

Course Outcomes:

After the completion of the course, the students will be able to CO

1: Illustrate the basic concepts of economics.

CO 2: Apply the Law of diminishing Marginal utility and Law of demand in practical life and identify the exceptions to the law of demand.

CO 3: Examine the features of factors of production.

CO 4: Compare the different market structures and explain the salient features of the market.

CO 5: Evaluate the factors influencing the pricing policy and explain the various pricing methods.

ENTREPRENEURIAL DEVELOPMENT – II

L T P C
3 0 0 3

Course Objectives:

This course will help the students

1. To enable the students to acquire skills in respect of entrepreneurship for entrepreneurial opportunities.
2. To help the students understand the importance of institutional supports from the Government.

Unit – I Forms of Entrepreneurship

Forms of Entrepreneurship – Small scale entrepreneurship – role of government in the development of small – scale entrepreneurship corporate entrepreneurship and Cooperative Form of entrepreneurship – Government as Entrepreneurs, Role of MNCS as entrepreneurs. (10L)

Unit – II General Attitudes of Entrepreneurship

Attitudes and motivation – Self efficacy, Creativity, Risk Taking, Leadership, Communication and influencing ability – planning action – Entrepreneurship as a desirable and Feasible Career option – Characteristics of a successful Entrepreneur. (10L)

Unit – III Entrepreneurial opportunities

Overview of Entrepreneur opportunities in contemporary business environment in the early 21 century – Enterprise types - Case studies of entrepreneurship in local tiny, small scale and rural Industries – Factors that influence Entrepreneurship development. (10L)

Unit – IV Institutional Supports in Tamil nadu

Institutions and schemes in Tamilnadu For SSI Support – State level Financial Corporations – schemes and programmes : small Industry Development Corporation – other allied schemes and programmes in Tamilnadu. (08L)

Unit – V Programmes and Schemes

DIC, DRDA, Roles, Schemes and programmes – Local Commercial Banks, Non – governmental Financial Companies in the Entrepreneur development growth process. (08L)

(Total: 45L)

Text Books:

1. Entrepreneurial Development - Dr.N.Srinivasan
2. Entrepreneurial Development - Dr.Radha

Reference Books:

- | | | |
|--------------------------------|---|---------------------------|
| 1. Entrepreneurial Development | - | S.S.Kanaka |
| 2. Entrepreneurial Development | - | Garden, Nararajan |
| 3. Entrepreneurial Development | - | C.B.Gupta, N.P.Srinivasan |

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Define Entrepreneur, Entrepreneurship, and list out the functions of entrepreneurs.

CO 2: Recognize the factors affecting entrepreneurship and develop the skills to overcome them.

CO 3: Appraise the role of government and non-governmental organizations in creating entrepreneurial spirit, develop the skills in establishing and managing business ventures and become a successful entrepreneur.

L	T	P	C
5	0	0	4

BASIC MATHEMATICS FOR ECONOMICS - I

Course Objectives:

This course will help the students

1. To understand the application of basic mathematical tools.
2. To acquire thorough knowledge of Arithmetic and Geometric progression.
3. To grasp the concept of Set and algebra of sets.
4. To get familiar with the applications of Functions and Equations in economics.
5. To gain an understanding of Analytical geometry.

Unit - I Elementary mathematics

Introduction to basic mathematics –BODMAS rule - Number system – Highest Common Factor – Lowest Common Multiple - Laws of indices.

Unit - II Number Series and Algebraic Expressions

Sequences and series: Arithmetic Progression – Geometric Progression. Algebraic Expressions: Monomial, binomial, and polynomial - Addition, subtraction, and multiplication.

Unit - III Set Theory

Meaning – Forms of Sets – Algebra of Sets - Venn diagram – Cartesian Product.

Unit - IV Functions and equations

Functions: Types of functions – Application of functions in Economics. Equations: Types of Equations - solving linear and Quadratic Equations – Application of Equations in Economics.

Unit - V Analytical geometry

Distance between two points – slope of a straight line- Equations of a straight line– Intersection of two straight lines – Application of Analytical Geometry in Economics.

