

## Evaluation of Program in Secondary Science Summer 2011 Course Syllabus and Timeline



Auburn University College of Education

### Dynamics of Our Conceptual Framework

AUBURN UNIVERSITY  
SYLLABUS

1. **Course Number:** CTSE 7540/7546  
**Course Title:** Evaluation of Program in Secondary Science  
**Credit Hours:** 3 semester hours  
**Prerequisites:** None  
**Corequisites:** None
  
2. **Date Syllabus Prepared:** January 2006; revised May 2011.
  
3. **Texts or Major Resources:**
  - a) Popham, W. J. (2001). The truth about testing: An educator's call to action. Association for Supervision and Curriculum Development, Alexandria, VA.
  - b) Doran, R., Chan, F., Pinchas, T. (1998). Science Educator's Guide to Assessment. NSTA Press, Arlington, VA.

Additional articles and readings will also be disseminated and are considered required reading to prepare you for the material that will be covered in class. Any assigned readings will be disseminated and/or posted on Blackboard at least one week prior to the assigned due date for discussion.

Distance Education students are required to have access to a computer and all additional components necessary to participate in the course synchronous or asynchronous for class meeting times. For details see professor of the course.

**4. Course Description:** Theoretical perspectives of evaluation and methods of evaluating learners, teachers, and curricula.

**5. Student Learning Outcomes:**

This course examines theoretical perspectives of evaluation and methods of evaluating learners, teachers, and curricula. This course is a practical introduction to student assessment and evaluation. We will define the basic terminology of assessment and evaluation for our understanding. We will study the importance of science education assessments and their meanings on the international, national, state, and district level. We will also learn how to critically examine standardized testing. For our everyday teaching, we will learn how to write better traditional tests for our students and address the diversity of learning styles in our test development.

This course will also investigate science teaching effectiveness, with attention to the instruments and models of assessment currently in use for diagnosis and research in science education. We will discuss evaluation of cognition, attitudes, and skills for science students. We will constantly ask, “What do [your] students know?” “How can you help them demonstrate it?” “How confident can you be of the results of evaluation?” “What does a grade in your class mean?”

We will need to continually revise the schedule as we move through the summer semester, adjusting the pace for the readings and insert into the agenda additional materials that may become appropriate. Pay close attention to tests and assignment dates. **All assignments are to be typed, double-spaced, and in APA style (6<sup>th</sup> ed.).**

To provide opportunities so that students will have:

- A. Knowledge of the purposes, strengths, and limitations of formative and summative assessment and of formal and informal assessment strategies. 290-3-3-.04(2)(c)5.(i)
- B. Knowledge of measurement-related issues such as validity, reliability, norms, bias, scoring concerns, and ethical uses of tests and test results. 290-3-3-.04(2)(c)5.(iii)
- C. Knowledge of assessment tools to monitor the acquisition of reading strategies, to improve reading instruction, and to identify students who require additional instruction. 290-3-3-.04(3)(c)2(ii)
- D. Knowledge of the role that mathematics plays in everyday life. 290-3-3-.04(3)(c)3.(i)
- E. Knowledge of the concepts and relationships in number systems 290-3-3-.04(3)(c)3.(ii)
- F. Knowledge of the appropriate use of various types of reasoning, including inductive, deductive, spatial and proportional, and understanding of valid and invalid forms of reasoning. 290-3-3-.04(3)(c)3.(iii)
- G. Knowledge of both metric and customary measurement and fundamental geometric concepts, including shapes and their properties and relationships. 290-3-3-.04(3)(c)3.(iv)
- H. Ability to solve problems using different strategies, to verify and interpret results, and to draw conclusions. 290-3-3-.04(3)(c)3.(v)
- I. Ability to communicate with other about mathematical concepts, processes, and symbols. 290-3-3-.04(3)(c)3.(vi)
- J. Knowledge of Alabama’s state assessment requirements and processes. 290-3-3-.04(5)(c)c(ii)
- K. Knowledge of research relating collective responsibility for student learning to increased achievement for all students. 290-3-3-.04((5)(c)4(i)

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 the professional education program 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.

