


 **Dr. MGR-JANAKI COLLEGE
OF ARTS & SCIENCE FOR WOMEN** 
SATHYABAMA MGR MALIGAI
11 & 13, Durgabai Deshmukh Road, RA Puram, Chennai - 28
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CRITERION 1



CURRICULAR ASPECTS



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CRITERION 1

CURRICULUM ENRICHMENT

1.3.1 Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the curriculum

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Verified and Certified Documents

Metric No: 1.3.1

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Principal

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1.3.1: Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the curriculum – Syllabus

PROFESSIONAL ETHICS		
COURSE CODE	COURSE NAME	PROGRAMME NAME
MAM1D	PRINCIPLES OF MANAGEMENT	BUSINESS ADMINISTRATION
MAM5A	ADVERTISING MANAGEMENT & SALES PROMOTION	
SZ26A	WEB DESIGN DEVELOPMENT	COMPUTER APPLICATION
SU45B	MULTIMEDIA	
SU46B	INTERNET OF THINGS	
PEB3A	INFORMATION SECURITY	M.SC INFORMATION TECHNOLOGY
AY25B	CORPORATE GOVERNANCE AND ETHICS	B.COM (CORPORATE SECRETARYSHIP)
CSE3A	HUMAN RESOURCE MANAGEMENT	B.COM (GENERAL)
SM3AC	MATHEMATICAL STATISTICS-I	B.SC MATHEMATICS
SM3AG	MATHEMATICAL STATISTICS-II	
SM4AH	OPERATION RESEARCH	
ST34A	CONSUMER BEHAVIOR AND ADVERTISING	
ST46A	GUIDANCE AND COUNSELLING PSYCHOLOGY	B.SC PSYCHOLOGY
ST46B	HUMAN RESOURCE MANAGEMENT	
MD21C	BIOLOGICAL PSYCHOLOGY	
MD22B	RESEARCH METHODOLOGY AND APPLIED STATISTICS	M.SC APPLIED PSYCHOLOGY
MD23A	PSYCHOPATHOLOGY	
MD23B	SCHOOL COUNSELLING	
MD23C	COUNSELLING SKILLS AND TECHNIQUES	
MD23D	ORGANISATIONAL PSYCHOLOGY	
MD4AG	GERIATRIC PSYCHOLOGY	



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GENDER ISSUES		
COURSE CODE	COURSE NAME	PROGRAMME NAME
CA46A	ENTREPRENEURIAL DEVELOPMENT	B.COM (ACCOUNTING & FINANCE)
CZ26C	ENTREPRENEURIAL DEVELOPMENT	B.COM (BANK MANAGEMENT)
MAM5K	ENTREPRENEURIAL DEVELOPMENT	BUSINESS ADMINISTRATION
CODE YET TO RECEIVE*	WOMEN STUDIES*	M.A. ENGLISH
AG46B	WOMEN WRITINGS	B.A. ENGLISH
ST32A	SOCIAL PSYCHOLOGY	B.SC PSYCHOLOGY
ST26C	THEORIES OF PERSONALITY	
	INTRODUCTION TO COMMUNITY PSYCHOLOGY	
ST32A	INTRODUCTION TO COMMUNITY PSYCHOLOGY	

HUMAN VALUES		
COURSE CODE	COURSE NAME	PROGRAMME NAME
VAE5Q	VALUE EDUCATION	All UG Programmes
ST25B	SOCIAL PSYCHOLOGY	B.SC PSYCHOLOGY
ST32A	INTRODUCTION TO COMMUNITY PSYCHOLOGY	

ENVIRONMENT AND SUSTAINABILITY		
Course Code	Course Name	Programme Name
ENV4B	ENVIRONMENTAL STUDIES	All UG Programmes
SN26A	ENVIRONMENTAL MICROBIOLOGY	B.SC MICROBIOLOGY
MQ33A	MICROBIAL REMEDIATION	M.SC MICROBIOLOGY
MDT41	FOOD, DIARY AND ENVIRONMENTAL MICROBIOLOGY	



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PROFESSIONAL ETHICS



BUSINESS ADMINISTRATION

SUBJECT: PRINCIPLES OF MANAGEMENT

SUBJECT CODE: MAM1D

UNIT I

Management: Importance – Definition – Nature and Scope of Management Process – Role and Functions of a Manager – Levels of Management – Development of Scientific Management and other Schools of thought and approaches.

UNIT II

Planning: Nature – Importance – Forms – Types – Steps in Planning – Objectives – Policies – Procedures and Methods – Natures and Types of Policies – Decision – making – Process of Decision – making – Types of Decision.

UNIT III

Organizing: Types of Organisations – Organisation Structure – Span of Control and Committees – Departmentalisation – Informal Organisation- Authority – Delegation – Decentralisation – Difference between Authority and Power – Responsibility.

UNIT IV

Recruitment – Sources, Selection, Training – Direction – Nature and Purpose. Coordination – Need, Type and Techniques and requisites for excellent Co-ordination – Controlling – Meaning and Importance – Control Process.

UNIT V

Definition of Business ethics - Types of Ethical issues -Role and importance of Business Ethics and Values in Business - - Ethics internal - Ethics External - Environment Protection - Responsibilities of Business



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BUSINESS ADMINISTRATION

SUBJECT: ADVERTISING MANAGEMENT AND SALES PROMOTION

SUBJECT CODE: MAM5A

UNIT I

Advertising: Advertising, objectives, task and process, market segmentation and target audience – Message and copy development.

UNIT II

Media: Mass Media - Selection, Planning and Scheduling – Web Advertising – Integrated programme and budget planning.

UNIT III

Implementation: Implementing the programme coordination and control – Advertising agencies – Organization and operation.

UNIT IV

Sales Promotion: Why and When Sales promotion activities, Consumer and sales channel oriented – planning, budgeting and implementing and controlling campaigns.

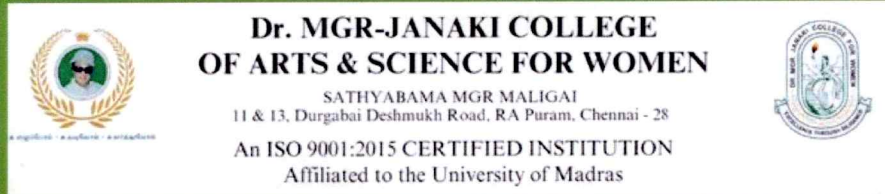
UNIT V

Control: Measurement of effectiveness – **Ethics, Economics and Social Relevance.**



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COMPUTER APPLICATION

SUBJECT: WEB DESIGN DEVELOPMENT

SUBJECT CODE: SZ26A

UNIT I:

HTML: HTML-Introduction-tag basics- page structure-adding comments working with texts, Paragraphs and line break. Emphasizing text- heading and horizontal rules-list-font size, face and color- alignment links-tables-frames

UNIT II:

Forms & Images Using Html: Graphics: Introduction-How to work efficiently with images in web pages, image maps, GIF animation, adding multimedia, data collection with html forms textbox, Cpassword, list box, combo box, text area, tools for building web page front page

UNIT III:

XML & DHTML: Cascading style sheet (CSS)-what is CSS-Why we use CSS-adding CSS to your web pages-Grouping styles-extensible markup language (XML). Dynamic HTML: Document object model (DCOM)-Accessing HTML & CSS through DCOM Dynamic content styles & positioning- Event bubbling-data binding.

UNIT IV:

JavaScript : Client side scripting, What is JavaScript, How to develop JavaScript, simple JavaScript, variables, functions, conditions, loops and repetition, Advance script, JavaScript and objects, JavaScript own objects, the DOM and web browser environments, forms and validations

UNIT V:

Ajax: Introduction, advantages & disadvantages, Purpose of it, ajax based web application, alternatives of ajax Java Script & AJAX: Introduction to array-operators, making statements-date & time- mathematics strings-Event handling-form properties. AJAX. Introduction to jQuery and AngularJS.



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DEPARTMENT OF COMPUTER APPLICATION (BCA)

SUBJECT: MULTIMEDIA

SUBJECT CODE: SU45B

UNIT-I-Definition - Classification - Multimedia application -Multimedia Hardware -
Multimedia software - CDROM - DVD.

UNIT-II-Multimedia Audio: Digital medium - Digital audio technology - sound cards -
Recording - editing- MP3 - MIDI fundamentals - Working with MIDI - audio file formats -
adding sound to Multimedia project.