References:

1. D.Bose, An Introduction to Mathematical Methods, Himalaya Publishing House, 2016.
2. Mehta & Madnani, Elementary Mathematics in Economics, Lakshmi Narain Agarwal, 2017.
3. R.S. Bhardwaj, Mathematics for Economics and Business, Excel Books Publisher, 2006.

4. R.G.D.Allen, Mathematical Analysis for Economists, All India Publishers & Distributors, 2015.

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Illustrate the laws of Indices.

CO 2: Demonstrate the sequence and series, and algebraic expressions

CO 3: Make use of the Venn diagram to denote the relationship between sets. CO 4: Examine the applications of equations and functions in economics.

CO 5: Determine whether the given lines are parallel or perpendicular and find the equation, slope, and calculate the distance between the two points.

L	T	P	C
5	0	0	4

BASIC MATHEMATICS FOR ECONOMICS - II

Course Objectives:

This course will help the students

1. To know the application of matrices in economic analysis.
2. To study the concepts of input-output analysis.
3. To be familiar with the rules of differentiation.
4. To understand the application of partial differentiation in Economics.
5. To enrich their knowledge on the application of integration in Economics.

Unit I: Application of Differentiation

Meaning – Rules – Higher order differentiation - Maxima and Minima —Applications in Economics.

Unit II: Application of Partial Differentiation

Meaning – Rules –Maxima and Minima –Euler's Theorem - Applications in Economics

Unit III: Application of Integration

Meaning – Rules – Definite integration – Applications in economics.

Unit IV: Application of Matrices: Solving Equations

Matrices: Meaning – Types - Matrix operations – Determinants - Rank of a Matrix

- Inverse of a Matrix – Application of Matrices to the solution of linear equations: Matrix Inversion Technique –Cramer's Rule.

Unit V: Application of Matrices: Input - Output Analysis

Input-output Analysis: Meaning – Basic Concepts – Assumptions – Significance -Applications of Matrices in Two Sectors Economy.

References:

1. D.Bose, An Introduction to Mathematical Methods, Himalaya Publishing House, 2016.
2. Mehta & Madnani, Elementary Mathematics in Economics, Lakshmi Narain Agarwal, 2017.
3. R.S. Bhardwaj, Mathematics for Economics and Business, Excel Books Publisher, 2006.
4. R.G.D.Allen, Mathematical Analysis for Economists, All India Publishers & Distributors, 2015.

Course Outcomes:

After the completion of the course, the students will be able to

CO 1. Define a matrix, illustrate the matrix operations and apply the matrix technique in economic analysis.

CO 2. Describe the various concepts of input-output analysis and to explain the applications of matrices in two sectors economy.

CO 3. Identify the applications of partial differentiation in economics.

CO 4. List out the various applications of integration in Economics.

CO 5. Estimate consumer and producer surplus from the demand and supply function.

ENTREPRENEURIAL DEVELOPMENT - I

Course Objectives:

L T P C
3 0 0 3

This course will help the students

1. To enable the students of understand the concepts, foundations and methods of entrepreneurships.
2. To develop the skill in establishing and managing business venture.

Unit – I Entrepreneurship

Entrepreneurship – Evolution of the Concept of entrepreneur – Definitions of Entrepreneurship and Entrepreneur, Types of entrepreneurship, Functions of Entrepreneur, Characteristics of Entrepreneur. (10L)

Unit – II Entrepreneurial growth

Entrepreneurial growth – Factors affecting entrepreneurial growth – economic, non – economic and governmental – Barriers to Entrepreneurship, Environmental Factors affecting Entrepreneurship. (10L)

Unit – III Theories of Entrepreneurs

Kao's Conceptual model of Entrepreneurs – David McClelland's Achievement Motivation Theory – Role of Entrepreneur in Indian Economy With reference to Self employment development. (10L)

Unit – IV Women Entrepreneurship

Women Entrepreneurship – Conceptual model of Entrepreneurs – David McClelland's Achievement Motivation Theory – Role of Entrepreneur in Indian Economy With reference to Self employment development. (08L)

