# Curriculum and Teaching I Lecture and Lab

# Science CTSE 5090

**Spring 2025 Course Syllabus and Timeline**

**AUBURN UNIVERSITY SYLLABUS**

1. **Course Number:** CTSE5090
2. **Course Title:** Science Methods **Credit Hours:** 4 (lecture and lab)

**Prerequisites:** Admission to Teacher Education and Senior Standing

**Requisites:** None

 The course includes a lecture and laboratory field experience. There is a separate guide for the methods laboratory placement that is provided for class.

Professor:

Dr. Melody Russell

5004 Haley Center

phone: 334-844-6880

Office Hours: By appointment only

I will respond to emails typically within 48 hours unless I am away from the office. If you do not hear back within 48 hours of emailing please send another email. russeml@auburn.edu

1. **Date Syllabus Prepared: updated** January 2025

# Text: Required:

**Teaching in the Middle and Secondary Schools 11th edition-Jionna Carjuzaa and Richard Kellough**

**Additional readings may be assigned for class discussions and will be provided at least 1 week prior to the next class meeting.**

**Device for recording lessons through GoReact. Preferably a laptop.**

**Face Coverings may be required for this course at any time either in the course or the field experience even if the university policy changes. Also, if required at the field placement site regardless of the policy at the field placement site students may have to wear a mask (if healthcare officials/guidance or university/school guidance policy requires).**

**If required students must wear a mask that fits their face well and the mask should not be removed unless the student is eating or drinking. If you do not have a mask please let me know so we can provide one for you☺. Failure to follow university or field placement policy will result in referral of the student to the appropriate university office to address this issue.**

**Additional readings may be assigned for the course.**

**Office Hours: By appointment only**

On Campus (lecture): Tuesdays 11:00am-12:50pm. – HC 2462/4 Combined Lecture and Lab

Lab: Wednesdays, 8:00 am – 12:00 pm Haley Center 2462/4 or field placement in designated school until instructor provides direction on placement. Combined Lecture and Lab Field Placement lab times will be Tuesdays during the time listed for the class only. AU Teach students may have a modified lab placement schedule per approval from the instructor for the class.

**Email:** **russeml@auburn.edu**

# Please note some class meetings may be virtual via Zoom , Panopto or another virtual platform.

# Students should use a laptop or device that is not a cell phone for class. There are often assignments that must be completed, and these cannot be completed using a cell phone. Students must also have the video on for the entirety of the class and not appear distracted. Please make sure that you are in a place that is appropriate for classmates to view or use a background to avoid distractions (if at all possible). In the event that you are unable to do this just let the instructor know at the beginning of the class. Students should not be driving while in class, etc. for safety reasons. Students are also required to stay for the duration of the class unless otherwise instructed.

# Students should use their devices for course work during class or note taking only. If students are deemed to be off task on their devices (e.g. doing work for other classes) they may lose the privilege of using their device during the class time.

# Students must inform the instructor for the course if ChatGPT or AI is used for any assignments. If you are in doubt of whether you feel you are using AI language models in appropriate ways for this class I strongly encourage you to discuss your questions with me. Failure to do this may result in a zero for the assignment and your assignment may be considered in violation of the Student Academic Honesty Policy/AU Student Code of Conduct. I will use platforms to check for plagiarism in this course when reviewing assignments.

**Goals and Objectives –** In this course we will learn and practice methods of teaching aligned with “inquiry” from the NGS S and *applied within* a Learning Cycle Model for teaching as outlined in the Alabama Cours e 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.

# 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 inclusive excellence and 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-space d, and in APA style 7th ed, 12 pt font.

1. **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 inclusion and inclusive excellence 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.

lessons using a variety of inquiry approaches that demonstrate their knowledge and understanding of how all students learn science.

AS 1.3

Show an understanding of state and national curriculum standards and their impact on the content knowledge necessary for teaching students in Grades 6-12.

AS 2.3

Design instruction and assessment strategies that confront and address naïve concepts/preconceptions.

AS 2.1

Plan multiple lessons

AS 3.1

Use a variety of strategies that demonstrate the candidates’ knowledge and understanding of how to select the appropriate teaching and learning activities – including laboratory or field settings and applicable instruments and/or technology- to allow access so that all students learn. These strategies are inclusive and motivating for all students.

AS 3.2

Develop lesson plans that include active inquiry lessons where students collect and interpret data using applicable science-specific technology in order to develop concepts, understand scientific processes, relationships and natural patterns from empirical experiences. These plans provide for equitable achievement of science literacy for all students.

AS 3.3

Plan fair and equitable assessment strategies to analyze student learning and to evaluate if the learning goals are met. Assessment strategies are designed to continuously evaluate preconceptions and ideas that students hold and the understandings that students have formulated.

AS 3.4

Plan a learning environment and learning experiences for all students that demonstrate chemical safety, safety procedures, and the ethical treatment of living organisms within their licensure/certification area.