#### 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.

This class is intended to be both interactive and collaborative. You are expected to complete all assignments in their entirety and participate in all online or chat discussions via Blackboard. Participation starts with preparation. It is my expectation that each student will read the assigned materials and completed other work requested and required. In the event that you do not complete all assignments in by the specified deadline the professor reserves the right to deduct 5 points from your final grade if there is evidence of non-participation class discussions (if so scheduled).

#### **6. Course Content and Schedule:**

Students in the distance education section of this course will access class lectures through the use of streaming media. Links to the lectures will be posted in Blackboard. Assignments will be submitted electronically via email or Blackboard allowing timely delivery and subsequent instructor response. Students will have access to the instructor via email and phone as necessary in lieu of utilizing on-campus hours. The technology used is appropriate for this program as it provides distance education students with identical lectures and equal access to both the instructor and other students.

**\*Please note that additional readings and material will be disseminated and covered on the dates listed below even though they may not be included under the weekly agenda. Articles will be placed on Blackboard no less than one week prior to the week that they will be discussed.**

**Tentative schedule: Please keep in mind that we may have to adjust the pace of the course periodically.**

**Specific for Distance education:** Students can participate in class via synchronous or asynchronous. However, students are required to participate synchronous at least 4 times throughout the summer session and must notify the instructor of when they will sync with the course (or if they will view archives). There is an official form to complete for exams so that distance education students have a proctor. In addition, distance education students will use the field experience form provided to complete the field hours for this course.

The course schedule is adjusted for the summer session because it will only be offered during the summer term.

Important dates:

First day of class-May 19, 2011

Midsemester June 22

Midterm exam June 23

Please note that the class meets every Thursday from 5:15-9:00. Students should arrive to class promptly.

Last day of class July 28, 2011

Week 1	Introduction to course/review of syllabus (May 19)
Week 2	Chapter 1 NSTA; Popham Chapter 1 Library Resource Center (article critique research) (May 26)

Week 3	Chapter 2 NSTA. ; Popham Chapter 2 and 3 Library Resource Center (article critique research); (June 2)
Week 4	Chapter 3 NSTA; (June 9) <b>Article Critique #1</b> Bring copy of an exam you have taken or designed to class for the course (bring a copy with no name, etc. for blind review.
Week 5	Discuss Chapter 4&5 Popham Library Resource Center (article critique research) Quiz #1 (June 16)
Week 6	Midterm exam (June 23)
Week 7	Discuss Chapter 6&7 Popham Library Resource Center (article critique research) (June 30)
Week 8	Discuss Chapter 4 NSTA; Research on an exam (students will bring an exam to class to discuss and critique) No names of classes so make sure you bring a copy for blind review by your classmates. <b>Article Critique #2 due. (July 7)</b>
Week 9	Discuss NSTA textbook; Popham Chapter 8; Research on an exam (continue critiques and discussion on exam brought by students); Quiz #2 (July 14)
Week 10	Discuss Chapters 4-8-Discussion on exam development (continue discussion on exam brought by students and determine how to make the exam better, if possible) (July 21)
Week 11	Last day of class (July 28); Discussion on exam development (continue discussion on exam brought by students and determine how to make the exam better, if possible). Discussion and review of all chapters covered in Popham and NSTA.
Week 12	Final Exam Period August 1-3

## 7. Assignments/Projects:

### A. **Article critique #1** (15 points)

Two article critiques are due and both must follow the same guidelines. Each critique is worth 15 points. This assignment will be turned in by students on the due date in syllabus via Blackboard or during the class meeting.

Please select an article from one of the following suggested journals,

*Science Teacher*

*Science Scope*

*Journal of Research in Science Teaching*

*Science Education*

### *School Science and Mathematics*

Additional journals that may address issues related to science and science education may include:

*Review of Educational Research*

*Journal of Negro Education*

*Journal of Counseling Psychology*

*Educational Researcher*

You may also access many journals online via Eric or [onlinejournals.com](http://onlinejournals.com), or Auburn University library systems journals database. If there is a question about the journal you would like to use please see me. Please bring me the title of the journal and article that you plan to critique prior to the assignment due date for article critiques. Please make sure to check with classmates so that you all do not have the same article.

