

**Curriculum and Teaching I Science
Fall 2010 Course Syllabus and Timeline**



1. Course Number: CTSE 4090

Course Title: Science Methods I

Credit Hours: 4

Prerequisites: Admission to Teacher Education and Senior Standing

Corequisites: None

2. Date Syllabus Prepared: Spring 2006, Revised August 2010.

3. Text and major resources:

Kellough, R. & Kellough, N. 3rd Edition. Secondary School Teaching: A guide to methods and resources. Merrill: Prentice Hall. New Jersey.

Recommended text:

Kozol, J. (1992) Savage Inequalities: Children America's Schools

Delpit, L. (2006) Other Peoples Children: Cultural conflict in the classroom. The New Press.

Office Hours: By appointment

On Campus (lecture): Thursday 1-2:50 p.m. – HC 2462/4 Combined Lecture and Lab

On Campus (lab) Wednesday 11:00 am – 3:30 pm Haley Center 2462/4 Combined Lecture and Lab

Field Placement lab times may be flexed on the Weds. meeting date earlier in the day based on scheduling for lab placements. However, all students must meet on the Weds. Date only.

Goals and Objectives – In this methods course we will learn and practice methods of teaching aligned with “inquiry” from the National Science Education Standards and *applied within* a Learning Cycle Model for teaching as outlined in the Alabama Course of Study: Science. While coteaching and learning new educational methods, you will begin to reflect on practice and make the necessary changes required of professional science educators to improve practice.

Please note that this document is subject to minor amendments or revisions at the discretion of the course instructor

4. Course Description:

Planning, teaching strategies, evaluation techniques and classroom management procedures needed to be a successful science teacher.

The prospective Science teacher will become familiar with planning, teaching strategies, evaluation techniques and classroom management procedures needed to be a successful inquiry-based teacher. This course will combine hands-on experiences with learning theory. This course will address various issues relative to planning as well as effective teaching strategies, needed towards becoming a successful educator. We will also discuss modern ideas on cognition and learning for science students in the secondary school classroom. In addition, we will address various teaching strategies that address issues of equity and diversity in the science classroom. Students will select and demonstrate various teaching strategies and work in the field with experienced teachers in local schools to master these skills. The course emphasis on higher-order reasoning and process skills in grades 6-12 science will use both state and national standards as a guide.

This course combines hands-on experiences with learning theory. We will discuss modern ideas on cognition and learning for science students in grades six through twelve. We will derive a working definition of science literacy, and then discuss attributes of effective science teaching. I will model some teaching strategies which have been shown to be effective. We will discuss these, along with the objectives they were designed to accomplish. Then you will select your own objectives and use strategies to help students master them. By working with experienced teachers in local schools, you will learn how hands-on experiences are used to support meaningful learning in science. Our emphasis will be on learning higher-order reasoning and process skills in grades 6-12 science using state and national standards as guides.

All assignments are to be typed, double-spaced, and in APA style (6th ed).

5. Course Objectives:

The purpose of this course is to enhance your pedagogical skills and focus on teaching science. The science teacher should understand the nature of science, its content and related concepts, as well as implications of secondary science education, the lives of our students, our community and society. The focus of this course will be on exploring science teaching in a variety of ways. This course will also focus on equity in science teaching, learning, and the education of students. Particular emphasis is placed on connecting the science curriculum and science learning goals to the direct lifestyles and perceptions of secondary level students. In addition, this course explores learning and inquiry from the perspectives of the scientific methodology and through purposeful processes of discovery, conceptualization, and understanding.

Upon Completion of this course students should:

1. Prepare activities to enable youngsters to develop the science process skills. Also, techniques for decision making, problem solving and critical thinking (290-3-3.14(1)(a)4).
2. Distinguish between facts and concepts.
3. Prepare daily lesson plans, long-range plans and resource unit plans to operationalize stated objectives [290-3-3.14 (1) (b) 3,8].
4. Employ appropriate inquiry teaching strategies such as inductive demonstrations, laboratory experiments, cooperative learning, discussions, field trips, project-based instruction, and individualized instruction. (290-3-3.14(1)(a)5, (b) 4, 5)
5. Select and/or prepare appropriate media and technology for teaching science lessons (290-3-3.14(1)(a)3,7 (b)8).
6. Evaluate his/her teaching behaviors utilizing a combination of professional review, student feedback, and self assessment.
7. Evaluate the status of science education at the national, state and local level based the National Science Education Standards [290-3-3.14 (1) (b) 6,7].
8. Use various methods to assess and evaluate student achievement and performance in the affective, cognitive and psychomotor domains of learning.
9. Develop a discipline plan and employ a variety of strategies for classroom management and discipline.
10. Prepare science lessons for Exceptional students.
11. Address global and ethical issues in Science (290-3-3.14(1)(a)6, (b)2).

Students will ...

