Murray State University
COMMON SYLLABUS
Spring 2005
ELE 304-01 and ELE 304-02
Teaching Elementary Mathematics
Department of Early Childhood and Elementary Education
Credit: 3 hours

Instructor: Mr. Greg Gierhart Phone: 762-3522
E-mail: greg.gierhart@coe.murraystate.edu Office: AL 3237

Class Times:
ELE 304-01: M 8:00-9:15 and W 8:00-9:15
ELE 304-02: T 8:00-9:15 and Th 8:00-9:15

Instructor’s Office Hours:
M-F: 7:00-8:00 am (by appointment only)
M,T,Th: 9:30 am-11:30 am
M,F: 3:00 pm-4:30 am
All other times by appointment.

I. TITLE: ELE 304 Teaching Elementary Mathematics (P-5)

II. CATALOG DESCRIPTION: A study of the structure of mathematics and materials and methods which build skill in the curriculum area. Laboratory experiences required. Prerequisite: EDU 303.

III. PURPOSE: To increase the level of confidence in teaching P-5 mathematics providing the future teacher with appropriate methods, materials, and teaching experiences.

IV. COURSE OBJECTIVES:
Class activities will be centered on the attainment of the course objectives listed below. These objectives are understood to be reflective of, but not limited to those behaviors advocated by the Kentucky Education Reform Act guidelines. Following each objective, and enclosed in parentheses, are numbers which reference the Kentucky New Teacher Standards for Preparation and Certification (NTS) addressed by that objective. Bracketed numbers refer to the National Council of Teachers of Mathematics Curriculum and Evaluation Standards addressed by the objective. As a result of participation in this course, students will be able to:

A. Demonstrate, appropriately, psycho-motor and perceptual aids in learning mathematics concepts and skills. (NTS #1,2,3,5,8) [NCTM 1-13] {COE1-6}
B. Demonstrate the ability to sequence learning from a real experience and to the more abstract form of experience. (NTS #1,2,3,5,8) [NCTM 1-13] {COE 1-6}
C. Demonstrate a variety of ways of reinforcing learning for mastery. (NTS #1,2,8) [NCTM 1-13] {COE 1-6}

D. Demonstrate knowledge of affective concerns in learning mathematics and how to deal with them. (NTS #1,2,3,8) [NCTM 4, Equity, Instructional Practices] {COE 1-6}

E. Demonstrate knowledge of the scope and sequence of concepts and skills taught from kindergarten through the fifth grade. (NTS #1,3,8) [NCTM 1-13, Evaluation Standards 1 & 8] {COE 1-6}

F. Demonstrate models which are consistent with the Curriculum and Evaluation Standards of the NCTM. (NTS #1-8) [NCTM 1-13, Evaluation Standards 1-10] {COE 1-6}

G. Demonstrate ability to integrate mathematics into other content area instruction. (NTS # 1,3,8) [NCTM 1-13] {COE 1-6}

V. CONTENT OUTLINE:
A. Theories of Learning Mathematics
B. Problem Solving
C. Pre-Number Concepts
D. Addition and Subtraction of Whole Numbers
E. Multiplication and Division of Whole Numbers
F. Rational Numbers
G. Number Theory
H. Geometry
I. Statistics and Probability

VI. INSTRUCTIONAL ACTIVITIES:
A. Students will complete daily assignments and participate in large and small group discussions and activities. Participation includes active listening, contributing to group discussions, and working on in-class activities.
B. Student-initiated activities include preparation for and participation in class lectures, discussions, and cooperative activities related to course goals and objectives, including:
   a) Reading assigned materials and completing chapter study activities.
   b) Participating in large and small group discussions, activities, and presentations.
   c) Performing successfully on exams and assignments.
   d) Attending class on a punctual and regular basis.
   e) Participating in field experiences actively and with a positive attitude.

VII. FIELD, CLINICAL AND/OR LABORATORY EXPERIENCES:
Students are required to teach six lessons over six days. Being able to use the public schools as our laboratory for ELE 304 is a privilege and an honor. All students are to show extensive planning for each laboratory class, provide hands-on experiential learning, and engage students. Students are expected to dress professionally for each school visit.
A. Students will use the Kentucky Teacher Internship Plan (KTIP) lesson plan format.
B. Each person is required to submit a daily lesson plan to the instructor and cooperating teacher (Note: by 4:00 pm by e-mail prior to the day of the school visit).
C. Students will maintain a personal journal recording their daily thoughts about their experiences working with children.
D. During the next class period, students should submit an impact/refinement paper reflecting upon the effectiveness of the previous day’s lesson. The reflection should include an analysis of positive outcomes and areas where improvement was needed. The how’s, where’s, when’s, and why’s must be addressed to demonstrate the role of the teacher as a “reflective decision maker”. The student will use the standards established by the Educational Professional Standards Board (EPSB) when writing the reflection paper.
E. Students will create a field experience portfolio containing all lesson plans, reflective statements, and personal reflective journal entries.
F. Students will identify one field experience lesson plan that is worthy of inclusion in their Murray State University formative e-portfolio. An extensive, reflective statement will be included which identifies how this lesson plan addresses one New Teacher Standard.