The article should relate to current issues related to evaluation and assessment in science and/or science education. Please let me know if you have difficulty locating articles. Critique should address the criteria listed below and discussed in class. Write a maximum 5 page critique (no less than 3 pages).

Format:

1. Name on the bottom of the last page; No creative margins please.
2. Attach a copy of the article to the critique.
3. All articles must be from research journals and no articles prior to 2001.
4. Include a complete citation for the article at the bottom of the last page in APA 6<sup>th</sup> edition style.
5. Allow sufficient margins for the instructor to make marginal notes and comments.
6. Please do not staple. Place a paperclip in the upper left corner.

Criteria for grading assignments: 15 points total

1. Writing must be clear, and paper well organized. Please type all papers. (2 pts)  
Attach a copy of the article to the critique. All articles must be from research journals and no articles prior to 2001.
2. The soundness of your critique and validity of your perceptions of the article determine the value of your work. Please spell-check and proofread all assignments. Please organize thoughts with the reader in mind. Discuss the author's major assertions. (2 pts)
3. Identify major themes of the article. (2 pts)
4. Please do not re-write article. Summarize the article in a brief introductory paragraph. All critiques should be in your own voice. (2 pts)
5. Article must be a maximum 5 pages in length and no less than 3 pages (2 pts)
6. Presentation of article to class (5 pts) brief discussion of article and your perspectives, etc. Brief powerpoint of highlights of the article (no more than 5 slides). Specific for Distance Education students: will also provide a powerpoint overview of article presentation if students do not synchronize on the due date for the assignment to present to class in order to receive this credit as well.
7. Grades on assignments, as well as questions, or concerns can be discussed during appointment times.

***All assignments must be turned in within ten minutes of the start of class on the day that they are due or within ten minutes of the time identified on the syllabus.*** They must be submitted as a hard copy or via email, unless otherwise specified. Assignments must be turned in by the student completing the assignment.

- B. **Article Critique #2** (15 points)  
Follow same guidelines as article critique #1

***All assignments must be turned in within ten minutes of the start of class on the day that they are due or within ten minutes of the time identified on the syllabus.*** They must be submitted as a

hard copy or via email, unless otherwise specified. Assignments must be turned in by the student completing the assignment.

C. **Quizzes:** (10 points)

**There will be 2 quizzes.**

Students will take two quizzes that may be short answer, fill in the blank, or essay. Quizzes will include material from class lectures, readings, and the activities that will occur during the course. Each quiz is worth 5 points.

Quizzes will also be posted via blackboard during class time on the day of the quiz and announcements will be posted on the date of the quiz. Students are informed that they are to check their email each class meeting date and access Blackboard each day that class is scheduled to check for quiz information and additional course information, etc.

Quizzes are to be proctored for students who are distance education students.

D. **Examination #1:** (30 points) Proctor forms will be provided to be completed by students and proctor.

Students will take two exams that will include a variety of types of questions (i.e. multiple choice, short answer, fill-in-the-blank, and essay. Both examinations may include material from class lectures, reading, and the activities that will occur during the course. Examination 1 will cover content from Weeks 1-4. Examination 2 will cover Weeks 6-10. Each exam is worth 30 points. Examination 1 is scheduled for Thursday June 23<sup>rd</sup> midsemester for the course

Distance education students will take all closed examinations under the supervision of an approved proctor. Examples of approved proctors include a school superintendent, a principal or the 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.

E. **Examination # 2:** (30 points)

Follow same guidelines as examination # 1. Examination 2 is scheduled during final exam time August 1-3<sup>rd</sup> (see final exam schedule)

F. **Field experience hours:**

- Students will participate in field experiences which may include: tutoring or another field experience. All field experiences must be approved by the professor for the course and documentation is required. Students are to maintain a journal/log book to record all field experience hours must be approved by the individual/supervisor in charge of the field experience and the professor for the course. More information will be disseminated on field experience opportunities will be provided at the first class meeting and follow up information will be provided at subsequent class meetings. Students will also have to prepare lesson plans for the field experience. Students are required to provide documentation of their participation in the field experience (i.e. summer camp, summer tutoring, etc.), complete the Field Experience Documentation form, and complete the journal/log book.
- **To meet certification requirements, students must complete the 25-30 hours of field experience assigned to this course.**
- All students must document 25-30 field experience hours either tutoring or working with some type of summer camp, or summer program/outreach experience. Additional information will be disseminated. Failure to do this may result in point deduction from the student's final grade. Please note that required hours may be dependent upon availability of programs, etc. However, this is at the sole discretion of the instructor for the course.

