Course Syllabus
Strategies of Teaching Chemistry

DEPARTMENT: CHE  COURSE NUMBER: 303  CREDIT HOURS: 3

I. TITLE: CHE 303 Strategies of Teaching Chemistry

II. CATALOG DESCRIPTION: This course is an investigation of the skills of teaching which are applicable at any grade level. Emphasis is placed on the application of teaching strategies in classroom and laboratory settings. The course will also include coverage of classroom management strategies, discipline techniques, and curriculum development as a function of instruction. Laboratory experiences required. Prerequisite: Successful completion of EDU 103, chemistry major and admission to Teacher Education.

III. PURPOSE: The purpose of this course is to provide students with a broad repertoire of teaching strategies, as well as classroom organization and management techniques. Students will examine various approaches to classroom discipline. Students will also demonstrate specific teaching skills during microteaching 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. Upon successful completion of this class, students will be able to:

A. prepare a KERA unit of study and KTIP lesson plans. (NTS # 1; NSTA #1-9)
B. microteach lesson(s) demonstrating the ability to organize the curriculum and /or instructional tasks which are developmentally appropriate. (NTS # 1-6; NSTA #1, 3, 5-9)
C. evaluate, reflect upon, and revise given teaching situations. (NTS #4,5; NSTA #1, 3-10)
D. demonstrate teaching skills associated with multiple approaches to learning. (NTS #3; NSTA #1,3, 5-9)
E. develop and apply a wide repertoire of questioning, differentiated instructional strategies, and assessment techniques. (NTS #3,4; NSTA #1-3, 5-6, 8, 10)
F. examine classroom management strategies during microteaching lessons. (NTS #2,3; NSTA #1,3, 5-10)
G. infuse instructional technology into microteaching and other activities. (NTS # 2,3,9; NSTA #1,3, 5, 7-10)

V. CONTENT OUTLINE:
A. Teaching Chemistry for Individual Differences
B. Instructional Planning/ Safety and Waste Disposal
C. Instructional Objectives
D. Questioning and Inquiry Teaching
E. Inquiry and Investigation
F. Cooperative Learning
G. Demonstration and Laboratory Work
H. Materials and Facilities for Chemistry Teaching
I. Differentiating Instruction for Academic Diversity
J. Technology for Teaching and Learning with Understanding
K. Evaluating Classroom Performance
L. Resolving Conflicts in the Chemistry Classroom (Classroom Management)

VI. INSTRUCTIONAL ACTIVITIES:
A. Lecture and discussion
B. Small group discussion
C. Microteaching and clinical supervision
D. Cooperative learning activities
E. Curriculum and planning projects
F. Peer collaboration/peer review
G. Formative and summative evaluations

VII. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES:
A minimum of 20 clock hours is required which includes microteaching experiences in the classroom and laboratories at MSU. Students must demonstrate their growing knowledge of technology and audio-visual aids as instructional tools during the microteaching activities.

VIII. RESOURCES:
A. Murray State University Libraries
B. RACERtrak, ERIC, and the Internet
C. Self-selected books, articles, and activities
D. MSU computer centers
E. Media/Resource Center AL 341
F. Public library

IX. GRADING PROCEDURES:
A. Course Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Planning including safety procedures and waste disposal plans</td>
<td>4 @ 50pts.</td>
</tr>
<tr>
<td>Microteaching including lesson design (consecutively)</td>
<td>10, 20, 30, 40 pts.</td>
</tr>
<tr>
<td>Examinations</td>
<td>2 @ 100 pts.</td>
</tr>
<tr>
<td>Inquiry Project (Final Exam Grade)</td>
<td>100 pts.</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89%</td>
<td>B</td>
</tr>
<tr>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td>0-59%</td>
<td>E</td>
</tr>
</tbody>
</table>
X. **Attendance Policy:**
This course adheres to the policy published in the current MSU *Undergraduate Bulletin*. Additionally, 3 absences from this course will result in a failing grade.

XI. **Academic Honesty Policy:**
This course adheres to the policy published in the current MSU *Undergraduate Bulletin*.

XII. **Text and References:**

XIII. **Prerequisite:** Successful completion of EDU 103, Issues and Practices of American Education, chemistry major and admission to Teacher Education.

XIV. **Statement of Affirmative Action and Equal Opportunity:** Murray State University does not discriminate on the basis of race, color, national origin, sex, religion, marital status, age, or disability in employment, admission, or the provision of services, educational programs and activities, and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities. For information regarding nondiscrimination policies contact the Office of Equal Opportunity, (270) 762-3155.