UNIT-III-Multimedia Text: Text in Multimedia -Multimedia graphics: coloring - digital
imaging fundamentals - development and editing - file formats - scanning and digital
Photography

UNIT-IV-Multimedia Animation: Computer animation fundamentals - Kinematics -
morphing - animation s/w tools and techniques.Multimedia Video : How video works -
broadcast video standards - digital video fundamentals – digital video production and editing
techniques - **file formats**.

UNIT-V-Multimedia Project: stages of project - Multimedia skills - design concept -
authoring - planning and costing –Multimedia Team.

Multimedia-looking towards Future: **Digital Communication and New Media, Interactive
Television, Digital Broadcasting, Digital Radio, Multimedia Conferencing**



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DEPARTMENT OF COMPUTER APPLICATION (BCA)

SUBJECT: INTERNET OF THINGS

SUBJECT CODE: SU46B

UNIT – I - IoT & Web Technology, The Internet of Things Today, Time for Convergence, Towards the IoT Universe, Internet of Things Vision, IoT Strategic Research and Innovation Directions, IoT Applications, Future Internet Technologies, Infrastructure, Networks and Communication, Processes, Data Management, Security, Privacy & Trust, Device Level Energy Issues, IoT Related Standardization, Recommendations on Research Topics.

UNIT – II - M2M to IoT – A Basic Perspective– Introduction, Some Definitions, M2M Value Chains, IoT Value Chains, An emerging industrial structure for IoT, The international driven global value chain and global information monopolies. M2M to IoT-An Architectural Overview– Building an architecture, Main design principles and needed capabilities, An IoT architecture outline, standards considerations.

UNIT – III - IoT Architecture -State of the Art – Introduction, State of the art, Architecture. Reference Model- Introduction, Reference Model and architecture, IoT reference Model, IoT Reference Architecture- Introduction, Functional View, Information View, Deployment and Operational View, Other Relevant architectural views.

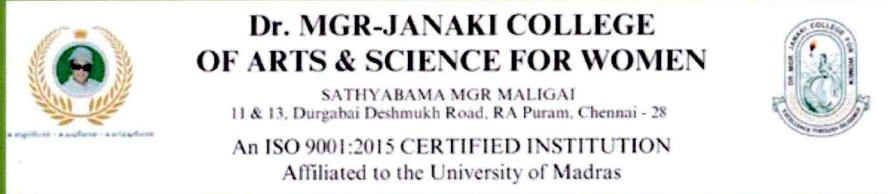
UNIT – IV - IoT Applications for Value Creations Introduction, IoT applications for industry: Future Factory Concepts, Brownfield IoT, Smart Objects, Smart Applications, Four Aspects in your Business to Master IoT, Value Creation from Big Data and Serialization, IoT for Retailing Industry, IoT For Oil and Gas Industry, Opinions on IoT Application and Value for Industry, Home Management, eHealth.

UNIT – V - Internet of Things Privacy, Security and Governance Introduction, Overview of Governance, Privacy and Security Issues, Contribution from FP7 Projects, Security, Privacy and Trust in

IoT-Data-Platforms for Smart Cities, First Steps Towards a Secure Platform, Smartie Approach. Data Aggregation for the IoT in Smart Cities, Security



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M.SC INFORMATION TECHNOLOGY

SUBJECT: INFORMATION SECURITY

SUBJECT CODE: PEB3A

Unit 1: Introduction: Security- Attacks- Computer criminals- Method of defense Program
Security: Secure programs- Non-malicious program errors- Viruses and other malicious code
Targeted malicious code- **Controls against program threats**

Unit 2: Operating System Security: Protected objects and methods of protection- Memory
address protection- Control of access to general objects- File protection mechanism
Authentication: Authentication basics- Password- Challenge-response- Biometrics.

Unit 3: Database Security: Security requirements- Reliability and integrity- **Sensitive data
Interface**- Multilevel database- Proposals for multilevel security

Unit 4: Security in Networks: Threats in networks- Network security control- Firewalls
Intrusion detection systems- Secure e-mail- Networks and cryptography- Example protocols:
PEM- SSL- Ipsec.

Unit 5: Administrating Security: Security planning- Risk analysis- Organizational security
Policies- Physical security - **Legal- Privacy- and Ethical Issues in Computer Security -
Protecting programs and data- Information and law- Rights of employees and employers
Software failures- Computer crime- Privacy- Ethical issues in computer society- Case studies
of ethics**



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B.COM (CORPORATE SECRETARYSHIP)

SUBJECT: CORPORATE GOVERNANCE AND ETHICS

SUBJECT CODE: AY25B

UNIT I - Corporate Governance Corporate governance – meaning – objectives – need - importance – principles – corporate governance and organisation success. Corporate governance in India

UNIT II - Levels of Governance Structure Corporate governance and role, responsibilities and powers - Board of Directors, Corporate Management Committee and Divisional Management Committee.

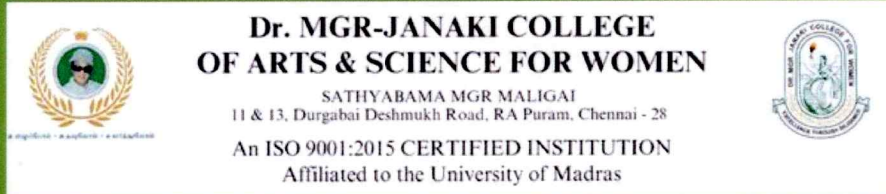
UNIT III - Corporate Governance Forums CII code on corporate governance – features - Various Corporate Governance forums – CACG, OECD, ICGN AND NFCG.

UNIT IV - Corporate Social Responsibility Corporate Social Responsibility – definition – nature – levels – phases and approaches, principles, Indian models – dimensions. Corporate social reporting - Objectives of Corporate Social Reporting and case studies.

UNIT V - Business Ethics Business ethics – meaning, significance, scope – factors responsible for ethical and unethical business decision. Unethical practices in Business – Business ethics in India – Ethics training programme



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B.COM (GENERAL)

SUBJECT: HUMAN RESOURCE MANAGEMENT

SUBJECT CODE: CSE3A

UNIT I: Introduction

Nature and Scope of Human Resources Management – Differences between Personnel Management and HRM – Environment of HRM- HRM Accounting– Human Resource Planning – Recruitment – Selection – Methods of Selection – Uses of various Tests – Interview techniques in Selection and Placement.

UNIT II: Training Meaning – Induction – Methods – Techniques – Identification of the Training needs – Training and Development – Performance appraisal – Transfer – Promotion and Termination of services – Career Development.

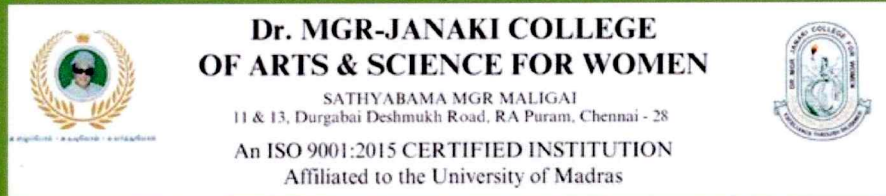
UNIT III: Compensation & Labour Relation Cost to Company – CTC Fixed and Flexible Pay - Components – Incentives – Benefits – Motivation – Talent Retention- Welfare and Social Security Measures - Opportunities, Challenges, and Recent Trends in Compensation. Need – Functions of Trade Unions – Forms of Collective bargaining – Workers Participation in management - Types and effectiveness. Industrial Disputes and Settlements (laws excluded)- **Social Ethics and Responsibility** .

UNIT IV: Human Resource Accounting & Audit Human Resource Accounting- Meaning- Objectives- Need & Limitations. Human Resource Audit – Nature – Benefits – Scope – Approaches.

UNIT V: **Corporate Ethics & Corporate Social Responsibility Business Ethics – Concept, Characteristics, Importance and Need for ethics- Sources of Ethics, Concept of Corporate Ethics, code of Ethics- Guidelines for developing code of ethics, Ethics in Human Resource Management** Corporate Social Responsibility: Concept, Scope & Relevance and Importance of CSR Contemporary Society. CSR.