AS 5.2

Provide data to show that Grades 6-12 students are able to distinguish science from non-science, understand the evolution and practice of science as a human endeavor, and critically analyze assertions made in the name of science.

AS 5.3

Engage students in developmentally appropriate inquiries that require them to develop concepts and relationships from their observations, data, and inferences in a scientific manner.

AS 6.1

Engage in professional development opportunities in their content field such as talks, symposiums, research opportunities, or projects within their community.

AS 6.2

Engage in professional development opportunities such as conferences, research opportunities, or projects within their community.

Additional Standards Below:

Upon Completion of this course, students should:

1. Master beginning science-teaching skills while also managing students through peripheral participation and coaching with an experienced classroom science teacher.
2. Demonstrate their knowledge and abilities to use methods supporting inquiry including demonstration, laboratory, and 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 plan templated provided for the class).

1. 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].

1. Request and give professional assistance in teaching and managing students through reflection**.**
2. Demonstrate an increase in readiness to teach science to children in multicultural and diverse classroom settings.
3. Engage in problem solving relevant to science teaching through consideration of teaching cases as well as their own experiences.
4. Learn to formulate questions or challenges about teaching science.
5. Develop, practice, and critique methods and hands-on activities that demonstrate science principles in the curriculum and their roles in real life situations.
6. Develop and document strategies to demonstrate personal development as a teacher, and lifelong learner.
7. Prepare and teach science lessons that are rich in content, and culturally varied instructional strategies that maximize all students’ opportunities and participate.
8. Organizing instruction to actively engage students in learning science.
9. Learn how to grow and improve your pedagogy.
10. State speciﬁc reasons why you want to become a science teacher and how you plan to proceed.
11. State a speciﬁc rationale and philosophy for the teaching of your secondary science subject.
12. Describe national and state standards for scientiﬁc literacy among 13 - 18-year-olds. [290-3-3-.14 All Sciences – Common Rules(1)
	1. 4]
13. List speciﬁc learning objectives from the Alabama Course of Study (Science) and plan lessons to accomplish them. [290-3-3-.14 (1)
	1. 4, (b) 6] List science process skills and how your teaching can help students master these. [290-3-3-.14 (1) (b) 5]
14. Describe trends and frameworks for science curricula at the middle and high school levels. [290-3-3-.14 (1) b) 7]
15. List ways to integrate mathematics with science teaching and deﬁne a uniﬁed science curriculum.
16. Teach with conﬁdence a hands-on, laboratory-

based science lesson to accomplish speciﬁc learning objectives. [290-3-3-.14 (1) (a) 4, 5 (b) 4]

1. Present a plan to use and maintain a science-teaching laboratory in your area of specialization. [290-3-3-.14 (1)(b) 3]
2. Describe safety features of a well-

managed science classroom and teaching laboratory, and how you will operate both toavoid accidents. Demonstrate knowledge of proper c

* 1. 5]
1. Describe facilities, strategies and materials, which provide for optimal learning in your teaching area. [290-3-3-.14 (1) (a) 8]
2. Demonstrate knowledge & competence in selecting textbooks & supplies appropriate for student learning outcomes.
3. Design a science program around the Science-Technology-Society framework, using contemporary societal problems as a focus for science learning experiences. [290-3-3-.14 (1) (a) 6, (b) 2]
4. Use computer technology (e-mail and worldwide web) to achieve multi-media science instruction. [290-3-3-.14 (1) (a) 7]
5. Describe the role of the teaching internship in becoming a science teacher.
6. Plan for your teaching internship.
7. Present a portfolio of your science teaching, including the importance of decision-making, planning, professional organizations, in- service renewal, and personal fulﬁllment in this career.
8. Understand how to teach students whose ﬁrst language is not English.
9. Use a variety of strategies that demonstrate the candidates’ knowledge and understanding of how to select the appropriate teaching and learning activities –including laboratory or ﬁeld settings and applicable instruments and/or technology-to allow access so that all students learn. These strategies are inclusive and motivating for all students.

**Required AU Nametag –** Wares Jewelers to be ordered as a class through a student volunteer.

**Required Materials for checkout from the LRC –** Laptop with webcam. Please check with your school regarding guidelines on videotaping.

**Required Text** – **Teaching in the Middle and Secondary Schools 11th edition-Jionna Carjuzaa and Richard Kellough (2017)**

# Ancillary Text:

Alabama Cours e of Study. Available via download at Alex.org (Alabama Learning Exchange)

NGSS (Next Generation Science Standards) Available online.

\*Additional articles and readings will be disseminated or may be placed on reserve in the LRC or main library at least 1 week before the date for discussion on the reading 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

*Participation*

This class is intended to be both interactive and collaborative. You are expected to come to class prepared to discuss assignments. We may also designate small groups during the initial class session, and you will spend some time doing collaborative 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 participates. 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 daily. 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 email 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 discussion.