1. **master beginning science teaching skills** while also managing students through peripheral participation and coteaching with an experienced classroom science teacher. *[See PEPE form]*.
2. **demonstrate their knowledge and abilities** to use methods supporting inquiry including demonstration, laboratory, outreach projects, use of technology, questioning, discussion, and cooperative learning. *[See weekly assignments]*.
3. **properly plan and use standards-based practices** in the science classroom where they are most effective for student learning – i.e. use of a Learning Cycle Model. *[See lesson plans]*.
4. **self-assess their ongoing teaching abilities and dispositions** for professional growth in order to successfully meet the needs of diverse learners in the science classroom. *[See dispositions form]*.
5. **request and give professional assistance** in teaching and managing students through reflection.
6. Demonstrate an increase in readiness to teach science to children in multicultural and diverse classroom settings.
7. Engage in problem solving relevant to science teaching through consideration of teaching cases as well as their own experiences.
8. Learn to formulate questions or challenges about teaching science.
9. Develop, practice, and critique methods and hands-on activities that demonstrate science principles in the curriculum and their roles in real life situations.
10. Develop and document strategies to demonstrate personal development as a teacher, and lifelong learner.
11. Prepare and teach science lessons that are rich in content, and culturally varied instructional strategies that maximize *all* students' opportunities and participation in science.
12. Organizing instruction to actively engage students in learning science.
13. Learn how to grow and improve your pedagogy.

Recommended Subscription – *National Science Teachers Association* – <http://www.nsta.org/newandpreservice> (obtain membership code) – Join online by credit card for quick membership processing (\$31.00 per year)

Required AU Nametag – Wares Jewelers (approx. \$12.00) to be ordered as a class through a student volunteer

Required Materials – High 8 mm digital videotape. Please check with your school regarding guidelines on videotaping.

Required texts –

Kellough, R. & Kellough, N. 3rd Edition *Secondary School Teaching: A guide to methods and resources*.
Merrill: Prentice Hall. New Jersey.

Recommended texts-

Kozol, J. (1992) *Savage Inequalities: Children America's Schools*
Delpit, L. (2006) *Other Peoples Children: Cultural conflict in the classroom*. The New Press.

Alabama Course of Study: Science (2005) Download and print all introductory pages and grades 6-8 science:
<http://www.alsde.edu/html/sections/documents.asp?section=54&sort=7&footer=sections>

Ancillary Text –

National Research Council (1996). National Science Education Standards. Download and preview as needed:
<http://books.nap.edu/books/0309053269/html/index.html>

See Content Standards – A, B, C, D, E, F, G – for lesson plans.

*Additional articles and readings will be disseminated or may be placed on reserve in the LRC or main library. You are responsible for reading all materials prior to the class meeting dates and should be prepared to facilitate and/or lead group discussions on articles assigned. Lack of preparation and failure to have read assignments may result in point deductions from your final course grades

Cultural Diversity
“I don’t care that you know. I want to know that you care”
Author Unknown

This course reflects the College of Education’s commitment to cultural diversity the goal of professional education programs at Auburn University is to prepare outstanding educators who are competent, capable, and caring in complex, diverse educational arenas. Such individuals are

- Effective in their roles as culturally responsive teachers, designing and implementing sound meaningful and balanced instruction with the full range of learners.
- Effective as they assist learners in their comprehension of issues surrounding diversity; and
- Effective in their contributions of thoughtful and informed discourse to their own educational communities as they work to build equitable and supportive environments learners.

Participation

This class is intended to be both interactive and collaborative. You are expected to come to class prepared to discuss assignments. We will also designate small groups during the initial class session, and you will spend some time doing group work. Learning is most effective when we fully participate in the process of constructing knowledge. In this course it is my expectation that everyone actively participate. Participation starts with preparation. It is my expectation that each class participant will be fully prepared for each day by having read the assigned materials and completed other work requested and required. In addition, please make sure to check your e-mail on a daily basis. Occasionally information regarding the course may be e-mailed and students are held responsible for any information sent via e-mail. If you are having problems with your account please make sure to get the issues taken care of as soon as possible.

Expectations

In this course I expect you to:

- Reflect critically on all experiences and readings.
- Be prompt and in attendance at all course sessions.
- Demonstrate critical reflection through discussion, writing and course assignments.
- Complete assignments to the best of your ability.
- Communicate expectations and ideas.
- Recognize and validate the values of other class members.
- Participate fully in all class discussions

6. Course Content and Schedule

Weekly Campus and Field Schedule¹

Please lab meeting at the field placement site dates may be changed at the discretion of the instructor. Check your e-mail frequently. In addition, topics may change based on the pacing of the course.

Reading assignments will be posted on Blackboard and/or given at least 1 week before the next class meeting when they will be due

Wednesday August 18:	Introduction and review of syllabus (meet in 2462/4 Haley center)
Thursday August 19:	Lesson planning
Wednesday August 25:	Meet for class in 2462 HC Scheduled field time and/or lecture (TBA) Lesson planning
Thursday August 26:	The essential features of inquiry in the science classroom
Wednesday September 1:	Instructional strategies unless instructed to attend lab placement site (TBA) Microteaching lesson due
Thursday September 2:	Continue microteaching lesson (if not finished on Wednesday Sept. 1) Instructional strategies Equity in science teaching Cooperative learning
Wednesday September 8	Scheduled field placement/or class time (TBA)
Thursday September 9	Microteaching continued (only if we were unable to finish on Sept. 2) Instructional strategies

¹ Details on weekly field assignments are given on the *Weekly Assignments and Attendance Form*.