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B.SC MATHEMATICS

SUBJECT: MATHEMATICAL STATISTICS-I

SUBJECT CODE: SM3AC

UNIT I

Concept of sample space- Events- Definition of Probability (Classical, Statistical & Axiomatic)- Addition and Multiplication laws of Probability- Independence- Conditional Probability- Baye's theorem – Simple Problems.

UNIT II

Random Variables (Discrete and Continuous) Distribution function- Expected values and Moments- Moment generating function – Probability generating function- Examples.

UNIT III

Characteristic function- Uniqueness and Inversion theorems (Statements and applications only)- Cumulants - Chebychev's Inequality – Simple Problems.

UNIT IV

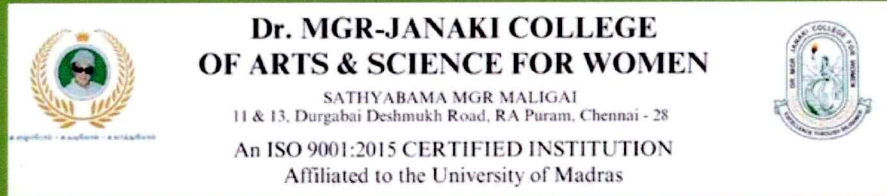
Concepts of bivariate distributions- Correlation and Regression- Linear Prediction- Rank Correlation coefficient-Concepts of partial and multiple correlation coefficients- Simple problems.

UNIT V

Standard Distributions – Binomial- Poisson- Normal- Uniform distributions- Geometric Exponential- Gamma -Beta distributions- Inter relationship between distributions.




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B.SC MATHEMATICS

SUBJECT: MATHEMATICAL STATISTICS-II

SUBJECT CODE: SM3AG

UNIT I

Sampling theory – Sampling Distributions – Concept of Standard error – Sampling distribution based on normal distribution- t, Chi Square and F distributions.

UNIT II

Point estimation – Concepts of unbiasedness – consistency – efficiency and sufficiency- Cramer Rao inequality – Methods of estimation- Maximum likelihood- moments - minimum square and their properties (Statement only).

UNIT III

Test of significance – Standard error- Large sample test, Exact test based on normal, t, chi- square and F distribution with respect to population mean/means, proportion/proportions, variance and correlation coefficient. Test of independence of attributes based on contingency tables- Goodness of fit based on chi-square.

UNIT IV

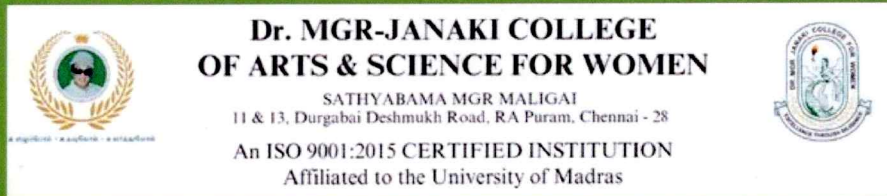
Analysis of Variance: One way, two way classification concepts & Problems. Interval estimation – Confidence intervals for population mean/means- Proportion/proportions and variances based on t, Chi-Square and F.

UNIT V

Test of hypothesis- Type I and II errors- Power of test – Neymann Pearson lemma- Likelihood ratio test-concepts of most powerful test- statements and results only-simple problems.



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B.SC MATHEMATICS

SUBJECT: OPERATIONS RESEARCH

SUBJECT CODE: SM4AH

UNIT I

Linear programming: Formulation – graphical solution. Simplex method. Big-M method. Duality-primal-dual relation. Chapter 6 Sections 6.1 – 6.13, 6.20 – 6.31

UNIT II

Transportation problem: Mathematical Formulation. Basic Feasible solution. North West Corner rule, Least Cost Method, Vogel's approximation. Optimal Solution. Unbalanced Transportation Problems. Degeneracy in Transportation problems. Assignment problem: Mathematical Formulation. Comparison with Transportation Model. Hungarian Method. Unbalanced Assignment problems Chapter 9 Sections 9.1-9.12, Chapter 8 Sections 8.1 – 8.5

UNIT III

Sequencing problem: n jobs on 2 machines – n jobs on 3 machines – two jobs on m machines – n jobs on m machines. **Game theory : Two-person Zero-sum game with saddle point – without saddle point – dominance – solving $2 \times n$ or $m \times 2$ game by graphical method.** Chapter 10 Sections 10.1 – 10.6 ,Chapter 12 Sections 12.1 – 12.15

UNIT IV

Queuing theory: Basic concepts. Steady state analysis of $M / M / 1$ and $M / M / S$ models with finite and infinite capacities. Chapter 5 Sections 5.1 – 5.18

UNIT V

Network: Project Network diagram – CPM and PERT computations. (Crashing excluded) Chapter 13 Sections 13.1 – 13.10




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B.SC PSYCHOLOGY

SUBJECT: CONSUMER BEHAVIOR AND ADVERTISING

SUBJECT CODE: ST34A

UNIT-I: CONSUMER BEHAVIOUR

Understanding consumer behaviour- field and scope of consumer behaviour, consumer behaviour and the marketing concepts-customer value, satisfaction, trust and retention impact of new technology on marketing strategies.

UNIT-II: CONSUMER RESEARCH

An overview of the consumer research process—developing research objectives – collecting secondary data – designing primary research – data analysis and reporting research findings – conducting a research study.

UNIT-III: CONSUMER AS AN INDIVIDUAL

Consumer motivation; motivation as a psychological force – the dynamics of motivation – types and system of needs, consumer perception; Sensory dynamics of perception – elements of perception – consumer imagery; personality and understanding consumer behaviour. UNIT-

IV: ADVERTISING

Meaning, definition – objectives – basic features of advertising – goals and models, functions – advantages and disadvantages of advertising – types of advertising.

UNIT V: ADVERTISING IN BRAND BUILDING

Institutional frame work in advertising; advertising agencies – media selection, tools for measuring advertising effectiveness; new media of advertising, ethical standards in advertising



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B.SC PSYCHOLOGY

SUBJECT: GUIDANCE AND COUNSELLING PSYCHOLOGY

SUBJECT CODE: ST46A

UNIT I:

NATURE AND SCOPE OF GUIDANCE AND COUNSELLING Counselling and Guidance: Meaning- Nature - Need and Functions of Guidance and Counselling - Emergence of Guidance and Counselling in India - Goals and Scope of Guidance and Counselling - Types of Counselling Services.

UNIT II:

APPROACHES TO COUNSELLING AND THE COUNSELLING PROCESS Directive and non-directive approaches - Humanistic approach- Behaviouristic approach - Existential Approach - Eclectic Approach, Counselling Process: Preparation for counselling, Steps in the counselling process.

UNIT III:

PSYCHOLOGICAL TESTING AND DIAGNOSIS Use of psychological tests in guidance and counselling - Types of psychological tests - Nature of a good psychological test - Test interpretation in counselling - Limitations of Psychological tests - Diagnosis and its limitations.

UNIT IV:

COUNSELLOR QUALITIES, SKILLS AND ETHICAL RESPONSIBILITIES Qualities of an effective counsellor, Counsellor skills: Building Trust- Listening – Attending – Observing - Building Rapport - Demonstrating Empathy, **Ethics in counselling.**

UNIT V:

SPECIAL AREAS IN COUNSELLING Family group consultation - Counselling Families Concerning Children - Counselling with Parents - Counselling the Delinquent - Marriage Counselling - Premarital Counselling - Counselling the Handicapped - Career Counselling - Adolescent Counselling- Role of Counsellor in fostering Good Mental Health



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B.SC PSYCHOLOGY

SUBJECT: HUMAN RESOURCE MANAGEMENT

SUBJECT CODE: ST46B

UNIT I: INTRODUCTION TO HUMAN RESOURCE MANAGEMENT (HRM)

The concept of human resource management and its importance, The trends shaping human resource management – Globalization and Competition trends, Indebtedness and deregulation, Technological trends, Trends in the nature of work, Workforce and demographic trends, Economic challenges and trends. Important trends in human resource management – The new human resource managers, HRM in India, Strategic human resource management, High-performance work systems, Evidence-based human resource management, **Managing ethics**, HR qualifications

UNIT II: JOB ANALYSIS AND HUMAN RESOURCE PLANNING AND RECRUITING

The basics of job analysis, Job analysis in a worker empowered world, The recruitment and selection process, Planning and forecasting, The need for effective recruiting, Internal sources of candidates, Outside sources of candidates, Recruiting a more diverse Workforce

UNIT III: TRAINING AND DEVELOPING EMPLOYEES Introduction to orienting and training employees, Analysing training needs and designing the program, Implementing training programs, Implementing Management Development programs, Managing organizational change programs, Evaluating the training effort

UNIT IV: PERFORMANCE MANAGEMENT AND APPRAISAL

Basic concepts in performance management and appraisal, Techniques for appraising performance, dealing with performance appraisal problems, appraisal interview, performance management.