- \*Alternative 5<sup>th</sup> year Masters student's will be required to complete 150 field experience hours prior to their internship beginning Fall 2009. Failure to complete the required number of hours may result in delay of your scheduled internship semester until field experience hours are completed. Each student will keep a journal with their name, day of outreach activity, brief description of activity, and signature of program director for field experience to be turned in at the end of the summer semester scheduled for the CTSE 7540/6 course.
- \*Traditional Masters students- Please note that traditional Class A certification students will be required to complete a field project and 30 clock hours of field experience hours as a requirement for this course. More information will be provided to students who are completing the traditional masters.
- Note: Distance education students will have access to the Auburn University libraries by utilizing the library's on-line databases for materials that will support the completion of assignments. You may also have materials mailed directly to you upon request. Please direct all questions to the librarian for the College of Education.
- Students are expected to keep up with field hours accomplished in this course via a journal that they are required to have for the course.
- In the event that students can not complete all 25 hours (only as a result of lack of field opportunities which will be highly unlikely for summer 2011) students will inform the instructor of the course immediately so a schedule can be worked out to determine how the student will accomplish the hours before the end of the course or provide information and documentation to prove that they will accomplish the remaining hours in the upcoming semester.

Written assignments are expected to be typewritten, grammatically accurate, and free of spelling and typographical errors. Assignments are to be of a quality that would be expected of a professional.

***All assignments must be turned in within ten minutes of the start of class on the day that they are due or within ten minutes of the time identified on the syllabus.*** They must be submitted as a hard copy or via email or blackboard unless otherwise specified. Assignments must be turned in by the student completing the assignment.

**No late assignments** will be accepted unless accompanied by a university approved excuse. If a student misses turning in an assignment and has a university approved excuse, he or she will have **one week** from the time he or she returns to class to turn in the assignment.

**Any assignment completed and /or submitted not in accordance with the guideline in this syllabus may be returned and may not be accepted for credit.**

**Please note:** Any incomplete assignments or assignments not typed up in the proper format will not be accepted. All papers must be in 12 font, Times New Roman, and double-spaced. All submitted work should be typed and neatly arranged. NO creative margins. Please start all assignments at the very top of the first page and put your name, assignment, and date on the very last page.

#### **Late/remedial work policy**

If you miss a weekly class, you are still required to turn in the assignments on time for full credit. NO late assignments will be accepted unless students have an excuse in accordance with the AU absence policy listed in the Tiger cub.. All assignments are due at the start of each class meeting on the date they are scheduled.

#### **8. Rubric and Grading Scale:**

##### **General grading rubric for assignments**

100%: beyond the call of duty; strikingly impressive; excellent in every way  
 90%: both complete and showing evidence of original, active, critical thought  
 80%: all specified aspects of assignments minimally completed

<80% one or more aspects of assignments missing or unacceptable

Grading Scale:

A	92%-100%
B	80%-91%
C	70%-79%
D	60%-69%
F	<60%

Course Evaluation:

The final course grade will be based on the following assignments:

	<u>Points</u>
A. Article Critique #1	15
B. Article Critique #2	15
C. Quizzes (2 at 5 points each)	10
D. Examination #1	30
E. Examination #2	30
F. Field experiences --to meet certification requirements, students must complete the 25-30 hours of field experience assigned to this course.	R(required)

**9. Class Policy Statements:**

**Attendance:** Students are strongly encouraged to attend/participate in all class meetings unless the absence is in accordance to the AU absence policy as stated in the Tiger Cub. Distance Education students are required to synchronize with the class meeting time (Thursdays 5:15-9:00pm) at least 4 times throughout the summer session designated for the course. Outside of these class meetings although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence. Distance education students are expected to view all classes through either the live or archived formats. Students are required to give prior notification if they plan to or do not plan to synchronize on a particular class meeting date. If an exam or quiz is missed, a make-up exam or make-up quiz 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.

