Early Childhood, Elementary, and Middle Level Education Department  
ELE 4770: Methods and Curriculum in the Primary Grades

Unit Theme: Educators as creators of effective educational environment, integrating diverse students, subjects, strategies, societies, and technologies.

Course Description: A study of curriculum, units of instruction, lesson planning and techniques for teaching mathematics, science, and social studies in the primary grades.

Prerequisites & Concurrent Enrollment: ELE3250

Course Purpose: Building on knowledge of human growth and development, and an awareness of learning and the means of facilitating and stimulating learning, this course addresses three major areas of the primary curriculum: mathematics, science, and the social studies. This course will focus on students' involvement in planning lessons and activities appropriate for mathematics, science, and social studies in the primary grades.

Course Textbooks:

Supplemental Material: Live Text

Teaching Model: The Information Processing Family Models.

Dispositions: Teacher candidates in the department of EC/ELE/MLE will exhibit professional ethical practices, effective communication, sensitivity to diversity, the ability to provide varied teaching practices evidenced in a supportive and encouraging atmosphere for learning.

Live Text Assessment Requirement: For those classes with Live Text or Practicum- If the portfolio or Live Text requirements are rated, by the instructor, to have been completed in less than a satisfactory manner then no more than a "D" may be earned in the class regardless of the number of points earned.

Standards
Course Requirements & demonstrated competencies with the following standards:
- Illinois Core Technology Standards (ICTS): www.isbe.state.il/profprep/standards.htm

Outcomes specific to ELE 4770:
Students will:
- Provide: a contextual base for helping children construct fundamental concepts in math and science through experiences that are designed to meet each child’s developmental needs.
- Demonstrate mathematical skills, concepts, and procedures and how to promote young children’s development of mathematical understandings and their ability to apply mathematical skills in varied context.
- Demonstrate an understanding of fundamental scientific concepts and process and how to promote young children’s development of scientific knowledge and skills, including their use of scientific thinking reasoning, and inquiry.
- Demonstrate an understanding of fundamental concepts, skills, and modes of inquiry in the social studies and how to promote young children’s development of knowledge and skills in this area.
- Develop competence in planning, teaching and assessing themed learning activities that meet state goals and standards.
- Demonstrate alternative methods of achieving similar learning outcomes including constructivist methods and higher order and critical thinking skills.
- Provide for the uniqueness of individuals, recognizing the characteristics of culturally pluralistic and “at risk” populations, and foster appreciation for those differences.
- Use appropriate technology to support teaching and learning.

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<th>Course Requirements</th>
<th>Demonstrated Competencies</th>
<th>Aligned Standards</th>
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<tr>
<td>Participation</td>
<td>Performance includes presence, participation and preparation for group and whole class discussions.</td>
<td>IPTS: 1,10,11 ICTS: 2 ICLAS: 1, 2,</td>
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<tr>
<th>Core Assignments</th>
<th>Brief Description</th>
<th>Approximate Weight</th>
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<td>Tests and Examinations</td>
<td>Tests and examination consist of multiple measure, including multiple choice, short answers, and essay questions. Questions will be derive from lecture, assigned readings, article handouts and class discussions.</td>
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<td>Activity File</td>
<td>Compile 30 activities for math, science, and social studies for teachers to use in the K-3 classroom (10 activities for each subject area). Activities must be developmentally appropriate practice for young children and must be selected from various sources.</td>
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<td>Science Kit</td>
<td>Construct a science kit for K-3 students. Kit must include the following items: title of the kit, science concepts and objectives, goals and standards, student’s grade level, materials and resources, assessments, integration with other subject areas, and how the kit address the developmentally appropriate practice guidelines. Students are also required to develop a lesson plan to be used with the kit. The science kit will be presented to class.</td>
<td>15%</td>
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Thematic Unit | Construct a unit theme with the integration of all learning areas with focus on math, science, and social studies for two weeks teaching. Students must develop at least ten lesson plans using Live Text. The activities must be plan around the theme for K-3 children. Unit must includes a letter to parents, list of resources, interactive unit board, web and children's books, Unit will be presented in class. | 40%

**DETAILED INSTRUCTIONS AND EXPECTATIONS FOR EACH ASSIGNMENT WILL BE PROVIDED BY THE INDIVIDUAL INSTRUCTOR**

**Grading Scales:** A = 92%-100%, B = 82%-91%, C = 72%-81%, D = 62%-71%

**COURSE OUTLINE**

This course focus on three main subject areas; mathematics, science and social studies for the elementary grades students.

**Math for Young Children**
This section discusses the Illinois Learning Standards for Math, concept development in math, how concepts develop and acquired, promoting young children’s concept development through problem solving, and assessing the child’s developmental level. Topics cover in this section are concept development, fundamental concepts and skills in mathematics, applying fundamental concepts, attitudes, and skills, symbols and higher level activities and mathematics concepts and operation. Five content standards in math will be discuss; numbers and numbers operations, geometry, algebra, measurement, data analysis and probability.

**Science for Young Children**
This section discusses science content standards, teaching strategies using concept development, process of inquiry and process of skills in science, planning for science fundamental concepts in science and science activities for young children. Topics covers in this sections are; physical science, life science, earth and space science, environmental awareness, health and nutrition.

**Social Studies for Young Children.**
This sections discusses the ten strands in the social studies area; culture, time, continuity, and changes; people, places, and environment; individual development and identity individuals, groups, instiutions; power, authority, and governance; production, distribution, and consumption; science, technology, and society; global connections; civic ideals and practices; time, continuity, and change.

**Week 1 & 2:** Concept Development in Math, Science, & Social Studies in Young Children

**Week 3 & 4:** Teaching Fundamental Concepts and Skills in Math, Science & Social Studies.

**Week 5 & 6:** Applying Math Concepts and Skills in Classroom Practice with integration with Science and Social Studies (number & number operations and geometry)

**Week 7 & 8:** Applying Math Concepts and Skills in Classroom Practice: Integration with Science and Social Studies (measurement, algebra & probability)

**Week 9 & 10:** Applying Science Concepts and Skills in Classroom Practice: Integration with Math and Social Studies (life science & physical science)

**Week 11 & 12:** Applying Science Concepts and Skills in Classroom Practice: Integration with Math & Social Studies (earth science, space science, & science and technology)

**Week 13 & 14:** Applying Social Studies Concepts and Skill in Classroom Practice: Integration with Math and Science (civic, government, history, arts & music)

**Week 14 & 15:** Applying Social Studies Concepts and Skill in Classroom Practice: Integration with Math and Science (economy, geography, sociology, & anthropology)

**Week 16:** Unit Presentation and Final Examination

**ELE 4770 References**


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Students with Disabilities: If you have a documented disability and wish to discuss academic accommodations, please contact the Office of Disability Services at 581-6583.
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