# Weekly Lecture and Lab Schedule

Pleas e note that lab meeting at the field placement may be changed at the dis cretion of the ins tructor. Some of the lab dates may also be designated as field trips for professional development. Check your e-mail frequently. In addition, topics may change bas ed on the pacing of the course. Reading as s ignments are usually pos ted on Canvas and/or given at least 1 week before the next class meeting when they will be due. Also note that some lecture days may also be used for lab hours. We may also have multiple field trips for professional development that may be on designated days for the lab field placement. Please note that field placement times may be changed to in class meetings or workshops. Changes may also occur if specified based by the placement site. There may be some additional workshops scheduled that may result in the schedule below being modified to accommodate the workshop or meeting. Assignments due dates may be modified due to changes in schedule at the field placement site as well.

Also note that some class dates may be designated for Zoom as opposed to Face2face.

Happy New Year!!!

Please note that lab meeting at the ﬁeld placement may be changed at the discretion of the instructor. Some of the lab dates may also be designated as ﬁeld trips for professional development. Check your e-

mail frequently. In addition, topics may change based on the pacing of the course. Reading assignments are

usually posted on Canvas and/or given at least 1 week before the next class meeting when they will be due. Also note that some lecture days may also be used for lab hours. We may also have multiple ﬁeld trips for professional development that may beon designated days for the lab ﬁeld placement. Please note that ﬁeld placement days may be changed to accommodate in class meetings or workshops. Changes may also occur based on the placement site schedule.

Week 1 Classes begin Monday January 13, 2025

 Monday January 20, 2025 Dr. MLK Jr. Holiday-No class

|  |  |  |
| --- | --- | --- |
| Jan 13-Feb. 3 | Resignation Fee*- Dropping all courses during this period will result in a $100 resignation fee.* | Mon |

Wednesday January 15, 2025 **1st day for laboratory field placement course**

January 17, 2025 Last day to add classes

Monday January 20, 2025 Dr. MLK Jr. Holiday-No class

Week 2 Tuesday January 21, 2025 Introduction to course syllabus and class expectations-

 **Tell me about yourself assignment**

Review methods laboratory placement guidelines-class meeting may be via Zoom;

Wednesday January 22, 2025 **Microteaching #1 due**

 Lab field placement (may meet for class)

 January 27, 2025 10th Class day-Last day to request a meal

Week 3 Tuesday January 28, 2025 Lesson plan development-

 Effective teaching strategies

 (SLO 6)

Wednesday January 29, 2025 **Microteaching #2 due**

 Lab field placement (may meet for class)

February 3, 2025 15th class day (Mon) Last day to drop from course with no grade assignment. Last day for potential tuition refund for dropped classes.

Week 4

Tuesday February 3, 2025 Lesson plan development-

 Effective teaching strategies

 (SLO 6)

Wednesday February 4, 2025 **Microteaching #3 due**

 Lab field placement/or class

 (SLO 6)

Week 5 Tuesday February 11, 2025 Lesson plan development-

 Effective teaching strategies

 (SLO 6)

Wednesday February 12, 2025 Lab field placement/or class

 (SLO 6)

Week 6 Tuesday February 18, 2025 **Reflective reading assignment #1 due**

 Instructional strategies for the science classroom

 Assessment: Assessment tools in inquiry: Questioning, discussion, concept mapping, lab practical, journaling, and other forms of alternative assessment

Wednesday February 19, 2025 Lab field placement

Week 7 Tuesday February 25, 2025 1st exam

Wednesday February 26, 2025 Lab field placement

Week 8 Monday March 4, 2025 Midsemester

Tuesday March 4, 2025 Lesson planning

 Effective teaching strategies

` (SLO 6)

Wednesday March 5, 2025 Lab field placement

March 3, 2025 Early Alert/Mid-Term Grade Deadline/Mid-semeser-36th Class Day

Week 9 Monday March, 10-14, 2025 AU Spring Break

Week 10 Tuesday March 18, 2025 Lab field placement

March 18, 2025 41st Class Day-Student deadline for request to move finals to Associate Deans

Wednesday March 19 Lab field placement

Week 11 Tuesday, March 25, 2025 Inclusive Excellence science teaching (SLO 9,10,11)

 **Reflective reading assignment #2 due**

Wednesday March 26, 2025 Lab field placement

Week 12 Tuesday, April 1, 2025 Classroom Management Research

 Inclusive Excellence in science teaching; Lab safety

Wednesday, April 2, 2025 Lab field placement

Week 13 Tuesday April 8, 2025 Effective teaching strategies

Wednesday April 9, 2025 Lab field placement

Week 14 Tuesday April 15, 2025 Inclusive excellence in science teaching

Wednesday April 16, 2025 Lab field placement

April 19th Last day to withdraw from course with no grade penalty. “W” assigned

Week 15 Tuesday April 22, 2025 Research on Science Programs for 6-12 grade

Wednesday April 23, 2025 Lab field placement/or class

Week 16 Tuesday April 29, 2025 Last day of class for lecture

 Strategies in Effective Science Teaching

## Wrap up discussion on topics covered

 TBA-May be Scheduled field time or Meet in HC

# Outreach Reflection Paper and Outreach Documentation due

Wednesday April 30, 2025

 Strategies in Effective Science Teaching

## Wrap up discussion on topics covered

 TBA-May be Scheduled field time or Meet in HC

Last day of Classes Wednesday April 30, 2025

 Strategies in Effective Science Teaching

## Wrap up discussion on topics covered

 TBA-May be Scheduled field time or Meet in HC

May1-2 Study/Reading Days

Week 16 May 5-9 Final Exam Period

May 9-12 Commencement

# Final exam CTSE 5090/6090-See AU final exam schedule –I will inform students of the exam date which will be based on the Tuesday class meeting time (unless otherwise instructed).