**Assignments:** Written assignments are expected to be typewritten, grammatically accurate, and free of spelling and typographical errors. Assignments are to be of a quality that would be expected of a professional.

***All assignments must be turned in within ten minutes of the start of class on the day that they are due or within ten minutes of the time identified on the syllabus.*** They must be submitted as a hard copy or via email, unless otherwise specified. Assignments must be turned in by the student completing the assignment.

**No late assignments** will be accepted unless accompanied by a university approved excuse. If a student misses turning in an assignment and has a university approved excuse, he or she will have one week (business days) from the time he or she returns to class to turn in the assignment.

**Any assignment completed and /or submitted not in accordance with the guideline in this syllabus may be returned and may not be accepted for credit.**

**Make-up Policy:** Arrangements to make up a missed major examination (e.g. , hour exams, mid-term exams, quizzes) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence (s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place



within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

**Academic Honesty Policy:** All portions of the Auburn University student academic honesty code (Title XII) found in the *AU Tiger Cub* will apply to university courses. All academic honesty violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

**Disability Accommodations:** Students who need accommodations in class, as provided by the Americans with Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). You must bring a copy of your *Accommodations Memo* and *Instructor Verification Form* to the meeting. If you do not have an *Accommodations Memo* but need an accommodation (s), make an appointment with the Program for Students with Disabilities, 1288 Haley Center or call 844-2096 (V/TT) for additional information. They will inform you of the procedures to be followed for eligibility considerations. Learners who have questions about participating in this course should contact the above office in advance to ensure proper accommodations.

**Classroom Behavior and Honesty:** Students are expected to read and adhere to all classroom policies in the Auburn University Tiger Cub regarding classroom behavior and honesty.

**Classroom Behavior:** “Behavior in the classroom that impedes teaching and learning and creates obstacles to this goal (learning) is considered disruptive and therefore subject to sanctions...Students have the responsibility of complying with behavioral standards...Examples of improper behavior in the classroom (including the virtual classroom of e-mail, chat rooms, telephony, and web activities associated with the courses) may include, but are not limited to the following: arriving after a class has begun; use of tobacco products; monopolizing discussion; persistent speaking out of turn; distractive talking including cell phone usage; audio or video recording of classroom activities or the use of electronic devices (including cell phones) without the permission of the instructor; refusal to comply with reasonable instructor directions; employing insulting language or gestures; verbal, psychological, or physical threats, harassment, and physical violence. “ (See *AU Tiger Cub*)

Cell phones may **NOT** be used during this class. **Placing or receiving calls, text messages, instant messages, or emails may result in immediate dismissal from the instructional sessions.** Use of these devices interferes with the transmission of the signal for distance education. **Laptops can only be used during note-taking time designated for class. Please refrain from having laptop open and out unless class notes are being discussed or given by the instructor for the course. Failure to adhere to the policies for this class will result in the student being dismissed from the class meeting.**

**Academic Honesty Policy:** All portions of the Auburn University student academic honesty code (Title XII) found in the *Tiger Cub* will apply to university courses. All academic honest violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

**Student Academic Grievance Policy:** The purpose of this university policy is to “resolve academic grievances of students, which results from actions of faculty or administration. This resolution should be achieved at the lowest leave and in the most equitable way. The burden of proof rests with the complainants.” See *AU Tiger Cub* for steps towards redress.

**Course Contingency:** If normal class activities are disrupted due to illness, emergency, or crisis situation, 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.

**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

**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.

#### **Policies and Procedures**

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

#### **Late/remedial work policy**

If you miss a weekly class in accordance with the AU absence policy as listed in the Tiger Cub, you are required to turn in the assignment within one week of the time they return to class. NO late assignments will be accepted unless student has an excuse in accordance with the AU absence policy listed in the Tiger Cub. All assignments are due at the start of each class meeting on the date they are scheduled.

\*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.

#### **10. Justification for Graduate Credit (for Graduate Credit Only)**

This course provides current teachers and pre-service teachers who desire an "A" Certificate opportunities to develop an in-depth understanding of assessment and to develop assessment instruments for the classroom.