

WEBSTER UNIVERSITY
COURSE SYLLABUS

ECED 5510.01

COURSE NUMBER AND SECTION

Dr. Theresa Prosser

INSTRUCTOR

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Cognitive Development:

Implications for Early Childhood Education

TERM: **FA II 2003**

COURSE TITLE

50

SITE

1. This course focuses on the cognitive development of children birth to 8 years of age. An introduction and comparison of various cognitive developmental theories are explored. An in-depth examination of Piaget, Vygotsky, and recent discoveries in brain research is conducted through readings and observations. Emphasis is placed on a constructivist theory, which includes the representational and physical domains as well as the cognitive domain. An examination of the interrelatedness of these domains within the framework of a developmentally appropriate curriculum for infants, toddlers, and young children demonstrating typical and atypical development is an important factor in this course. The application of technology and its use with young children is incorporated throughout the course. Information from Project Construct is used as a model in examining curricular implications and implementation.
2. Learning Outcomes: (Goals, objectives, course outcomes, etc.)
 1. Compare and contrast various theories of cognitive development (Mostep 2d).
 2. Understand the psychological and biological perspectives of cognitive development (MoStep 2a).
 3. Understand the cognitive development of infants and toddlers (MoStep 2a).
 4. Understand the cognitive development of preschoolers (MoStep 2a).
 5. Understand the cognitive development of primary grade children (MoStep 2a).
 6. Understand and apply a constructivist theory in the development of an appropriate math and science curriculum and methodology fostering logio-mathematical, physical, scientific and conventional knowledge (MoStep 1a, 1b, 1e, 4a, 4b, 5b).
 7. Understand and apply a constructivist theory in the development of appropriate language, language arts, literacy, and fine arts curriculum and methodology fostering symbolic and language development (MoStep 1a, 1b, 1e, 4a, 4b, 5b).
 8. Understand and apply a constructivist theory in the development of appropriate perceptual motor, sensory integration curriculum and methodology (MoStep 1e, 2d, 4b)

9. Understand and apply a constructivist theory in the development of appropriate curricula and methodology to meet the learning needs of all children including those with disabilities (MoStep 1e, 2d, 4b, 5b).
10. Understand and use technology as a tool to support student learning (MoStep 3b, 5a, 7c).

3. Schedule of required readings, class preparations and assignments, lectures, discussions, student presentations, and exams:

Topics listed for discussions each week are to read prior to the class. For example: Number will be discussed Week 3, read the book Number, by Kamii prior to class.

- WEEK 1:** Introduction to course
Various theories of cognitive development will be discussed. These include Piaget, Skinner, Vygotsky, Gesell, Montessori, Gardner, and recent finding in brain research.
- WEEK 2:** Cognitive development in infants and toddlers.
Prenatal development – critical periods
Infant perception: visual, auditory, tactile/kinesthetic, olfactory, and gustatory development
Sensorimotor development according to Piaget
Curricular issues related to infants and toddlers
- WEEK 3:** Preoperational Development
Physical Knowledge
Curricular issues related to teaching science
The use of technology as a teaching tool in science
Introduction to logical-mathematical knowledge
- WEEK 4:** Preoperational Development
Logical-mathematical Knowledge continued

Curricular issues related to teaching math
Read *The young child and mathematics* by Copley
Chapters 5, 6, 7, 8, & 9
Incorporating technology into teaching mathematics

Introduction to the Project Approach

*******SENSORIMOTOR PROJECT DUE*******

WEEK 5: Representational Development
Symbolic Development
Curricular issues related to teaching art and music
Integrating the Curriculum
Technology as a teaching tool in symbolic development
Video: Portrait of a Lion

*******1st PREOPERATIONAL PROJECT DUE*******

WEEK 6: Representational Development
Language Development
Curricular issues related to teaching literacy and language arts
Technology as a teaching tool in representational development
Read *Learning to read & write* by Neuman, Copple, & Bredekamp
Sections 2 and 3

WEEK 7: Perceptual Motor Development
Sensory Integration Issues
Curricular issues related to teaching children with special needs
Adapting curricula to meet the learning needs of all children
Technology as a teaching tool for children with disabilities

*******2nd PREOPERATIONAL PROJECT DUE*******

WEEK 8: Student Presentations

*******CURRICULUM PROJECT DUE*******

4. Resources:

Texts:

Copley, J. (2000) *The young child and mathematics*. NAEYC

Helm.J.H. & Katz, L. (2001) *Young investigators: The project approach in the early years*. NAEYC.

Neuman, Copple, & Bredekamp (2000) *Learning to read & write*. NAEYC

Supplemental Readings:

Handouts will be provided from Project Construct. Other handouts will be provided as needed. Students are responsible for all assigned readings.

5. EVALUATION

- | | |
|------------------------|-----|
| a) Term Paper | NO |
| b) Examinations | NO |
| c) Class participation | YES |
| d) Class presentation | YES |
| e) Other | YES |

Three projects directly related to understanding the constructivist theory:

1. Sensorimotor Project
2. Preoperational Project (ages 3 to 5)
3. Preoperational Project (ages 6 to 8)

Students will also complete a curriculum project using a constructivist, developmentally appropriate, integrated approach.

CLASS ATTENDANCE AND PARTICIPATION:

No more than one excused absence is permitted. A no-credit is given to anyone missing more than one class.

It is the student's responsibility to notify instructor of an absence. It is also the student's responsibility to make up missed work, pick up any handouts, or get missed notes.

Incompletes are given at the discretion of the instructor and under unusual circumstances. It is the student's responsibility to notify the instructor of any problems. Incompletes will not be discussed beyond the 6th week of class except in extreme cases.

A letter grade of "B" is the highest grade given to students granted an incomplete.

Grading System: A – Outstanding
B – Very Good – Above Average
C – Average
N/C – No Credit

This is an M.A.T. class. All students are expected to achieve a minimum of above average work. This not only includes content knowledge but also writing and problem solving skills. I expect work to be the caliber of graduate students.

6. Final Projects

Final projects will be returned to students in the following manner:

Student should provide a self-addressed stamped envelope (appropriate size and correct postage) to the instructor.

Make arrangements with instructor prior to the end of the final class.

This syllabus is subject to change at the discretion of the instructor.