Unit 3

Chapter 3: Science Domain

Getting Ready for the Unit and Connecting to Experience

Course: Introduction to Curriculum

Student Learning Outcomes:
- Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:
- Identify and evaluate teaching behaviors for research-based best practices.
- Observe and document children at play and propose appropriate activities and possibilities for expanding children’s learning in a variety of curriculum areas.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
- Observation and assessment strategies as they apply to curriculum planning and evaluation.
- Innovative and best practices in teaching
- Program models and approaches (Reggio, Montessori, High Scope, Creative Curriculum, Waldorf, Bank Street, etc.)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.
- Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.

Objectives:
- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
Course: Principles and Practices of Teaching Young Children – Continued

Objective:
• Demonstrate basic observational skills.

Content and Topics:
• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)

Course: Observation and Assessment

Student Learning Outcomes:
• Compare the purpose, value and use of formal and informal observation and assessment strategies.
• Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children’s development and behavior.

Objectives:
• Identify and apply basic quantitative and qualitative observation and recording techniques.
• Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:
• Historic and current tools of observation and assessment
• Utilization of observation and assessment data to create appropriate curricula and environments
• Observation as part of the on-going process of curriculum and planning that support all children.

Course: Practicum-Field Experience

Student Learning Outcomes:
• Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.
• Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
• Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
Course: Practicum-Field Experience – Continued

Content and Topics:

- Authentic assessment and documentation
- Self reflection and self-assessment through team collaboration and portfolio documentation
- Ongoing Curriculum Development Cycle
  - a. Observation
  - b. Planning
  - c. Implementation
  - d. Evaluation
  - e. Documentation
- Content Areas:
  - o Science
- California State Learning Standards and tools
Unit 3
Chapter 3: Science Domain

Key Topic 1 – Organization and Rationale of the Science Domain

Course: Child Growth and Development

Student Learning Outcomes:
• Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
• Demonstrate knowledge of current research as it applies to child development.

Content and Topics:
• Major current and historical theoretical frameworks of child development
• The role and influence of family and caregivers

Course: Child, Family and Community

Student Learning Outcomes:
• Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
• Describe contemporary social issues and their effects on families and children.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Teachers’ and caregivers’ influences on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.
Course: Introduction to Curriculum – Continued

Content and Topics:
- Innovative and best practices in teaching
- Use of current research
- Strategies for family involvement
- Content areas (science)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:
- Characteristics and roles of an effective teacher in an early childhood setting
- Collaboration and partnerships with families, colleagues, and health care professionals

Course: Practicum-Field Experience

Student Learning Outcomes:
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.

Content and Topics:
- Self reflection and self-assessment through team collaboration and portfolio documentation
- Content Areas:
  - Science
- California State Learning Standards and tools
- Family involvement in early childhood programs
Unit 3
Chapter 3: Science Domain

Key Topic 2 – Getting to Know Environmental Factors That Support Science

Course: Child, Family and Community

Student Learning Outcomes:
• Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Teachers’ and caregivers’ influences on children and families

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.
• Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Demonstrate ability to select safe and appropriate materials and equipment.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Developmental theory as it applies to curriculum development.
• Innovative and best practices in teaching
• Effective use of learning centers and integrated curriculum
• The effect of environment on behavior
• Content areas (math, science, literacy, social studies, creative arts)
Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:

• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

• Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:

• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

• Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.

• Describe the relationship of observation, planning, implementation, and assessment in effective programming.

Content and Topics:

• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)

• Characteristics and roles of an effective teacher in an early childhood setting

• The influence of environment on behavior and learning (environment as third teacher)

• Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Observation and Assessment

Student Learning Outcomes:

• Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children’s development and behavior.

Objectives:

• Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.

