



TAMILNADU COUNCIL FOR OPEN AND DISTANCE LEARNING

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CURRICULUM STRUCTURE OF POST GRADUATE DIPLOMA IN MONTESSORI TEACHER TRAINING

Eligibility : A Pass in any Degree (10+2+3) / (10+2+4) pattern

Duration : 1 Year

Examination : Academic (June) / Calendar (December)

POST GRADUATE DIPLOMA IN MONTESSORI TEACHER TRAINING

Sl. No	Subject Code	Course Description	Maximum Marks
1.	PGDMTT1	Montessori Philosophy and Principles	100
2.	PGDMTT2	Child Development and Learning Stages	100
3.	PGDMTT3	Language and Literacy in Montessori Education	100
4.	PGDMTT4	Mathematics in the Montessori Environment	100
5.	PGDMTT5	Educational Psychology and Classroom Management	100
6.	PGDMTT6	Cultural and Environmental Studies	100
7.	PGDMTT7	Practical: Guided Teaching Practice	100
8.	PGDMTT8	Project: Montessori Apparatus & Exercises	100

1. MONTESSORI PHILOSOPHY AND PRINCIPLES

UNIT-I: Introduction to Montessori Philosophy

- Concept and Definition: Understanding the core principles of Montessori education.
- Historical Background: The life and work of Maria Montessori.
- Philosophical Foundations: Key philosophical ideas that influenced Montessori's approach.

UNIT-II: The Montessori Method

- Absorbent Mind: The concept of the absorbent mind and its significance.
- Sensitive Periods: Identifying and understanding sensitive periods in child development.
- Prepared Environment: Creating an environment conducive to learning and development.

UNIT-III: Montessori Materials and Activities

- Montessori Materials: Introduction to various Montessori materials and their purposes.
- Practical Life Activities: Activities that promote independence and practical skills.
- Sensorial Activities: Exercises that refine the senses and cognitive abilities.

UNIT-IV: The Role of the Teacher

- Teacher as a Guide: The teacher's role in facilitating learning rather than direct instruction.
- Observation and Assessment: Techniques for observing and assessing children's progress.
- Individualized Learning: Tailoring education to meet the needs of each child.

UNIT-V: Child Development and Learning

- Stages of Development: Understanding the different stages of child development.
- Learning Through Discovery: Encouraging self-directed and experiential learning.
- Normalization: The processes of helping children develop self-discipline and concentration.

UNIT-VI: Application of Montessori Principles

- Classroom Management: Strategies for managing a Montessori classroom effectively.
- Curriculum Integration: Incorporating Montessori principles into the broader curriculum.
- Parental Involvement: Engaging parents in the Montessori educational process.

2. CHILD DEVELOPMENT AND LEARNING STAGES

UNIT-I: Introduction to Child Development

- **Concept and Importance:** Understanding the definition and significance of child development.
- **Principles of Development:** Basic principles governing the process of child development.
- **Factors Influencing Development:** Genetic, environmental, social, and cultural factors affecting development.

UNIT-II: Theories of Child Development

- **Psychoanalytic Theories:** Freud's stages of psychosexual development and Erikson's stages of psychosocial development.
- **Cognitive Theories:** Piaget's stages of cognitive development and Vygotsky's socio-cultural theory.
- **Behavioural Theories:** Skinner's operant conditioning and Bandura's social learning theory.
- **Humanistic Theories:** Maslow's hierarchy of needs and Rogers' theory of self-actualization.

UNIT-III: Stages of Development

- **Infancy (0-2 years):** Physical, cognitive, social, and emotional development.
- **Early Childhood (2-6 years):** Major developmental milestones in physical, cognitive, social, and emotional domains.
- **Middle Childhood (6-12 years):** Developmental changes and challenges during this stage.
- **Adolescence (12-18 years):** Physical, cognitive, social, and emotional development during teenage years.

UNIT-IV: Learning and Development

- **Learning Theories:** Key theories and concepts related to learning.
- **Relationship between Development and Learning:** How various stages of development influence learning processes.
- **Learning Styles:** Understanding different learning styles and their impact on child development.

UNIT-V: Cognitive Development

- **Piaget's Cognitive Development Theory:** Detailed study of Piaget's stages.
- **Information Processing Theory:** How children process, store, and retrieve information.
- **Memory and Intelligence:** Development of memory and different theories of intelligence.