UNIT V: EMPLOYEE MOTIVATION

Stress management in organization, Conflict management in organisation, Providing incentives, empowerment of employees, attention to women related issues.



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M.SC APPLIED PSYCHOLOGY

SUBJECT: BIOLOGICAL PSYCHOLOGY

SUBJECT CODE: MD21C

UNIT I BIOLOGICAL FOUNDATIONS OF BEHAVIOUR AND NEUROANATOMY

The biological approach to behaviour- research methods of Biopsychology- approaches to relate brain and behaviour- scope of Biopsychology- ethical guidelines Functional Neuroanatomy: cells of nervous system- Anatomy and functions of neurons and glial cells- types of neurons- central and peripheral nervous system- structure and functions of brain and spinal cord- an overview.

UNIT II NEUROPHYSIOLOGY

Neural communication- Communication within a neuron: measuring electrical potential of axons- physical forces behind electrical signaling Propagation of action potential. Communication between neurons: structure of synapse- release of neuro transmitters activation of receptors- postsynaptic potential- termination. Neurotransmitters: types of neurotransmitters, neuro transmitters and behaviour, non-synaptic communication Neuromodulators.

UNIT III NEUROENDOCRINOLOGY

Neuro endocrinology: Endocrine glands and its specific hormones- an overview, cellular mechanism- hormones on behaviour- Hormones and sexual behaviour- activating effects of sex hormones- neural mechanism of sexual behaviour, gender identity and gender differentiated behaviour- sexual orientation- behavioural and-anatomical differences

UNIT IV DISORDERS OF PERCEPTION AND MOVEMENT DISORDERS

Disorders of perception: Blind sight, visual Agnosia- apperceptive visual agnosia, associative visual agnosia- Prosopagnosia, Landmark agnosia, somatosensory agnosia- astereognosia, asomatognosia. Movement Disorders: Disorders of the human motor system- Parkinsonism and Parkinson's Disease- clinical features, Neuropathology and treatment, Ataxia, Apraxia - Types, Hemiplegia.

UNIT V COGNITIVE NEUROSCIENCE

Learning and memory: Biological perspective of learning: Learning and Hebbian synapse, long term potentiation- biochemical mechanism- role of NMDA receptors-mechanism of synaptic plasticity. Brain regions associated with memory- effects of hippocampal damage on memory- Brain damage and amnesia: Korsakoff syndrome, Alzheimer's disease. Language and cognition: language disorders from specific brain injuries- speech production disorders- Broca's aphasia: agrammatism, anomia, articulation difficulties. Speech



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M.SC APPLIED PSYCHOLOGY

SUBJECT: RESEARCH METHODOLOGY AND APPLIED STATISTICS

SUBJECT CODE: MD22B

UNIT I FOUNDATIONS OF RESEARCH

Meaning – Critical thinking process – Objectives of science – Need for research – Research approaches – Steps in research. Method Vs Methodology. General Principles – Ethical issues: Children, Adults, Animals. Research problem – Sources – Criteria of good problem. Reviewing the literature – Research article.

UNIT II HYPOTHESIS, VARIABLES AND SAMPLING

Hypothesis: Meaning – Types – Basic concepts related to hypothesis testing. Variables – Definition – Ways of asking questions – measuring observed variables – Scales of measurement – Types of measures – Reliability – Validity. Sampling – Meaning – Probability and Non-probability sampling – Sample & effect size. Data collection methods: Observational research – Survey research.

UNIT III RESEARCH DESIGN

Experimental design: Independent groups designs – Completely randomized groups designs, randomized factorial groups design. Dependent groups designs: Within-participants design, matched groups design – Mixed Designs – Single-participant design – Baseline designs. Non-experimental designs: Quasi-experiments – Time-series design, non-equivalent groups designs, longitudinal research, Cross-sectional research, Case-studies, Correlational research. Qualitative methods of Data Collection: Focus Group Interview, Structured and unstructured interview.

UNIT IV STATISTICS & DATA ANALYSIS

Organizing data: Frequency distribution – Graphs – Descriptive statistics: Measures of central tendency – Measures of variation – Types of distributions. Inferential statistics: z test – t test – Analysis of Variance – Correlation – Concepts related to correlation – Correlation coefficient – Regression. Non-parametric statistics: Mann-Whitney test – Wilcoxon Chi-square – Spearman Rank correlation – Kruskal-Wallis test. Analysis of data using SPSS, Qualitative data analysis: Steps & Types of qualitative data analysis: Grounded theory analysis, Content Analysis and thematic analysis.

UNIT V REPORT WRITING AND COMPUTERS IN RESEARCH

Writing Proposal – Plagiarism – References and In-text citation – APA primer - Presenting research: Research report – Typing guidelines – Oral and Poster presentation. Computers in research – Internet and research.



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M.SC APPLIED PSYCHOLOGY

SUBJECT: PSYCHOPATHOLOGY

SUBJECT CODE: MD23A

UNIT I CLASSIFICATION OF DISORDERS

Abnormality- Criteria of defining abnormal behaviour- System of classification: DSM V and ICD 11- critical evaluation, need to classify mental disorders- advantages and disadvantages of classification, Professional ethics, Examination and diagnosis: psychiatric interview, case history taking and mental status examination.

UNIT II PERSONALITY DISORDERS - ETIOLOGY, DIAGNOSTIC CRITERIA, CLINICAL SYMPTOMS, TREATMENT

Paranoid personality disorder, schizoid personality disorder, schizotypal personality disorder, antisocial personality disorder, borderline personality disorder, histrionic personality disorder, narcissistic personality disorder, avoidant personality disorder, dependent personality disorder.

UNIT III SUBSTANCE USE AND ADDICTIVE DISORDER, DISRUPTIVE, IMPULSE CONTROL DISORDERS - ETIOLOGY, DIAGNOSTIC CRITERIA, CLINICAL SYMPTOMS, TREATMENT

Substance use disorder: Alcohol related disorders, tobacco related disorders, Opioid related disorders, Stimulant related disorders. Addictive behaviour disorder: Gambling disorder and gaming disorder- online and offline behaviour. Impulse control disorder: Intermittent explosive disorder, pyromania, kleptomania, compulsive sexual behaviour disorder, Internet Compulsion disorder.

UNIT IV OBSESSIVE-COMPULSIVE DISORDERS AND PSYCHOSOMATIC DISORDER - ETIOLOGY, DIAGNOSTIC CRITERIA, CLINICAL SYMPTOMS, TREATMENT

Obsessive-Compulsive Disorder, Body Dysmorphic Disorder, Hoarding Disorder, Hair Pulling Disorder (Trichotillomania), Excoriation (Skin-Picking) Disorder. Psychosomatic Medicine: Somatic Symptom Disorder, Illness Anxiety Disorder, Functional Neurological Symptom Disorder (Conversion Disorder), Factitious Disorder, Pain Disorder.

UNIT V CHILDHOOD AND GERIATRIC DISORDERS - ETIOLOGY, DIAGNOSTIC CRITERIA, CLINICAL SYMPTOMS, TREATMENT

Childhood related disorders: Intellectual disorder, communication disorder, autism spectrum disorder, motor disorders: Developmental Coordination Disorder, Stereotypic Movement Disorder, Tourette's Disorder, Tic Disorder. Mood Disorders: Depressive Disorders, Early-Onset Bipolar Disorder, Disruptive Mood Dysregulation Disorder, Oppositional Defiant Disorder, Conduct Disorder. Geriatric disorders: geriatric depression, Dementia, Parkinson's, Alzheimer's disease



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M.SC APPLIED PSYCHOLOGY

SUBJECT: -SCHOOL COUNSELLING

SUBJECT CODE: MD23B

UNIT I INTRODUCTION TO GUIDANCE AND COUNSELING

History, nature, scope and needs of guidance and counseling in schools, individual differences, the role of student advisor and teacher in school counseling - important features; School counseling for the 21st century.