G. There are no excused absences for the laboratory experience because the school, the teacher and the children expect students to fulfill your commitment to them. Students will receive a flag for an absence for the laboratory experience. Also, the student will be encouraged to drop the course.

VIII. RESOURCES:
A. Waterfield Library
B. Curriculum Materials Center (Room AL 341)
C. Internet
D. BlackBoard
E. Center for Environmental Education
F. Other resources provided by the instructor (ex. handouts, etc.)

IX. GRADING PROCEDURES:
Please note: Grading procedures may vary by the instructor

A. Course Assignments (Course Assignments may vary by the instructor)

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Assignments</td>
<td>5 pts. x 9 chapters</td>
</tr>
<tr>
<td>Chapter Quizzes</td>
<td>10 pts x 5</td>
</tr>
<tr>
<td>Examinations</td>
<td>50 pts.x 2 exams</td>
</tr>
<tr>
<td>*Field Experience Portfolio</td>
<td>50 pts.</td>
</tr>
<tr>
<td>Creation of Math WebPage</td>
<td>25 pts</td>
</tr>
<tr>
<td>Mathematics Readings Position Papers</td>
<td>3 x 20 pts</td>
</tr>
</tbody>
</table>
Mathography 20 pts
2 NCTM journal summaries 2 x 25 pts
Position on Best Practice 25 points
Mathematics Research 50 pts
Attendance and Participation 100 pts
*Required e-Portfolio artifacts-reflections 100 pts
Literature-Math connection/lesson plan 50 points
Notebook of Math Problem solving 100 points
Math Lesson Plans (Micro-Teaching) 25 points
Math Fair/Family Project Preparation 50 points
Celebration of Math Knowledge 25 points
Mathematics Bulleting Board 25 points
Math Projects Creation 50 points
Resource Scavenger Hunt 20 points

*several components are evaluated to arrive at the points possible.
**required attendance at one MathPlus Club meeting
***Active Discussion board posting and responses included

B. Evaluation

Grades will be awarded for performance in accordance with the Murray State University scale. Students’ attendance will also be considered when calculating the final grade.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>92-100%</td>
<td>A</td>
</tr>
<tr>
<td>83-91%</td>
<td>B</td>
</tr>
<tr>
<td>74-82%</td>
<td>C</td>
</tr>
<tr>
<td>65-73%</td>
<td>D</td>
</tr>
<tr>
<td>0-65%</td>
<td>E</td>
</tr>
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X. FLAG SYSTEM/ CONTINUOUS ASSESSMENT:
Student progress is continuously assessed throughout the teacher preparation program. Appropriate professional characteristics and demeanors, in addition to academic achievement, are assessed. Positive and negative flags are submitted by faculty to Teacher Education Services and then presented to admissions committees. Negative flags are carefully reviewed to make a determination as to whether a student should be denied admission OR if a professional development plan will be designed for the student’s progress towards program completion. NEGATIVE FLAGS MAY BE GROUNDS FOR DENIAL OF ADMISSION TO TEACHER EDUCATION AND/OR STUDENT TEACHING.

XI. ATTENDANCE POLICY:
This course adheres to the policy published in the MSU Undergraduate Bulletin.
Note: Students are expected to attend all class meetings and microteaching experiences. The microteaching experiences carry an extra responsibility for students to act professionally. Students missing class for any reason should notify the professor in advance, preferably by e-mail. If not by e-mail then a phone call would be acceptable (I have an answering machine). Students assume responsibility for informing the professor of a tardy arrival and absences. Two or more absences may result in the following consequences: the final grade may be lowered by one or more letter grades and a negative flag will be placed on materials submitted to Teacher Education Services, or a professional growth plan developed. Further, 3 unexcused tardies shall mean one unexcused absence. Each class session has attendance and participation points built in (3 points per class session). Points will be subtracted for an unexcused absence at the rate of 3 times the amount of points (i.e. 1 unexcused absence=9 points subtracted). The instructor reserves the right to ask for documentation for the reason of an absence. You are responsible for making up any absence, excused or not at the discretion of the instructor. Please note that an absence from the field placement will not be tolerated.

XII. ACADEMIC HONESTY POLICY:
(adopted by Board of Regents, February 14, 1975) Please refer to the current MSU catalog about the Academic Honesty Policy that this class will strictly follow.
Note: Faculty reserve the right to invalidate any examination or other evaluative measures if substantial evidence exists that the integrity of the examination has been compromised.

XIII. TEXT AND REFERENCES:


Note: Other required readings will be provided.

XIV. PREREQUISITES: EDU 303

Note: The instructor expects that cell phones, pagers, and any other electronic paging devices will be turned off during class time (unless an emergency dictates otherwise).

Note: Students are expected to dress professionally for all field experiences.

Note: Americans with Disabilities Act
If you are a person with a disability and require any auxiliary or other
accommodations for this class, please see the instructor or contact Student Support Services.

NOTE: Mr. Gierhart reserves the right to make changes to course activities and assignments as deemed necessary.