UNIT-VI: Social and Emotional Development

- Attachment Theory: Bowlby's theory of attachment and its implications.
- Emotional Regulation: Understanding how children develop the ability to manage their emotions.
- Socialization Processes: Role of family, peers, and school in socializing children.

UNIT-VII: Language Development

- Stages of Language Acquisition: Phases through which children acquire language.
- Theories of Language Development: Key theories by Chomsky, Skinner, and Vygotsky.
- Language and Cognition: Relationship between language development and cognitive processes.

UNIT-VIII: Challenges in Child Development

- Developmental Disorders: Overview of common developmental disorders such as ADHD, autism, and learning disabilities.
- Impact of Environment: Influence of family, school, and community on child development.
- Intervention Strategies: Approaches to support children with developmental challenges.

3. LANGUAGE AND LITERACY IN MONTESSORI EDUCATION

UNIT-I: Introduction to Montessori Language and Literacy

- Concept and Definition: Understanding the Montessori approach to language and literacy.
- Historical Background: The life and work of Maria Montessori and the development of her educational philosophy.
- Philosophical Foundations: Key principles that underpin Montessori language and literacy education.

UNIT-II: The Absorbent Mind and Sensitive Periods

- The Absorbent Mind: Characteristics and significance in early childhood development.
- Sensitive Periods for Language: Identifying and understanding the critical periods for language acquisition.
- Human Tendencies for Communication and Expression: Exploring innate tendencies that drive language development.

UNIT-III: Oral Language Development

- Sound Games: Activities to develop phonemic awareness.
- Songs, Poems, and Books: Using literature to enhance oral language skills.
- Oral Storytelling: Techniques for engaging children in storytelling.
- Grace and Courtesy: Promoting polite and effective communication.

UNIT-IV: Preparing for Writing

- Practical Life Activities: Developing fine motor skills necessary for writing.
- Sensorial Activities: Enhancing sensory perception to support writing.
- Metal Insets: Exercises to refine hand control and pencil grip.
- Sandpaper Letters: Introducing the alphabet through tactile and visual means.

UNIT-V: Writing Development

- Moveable Alphabet: Using phonetic letters to build words.
- Writing Stages: Progression from scribbling to conventional writing.
- Capital and Punctuation: Teaching the basics of capitalization and punctuation.
- Writing Practice: Activities to reinforce writing skills.

UNIT-VI: Reading Development

- Phonetic Reading: Techniques for teaching phonetic reading.
- Object Boxes and Action Cards: Tools for developing reading comprehension.
- Phonetic Books: Introducing simple texts for beginning readers.
- Beyond Phonetic Reading: Strategies for advancing to more complex texts.

UNIT-VII: Advanced Literacy Skills

- Puzzle Words and Classified Cards: Activities to enhance vocabulary and word recognition.
- Phonogram Reading Folders: Tools for learning advanced phonics.
- Labelling the Environment: Encouraging reading through environmental print.
- Reading Analysis: Techniques for analysing and discussing texts.

UNIT-VIII: Integration and Application

- Application of Reading: Encouraging a love for reading through diverse materials.
- Word Study: Exploring word structure and meaning.
- Reading Appreciation: Fostering a deeper appreciation for literature.
- Function of Words: Understanding the role of words in communication.

4. MATHEMATICS IN THE MONTESSORI ENVIRONMENT

UNIT-I: Introduction to Montessori Mathematics

- **Concept and Importance:** Understanding the Montessori approach to teaching mathematics.
- **Historical Background:** The origins and development of Montessori mathematics.
- **Philosophical Foundations:** Key principles and theories underpinning Montessori math education.

UNIT-II: Montessori Math Materials

- **Overview of Materials:** Introduction to the key Montessori math materials.
- **Sensorial Foundations:** Using sensorial activities to build a foundation for mathematical concepts.
- **Sequence and Progression:** The order in which materials and concepts are introduced.

UNIT-III: Early Mathematical Concepts

- **Number Sense:** Developing an understanding of numbers and their relationships.
- **Counting and Cardinality:** Techniques for teaching counting and the concept of quantity.
- **Numeration:** Introduction to numerals and the decimal system.

UNIT-IV: Operations and Algebraic Thinking

- **Addition and Subtraction:** Using Montessori materials to teach basic operations.
- **Multiplication and Division:** Introducing multiplication and division with concrete materials.
- **Pattern Recognition:** Identifying and creating patterns to develop algebraic thinking.