# Final exam CTSE 5090/6090-See AU final exam schedule –I will inform students of the exam date which will be based on the Tuesday class meeting time (unless otherwise instructed).

1. **Cours e requirements and evaluation.** 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. **Every student in this class MUST have a completed fingerprint background check and be approved to work with youth in the schools. If you have not done this, please see me immediately.**

Grading Scale:

|  |  |
| --- | --- |
| A | 90%-100% |
| B | 80%-89% |
| C | 70%-79% |
| D | 60%69% |
| F | <60% (less than 60)  |

Grading Scale

At Auburn University, a 4.0 grade scale is used. An A equals 4.0; B, 3.0; C, 2.0; D, 1.0; and F equals 0.0. Students must maintain a 2.0 average GPA in all courses in order to progress in this program. If addition, students must earn at least a D in each individual course in order to earn credit and progress to the next course.

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

The final grade for this course will be based on lecture assignments, exams, quizzes and the field experience evaluations. You must pass the lecture and laboratory portion of the course to receive a passing final grade for the course.

***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

<75% one or more aspects of assignments missing or unacceptable

## 9. Course Evaluation

**As s ignments** Points

3 Microteaching lessons at 5 points each 15 points

3 unannounced quizzes at 5 points each 15 points

1st Exam 25 points

2nd Exam 20 points

Reflection assignment 1 5 points

Reflective assignment 2 5 points

Outreach experience reflection paper and 15 points

Outreach experience (may be designated by instructor) Both must be completed in order to receive credit for the assignment.

Tell me about yourself assignment S/U (must complete)

***Laboratory Field Placement S/U*** (must complete, if student receives an unsatisfactory rating based on failing ratings on the Science Ed. COI (e.g. failure to turn in lesson plans or assignments, low ratings on multiple standards in COI) the student will automatically receive a 25-point deduction from final grade for CTSE 5090/6090 methods course). This unsatisfactory rating in the field component for the class will result in -25 points from the final grade. If an alternative placement or assignment is necessary due to cancellation of methods placement field assignments students are still required to complete the alternative assignment or placement, or credit may still be deducted.

***Project /Assignment Descriptions***

## Microteaching/Inq uiry-based demonstration “Teach-a-Lesson” (3 presentations at 5 points each) 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. Microteaching lesson 1 and 2 may address any topic and the microteaching lesson 3 must be on a science topic (of your choice.) Make sure that the presentation is very hands-on and interactive. In essence, the lesson plan should be designed to “teach something” to the class in no more than 10 minutes. If you have a hobby or special skill, you can demonstrate your skill or a technique, etc for the 1st and 2nd microteaching lesson. 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* checklist will be provided in this syllabus. Students will have 10 minutes for the mini lesson. If the microteaching lesson is a lecture or PowerPoint presentation then the student will receive no credit and must re-do the assignment based on the guidelines.

Microteaching 1 (topic of your choice); Microteaching 2 (topic of your choice); Microteaching 3 (science topic). Please inform instructor of the topic prior to the lesson to ensure lessons are not duplicated.

Total points possible 5 (1 point each)

Assignment will be graded based on the following:

* 1. Focuses students immediately before performing demonstration.\_\_\_\_\_
	2. Explains to students by showing.\_\_\_\_\_
	3. Demonstrates the ability to interest students.\_\_\_
	4. Asks students to share their observations.\_\_\_
	5. Alerts students to essential learning.\_\_\_\_\_

##  Laboratory experience Required-Automatic 25-point deduction if student receives an unsatisfactory rating on final evaluation from mentor teacher and university supervisor Students will also not pass the methods course if they do not meet the field placement requirements and pass the evaluations for the field placement.

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 local/area schools. 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 be assigned a partner from this class for your classroom teaching.

\*Please note that any violation of the AU student policy ehandbook code of conduct in the student handbook may result in automatic dismissal from the field placement site and the student may receive an automatic 25-point deduction from the final grade for the CTSE 5090 course. This is at the discretion of the instructor for the course and in accordance with AU policy.

\*Documentation to record your visits must be signed by your cooperating teacher. Attendance is mandatory and you will be expected to attend during each Tuesdays during the 8:00am-12:00pm-designated time for the laboratory experience (unless you are instructed to meet in class or on campus). There may also be field trips or virtual workshops designated on some lab days (e.g. AMSTI, Project Wild/Learning Tree). This information will be provided to students prior to the field trip.