Reflection paper #1 due

Wednesday September 15	Scheduled field placement
Thursday September 16	Assessment: Assessment tools in inquiry: Questioning, discussion, concept mapping, lab practical, journaling, and other forms of alternative assessment
Wednesday September 22	Scheduled field time
Thursday September 23	Equity in science teaching
Wednesday September 29	Scheduled field time
Thursday September 30	Instructional strategies, Equity in science teaching Recap for midterm
Wednesday October 6	Scheduled field time
Thursday October 7	Midsemester 1st exam
Wednesday October 13	Scheduled field time
Thursday October 14	Classroom Management Lab safety Reflection paper #2 due
Wednesday October 20	Scheduled field time
Thursday October 21	Lab safety cont. STS (Science, Technology, and Society)
Wednesday October 27	Scheduled field time
Thursday October 28	STS
Wednesday November 3	Scheduled field time
Thursday November 4	Effective Science Teaching
Wednesday November 10	Scheduled field time
Thursday November 11	Effective Science Teaching Individual differences in the classroom/ Learning styles
Wednesday November 17	Scheduled field time Last day for Scheduled Field Time
Thursday November 18	Effective Science Teaching
November 22-26	Thanksgiving break/No class
Wednesday December 1	Meet for class 2462/4 Recap semester highlights

Thursday December 2

Wrap up and debriefing on field experience
Last day of class at AU-In class meeting in 2462 Haley
Communication form due
Observation activity form due
Completed PEPEs due

Final exam CTSE 4090 December 8, 2010 4-6:30pm

Classes end December 3, 2010

Ready day/study day December 4-5

Final exam period December 6-10

Final exam CTSE 4090-Wednesday December 8, 4:00-6:30pm

Commencement December 13, 2010

7. Course requirements and evaluation

Grading. Because this is a professional program, you will be evaluated using multiple means of authentic assessment: Pedagogical knowledge, reflective writing, teaching performance, and self-assessment. You will **SAVE ALL WORK** from this course for possible use in your **internship professional portfolio** that is designed to meet professional standards of practice (INTASC, NCATE, NSTA) for preservice science teachers.

CORE COMPETENCY MARKS

The Final **PEPE Observation Evaluation** is a **core competency grade** where students must score a 3.0 or higher on all indicators in order to get credit for this course. Mid-term scores of 2.0 or less must be addressed before end-term scoring occurs. **The instructor reserves the right to change a cooperating teacher's evaluation on any PEPE indicator.**

Students who do not meet the core competency marks on all indicators on these two instruments by end-term will receive an "incomplete" grade for this course until these competencies are demonstrated – unless their final course grade is a "D" or below. **An incomplete course grade will prevent a student from beginning their internship next term.**

Late/remedial work policy

An assignment will be penalized 1 point from the overall assignment grade for each day the assignment is not turned in. Any assignments more than 3 days late will not be accepted. **Please note that some assignments will not be accepted as late work.**

Grading Scale:

A	92%-100%
B	80%-91%
C	70%-79%
D	60%-69%
F	<60% (less than 60 or 59 and below)

Grades of "D" are possible, but do not give credit for this course-failure (D or F) is not an option. Students must retake the course if their final course grade is below a "C."

General grading rubric for assignments

100%: beyond the call of duty; strikingly impressive; excellent in every way
92%: both complete and showing evidence of original, active, critical thought
80%: all specified aspects of assignments minimally completed
<75% one or more aspects of assignments missing or unacceptable

Course Evaluation

Assignments

Reflection papers (2 at 5 points each)

1st exam

1 Micro-teaching lessons at 10 points each presentation

3 unannounced quizzes at 5 points each

Laboratory Field Placement

2nd Exam

Outreach experience

Points

10 points

20 points

10 points

15 points

20 points

20 points

5 points

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Project Descriptions

1. Reflection papers (10 points).

Reflection paper #1 Due September 9

Reflection paper #2 Due October 14

Students will be provided two specific assigned readings where they will be required to write a 2 page minimum (3 page maximum) reflection. Guiding questions will be provided with each assigned reading. Questions for each assigned reading are as follows and each question is worth 1 point.

1. Which three items surprised you the most about the assigned reading?
2. What did the piece tell you that you already knew?
3. What did the piece tell you that you did not already know?
4. What implications does this article have for teaching students?
5. What was the most memorable part of this piece/ or what impacted you the most in this reading?

2. Microteaching/Inquiry-based demonstration“Teach-a-Lesson” (1 presentation at 10 points-Due September 1)

You will perform an inquiry based demonstration which actually “teaches something” to the class. This mini-lesson is an opportunity for you to micro teach to your colleagues and receive constructive feedback. You are expected to be creative and the lesson must be interactive. The microteaching lesson may address any topic. Make sure that the portion presented is very hands-on and interactive. In essence, the lesson plan should be designed to effectively “teach something” to the class in no more than 10 minutes. Therefore you must plan appropriately and determine what knowledge/principle, etc. is critical for the learners involved and the most effective way to convey the primary goals of the lesson. ***The lesson will be timed and a sign-up sheet will be provided. No exceptions or late presentations will be accepted.*** A rubric will be provided. Students will have 10 minutes for the mini-lesson.