UNIT-V: Geometry and Spatial Sense

- **Geometric Shapes:** Exploring basic geometric shapes using Montessori materials.
- **Measurement:** Understanding concepts of measurement including length, weight, and volume.
- **Spatial Relationships:** Developing spatial awareness and understanding relationships between objects.

UNIT-VI: Fractions and Decimals

- **Introduction to Fractions:** Teaching fractions using concrete materials.
- **Equivalence and Comparison:** Understanding equivalent fractions and comparing fractions.
- **Decimals:** Introducing decimal concepts and their relationship to fractions.

UNIT-VII: Advanced Mathematical Concepts

- Place Value: Deepening understanding of place value and the decimal system.
- Mathematical Operations: Advanced techniques for addition, subtraction, multiplication, and division.
- Problem Solving: Developing critical thinking and problem-solving skills through mathematical activities.

UNIT-VIII: Integration and Application

- Real-Life Applications: Connecting mathematical concepts to real-world scenarios.
- Interdisciplinary Learning: Integrating math with other subjects such as science and geography.
- Assessment and Evaluation: Techniques for assessing mathematical understanding and progress.

5. EDUCATIONAL PSYCHOLOGY AND CLASSROOM MANAGEMENT

UNIT-I: Introduction to Educational Psychology

- Definition and Scope: Understanding the field of educational psychology.
- Historical Development: Key milestones and figures in the history of educational psychology.
- Research Methods in Educational Psychology: Quantitative and qualitative research methods.

UNIT-II: Learning Theories

- Behaviourism: Principles of behaviourism and its application in education.
- Cognitivism: Key concepts of cognitive theories and their relevance to learning.
- Constructivism: Understanding constructivist approaches to learning and teaching.
- Humanism: Humanistic theories and their impact on education.

UNIT-III: Developmental Psychology

- Stages of Human Development: Overview of major developmental stages from infancy to adulthood.
- Piaget's Theory of Cognitive Development: Detailed study of Piaget's stages.
- Erikson's Psychosocial Development: Exploring Erikson's stages of development.
- Vygotsky's Sociocultural Theory: Understanding the role of social interaction in development.

UNIT-IV: Motivation and Classroom Management

- Theories of Motivation: Maslow's hierarchy of needs, intrinsic and extrinsic motivation.
- Classroom Management Strategies: Techniques for creating a positive learning environment.
- Behaviour Management: Approaches to managing student behaviour and promoting positive conduct.
- Conflict Resolution: Strategies for resolving conflicts in the classroom.

UNIT-V: Individual Differences

- Nature vs. Nurture: Understanding the influence of genetics and environment on learning.
- Learning Styles and Multiple Intelligences: Exploring different learning styles and Howard Gardner's theory of multiple intelligences.
- Gifted and Talented Students: Identifying and supporting gifted and talented learners.
- Students with Special Needs: Strategies for teaching students with disabilities and learning difficulties.

UNIT-VI: Assessment and Evaluation

- Types of Assessment: Formative, summative, and diagnostic assessments.
- Standardized Testing: Understanding the purpose and use of standardized tests.
- Performance-Based Assessment: Techniques for assessing student performance.
- Feedback and Grading: Effective methods for providing feedback and grading student work.

UNIT-VII: Classroom Environment and Culture

- Creating a Positive Classroom Environment: Strategies for fostering a supportive and inclusive classroom culture.
- Classroom Layout and Design: Importance of classroom organization and design.
- Cultural Competence: Promoting cultural awareness and sensitivity in the classroom.
- Parent-Teacher Collaboration: Building effective partnerships with parents and caregivers.

6. CULTURAL AND ENVIRONMENTAL STUDIES

UNIT-I: Introduction to Cultural Studies

- Concept and Definition: Understanding the field of cultural studies.
- Historical Development: Key milestones and figures in the history of cultural studies.
- Theories and Approaches: Major theories and approaches in cultural studies.

UNIT-II: Cultural Identity and Diversity

- Cultural Identity: Concepts of personal and collective identity.
- Cultural Diversity: Exploring the diversity of cultures and its significance.
- Multiculturalism: Understanding and promoting multiculturalism in society.

UNIT-III: Environmental Studies

- Concept and Importance: Understanding the field of environmental studies.
- Historical Background: Key milestones and figures in the history of environmental studies.
- Philosophical Foundations: Key principles and theories underpinning environmental studies.

UNIT-IV: Environmental Issues and Challenges

- Pollution: Types of pollution and their impact on the environment.
- Climate Change: Causes, effects, and mitigation strategies.
- Biodiversity Loss: Understanding the causes and consequences of biodiversity loss.
- Sustainable Development: Principles and practices of sustainable development.