UNIT II AREAS OF EDUCATIONAL GUIDANCE, PURPOSE, FUNCTIONS, GUIDANCE FOR SPECIAL LEARNERS

Gifted and Creative Students, Under Achievers, Students with Learning Disabilities. Assessment, Diagnosis, Counseling and Management of common childhood problems, School refusal, scholastic backwardness, conduct and emotional problems, Counseling adolescents regarding sexuality and substance abuse, Counseling parents and teachers.

UNIT III GUIDANCE STRATEGIES FOR SOCIAL AND PERSONAL PROBLEMS

Training and Development for self-confidence, Assertive training, Improving communication skills, Mental and Physical Methods of Relaxation; Self-improving Programs : study skills training, Problem Solving Techniques, Managing Motivation, Time Management, Remedies for Procrastination, Decision Making.

UNIT IV ABUSE COUNSELING

Types of Abuse, Causal Theories of Abuse, Effects of Abuse, Statutory Requirements, Implications for Counsellors, Support Networks, Referral Processes.

UNIT IV LEGAL AND ETHICAL RESPONSIBILITIES IN SCHOOL COUNSELING

Legal concepts - Ethical standards - Government regulations - Maintaining good student records.



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M.SC APPLIED PSYCHOLOGY

SUBJECT: COUNSELLING SKILLS AND TECHNIQUES

SUBJECT CODE: MD23C

UNIT I INTRODUCTION TO COUNSELING AND PSYCHOTHERAPY

Definition of Counselling and Psychotherapy, History of Counselling and Psychotherapy, Goals of Counselling, Counselling as a distinct Profession, Current trends in the 21st Century, Personal and Professional aspects of Counselling, Personality and Background of Counsellor, Personal qualities of the effective Counsellor, Attribution and Systematic framework of Counselling and Supervision

UNIT II COUNSELLING SKILLS AND ETHICAL ISSUES

The Helping relationship and process. Specific Counselling skills: Understanding the internal frame of reference, showing attention and interest, paraphrasing and reflecting feelings, structuring, probing, monitoring, challenging, self-disclosing. Managing resistances and making referral. Facilitating problem solving. Improving client's perceptions, negotiating homework, conducting middle sessions and terminating helping. **Ethical and Legal Issues in Counselling**

UNIT III TWO SKILL BASED MODELS OF COUNSELLING

Egan's problem management approach to helping. Stage I Problem clarification, Stage II Setting goals based on dynamic understanding, Stage III Facilitating action. Ivey and Ivey's Step by Step Micro skills model- Towards Intentional interviewing and Counselling. The Micro skills hierarchy. Drawing out client stories. Relationship-Story and Strengths-Goals- Restory - Action. Increasing skills and flexibility. Theory and Micro skills.

UNIT IV LISTENING & EMPATHY BUILDING

Qualities of the Effective Listener: Positive & Negative Listening – Proximity in Listening – Using Silence – Head nodding – Facial Expressions – Active Listening – Distraction – Assessing your own Listening. Clarifying empathy – Empathy building Statements – People who empathize – Simple reflection of content – Simple reflection of feeling – Selective reflection – Putting it all together – Using Empathy in everyday life – Empathy in difficult situations – **Ethical issues**

UNIT V ACTIVITIES IN COUNSELLING

Information Activities: Types of information – Pros and cons of advice-giving – Breaking bad news – Confrontation I – Confrontation II – Checking for understanding. Facilitation Activities: Exploring facilitation – Types of facilitation – Learning to facilitate – Group facilitation – Limits to facilitation – Dealing with contingencies. Problem Solving Activities: Types of problem – Identifying problems – Problem-Solving Cycle – Clarifying Problems – Dealing with problems – Planning – Evaluation of Problem solving. Coping with Feelings: Types of feelings – Feeling words – Expressing feelings – Dealing with Paradox - Focusing – Preventing Burnout – Coping with stress



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M.SC APPLIED PSYCHOLOGY

SUBJECT: ORGANISATIONAL PSYCHOLOGY

SUBJECT CODE: MD23D

UNIT I INTRODUCTION

Scope and historical development of organizational psychology – Disciplines that contribute to the field of organizational behavior – challenges & opportunities for organizational behavior – basic OB model.

UNIT II INDIVIDUAL

Work motivation: Early and contemporary theories and their applicability today. Work attitude and Job satisfaction: Relation between attitude and behavior, Major job attitudes – Job satisfaction.

UNIT III GROUP

Foundation of group Behaviour: Classifying Groups – Group Properties – Group Decision Making – Work Teams: Types of Team – Creating Effective Team. Communication: Function, Barriers to Effective Communication. Leadership: Theories, Finding & Creating effective Leaders.

UNIT IV THE ORGANISATION SYSTEM

Organizational structure: Common & New organizational design, Organizational Design & Employee Behaviour – Organisational Culture: Creating and sustaining culture – **creating ethical and positive organizational culture**. Organisational Change – Forces for Change – Planned Change – Resistance to Change.

UNIT V WORK ENVIRONMENT, ACCIDENTS AND SAFETY

Music, Noise, Illumination, Colour, Vibration, Miscellaneous factor. Accidents and safety: Accident Proneness Principle, prevention and reduction of accidents.




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M.SC APPLIED PSYCHOLOGY

SUBJECT: GERIATRIC PSYCHOLOGY

SUBJECT CODE: MD4AG

UNIT I PHYSICAL & COGNITIVE ASPECTS

Old age Today – Longevity & Aging – Physical Changes – Physical & Mental Health – Intelligence & Processing Abilities – Memory.

UNIT II PSYCHOSOCIAL CARE FOR ELDERLY

Stability of personality Traits – Lifestyle & Social Issues related to Aging – Personal Relationships in Late Life – Consensual Relationships – Non-marital kinship Ties.

UNIT-III COUNSELLING FOR ELDERLY POPULATION

Principles, dimensions, process. Counselling the older person, Common problems requiring counselling, Counselling under special situation, Socio Cultural, Physical, Psychological assessment, Mini mental status examination.

UNIT-IV NUTRITION AND HEALTH PROMOTION

Need of dietary alteration, Energy needs of old, Formulation of diet for elderly, Diet related degenerative changes, Physical activity, Health risk in old age, Smoking, alcohol, Social issues, Abuse/neglect, dependency, Physical inactivity, Fall, Accident, Deafness, Low vision, Degenerative disorders: Dementia, Alzheimer and Parkinson's Disease.

UNIT V DEALING WITH DEATH AND BEREAVEMENT

Many faces of death – Facing Death & Loss : Psychological Issues - Death & Bereavement across the Life Span – Special Losses – Medical, Legal & **Ethical Issues** : “The Right to Die” – Finding Meaning & Purpose in Life & Death



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CRITERION 1

CURRICULUM ENRICHMENT

1.3.1 Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the curriculum

GENDER



B.COM (ACCOUNTING & FINANCE)

SUBJECT: ENTREPRENEURIAL DEVELOPMENT

SUBJECT CODE: CA46A

UNIT I: Concept of Entrepreneurship. Entrepreneurship - Meaning - Types - Qualities of an Entrepreneur - Classification of Entrepreneurs - Factors influencing Entrepreneurship - Functions of Entrepreneurs.

UNIT II: Entrepreneurial Development Agencies. Commercial Banks - District Industries Centre - National Small Industries Corporation - Small Industries Development Organisation - Small Industries Service Institute. All India Financial Institutions. SIPCOT and its objectives. MSME Sector and its coverage- Objectives of Ministry of MSME. Role and Functions of MICRO Small and Medium Enterprises - Development Organisation (MSME - DO) - Objectives of SIDCO - Functions of Tamil Nadu SIDCO - IRBI and its Role. NABARD and its role in the Rural Development of India - Introduction to Micro Units Development Refinance Agency (MUDRA).

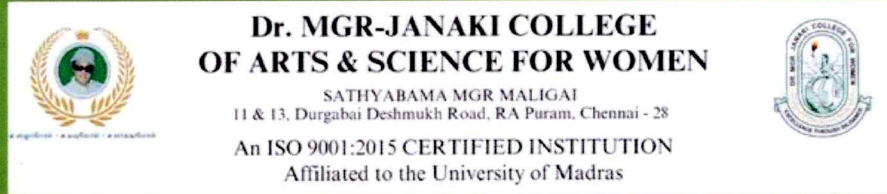
UNIT III: Project Management Business idea generation techniques - Identification of Business opportunities - Feasibility study - Marketing, Finance, Technology & Legal Formalities - Preparation of Project Report - Tools of Appraisal.