3. Laboratory experience 20 points

Through a cooperative arrangement with local teachers, you will work in the preparation and implementation of interactive demonstrations on current science topics with students. Laboratory placements will be at Auburn High school, and Drake middle school. This class requires that you are on-site at an assigned school for the laboratory field experience. You will keep a log of your activities there for this practicum experience. You may work with a partner from this class for your classroom teaching. Documentation to record your visits must be signed by your cooperating teacher. Attendance is mandatory and you will be expected to attend during each Wednesday during the 11:00-3:30 designated time for the laboratory experience. Your mentor teacher will complete a sign in sheet for you each visit. In the event that the mentor teacher does not have class during the assigned time from of 11-3:30 after consulting with both the teacher and Dr. Russell you may make arrangements for your schedule to be at a different time. However, you must still meet for the same amount of time (four hours and thirty minutes). Failure to report to the laboratory field placement will result in an incomplete for the course. In addition, failure to receive the maximum amount of points for the laboratory experience (20) may result in an incomplete grade for the class and referral to the Department Chair for departmental review. **No absences will be allotted for the laboratory experience because attendance is paramount for your practical experience to be fulfilling.** Each absence will result in a 5 point deduction unless in accordance with AU absence policy. Sign-in sheets will be provided at the school site to document attendance. Absences may result in withdrawal from this course or incomplete for the methods course. In addition, other days might be designated as in class date however students will be notified in ample time. Additional information regarding placements will be provided. More than one excused/unexcused absence may result in referral for withdrawal from the CTSE 4090 course. All excused or unexcused absences must be made up before the end of the semester.

4. 1st exam 20 points/ 2nd exam 20 points-October 7, 2010

To evaluate your understanding of the various concepts, and terminology discussed in the class. The format of the midterm will be short-answer/discussion midterm. 1st exam and is scheduled for October 7, 2010 and the 2nd exam is December 8, 2010

5. Three (3) Unannounced quizzes on additional readings designated class meetings. (15 points)

Students will be given a chapter or assigned reading at least one week prior to discussion on the reading. The readings for this course will supplement our discussions of science instructional strategies and help inform your practice relative to secondary science teaching. In order to facilitate our discussions students will be asked to present and give a synopsis of readings, as well as lead a discussion on the topics covered. Each student is expected to bring at least two questions or comments related to the topic covered for formal discussion in class and you are to turn in the following assignments for credit.

6. Outreach experience (5 points) minimum 5 hours required

There is also an outreach experience component where you are required to work with Science Olympiad, BEST, GUTS, or any other science outreach activity. Please make sure that you complete a fingerprinting/background check with

Professional Ed. Services. Once you have done this contact me with information regarding where you will do your Outreach experience. If you do not have a place in mind please let me know and I can make some arrangements for you. It is mandatory to tell me where you will be doing the outreach experience before you begin. You must make arrangements to participate before the end of the semester and you must provide documentation of outreach detailing what you did and the coordinator of the program must signature your participation.

Documentation of outreach experience is due on the last class meeting date of Thursday December 2, 2010

7. Blackboard discussion, online discussion board

There will be some class meetings that utilize Blackboard and entail on-line discussions or live chat discussions. Students are required to log in and participate in all discussion. Failure to participate will be considered an unexcused class absence and result in a 5 point deduction from your final grade for each time that you fail to participate.

8. Class Policy Statements:

Participation: Students are expected to participate in all class discussions and participate in all exercises. It is the student's responsibility to contact the instructor if assignment deadlines are not met. Students are responsible for initiating arrangements for missed work.

Attendance/Absences: Attendance is required at each class meeting. If an exam is missed, a make-up exam will be given only for University-approved excuses as outlined in the Tiger Cub. Arrangement to take the make-up exam must be made in advance. Students who miss an exam because of illness need a doctor's statement for verification of sickness and should clear the absence with the instructor the day they return to class. Other unavoidable absences from campus must be documented and cleared with the instructor **in advance**.

Students are expected to attend all scheduled classes on campus AND scheduled field hours. You should give prior notice whenever possible of any extenuating circumstances that cause you to miss class or field commitment – notification does not mean that you are excused from class. **Only documented excuses as listed in the AU Bulletin are permissible without penalty; and documentation must be submitted within seven days of missing class. Students will lose five points from their final course grade for each undocumented absence. Two tardies to class (more than 5 minutes late) will count as one unexcused absence and will result in a loss of five points from the final course grade.** After three unexcused absences (or 4 tardies), students will be referred to the Office of Student Affairs to be withdrawn from the course.

Unannounced quizzes: There will be 3 unannounced quizzes.

Distance Learning Students: Unless specific instructions have been given for a designated course, students in distance education courses shall take all closed resource examinations under the supervision of an approved proctor. Examples of approved proctors include a school superintendent, a principal of a high school, or a dean or department head of a college. Proctors shall be verified and exams shall be sent directly to the proctor who will manage the examination in a secure manner, requiring students to present a picture ID.