\*Your mentor teacher will complete a sign in sheet for you each visit. Failure to report to the laboratory field placement

will result in an incomplete for the course. In addition, failure to receive satisfactory science education evaluations and feedback from mentor teacher and university supervisor will result in automatic deduction of 25 points for the laboratory experience (which is part of the lecture class so you point deduction for lecture will be 25 points) and may result in student not passing the methods course and referral to the Department Chair or Dean’s office for review.

**\*No unexcused absences will be allotted for the laboratory experience because attendance is paramount and mandatory for your practical experience to be fulfilling**. Absences not in accordance with the official AU absence policy may result in 5-point deduction from the final grade for the course for each unexcused absence infraction (at the discretion of the instructor for the course). However, please note that both unexcused and excused absences must be made up. Failure to do this may result in not passing the class.

\*Each absence may result in a 5-point deduction unless in accordance with AU absence policy (at the discretion of the instructor for the course). Sign-in sheets will be provided at the school site to document attendance. Excessive absences may result in withdrawal from this course or incomplete for the methods course. In addition, other lab days might be designated as in class days 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 5090 course and a 5-point deduction from the final grade for the course for each infraction (at the discretion of the instructor for the course).

Please note that tardiness to placement may also result in 5-point deduction per infraction at the discretion of the instructor for the course.

\*Students will receive a midterm assessment and if the midterm assessment is unsatisfactory, the student may be recommended to drop the course. An action plan may be developed (at the discretion of the instructor for the course) and if the student does not improve in the areas outlined by the end of the semester the student may be at risk of the course (lecture and lab).

\*All excused or unexcused absences must be made up before the end of the semester.

\* Please note that if the mentor teacher allows students can attend the field placement site additional hours. The additional field time will enhance students teaching effectiveness, so this is strongly encouraged.

1. ***Exam 1 Midterm (25 points) and Exam 2 Final exam (20points)***

*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.*

1. ***3 unannounced quizzes at 5 points each (15 points total)***
2. ***Outreach experience and outreach reflection paper (15 points for this assignment and students must complete the field hours and reflection to receive full credit). 10 points for each hour completed (all 10 hours are mandatory and 5 points for the paper-mandatory)***

\*Please make sure that you have completed a fingerprint/background check with Professional Ed. Services. I will provide more information from the Kreher Preserve and Nature Center in the next few weeks DO NOT participate in any volunteer outreach experience without first receiving permission from the professor for this course. Failure to adhere to this guideline may result in you not receiving credit for this assignment at the discretion of the professor for the course. Students will turn in documentation of the hours completed. Failure to inform the instructor of what you plan to do for the outreach experience by March 3rd and complete the outreach experience field component hours by April 18 (unless your outreach experiences are cancelled due to weather). If the experience is canceled then students must make up the field hours outreach experience before grades are submitted or students may be considered as incomplete for the course. Paper and outreach field hours experience (15 points total)-At the discretion of the instructor for the course. You cannot currently be working where you complete the outreach. This must be a new experience.

***Outreach reflection paper and documentation of outreach experience hours. Must complete 15 hours and turn in the completed paper for credit. Students must turn in reflection paper and documentation of outreach form approved by coordinator of the program in order to receive 15 points/full credit. Failure to turn in both may result in zero credit for this assignment at the discretion of the instructor of the course. Please note that no credit for the assignment unless an approved field experience or alternative experience/assignment is completed.***

Write a 2–3-page reflection paper on these experiences, including the following: Use bullets or numbers to designate questions answered in the reflection paper.

In the event that due to unforeseen circumstances students can not complete the outreach experience an alternative assignment will be provided. (5 points for reflection paper). See below for questions for the reflection paper.

* 1. What new insights do you gain from the outreach experience?
	2. What will you do in your own classroom to integrate more nontraditional and informal science experiences in your classroom?
	3. What did you do as part of your outreach hours and how has this helped you improve professionally?
	4. Provide a brief overview of what you did for your outreach hours?
	5. What did you learn from the outreach experience regarding how you can use the location /site in your own classroom.

Students complete 15 hours of field experiences at outreach and informal education venues. Students must complete minimum 10 hours at the Kreher Preserve and Nature Center (unless otherwise instructed). Additional hours can be completed at the following: Boys and Girls Club, Alabama Science in Motion (ASIM), AMSTI, GUTS, DAMES, BEST Robotics, tutoring, or activities going on at the school where they are doing their placements (see COSAM outreach activities on AU website). Students complete an outreach documentation form, indicating the name of the program, the dates and times of attendance, and the coordinator or leader of the program needs to sign this form.

If you do another experience in addition to the Kreher Preserve and Nature Center you can integrate and combine your responses for both experiences.

Students attend professional development workshops with AMSTI, ASIM, Population Connection, and/or the AU Natural History Museum. Candidates complete a reflection on their experience.