UNIT IV - Entrepreneurial Development Programmes Entrepreneurial Development Programmes (EDP) - Role, relevance and achievements - Role of Government in organizing EDPs- Critical evaluation.

UNIT V - Economic development and Entrepreneurial growth Role of Entrepreneur in Economic growth - Strategic approaches in the changing Economic scenario for small scale Entrepreneurs - Networking, Niche play, Geographic Concentration, Franchising / Dealership - **Development of Women Entrepreneurship. Self-help groups and empowerment of Women in India** - Financing SHG and their role in Microfinancing. Financial inclusion and its penetration in india, Challenges and Government role in Financial inclusion - Pradhan Mantri Jan-Dhan Yojana - Six Pillars of Its Mission objectives.




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B.COM (BANK MANAGEMENT)

SUBJECT: ENTREPRENEURIAL DEVELOPMENT

SUBJECT CODE: CZ26C

UNIT I: Entrepreneurship

Entrepreneur: Meaning of entrepreneurship – Types of Entrepreneurship – Traits of entrepreneurship – Factors promoting entrepreneurship- Barriers to entrepreneurship- the entrepreneurial culture- Stages in entrepreneurial process – **Women entrepreneurship and economic development- SHG.**

UNIT II: Developing Successful Business Ideas

Recognizing opportunities – trend analysis – generating ideas – Brainstorming, Focus Groups, Surveys, Customer advisory boards, Day in the life research – Encouraging focal point for ideas and creativity at a firm level-Protecting ideas from being lost or stolen – Patents and IPR.

UNIT III: Opportunity Identification and Evaluation

Opportunity identification and product/service selection – Generation and screening the project ideas – Market analysis, Technical analysis, Cost benefit analysis and network analysis- Project formulation – Assessment of project feasibility- Dealing with basic and initial problems of setting up of Enterprises.

UNIT IV: Business Planning Process

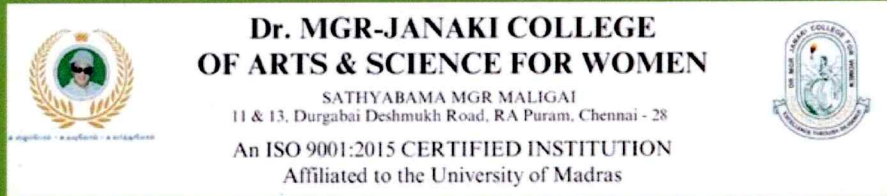
Meaning of business plan- Business plan process- Advantages of business planning- preparing a model project report for starting a new venture (Team-based project work).

UNIT V:

Sources of Finance- Venture capital- Venture capital process- Business angles- Commercial banks- Government Grants and Schemes.



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BUSINESS ADMINISTRATION

SUBJECT: ENTREPRENEURIAL DEVELOPMENT

SUBJECT CODE: MAM5K

UNIT I: Entrepreneurship Entrepreneur : Meaning of entrepreneurship – Types of Entrepreneurship – Traits of entrepreneurship – Factors promoting entrepreneurship- Barriers to entrepreneurship- the entrepreneurial culture- Stages in entrepreneurial process – **Women entrepreneurship and economic development- SHG.**

UNIT II: Developing Successful Business Ideas Recognizing opportunities – trend analysis – generating ideas – Brainstorming, Focus Groups, Surveys, Customer advisory boards, Day in the life research – Encouraging focal point for ideas and creativity at a firm level-Protecting ideas from being lost or stolen – Patents and IPR.

UNIT III: Opportunity Identification and Evaluation Opportunity identification and product/service selection – Generation and screening the project ideas – Market analysis, Technical analysis, Cost benefit analysis and network analysis- Project formulation – Assessment of project feasibility- Dealing with basic and initial problems of setting up of Enterprises.

UNIT IV: Business Planning Process Meaning of business plan- Business plan process- Advantages of business planning- preparing a model project report for starting a new venture (Team-based project work).

UNIT V: Funding Sources of Finance- Venture capital- Venture capital process- Business angles- Commercial banks- Government Grants and Schemes.



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M.A ENGLISH

SUBJECT: WOMEN STUDIES

UNIT 1:

Varieties of Feminism – concept of gender – androgyny- **Language of women – environment and women**- double marginalisation.

UNIT 2:

Poetry Anne Bradstreet Prologue Marianne Moore Poetry Sylvia Plath Lady Lazarus. Maya Angelou Still I Rise Margaret Atwood Marsh Languages Kamala Das An Introduction

UNIT 3:

Prose: John Stuart Mill On subjection of women (V.S. Seturaman & C.T. Indra ed., 1994, Victorian Prose, Macmillan India, Chennai. pp-318) Virginia Woolf A Room of One's Own (chapters 3 & 4) (Jennifer Smith ed., 1998, A Room of One's Own by Virginia Woolf, Cambridge UP, New Delhi.) Vandana Shiva "Introduction to Ecofeminism"(Vandana Shiva & Maria Mies, 1993, Ecofeminism, Kali for Women, New Delhi.) Alice Walker In Search of Our Mother's Garden

UNIT 4:

Fiction Arundathi Roy The God of Small Things Jean Rhys Wide Sargosa Sea Louise Erdrich Four Souls

UNIT 5:

Drama Lorraine Hansberry Raisin in the Sun Jane Harrison Stolen



Janime Gled

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B.A. ENGLISH

SUBJECT: WOMEN'S WRITING

SUBJECT CODE: AG46B

Unit 1:

Poetry 1.1 "A Fairy Tale" – Amy Lowell 1.2 "Eve to her Daughters" - Judith Wright 1.3 "Snapshots of a Daughter-in-Law" - Adrienne Rich 1.4 "Tribute to Papa" – Mamta Kalia 1.5 "Women's Work" - Julia Alvarez 1.6 "Phenomenal Woman" – Maya Angelou 1.7 "Purdah" - Imtiaz Dharker 1.8 "Kongu isn't a rag that stands guard over my head" – Jhoopaka Subadra (From, Kaitunakala dan Dem.)

Unit 2:

Prose 2.1 "Professions for Women" – Virginia Woolf 2.2 "Links in our Chain- 1931" – Mahadevi Varma [Pages 3 to 22] 2.3 "The Spectacle is Vulnerable: Miss World, 1970" - Laura Mulvey [Chapter 1 from Visual and Other Pleasures] 2.4 Excerpts from We Should All Be Feminists - Chimamanda Ngozi Adichie -Pages 26-34: Problematic bringing up of boys and girls -Pages 38-46: Unlearning of preconceived notions, why problem of gender is always overlooked

Unit 3:

Short Story 3.1 "The Yellow Wallpaper" - Charlotte Perkins Gilman 3.2 "Boys and Girls" – Alice Munro 3.3 "Admission of Guilt" – Lalithambika Antharjanam 3.4 "Yellow Woman" – Leslie Marmon Silko

Unit 4:

Drama 4.1 Thus spake Shoorpanaka, so said Shakuni - Polie Sengupta

Unit 5:

Fiction 5.1 Fasting, Feasting - Anita Desai



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B.SC PSYCHOLOGY

SUBJECT: SOCIAL PSYCHOLOGY

SUBJECT CODE: ST32A

UNIT I: INTRODUCTION

Definition of Social Psychology – Nature of Social Psychology- Brief History- Principles of Social Psychology - Social Psychology and Human Values- Social Psychology and Common Sense- Research Methods.

UNIT II: THE SELF

Self-Presentation: Self-Other accuracy in predicting behaviour- Self-Presentation tactics, Self-Knowledge: Introspection, the self from the observer's standpoint, Personal identity versus social identity: the importance of the social context and others' treatment Social Comparison: Self-serving biases and unrealistic optimism, Self-esteem: the Measurement of self-esteem - the impact of migration on self-esteem - **gender differences** and Self-esteem, Self as a target of prejudice: concealing one's identity and its impact on wellbeing - overcoming the effects of stereotype threat.