Accommodations: Students who need accommodations are asked to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternative time can be arranged. To set up this meeting, please contact me by e-mail. Bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have an Accommodation Memo but need accommodations, make an appointment with the Program for Students with Disabilities at 1244 Haley Center, 844-2096 (V/TT).

Honesty Code: The University Academic Honesty Code and the Tiger Cub Rules and Regulations pertaining to Cheating will apply to this class.

Professionalism: As faculty, staff, and students interact in professional settings, they are expected to demonstrate professional behaviors as defined in the College's conceptual framework. These professional commitments or dispositions are listed below:

- Engage in responsible and ethical professional practices
- Contribute to collaborative learning communities
- Demonstrate a commitment to diversity
- Model and nurture intellectual vitality

9. Justification for Graduate Credit (for Graduate Credit Only)

Contingency Plan:

If normal class and/or lab activities are disrupted due to a high number of students experiencing illness or an emergency or crisis situation (such as a widespread H1N1 flu outbreak), the syllabus and other course plans and assignments may be modified to allow completion of the course. If this occurs, an addendum to your syllabus and/or course assignments will replace the original materials.

Policies and Procedures

Confidentiality is essential in this course. Any assignments, discussions, cases or episodes are not to be shared outside of this class.

*Please note that lack of professionalism in this course will not be tolerated. This includes making any derogatory or negative comments with regards to the course and its course contents, students, or the instructor of the course which can be deemed as unprofessional and will be duly noted and reported to the appropriate administration.

Field Experience Component

September 8– Observation of Classroom Teacher

(1) Sign-in in the office and bring a copy of your **current TB test results** for their files. (2) Obtain a copy of your teacher's classroom management plan. Follow the directions on the **Observation Guide Activity** form while observing your teacher for two periods. Interview him/her for clarity on classroom policies, procedures, and philosophy. **Complete your report assignment for the next class meeting.** (3) Complete your **Coteaching Communication Sheet** and make copies for your teacher and professor. (4) Set up a regular time to meet with your teacher 1-2 days before coteaching each week in order to obtain his/her lesson plan for Wednesday.

Observation of Classroom Teacher:

Observe/Assist your teacher **Every teacher should be “up” and assisting in the teaching and helping students during all periods.** Your teacher will tell you what portion of the lesson to begin taking the lead in teaching – not the entire period. Meet with your teacher at the end of the day for written and oral feedback

September 15th – Observation of Classroom Teacher

Observe/Assist your teacher **Every teacher should be “up” and assisting in the teaching and helping students during all periods.** Your teacher will tell you what portion of the lesson to begin taking the lead in teaching – not the entire period. Meet with your teacher at the end of the day for written and oral feedback

September 22nd – Begin “Partial” Coteaching (your teacher's lesson plan).

Observe/Assist your teacher (1st class) and you ('a' partner) take the lead in teaching (2nd class). [Alternate who lead teaches during the 3rd class, if available]. **Every teacher should be “up” and assisting in the teaching and helping students during all periods.** Your teacher will tell you what portion of the lesson to begin taking the lead in teaching – not the entire period. Meet with your teacher at the end of the day for written and oral feedback. When not lead teaching, continue assisting your teacher in other professional duties, such as taking attendance, hall duty, preparing for lessons or activities, informal tutoring, grading papers, other as directed.

September 29th – Continue “Partial” Coteaching (your teacher's lesson plan).

See September 22, but switch with 'b' partner

October 6th – Continue “Partial” Coteaching (your teacher's lesson plan).

See September 22, but switch with 'a' partner.

October 13th – Coteach for the entire period (your teacher's plan)

Continue the coteaching format but ('b' partner) begin to take the lead in coteaching during the entire second period. Continue assisting your teacher in other duties as listed above.

October 20- Continue coteaching for the entire period (your teacher's plan)

See October 13, but switch with 'a' partner.

In consultation with your teacher, coplan your first 'partner prepared' lesson for teaching next week based on your teacher's objectives and use of inquiry. You will each teach this same lesson individually for one of the two science periods. Complete the lesson contract and your lesson plan utilizing the given format (See Forms) – only one and the

same for both of you with both names on it. **Completed contract and lesson plan (with required attachments) are due at the next class meeting prior to lesson.**

October 27- First Teaching* (Coplanned)

Have your teacher complete and discuss with you the Professional Education Personnel Evaluation (PEPE) on your teaching performance (See Forms). View your tape and reflect on what you observe using the tenets of effective science teaching to write a two-page professional development plan (**See Forms**). **Videotape, PEPE evaluation, and professional development plan are due at the next class meeting.**

Continue teaching (partner 'a') using the pre-midterm model for coteaching. [Or, now begin teaching using a lesson plan coplanned with your teacher where you "may" mix up who takes the lead in teaching first; coteaching more as equal partners]. Be mindful of your areas of weakness from your PEPE and concentrate on improving them. Continue assisting your teacher in other professional duties as listed above.

November 3 – Coteaching (Coplanning)

See October 27 Continue teaching (partner 'b') using the pre-midterm model for coteaching. [Or, now begin teaching using a lesson plan coplanned with your teacher where you "may" mix up who takes the lead in teaching first; coteaching more as equal partners]. Be mindful of your areas of weakness from your PEPE and concentrate on improving them. Continue assisting your teacher in other professional duties as listed above.