UNIT-V: Cultural and Environmental Interactions

- Human-Environment Interaction: How cultures interact with and impact the environment.
- Cultural Practices and Environmental Impact: Examining cultural practices that affect the environment.
- Environmental Ethics: Ethical considerations in environmental decision-making.

UNIT-VI: Case Studies and Field Work

- Case Studies: Analysis of specific cultural and environmental case studies.
- Field Work: Conducting fieldwork to study cultural and environmental interactions.
- Community Engagement: Engaging with communities to understand their cultural and environmental practices.

UNIT-VII: Environmental Policies and Legislation

- National and International Policies: Overview of key environmental policies and legislation.
- Implementation and Impact: Assessing the implementation and impact of environmental policies.
- Role of International Organizations: The role of organizations like the UN and NGOs in environmental protection.

7. PRACTICAL: GUIDED TEACHING PRACTICE

UNIT-I: Orientation and Preparation

- Introduction to Teaching Practice: Understanding the objectives and expectations.
- Observation Techniques: Learning how to observe and analyse classroom dynamics.
- Lesson Planning: Creating effective and structured lesson plans.
- Teaching Materials: Selecting and preparing teaching aids and resources.

UNIT-II: Classroom Observation

- Observation Sessions: Observing experienced teachers in action.
- Analysis and Reflection: Reflecting on observed teaching methods and classroom management.
- Observation Reports: Writing detailed reports on classroom observations.

UNIT-III: Microteaching Sessions

- Microteaching: Conducting short, focused teaching sessions.
- Peer Feedback: Receiving constructive feedback from peers and mentors.
- Self-Assessment: Reflecting on personal teaching performance and areas for improvement.

UNIT-IV: Supervised Teaching Practice

- Practice Teaching: Conducting full lessons under the supervision of a mentor.
- Classroom Management: Implementing effective classroom management strategies.
- Instructional Techniques: Applying various teaching methods and strategies.
- Student Engagement: Techniques to engage and motivate students.

UNIT-V: Reflective Practice

- Reflective Journals: Keeping a journal to reflect on teaching experiences.
- Mentor Meetings: Regular meetings with mentors to discuss progress and challenges.
- Action Research: Conducting small-scale research projects to improve teaching practice.

UNIT-VI: Assessment and Evaluation

- Assessment Methods: Using formative and summative assessments to evaluate student learning.
- Feedback: Providing constructive feedback to students.
- Self-Evaluation: Assessing one's own teaching effectiveness and areas for development.

- Final Evaluation: Comprehensive evaluation of teaching practice by mentors and supervisors.

8. PROJECT: MONTESSORI APPARATUS & EXERCISES

UNIT -I: Introduction to Montessori Apparatus

- Concept and Importance: Understanding the role of Montessori apparatus in education.
- Historical Background: The development and evolution of Montessori materials.
- Categories of Montessori Materials: Overview of practical life, sensorial, language, mathematics, and cultural materials.

UNIT-II: Practical Life Exercises

- Purpose and Benefits: Enhancing independence, coordination, and concentration.
- Key Exercises: Pouring, spooning, threading, polishing, and dressing frames.
- Material Preparation: Creating and maintaining practical life materials.

UNIT-III: Sensorial Exercises

- Sensory Development: Importance of refining the senses in early childhood.
- Key Exercises: Pink Tower, Brown Stair, Knobbed Cylinders, Colour Tablets, and Geometric Solids.
- Material Presentation: Techniques for presenting sensorial materials to children.

UNIT-IV: Language Exercises

- Language Acquisition: Supporting language development through Montessori materials.
- Key Exercises: Sandpaper Letters, Moveable Alphabet, Object Boxes, and Phonetic Reading Cards.
- Material Creation: Designing and preparing language materials.

UNIT-V: Mathematics Exercises

- Mathematical Concepts: Introducing basic mathematical concepts through hands-on materials.
- Key Exercises: Number Rods, Sandpaper Numbers, Spindle Boxes, Golden Beads, and Fraction Insets.
- Material Utilization: Effective use of Montessori math materials in teaching.

UNIT-VI: Cultural Exercises

- Cultural Awareness: Promoting global awareness and cultural understanding.
- Key Exercises: Puzzle Maps, Botany and Zoology Materials, Science Experiment Kits.
- Material Integration: Incorporating cultural materials into the curriculum.