UNIT III: SOCIAL BELIEFS AND JUDGEMENTS

Judging the social world: Perceiving the social world - Explaining the social world Importance of social beliefs- Self-fulfilling prophecy, Cognitive social psychology, Behaviour And Attitudes: Conditions When Attitudes Determine Behaviour – Conditions When behaviour Determines Attitudes- Explaining Why behaviour Affect Attitudes, Self-presentation: Impression Management, Self-justification: Cognitive Dissonance- Self-perception: Comparing the theories.

UNIT IV: CONFORMITY, COMPLIANCE AND OBEDIENCE

Conformity: Definitions- Classic Studies on Conformity- Compliance & Obedience- Factors Predicting Conformity- Reasons for Conformity- Characteristics of people who conform Resisting social pressures to conform, Compliance: Principles of compliance, Effectiveness of compliance strategies, Obedience: Causes & resisting the effects of destructive obedience.

UNIT V: HELPING BEHAVIOR

Altruism and pro-social behavior: Theoretical perspectives- By Stander Effect, Helping: Reasons for Helping – Conditions Governing Helping – Characteristics of People Who Help – Increasing Helping behavior



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B.SC PSYCHOLOGY

SUBJECT: THEORIES OF PERSONALITY

SUBJECT CODE: ST26C

UNIT I: CONCEPT, ASSESSMENT, MEASUREMENT AND RESEARCH METHODS

Personality: Definition, Meaning & Nature - Individual Uniqueness – Gender – Culture – Formal Theories – Personal Theories – Subjectivity in Personality Theories - Self-Report Measure: Biological Measures – Behavioural Assessment – Projective Techniques – Clinical Interviews – Online and Social Media Analysis.

UNIT II: PSYCHOANALYTIC THEORIES

Sigmund Freud: Classical Psychoanalysis – Instincts – Structure of Mind – Psychosexual Development – Therapeutics Techniques – Free Association – Catharsis – Dream Analysis; Carl Jung: Analytical Psychology – Psychological Types – Collective Unconscious; Alfred Adler: Individual Psychology – Inferiority Feelings – Role of Birth Order.

UNIT III: LIFE-SPAN AND TRAIT PERSPECTIVES OF PERSONALITY

Erik Erikson: Identity Formation – Ego Crises – Approaches to Trait: Lexical – Statistical – Theoretical; Gordon Allport: Culture – Functional Equivalence – Personal Dispositions, Eysenck's: Hierarchical Model of Personality, Cattell's Taxonomy: The 16 Personality Factor System

UNIT IV: EXISTENTIAL - HUMANISTIC PERSPECTIVES OF PERSONALITY

Roots in Gestalt – Kurt Lewin's Field; Martin E. P. Seligman: Learned Helplessness and the Optimistic/ Pessimistic Explanatory Style, Rotter: Locus of Control theory Maslow: Hierarchy of Needs – Self-Actualization, Rogers: Growth – Inner Control – Becoming One's Self.

UNIT V: BEHAVIORAL, COGNITIVE AND SOCIAL PERSPECTIVE OF PERSONALITY

Albert Bandura: Social-Cognitive Learning Theory- Self- System, Skinner: Operant Conditioning; Cognitive Style – Perceptual Mechanisms – Schema Theory – Kelly's Personal Construct Theory



Pravin Gelel

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B.SC PSYCHOLOGY

SUBJECT: INTRODUCTION TO COMMUNITY PSYCHOLOGY

SUBJECT CODE: ST32A

UNIT 1: INTRODUCTION

Community psychology- nature & Scope, Definition; Core values in community psychology; Role of community psychologist; understanding community; community in India; human diversity in context; applied social psychology in India.

UNIT 2: MODELS OF COMMUNITY PSYCHOLOGY

Mental health model; Behavioural model; Organisational model; Ecological model; Social action model; Integration of modern psychology with Indian thought, **culture & psychology; culture & perspectives of psychology**; Basic Indian values and behavioural disposition in the context of nation's development; Ambiguity of role models and values among Indian youth.

UNIT 3: SOCIO-ECONOMIC INDICATORS

Definition of social indicators; Population; Poverty; Beggary; Problems of education- Drop outs, education for special groups, rehabilitation, technological impact; unemployment & underemployment.

UNIT 4: PSYCHO-SOCIAL INDICATORS

Human development- family scenario in a developing country and its implication on mental health; Socialisation, family & psychological differentiation; Alcoholism & drug dependence; delinquency & crime; sexual harassment & violence; mental illness & mental health; understanding stress & coping in context.

UNIT 5: PROMOTION & PREVENTION

Social competence- key concepts; implementing programs; empowerment & citizen participation; Preventive efforts for mental illness- Primary, Secondary & Tertiary; Preventing problematic behaviour & promoting social; competence community and social change; program evaluation & program development.



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CRITERION 1

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HUMAN VALUES



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ALL UG COURSES

SUBJECT: VALUE EDUCATION

SUBJECT CODE: VAE5Q

UNIT I:

Value education-its purpose and significance in the present world – **Value system** – The role of culture and civilization – Holistic living – balancing the outer and inner – Body, Mind and Intellectual level – Duties and responsibilities.

UNIT II:

Salient values for life – Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity, and inclusiveness, Self-esteem and self-confidence, punctuality – Time, task and resource management – Problem solving and decision making skills – Interpersonal and Intra personal relationship – Team work – Positive and creative thinking.

UNIT III:

Human Rights – Universal Declaration of Human Rights – Human Rights violations – National Integration – Peace and non-violence – Dr.A P J Kalam's ten points for enlightened citizenship – Social Values and Welfare of the citizen – The role of media in value building.

UNIT IV:

Environment and Ecological balance – interdependence of all beings – living and non-living. The binding of man and nature – Environment conservation and enrichment.

UNIT V:

Social Evils – Corruption, Cybercrime, Terrorism – Alcoholism, Drug addiction – Dowry – Domestic violence – untouchability – female infanticide – atrocities against women – How to tackle them



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B.SC PSYCHOLOGY

SUBJECT: SOCIAL PSYCHOLOGY

SUBJECT CODE: ST25B

UNIT I: INTRODUCTION

Definition of Social Psychology – Nature of Social Psychology- Brief History- Principles of Social Psychology - **Social Psychology and Human Values**- Social Psychology and Common Sense- Research Methods.

UNIT II: THE SELF

Self-Presentation: Self-Other accuracy in predicting behaviour- Self-Presentation tactics, Self-Knowledge: Introspection, the self from the observer's standpoint, Personal identity versus social identity: the importance of the social context and others' treatment Social Comparison: Self-serving biases and unrealistic optimism, Self-esteem: the measurement of self-esteem - the impact of migration on self-esteem - gender differences and self-esteem, Self as a target of prejudice: concealing one's identity and its impact on wellbeing - overcoming the effects of stereotype threat.

UNIT III: SOCIAL BELIEFS AND JUDGEMENTS

Judging the social world: Perceiving the social world - Explaining the social world– Importance of social beliefs- Self-fulfilling prophecy, Cognitive social psychology, Behavior and Attitudes: Conditions When Attitudes Determine Behavior – Conditions When behavior Determines Attitudes- Explaining Why behavior Affect Attitudes, Self-presentation: Impression Management, Self-justification: Cognitive Dissonance- Self-perception: Comparing the theories.

UNIT IV: CONFORMITY, COMPLIANCE AND OBEDIENCE

Conformity: Definitions- Classic Studies on Conformity- Compliance & Obedience- Factors Predicting Conformity- Reasons for Conformity- Characteristics of people who conform Resisting social pressures to conform, Compliance: Principles of compliance, Effectiveness of compliance strategies, Obedience: Causes & resisting the effects of destructive obedience.

UNIT V: HELPING BEHAVIOR

Altruism and pro-social behavior: Theoretical perspectives- By Stander Effect, Helping: Reasons for Helping – Conditions Governing Helping – Characteristics of People Who Help – Increasing Helping behaviour



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B.SC PSYCHOLOGY

SUBJECT: INTRODUCTION TO COMMUNITY PSYCHOLOGY

SUBJECT CODE: ST32A

UNIT 1: INTRODUCTION

Community psychology- nature & Scope, Definition; Core values in community psychology; Role of community psychologist; understanding community; community in India; human diversity in context; applied social psychology in India.