November 10 – Coteaching (Coplanning)

See October 27, but switch with 'a' partner. In consultation with your teacher, coplan your second 'partner prepared' lesson for teaching next week based on your teacher's objectives and use of the initial elements of the Learning Cycle: Exploration before Explanation. Complete your lesson contract and lesson plan. **Completed contract and lesson plan (with required attachments) are due at the next class meeting.**

November 17– Second Teaching *

Videotape the period that you individually teach your lesson – your partner can videotape you. Collect and evaluate your students' performance on your assessment piece. Have your teacher complete and discuss with you the Professional Education Personnel Evaluation (PEPE) on your teaching performance (See Forms). Also, give your teacher a reference form to complete confidentially on your overall performance this semester – Refer to: http://www.auburnschools.org/Employment/pdf/app_certified_educator_teacher.pdf Give your teacher a stamped envelope to mail this form to you for honest feedback. Save this reference form for job applications. View your tape and reflect on what you observe using the tenets of effective science teaching to discuss with your university supervisor and mentor teacher. **(1) PEPE Evaluation (2) Also, completed weekly attendance form, coteaching communication form, and coteaching feedback form are due at the next class meeting – each must be signed by both the cooperating teacher and the methods student.**

*Student teachings and videotapings of lessons can be delayed one week only due to classroom teacher's schedule and circumstances.

I verify that _____ was present in my classroom for at least two periods each week for a minimum of 11 weeks, and conducted the weekly assignments listed above.

Student's Signature

Date

Teacher's Signature

Date

OBSERVATION GUIDE ACTIVITY
Due December 2, 2010 (as part of the Field Placement Component)

Directions for Field Notes: Record briefly what you see the teacher doing and/or what you see the students doing in your journal or notebook. Record the subject, topic of the lesson, and date of observation (no names please). Use the following questions to inform and guide your observations:

1. What do students do when they first enter the room?
2. What procedure does the teacher follow in checking attendance?
3. What are the students doing while the teacher is taking attendance?
4. What do students bring with them to the classroom?
5. How many students do not bring needed materials to class and what does the teacher do about this?
6. What does the teacher do or say to begin the class during the first few minutes?
7. What procedures are followed in distributing or collecting materials from the students?
8. Do any of the students appear to have a physical handicap or special need that could affect their ability to do some activities/assignments? If so, state them. How does the teacher accommodate such students?
9. What does the teacher say or do when shifting students from one class activity to the next? How do the students respond?
10. What does the teacher do when unexpected situations occur? Explain.
11. How does the teacher respond to disruptive or inappropriate student behavior?
12. What do students do toward the end of the class period? How are they dismissed when the bell rings?
13. What is the racial/ethnic make-up of your classroom?

African American students____
White/Caucasian students____
Latino/a students____
Indigenous (American Indian) students____
Asian American students____
Pacific Islander students____

Follow up notes – Use a copy of your teacher’s classroom management plan and/or interview your teacher after school (or during a break) about the following questions:

What standards are established by the teacher for pupil behavior when students are:

- a. Entering the classroom?
- b. Leaving the classroom? (especially bathroom policy)
- c. Leaving their seats?
- d. Wanting to respond to a teacher question?
- e. Tardy?
- f. Talking at inappropriate times to another student?
- g. Off-task but not being disruptive?
- h. Disrupting the lesson?
- i. Making up missed work or late work?
- j. Turning in homework?

In addition, ask your teacher his or her personal philosophy of teaching and student learning. Do their classroom routines, procedures, and teaching strategies for teaching make sense in light of this philosophy?

Written Report Assignment: Type up your findings in a 2-3 page paper (double-spaced, 1 inch margins) incorporating your main observation and interview points. Finish your paper in reflecting on your teacher's practice: What do you think about your observed teacher's procedures, routines, student rules, and philosophy? Comment on aspects that you think are particularly good and those that you particularly disagree with. Explain why you agree or disagree in light of your current thinking or personal philosophy about running a classroom.

Introduction to Coteaching

The model that you will be following in learning to teach this semester follows a situated-learning one where you will learn to teach "at the elbows" of another more experienced science teacher while also supporting and receiving support from your peer partner (if applicable). Coteaching is a strong component of this model. You learn to teach as you teach alongside another teacher. Some of you will better understand this concept as "team teaching" where one teacher is designated as the lead teacher in the lesson while the other teacher(s) in the room actively assists. Active assistance means interjecting where appropriate to help guide the lesson, gently correcting any faux pas or anticipated difficulties, managing students and student behavior, answering student questions, and working with groups or individual students.

Before you take a central lead in coteaching you will first observe and assist your cooperating teacher as a "peripheral participant" in his/her classroom – about two weeks. You will soon take the lead in coteaching your teacher's lessons (after observing and assisting during the first period) during the second of teaching – with your cooperating teacher (and partner if present) as the active participants in assisting you. You will have the opportunity to take the lead in coteaching at least once every other week (alternating with a partner if present). Remember that coteaching means "modeling" (not strictly mimicking) your teacher as you all teach together. You will need to develop your own style and personality as you begin to teach. Many of your teacher's lessons will be based in inquiry through use of *Science and Technology Concepts for Middle Schools* kits which includes student-centered activities for you to coteach.