1. ***Reflection Paper for Assigned Readings 1 and 2 (5 points each)-10 points total***

Students will be provided specific assigned readings where they will be required to write a two-page minimum (3-page maximum) reflection double spaced /no-creative margins). Guiding questions will be provided with each assigned reading. Students will be given at least 1 week notice of assigned reading due date. Questions for each assigned reading are as follows and each question is worth 1 point. Please note that although you may be assigned multiple chapters for the reflective readings you are to write your reflection from a “holistic” perspective to encompass all chapters covered. In addition, the professors for this course may assign additional readings to discuss for the class or be covered in pop quizzes. Complete the assignment with numbers listed and then include the question and your answer/response.

1. Which surprised you the most about the assigned reading? 1 point
2. What did the assigned reading tell you that you already knew?1 point
3. What did the assigned reading tell you that you did not already know? 1 point
4. What implications does this assigned reading have for teaching students? 1 point
5. What part of the assigned reading influenced you the most and how will you implement this in your own classroom? 1 point

In the event that there are AU events students may be assigned to attend the event and complete a reflection paper based on the event and students may be assigned write a two-page minimum (3-page maximum) reflection (double spaced/no-creative margins).

F. TELL ME ABOUT YOURSELF/TELL US ABOUT YOU (S/U). Homework assignment due January 21, 2025

Directions: Answer each question completely and truthfully. This assignment is to be done as a PREZI presentation. You are only allowed to have 10 slides in this presentation. The entire presentation must contain the following: 10 slides, 5 website links, and 5 pictures.

You must answer the following questions in the Prezi presentation.

1. Tell me about your hometown (socio-economic status, location, town characteristics, student diversity, etc.)
2. Tell me about your high school (socio-economic status, location, town characteristics, student diversity, etc.)
3. Why do you want to become a science teacher or why did you become a teacher?
4. Tell me two interesting facts about yourself and how they shape you as a person?
5. Address a “good” science experience during any grade-level and how it influenced your perception of science and “bad” science experience during any grade level and how it influenced your perception of science.

## G. Canvas, or Zoom discussion, online discussion board

There may be some class meetings that utilize Canvas 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 may result in a 5-point deduction from your final grade for each time that you fail to participate.

# Class Policy Statements:

Partic ip atio n: 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 AU ehandbook. 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 guidelines/student handbook are permissible without penalty**; and **documentation must be submitted within seven days of missing class.** Students may lose five points from their final course grade for each undocumented abs ence (at the discretion of the instructor of the course). Two tardies to class (more than 5 minutes late) will count as one unexcused abs ence and will res ult in a lose s of five points from the final course e grade. After three unexcused absences (or 4 tardies), students will be referred to the Office of Student Affairs to be withdrawn from the course.

* Students are responsible for checking class emails and Canvas daily, if you use email or Canvas. You are to use your AU official email address only for all correspondence with the instructor for the class.
* Classroom Behavior: The Auburn University Classroom Behavior Policy is strictly followed in the course;

please refer to the Student Policy eHandbook at [http://www.auburn.edu/s tudent\_info/s tudent\_policies /](http://www.auburn.edu/student_info/student_policies/) for details of this policy.

Unannounced quizzes: There will be 3 unannounced quizzes. (5 points each)

Dis tance 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. Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to make an individual appointment with the instructor during the first week of classes – or as soon as possible if accommodations are needed immediately. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).

Hones ty Code: The University Academic Honesty Code and the AU ehandbook Rules and Regulations pertaining to Cheating and all Academic Honesty policies will apply to this class. All portions of the Auburn University Student Academic Honesty code (Title XII) found in the Student Policy eHandbook at [http://www.auburn.edu/s tudent\_info/student\_polic ie s /](http://www.auburn.edu/student_info/student_policies/) will apply to this class. All academic honesty 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.

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

# Justification for Graduate Credit for Graduate Credit only-

Graduate courses “should be progressively more advanced in academic content than undergraduate programs” and should “foster independent learning” (SACS guidelines 3.6.1 and 3.6.2).

Factors to consider in evaluating a course for graduate credit include but are not limited to the following:

use of specific requisites; content of sufficient depth to justify graduate credit (materials beyond the introductory level); content should develop the critical and analytical skills of students including their application of the relevant literature; rigorous standards for student evaluation (all students in a 6000-level course must be evaluated using the same standards); course instructor must hold graduate faculty status or be approved by the Dean of the Graduate School.

Policies and Procedures

If normal class and/or lab activities are disrupted due to high number of students experiencing illness or an emergency or crisis situation (such as a continued widespread COVID-19 pandemic, 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.

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 of negative comments about 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. Please maintain professional at all times both in the classroom and at the schools during your field placement and refrain from all derogatory or defamatory comments outside or inside of class about the instructor, teachers, school systems and administrators, other professors or classmates. If it comes to the attention of the instructor that a student is exhibiting this unprofessional behavior disciplinary actions may be taken to remove the student from the course and recommendation for removal from the program due to violation of the professional behaviors and memorandum of understanding contracts.