Unit – V Entrepreneurial Development

Qualities of a successful Entrepreneur – Distinction between an Entrepreneurship and a Manager – Nature and types of promoters – steps to start a small scale Industry – Incentives and subsidies available. (07L)

(Total: 45L)

Text Books:

1. Entrepreneurial Development - Dr.N.Srinivasan
2. Entrepreneurial Development - Dr.Radha

Reference Books:

- | | | |
|--------------------------------|---|---------------------------|
| 1. Entrepreneurial Development | - | S.S.Kanaka |
| 2. Entrepreneurial Development | - | Garden, Nararajan |
| 3. Entrepreneurial Development | - | C.B.Gupta, N.P.Srinivasan |

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Define Entrepreneur, Entrepreneurship, and list out the functions of entrepreneurs.

CO 2: Recognize the factors affecting entrepreneurship and develop the skills to overcome them.

L	T	P	C
3	2	0	4

MATHEMATICS FOR ECONOMICS – I

Course Objectives:

This course will help the students

1. To understand the application of basic mathematical tools.
2. To acquire thorough knowledge of Arithmetic and Geometric progression.
3. To grasp the concept of Set and algebra of sets.
4. To get familiar with the applications of Functions and Equations in economics.
5. To gain an understanding of Analytical geometry.

Unit – I Introduction

Number system – Highest Common Factor – Least Common Multiple - BODMASrule – Surds -
Laws of indices. (15L)

Unit - II Number Series and Algebraic Expressions

Sequences and series: Arithmetic Progression – Geometric Progression.

Algebraic Expressions: Monomial, binomial, and polynomial - Addition,
subtraction, and multiplication. (15L)

Unit - III Set Theory

Meaning – Methods of denoting a Set - Forms of Sets – Algebra of Sets – Laws of Set Theory -
Venn diagrams – Cartesian Product. (15L)

Unit – IV Functions and Equations

Functions: Types of functions – Application of functions in Economics. Equations: Degrees of
Equations - Solving linear and Quadratic Equations – Application of Equations in Economics.

(15L)

Unit – V Analytical geometry

Distance between two points – Slope of a straight line- Equations of a straight line
– Intersection of two straight lines – Calculation of Equations of Parallel lines and Perpendicular
lines - Application of Analytical Geometry in Economics. (15L)

References:

1. Anil Kumar, S., Entrepreneurship Development, New Age Pub, New Delhi, 2003.
2. Gordon, E and Natarajan, K., Entrepreneurship Development, Himalaya PublishingHouse, 2015.
3. Kavil Ramachandran, Entrepreneurship Development: Indian Cases onChange Agents,Tata McGraw-Hill Pub, New Delhi, 2009.
4. Khanka, S.S., Entrepreneurship Development, S.Chand & Company, New Delhi,2007.
5. Sami Uddin, Entrepreneurship Development in India, Mittal Pub, New Delhi, 1989.
6. Sangeeta Sharma, Entrepreneurship Development, PHI learning Pub, New Delhi,2016.
7. Published articles in EPW, Sage and Emerald Insights.

Course Outcomes:

After the completion of the course, the students will be able to

CO 1: Define Entrepreneur, Entrepreneurship, and list out the functions of entrepreneurs.CO 2:

Recognize the factors affecting entrepreneurship and develop the skills to overcome them. CO 3:

Analyse the problems of women entrepreneurs and suggest suitable policies for tackling them.

CO 4: Differentiate Rural and Urban entrepreneurship, inspect the problems of rural entrepreneurs and recommend measures to solve them.

CO 5: Appraise the role of government and non-governmental organizations in creating entrepreneurial spirit, develop the skills in establishing and managing business ventures and become a successful entrepreneur.

ENTREPRENEURIAL DEVELOPMENT

L	T	P	C
3	0	0	3

Course Objectives:

This course will help the students

1. To understand the concept of an entrepreneur and the qualities of a successful entrepreneur
2. To identify the factors affecting entrepreneurship.
3. To know about the schemes available in India for Women Entrepreneurs.
4. To gain knowledge about the Rural Entrepreneurs in India.
5. To be aware of various Entrepreneurial Development Schemes in India.