IMPORTANT NOTE: In order for coteaching to work, you must gather needed materials (texts, handouts, etc.) for study and your teacher's lesson plans in advance of each week's lesson – typically the day before you leave each week. You can also find background material on lesson topics in texts shelved at the LRC. You, as the lead methods student, must also personally meet with your teacher 1-2 days before coteaching for any changes or final arrangements to his/her lesson plan. You are **REQUIRED to spend a minimum of four hours (as many as three science periods) in your school** on each assigned day. You are encouraged to go out additional hours if necessary to work with your teaching on planning.

Failure to come prepared to co-teach will result in a 5 point deduction from the field experience each time that it is documented that you are unprepared and may result in referral for withdrawal from the CTSE 4090 class. Please make sure that you are prepared and "carry your own weight". Do not expect your partner to do your work.

Visiting School

Lab students should be sure to dress and act professionally for each visit to their school. Wear your AU nametag. Also, be sure to check in and out in the main office upon each visit – sign in and sign out. **You are guests and ambassadors for our program.** Put your best foot forward in representing yourself, our program, and your future profession!

Also, you need to bring a current copy of your TB Test results to file with the school office. This is a requirement for Alabama school teachers, staff, and lab/intern students.

Drake Middle School (Auburn City): 887-2130 5 minute drive

Take Donahue Drive by the football stadium north past Mama Goldberg's Deli, the railroad tracks, and Glenn Drive.

Go for about 1-2 miles north until you see Clark Ave. Turn left on Clark Ave. until the first intersection. Turn right at this intersection and Drake Middle is on your right. Drive up and around the driveway and park in visitor parking.

Auburn High School (Auburn City): 887-1969 10 minute drive

Opelika High School (Opelika, AL)

Opelika Middle School (Opelika, AL)

Your mentor teacher and university supervisor will complete PEPE evaluations and the feedback form for you. In the event that you receive scores of below 3's on the PEPE forms and/or if your mentor teacher documents that you have not met the expectations of the field placement then you will receive an incomplete for the CTSE 4090 course

Coteaching Communication Form

Due December 2, 2010 as part of the Field placement component

Directions: Complete this form by the end of the semester and make a copy for Dr. Russell, and your classroom teacher. It is mandatory that you sit down with your mentor teacher and partner to map out when you will teach and what lessons you will co-teach and lead (as well as specific dates) **Prior to co-teaching and get prior approval.** Make sure that you and your partner are clear on who will lead each week so you may need to make an extra copy for you and your partner with the specified dates for co-teaching/lead teaching.

Have your teacher initial in the appropriate boxes each week of coteaching. **Rotate** who lead teaches each week. **Turn in the completed form at the end of the term with your school weekly attendance form. Each student will turn in their own form and at the end of the semester your mentor teacher will initial that you actually followed the co-teaching scheduled and completed all of the listed dates.**

The final form is **due on December 2, 2010** during the last official class meeting. Please make sure you have this form completed properly so that you receive credit for the field experience

Member Names	Email	Phone No.
Teacher: Teacher school		
Partner:		
Partner:		

Site attendance or Co-teaching date	Student name	Teachers signature Approval prior to co-teaching	Teachers Signature at the end of the semester

***NOTE:** You are responsible as the lead coteaching student for that week for meeting your teacher no sooner than 1-2 days before you are scheduled to coteach in order to discuss his/her lesson for the day of coteaching. Also, meet with your Please note that this document is subject to minor amendments or revisions at the discretion of the course instructor

teacher together to plan your own planned teachings on his/her objectives for that day. You must also meet individually with your teacher after your coteaching (and teaching) in order to discuss your performance and receive written feedback

I certify that _____ met with me 1-2 days before first coteaching each lesson and stayed after coteaching in order to debrief and receive feedback from me both orally and in writing.

Teacher Signature: _____ Date: _____

Student Signature: _____ Date: _____

Coteaching Feedback Form
Due December 2, 2010 as part of the Field Placement component

Student's Name: _____ Teacher's Name: _____

Coteaching Date	One or Two <u>Key</u> Goals for Improvement	Suggestions for Attaining Key Goals
	(alternate rows completed if only two periods of science)	

Lesson Plans and Contract

A sample lesson plan format will be provided for you to follow.

The purpose of this contract is to ensure that the Auburn University preservice teacher and classroom teacher have reached agreement on the topic, logistics, and details of the lesson to be taught by the preservice teacher. The signature of the classroom teacher is his or her approval of the lesson to be taught by the preservice teacher on the date and time specified. The signature of the preservice teacher is his or her promise to abide by the lesson plan as approved by the classroom teacher. The signature of the university instructor is to ensure that this process has taken place.

Auburn University teaching experiences must take place in the context of the curriculum, pacing, and plans of the school site's classroom teacher. Preservice teachers' lesson plans must honor this statement. Therefore, preservice teachers must be flexible in adjusting their lesson plans at the request of the classroom teacher. Such adjustments will be minor, if at all, if the approval process occurs 1 week before the scheduled teaching date. Preservice teachers must request final approval of their lessons not less than 48 hours before the scheduled teaching time. Classroom teachers' requests for adjustment should come at least one day before the scheduled teaching time – barring circumstances beyond the classroom teacher's control. Flexibility is the key, and all parties are asked to be flexible as much as possible.