UNIT 2: MODELS OF COMMUNITY PSYCHOLOGY

Mental health model; Behavioural model; Organisational model; Ecological model; Social action model; Integration of modern psychology with Indian thought, culture & psychology: culture & perspectives of psychology; Basic Indian values and behavioural disposition in the context of nation's development; Ambiguity of role models and values among Indian youth.

UNIT 3: SOCIO-ECONOMIC INDICATORS

Definition of social indicators; Population; Poverty; Beggary; Problems of education- Drop outs, education for special groups, rehabilitation, technological impact; unemployment & underemployment.

UNIT 4: PSYCHO-SOCIAL INDICATORS

Human development- family scenario in a developing country and its implication on mental health; Socialisation, family & psychological differentiation; Alcoholism & drug dependence; delinquency & crime; sexual harassment & violence; mental illness & mental health; understanding stress & coping in context.

UNIT 5: PROMOTION & PREVENTION

Social competence- key concepts; implementing programs; empowerment & citizen participation; Preventive efforts for mental illness- Primary, Secondary & Tertiary; Preventing problematic behaviour & promoting social; competence community and social change; program evaluation & program development.



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CRITERION 1

CURRICULUM ENRICHMENT

1.3.1 Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the curriculum

ENVIRONMENT AND SUSTAINABILITY



ALL UG COURSES

SUBJECT: ENVIRONMENTAL STUDIES

SUBJECT CODE: ENV4B

Unit 1: Introduction to Environmental Studies

- Multidisciplinary nature of environmental studies;
- Scope and importance; concept of sustainability and sustainable development.

Unit 2: Ecosystem

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

Unit 3: Natural Resources: Renewable and Non – renewable Resources

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

Unit 4: Biodiversity and Conservation

- Levels of biological diversity: genetics, species and ecosystem diversity, Biogeographic zones of India: Biodiversity patterns and global biodiversity hot spots



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- India as a mega- biodiversity nation, Endangered and endemic species of India.
- Threats to biodiversity: Habitat loss, poaching of wildlife, man- wildlife conflicts, biological invasions; Conservations of biodiversity: In-situ and Ex-situ Conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

Unit 5: **Environmental Pollution**

- **Environmental pollution:** types, causes, effects and controls: Air, Water, soil and noise Pollution.
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste
- Pollution case studies.
- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- **Environment Laws: Environment Protection Act,** Air (Prevention & Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human Wildlife conflicts in Indian context.

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

- Human population growth, impacts on **environment,** human health and welfare.
- Resettlement and rehabilitation of projects affected persons; case studies.
- Disaster management: floods, earthquake, cyclone and landslides.
- **Environmental** movements: Chipko, Silent Valley, Bishnois of Rajasthan.




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- **Environmental ethics**: Role of Indian and other religions and cultures in environmental conservation.

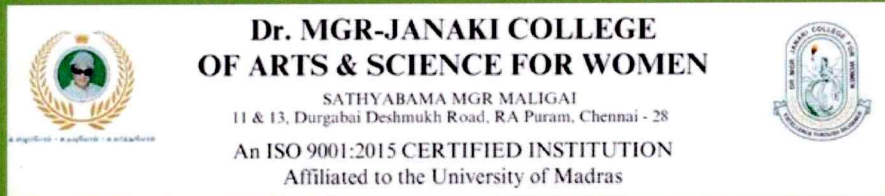
- **Environmental communication** and public awareness, case studies (e.g. CNG Vehicles in Delhi)

Unit 8: Field Work

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



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B.S.C MICROBIOLOGY

SUBJECT: ENVIRONMENTAL MICROBIOLOGY

SUBJECT CODE: SN26A

UNIT I - Introduction: Organization of the biosphere and components of ecosystem, Natural habitats of microorganisms, Microbial communities in aquatic and terrestrial habitats, Microorganisms as components of ecosystem-as producer's and decomposers

UNIT II - Microbes in air: Composition of Air; Number and kinds of organisms in air; Distribution and sources of air borne organisms, droplet nuclei - aerosol , Assessment of air quality - some important air borne diseases caused by bacteria, fungi, viruses their symptoms and preventive measures.

UNIT III - Aquatic Microbiology: Distribution of Microorganisms in the Aquatic **Environment**- fresh water (ponds, lake, River), Sources and Types of Water Pollution, Biological Indicators of Water Pollution. Determination of the quality of Water - MPN Index, Membrane Filtration, Biological Oxygen Demand. potability of water - microbial assessment of water quality, water borne diseases and preventive measures.

UNIT IV - Waste Treatment: Types of wastes - Characterization of solid and liquid wastes - wastes treatment and useful byproducts, Solid - Saccharification - gasification – composting, Vermicomposting - liquid waste treatment - aerobic - anaerobic methods.

UNIT V - Degradation of pesticides and detergents; Degradation of lignin; synthetic polymers, Petroleum and hydrocarbon degradation, Detoxification of heavy metals (chromium, lead, arsenic, mercury).



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M.SC MICROBIOLOGY

SUBJECT: MICROBIAL REMEDIATION

SUBJECT CODE: MQ33A

UNIT I Bioremediation - process and organisms involved; Constraints and priorities of bioremediation. Major pollutants and polluted sites. Bioaugmentation; Ex-situ and in-situ processes: Intrinsic and engineered bioremediation. Pollutants and associated risks; Water treatment- BOD, COD, dissolved gases. Advantages and disadvantages of bioremediation.

UNIT II Microbiology of degradation of recalcitrant in the **environment**, ecological considerations, decay behaviour, biomagnifications and degradative plasmids, hydrocarbons, substituted hydrocarbons, oil pollution, surfactants and pesticides.

Genetically modified organisms released and its environmental impact assessment and ethical issues; A brief account of biodegradable plastics and superbug.

UNIT III Aerobic and anaerobic digesters: Design; various types of digester for bioremediation of industrial effluents; Advantages and Disadvantages of anaerobic process. Dendroremediation. Composting of solid wastes, methane production and important factors involved; sulphur, iron and nitrate reduction; dechlorination; nitroaromatic compounds degradation; bioremediation of dyes and bioremediation in paper and pulp industries.

UNIT IV Fungi - Mushrooms and their enzymes – role in degradation of environmentally persistent pollutants, transform industrial and agro-industrial wastes into products. Microbial remediation of solid and liquid waste from industries.

UNIT V Phycoremediation of domestic wastewater -advantages of phycoremediation. Potentials of microalgae in industrial effluent treatment - conventional methods vs algal technology.




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M.SC MICROBIOLOGY

SUBJECT: FOOD, DAIRY AND ENVIRONMENTAL MICROBIOLOGY

SUBJECT CODE: MDT41

UNIT I - Food Microbiology: Occurrence of microorganisms in food - Factors influencing microbial growth - extrinsic and intrinsic. Principles and methods of food preservation - high Temperature, low Temperature, drying, irradiation and chemical preservatives. Food borne diseases - Bacteria, Fungi, Viruses, Algae and Protozoa. Spoilage of fruits, vegetables, meat, poultry, fish and sea foods.

UNIT II - Dairy Microbiology: Microflora of milk - sources of contamination. Spoilage and preservation of milk and milk products. Fermented foods - Sauerkraut, Pickles, Buttermilk, Yogurt and Cheese. Probiotics and Prebiotics. Milk borne diseases. Food sanitation - food control agencies and their regulations.

UNIT III - Microbiology of air: Occurrence - number and kinds of microbes in air. Distribution and sources of air borne organisms - aerosol and droplet nuclei. Assessment of air quality - Air Sanitation - Airborne diseases. Microbiology of water: Aquatic habitats - their microflora and fauna - lake, ponds, river, estuary and sea. Biology and Ecology of reservoirs and influence of environmental factors on the aquatic biota.

UNIT IV - **Environmental Microbiology**: Waste treatment - Wastes - types and characterization. Treatment of solid wastes - composting, vermiform composting, silage, pyrolysis and saccharifications. Treatment of liquid wastes - primary, secondary (anaerobic and aerobic) – trickling activated sludge, oxidation pond, and oxidation ditch- tertiary - disinfection.

UNIT V -Degradation of Xenobiotic compounds: Simple aromatics, chlorinated polyaromatic Petroleum products, pesticides and surfactants. Biodeterioration of materials - paper, Leather, wood, textiles and paint. Metal corrosion - Bioaccumulation of heavy Metals. Biofouling and Bioleaching.



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