**Science Education Field Experience Code of Conduct:**

**Please be mindful that appropriate conduct is paramount to the success of your Field Experience. Students are required to adhere to the following guidelines regarding dress code:**

* **No flip-flops**
* **No baseball caps or hats**
* **No food or drinks in the classroom if you are teaching (i.e. do not carry a bottle of water of cup of coffee around the classroom).**
* **No low-cut blouses or shirts, shorts, or mini skirts**
* **No tee-shirts (only on spirit day)**
* **Tattoos and body piercings should be as discrete (as possible) so as not to draw unnecessary attention.** **(Please check and follow school placement site policy)**
* **No gossiping or unproductive behaviors or discussions regarding university supervisors, instructors, or the College of Education.**
* **No exceptions regarding the dress code outside of spirit day**
* **No excessive complaining about assignments, professors, courses, teachers or students to other colleagues, teachers, students etc. Any and all concerns must be directed to your university supervisor so that they can arrange a meeting to address your concerns.**
* **Students are not to attend placement sites under the influence or inebriated. If it is determined that the student is under the influence of any substance, they will automatically be dismissed from the placement site for that day and will be subject to dismissal from the program and receive an unsatisfactory for the field experience.**

**Failure to adhere to the policy on professionalism may result in your receiving an unsatisfactory rating for the Methods lecture and lab component. You must pass the laboratory component to pass the methods course since they are taught together.**

**In the event that your university supervisor arrives, and you are not dressed according to the dress code, you may be asked to make-up the day, which would be considered an unexcused absence. Receiving this document and reviewing the document as part of the clinical residency orientation for science education clinical resident means that you comply with this document and will abide by the guidelines in the c o d e of conduct listed.**

**\*Students will also be required to sign a professionalism contract and COE memo of understanding contract**. **Failure to comply with the guidelines in this contract will result in receiving an unsatisfactory rating for the methods course lecture and lab.**

**GoReact Virtual Observations**

Observation Guidelines Students will be observed using GoReact platform a minimum of four observations. Students will have intern feedback conferences via Zoom or another online videoconferencing platform. We will also have a review of using GoReact to familiarize students. Students may also be observed using Zoom or another virtual platform (or possible observed face2face to be determined by the instructor for the course). More information will be provided.

See below for information on GoReact:

For Students:

[Student Training Video](https://goreact.wistia.com/medias/khx8jd3sb0)

[Student Tech Support](https://help.goreact.com/hc/en-us/requests/new)

### **Online Student Learning Expectations**

All students in this course are expected to have all the equipment and software needed to be successful in the course.

All students are expected to contribute to their own learning as active and well-prepared participants. Weekly modules will provide various opportunities for reading, reflection, applied experiences, collaboration, and writing. Since these activities are woven through the entire week and generally do not require your “electronic presence” at any particular time or day, there should be no need to "miss" class. You should plan on spending the same amount of preparation and “in class” time on this course as you would if you were taking the course face-to-face.

Assignments will be submitted via Canvas, and you should check your email and Canvas regularly for updates. The learning activities for each week are carefully sequenced and offered in small chunks so you can accomplish reasonable amounts throughout the week. You should log on to the course website regularly to work through course materials and participate in course discussions.

For more detailed information about university grading standards, please refer to information on the following link: [Auburn University Undergraduate Academic Policies on Grades (Links to an external site.)](https://www.auburn.edu/cosam/departments/student-services/academic-policies.htm#grades)

#### **Posting/Appealing Exam and Assignment Grades**

All exam and assignment grades will be posted to Canvas. Students will have five business days from the date that the exam/assignment scores are posted on Canvas to send an email to the instructor requesting grade adjustments on their work. To appeal a grade that you have received, please compose and send an email to your instructor writing out the exam or assignment in question, indicating the answer you submitted, and providing a written justification from the reading/class notes/etc. on why you think your answer is correct.

Once received, the instructor may or may not communicate with you regarding your appeal. Ultimately, the instructor will render a decision. If no appeal is sent to the instructor after five business days, the assignment score is final. Failure to monitor your progress as the semester progresses does not warrant a re-grade on assignments evaluated earlier in the semester. Once the 5-day appeal period has passed, students forfeit their right to have the graded material reassessed at a later date.

**Late Assignment Policy**

# Late/remedial work policy

**Please note assignments will NOT be accepted late unless the student has a university approve d excuse.**

It is very important that students submit work on time, or they will find it very difficult to catch up. All work in the course (e.g., assignments, discussions, exams, quizzes, etc.) will be due by 5:00pm CST on the date noted on the class calendar. Students should reach out to their instructor immediately to discuss any concerns. In situations where you are experiencing technical difficulties submitting your assignment near the deadline, please consult the Canvas help desk resources available in left navigation. Please work to avoid encountering technical difficulties near the assignment due dates by completing your work ahead of deadlines.