Preservice teachers will strive to plan a lesson that will be interactive, inquiry-based, and contains a hands-on component. This lesson will meet both the needs of the classroom teacher's curriculum and schedule, as well as the needs of practice teaching. A Lesson can be taught for more than two periods IF the classroom teacher and preservice teacher mutually agree to do so.

Lesson Topic: _____

Date and Time of Scheduled Teaching: _____

[Attach a copy of the lesson plan and all supporting print materials including teacher notes, worksheets, activity used, or other student handouts.]

Checklist for lesson preparation

Check each box to show that agreement and preparation for the following features exists:

- ☐ Goals and Objectives for the lesson (both content and process) – from both ALCOS and NSES
- ☐ Primary instructional technique that will be used in the lesson
- ☐ Classroom setup when the preservice teacher arrives
- ☐ Provision for videotaping and observing teachers²
- ☐ Types and number of students in the target classroom
- ☐ How these students will be grouped during the lesson
- ☐ Use of instructional technology in the lesson
- ☐ Provision for maximum student involvement
- ☐ Proper behavioral and/or safety precautions, warnings, and consequences
- ☐ Measure of student learning from the lesson, such as written thinking, student work products, or quiz.
 - You will collect one class set of products to assess how well your students learned from your teaching. You will describe the results (e.g., predominant thinking, averages, problem areas, quality, other) before discussing how well your students learned from your lesson, and what you would do in light of this data to further their learning (e.g., reteach, remediate some students, move on).

Classroom teacher's signature and date: _____

AU preservice teacher's signature and date: _____

AU instructor's signature and date: _____

² Videotaping is for personal professional observation and reflection on teaching performance and should not be used for any public purpose. Edited videotape from the classroom can be used for a professional electronic portfolio on a password protected website. Auburn City Schools has consented their students/parents for such taping and use. Student teachers must submit original videotapes to the course instructor after use for their destruction.

Professional Education Personnel Evaluation (PEPE short version)

Directions to Cooperating Teacher: Complete this form on each methods student while observing them teach their lesson. Discuss it with each one privately after their teaching. Methods students mostly receive scores of 2.0 and 3.0 on their first teaching and scores of 3.0 and 4.0 on their last teaching – with variation based on their ACTUAL performance.

Student Name: _____ Lesson Topic: _____

Scale for a Novice Teacher

4 = Excellent Demonstration and has little room for improvement in internship

3 = Good Demonstration or meets **minimum competency level** for an intern

2 = Fair Demonstration or needs more attention in internship

1 = Poor Demonstration or needs serious attention before internship

N/A = No ability to observe or not applicable

Teacher Competencies <i>(* indicator must be demonstrated to meet State Standards)</i>	Rating	Comments (required for ratings below 3)
1.0 Preparation for instruction		
*1.1 Lesson plan includes measurable objectives which follow the Alabama Course of Study		
*1.2 Identifies and uses a variety of instructional strategies appropriate for students' learning styles and cultural and gender diversity		
1.3 Instructional materials organized and ready to use		
2.0 Presentation of organized instruction		
2.1 Orients student to the lesson by securing attention and/or stating purpose or objectives.		
2.2 Provides clear and concise directions in logical sequence.		
2.3 Develops lesson by explaining concepts, relating concepts to objectives, and providing appropriate examples and illustrations		
2.4 Provides for appropriate student practice and summarization		
2.5 Demonstrates knowledge of subject matter and pedagogy		
*2.6 Uses a variety of strategies and current materials, technology, and media when appropriate and available		
*2.7 Varies teaching roles, such as instructor, facilitator, coach, and lecturer		
*2.8 Organizes, uses, and monitors a variety of student groupings for instruction		
3.0 Assessment of student performance		
3.1 Monitors student performance		

*3.2 Uses a variety of appropriate assessment methods and assessment instruments and results		
3.3 Provides feedback about student performance		
4.0 Classroom management		
4.1 Makes efficient use of class time, minimizing instructional time loss		
4.2 Begins and ends lesson appropriately and promptly		
*4.3 Manages student behavior in an appropriate manner		
4.4 Monitors and maintains student on-task behavior		
5.0 Positive learning climate		
5.1 Engages students “actively” in the learning process		
*5.2 Communicates high expectations		
5.3 Establishes and maintains student accountability for assigned activities		
*5.4 Creates a learning climate where individual differences are respected		
6.0 Communication		
*6.1 Speaks clearly, correctly, and coherently		
*6.2 Writes clearly, correctly, and coherently		
7.0 Professional responsibilities		
7.1 Maintains professional appearance		
7.2 Displays organizational skills (e.g., maintains records)		
7.3 Completes job requirements according to established timelines		
7.4 Accepts/acts on constructive criticism to improve performance		
7.5 Maintains professional relationships with students, peers, teachers, and administrators		

7.6 Displays enthusiasm, initiative, and confidence		

Mid-term _____ **End-term** _____ (*check one*)

Teacher Signature _____ **Student Signature** _____