Content and Topics:

• Utilization of observation and assessment data to create appropriate curricula and environments

• Observation as part of the on-going process of curriculum and planning that support all children.
Course: Practicum-Field Experience

Student Learning Outcomes:

• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:

• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:

• Organization of physical environment, routine/schedule, and materials
• Positive interactions with children and adults
• Content Areas:
  o Science
• Environment as a teaching and learning tool
• California State Learning Standards and tools
Unit 3
Chapter 3: Science Domain

Key Topic 3 – Getting to Know Interactions and Strategies That Support Science

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Developmental theory as it applies to curriculum development.
• Planning for diverse learning styles, motivations, interests, and abilities
• Innovative and best practices in teaching
• Components of effective learning environments
• Content areas (science)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
• Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.

Objectives:
• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:
• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
• The importance of developmentally, culturally, linguistically appropriate practice.
• Characteristics and roles of an effective teacher in an early childhood setting
Course: Practicum-Field Experience

Student Learning Outcomes:
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.
- Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:
- Application of developmentally, culturally, and linguistically appropriate practices
- Content Areas:
  - Science
- California State Learning Standards and tools
Unit 3
Chapter 3: Science Domain

Key Topic 4 – Universal Design, Individualizing, and Family Partnerships

Course: Child Growth and Development
Student Learning Outcomes:
• Differentiate characteristics of typical and atypical development.

Objectives:
• Examine and evaluate the importance of the early years.
• Examine and evaluate the role of family in facilitating children’s development.

Content and Topics:
• The role and influence of family and caregivers
• The role and influence of cultural and societal impacts

Course: Child, Family and Community
Student Learning Outcomes:
• Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
• Describe contemporary social issues and their effects on families and children.
• Develop appropriate strategies to assist families experiencing stress.

Content and Topics:
• Role of family in children’s developmental outcomes.
• Teachers’ and caregivers’ influences on children and families
• The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families.

Course: Introduction to Curriculum
Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.
Course: Introduction to Curriculum – Continued

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.

Content and Topics:
• Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
• Planning for diverse learning styles, motivations, interests, and abilities
• Innovative and best practices in teaching
• Planning for children with special needs

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:
• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
• Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:
• Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
• The importance of developmentally, culturally, linguistically appropriate practice.
• Applying developmentally-appropriate practices to normative and atypical development

Course: Health, Safety, and Nutrition

Student Learning Outcomes:
• Discuss the value of collaboration with families and the community.

Objectives:
• Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.
• Plan early childhood curriculum on the topics of health, safety, and nutrition in accordance with culturally, linguistic and developmentally sound practice.
Course: Health, Safety, and Nutrition – Continued

Content and Topics:
• Respecting the cultural, linguistic, and developmental differences of families, teachers and children
• Collaboration with families and health care professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.
• Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.
• Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:
• Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
• Environments and curriculums that respectively reflect children’s cultures and experiences and that expose children to the larger communities in which they live
• Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Analyze student teaching experiences to inform and guide future teaching and collaborative practices.
Course: Practicum-Field Experience – Continued

Content and Topics:

- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- California State Learning Standards and tools
- Family involvement in early childhood programs
Unit 3
Chapter 3: Science Domain

Key Topic 5 – Exploring the Research Highlights of the Science Domain

Course: Child Growth and Development

Student Learning Outcomes:
• Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:
• Demonstrate knowledge of current research as it applies to child development.
• Identify and describe biological and environmental factors that influence children’s development from conception to adolescence across domains

Content and Topics:
• Contemporary social issues that impact children’s development
• The role and influence of cultural and societal impacts

Course: Introduction to Curriculum

Student Learning Outcomes:
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.

Content and Topics:
• Developmental theory as it applies to curriculum development.
• Use of current research
• The development of the whole child (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.
Course: Principles and Practices of Teaching Young Children – Continued

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Current and historic models, influences, and approaches in the field of early childhood
• Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.

Content and Topics:
• Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
• Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:
• Self reflection and self-assessment through team collaboration and portfolio documentation
• Professional development skills
• California State Learning Standards and tool