Unit I: Entrepreneur

Definition – Types of Entrepreneurs - Functions - Characteristics - Qualities of a successful entrepreneur – Role of entrepreneurs in economic development. (10L)

Unit II: Entrepreneurship

Definition - Causes of Entrepreneurship - Importance of Entrepreneurship - Factors affecting entrepreneurship: Social factors, Economic factors, Environmental factors, Political factors, and other factors. (08L)

Unit III: Women Entrepreneurs

Concepts – Role of women entrepreneurs – SHGs – MUDRA Scheme – Problems of women entrepreneurs – Remedial measures. (07L)

Unit IV: Rural Entrepreneurs

Nature and characteristics of rural Entrepreneurs - Comparison between rural and urban Entrepreneurs - Opportunities of rural Entrepreneurs - Role of rural Entrepreneurs in economic development - Problems of rural Entrepreneurs – Remedial measures. (10L)

Unit V: Entrepreneurship Development Programmes

Role of Government in creating entrepreneurial spirit - Small Industries Development Corporation – DIC - DRDA – SIDBI - SIPCOT – Industrial Estates-Role of Non-Governmental Financial Companies in the Entrepreneurial development - Non-Government Organizations.(10L)

(Total: 75L)

References:

1. Allen, R.G.D., Mathematical Analysis for Economists, All India Publishers & Distributors, 2015.
2. Bhardwaj, R.S., Mathematics for Economics and Business, Excel Books Publisher, 2006.
3. Bose, D., An Introduction to Mathematical Methods, Himalaya Publishing House, 2016.
4. Mehta & Madnani, Elementary Mathematics in Economics, Lakshmi Narain Agarwal, 2017.

Course Outcomes:

After the completion of the course, the students will be able

to CO 1: Illustrate the laws of Indices.

CO 2: Demonstrate the sequence and series, and algebraic expressions

CO 3: Make use of the Venn diagram to denote the relationship between sets. CO 4: Examine the applications of equations and functions in economics.

CO 5: Determine whether the given lines are parallel or perpendicular and find the equation, slope, and calculate the distance between the two points.

MATHEMATICS FOR ECONOMICS – II

L	T	P	C
3	2	0	4

Course Objectives:

This course will help the students

1. To know the application of matrices in economic analysis.
2. To study the concepts of input-output analysis.
3. To be familiar with the rules of differentiation.
4. To understand the application of partial differentiation in Economics.
5. To enrich their knowledge on the application of integration in Economics.

Unit I: Matrices

Meaning – Types - Matrix operations – Determinants - Rank of a Matrix - Inverse of a Matrix – Application of Matrices to the solution of linear equations: Matrix Inversion Technique – Cramer's Rule. (15L)

Unit II Input - Output Analysis

Meaning – Basic Concepts – Types - Assumptions – Significance – Limitations – Two Sectors Economy. (15L)

Unit III: Differentiation

Meaning – Rules – Derivative of Higher orders - Maxima and Minima — Applications in Economics. (15L)

Unit IV: Partial Differentiation

Meaning – Rules – Higher Order - Maxima and Minima – Applications in Economics - Total differentiation - Euler's Theorem. (15L)

Unit V: Integration

Meaning – Rules – Definite integration – Applications in economics. (15L)
(Total:75L)

References:

1. Allen, R.G.D., Mathematical Analysis for Economists, All India Publishers & Distributors, 2015
2. Bhardwaj, R.S., Mathematics for Economics and Business, Excel Books Publisher, 2006.
3. Bose, D., An Introduction to Mathematical Methods, Himalaya Publishing House, 2016.
4. Mehta & Madnani, Elementary Mathematics in Economics, Lakshmi Narain Agarwal, 2017.

Course Outcomes:

After the completion of the course, the students will be able to

- CO 1. Define a matrix, illustrate the matrix operations and apply the matrix technique in economic analysis.
- CO 2. Describe the various concepts of input-output analysis and to explain the applications of matrices in sectors economy.
- CO 3. Identify the applications of partial differentiation in economics.
- CO 4. List out the various applications of integration in Economics.
- CO 5. Estimate consumer and producer surplus from the demand and supply function.