**Make Up Policy**

Students who miss the normal exams will need to contact the instructor and turn in the valid excuse within **48 hours**from the time that the exams were given. The makeup exam schedule is determined by the instructor and will need to be done within ONE week (5 workdays) from the time that the exams were given. Students will need to check the class email for the makeup details. Students who miss the makeup without valid excuses will get zero on the exam.

The format, questions and difficulty-level of make-up exams are not guaranteed to be same as the normal exam, which are at the discretion of the instructors. Students are not allowed to choose the make-up dates, formats on their own.

**Valid excuses**include: 1). illness documented by a physician. 2) evidence of personal or family emergency. 3) official university excuses.

**Excuses are only accepted for the exams and missed assignments due to one of the university approved excuses.**

**Faculty and Communication Feedback**

At the beginning of each course, make sure that you understand the instructor’s preferred mode of communication and any specific communication protocol. One of the best ways to be effective as a student is to understand the instructor’s expectations and operate within those boundaries. Students should give the instructor **48 hours** to get back to them on any communication, and **one week** for grading turnaround time on major assignments. **The instructor reserves the right to alter these feedback parameters due to contingencies such as holidays, course progress, campus emergencies, weather, holidays, professional activities, etc. with notice provided.** If students have concerns about communication or feedback, they should always go to the professor first. Students should explain their concern as clearly as possible without judgment or emotion. Effective communication is an important skill, and every interaction in their program is an opportunity to develop this skill.

**Your Auburn University email address is the university-approved form of communication between instructors and students.** Follow the steps [in the video linked here  (Links to an external site.)](https://community.canvaslms.com/videos/1072)to set your notifications preferences and specify that all course alerts are routed to your Auburn University email address (userid@auburn.edu). You can contact [Auburn University's OIT Help Desk  (Links to an external site.)](http://www.auburn.edu/oit/helpdesk/)for assistance forwarding mail sent to your Auburn email address to a different email address that you regularly check. Additionally, it is your responsibility to read course announcements sent by your instructor. These are posted in Canvas, and you can configure your notification preferences to receive an email each time a new announcement is posted.

**This course will be supported by Auburn University’s Canvas platform.** The syllabus, class assignments, occasional lectures, test grades, final grades, and important announcements will be posted to the Canvas site for this course. Check the Canvas site for this course frequently.

**Instructor Assistance with Course Performance**

If you are struggling academically with this class, do NOT wait until the end of the semester to ask for help. Your instructor is here to help you but cannot provide help unless you communicate the problem. In announcements to the class, your instructor may specify a preferred method of communication. You are strongly encouraged to reach out to your instructor early in the course and follow-up whenever you encounter challenges with the material.

**Accessibility**

Auburn University has adopted an Honor System proposed by its students and faculty to promote academic integrity and has enacted the following code:

“We, the faculty, instructors, and students of the (University course here) pledge to fulfill our mutual responsibilities to each other and the academic community at large with honor and integrity in order to build and maintain a climate of respect and trust that will enhance our research, teaching, and learning. We will support the Honor System of the School, and will not tolerate activities that undermine academic integrity.”

Academic dishonesty is an offense that will be reported to the Academic Honesty Committee. Please refer to the following document for further information regarding academic honesty: [Auburn University Student Academic Honesty Code](https://sites.auburn.edu/admin/universitypolicies/policies/academichonestycode.pdf)

**COVID-19 Related Policies**

**Health and participation in Class**

Please do the following in the event of an illness or COVID-related absence:

* Notify me in advance of your absence, if possible
* Provide me with medical documentation, if possible
* Keep up with coursework as much as possible
* Participate in class activities and submit assignments remotely as much as possible
* Notify me if you require a modification to the deadline of an assignment or exam
* Finally, if remaining in a class and fulfilling the necessary requirements becomes impossible due to illness or other COVID-related issues, please let me know as soon as possible so we can discuss your options.

**Health and Well-Being Resources**

These are difficult times, and academic and personal stress is a natural result. Everyone is encouraged to take care of themselves and their peers. If you need additional support, there are several resources on campus to assist you:

If you or someone you know are experiencing food, housing or financial insecurity, please visit the Auburn Cares Office (<http://aucares.auburn.edu/>

Course Expectations Related to COVID-19

* **Face Coverings May Be Required at Anytime per the instructor or university/state/local/federal guidelines:** As a member of the Auburn University academic community you are required to follow all university guidelines for personal safety with face coverings, physical distancing, and sanitation. Face coverings are required in this class and in all campus buildings. Note that face coverings must meet safety specifications, be worn correctly, and be socially appropriate.
You are required to wear your face coverings at all times. If you remove your face covering or are non-compliant with the university’s [policy on face coverings (Links to an external site.)](https://ocm.auburn.edu/news/coronavirus/updates/20200618-face-masks-required.php?ref=coronavirus), you will be instructed to leave the classroom and will be held to the protocols outlined in the [Auburn University Policy on Classroom Behavior (Links to an external site.)](https://sites.auburn.edu/admin/universitypolicies/Policies/PolicyonClassroomBehavior.pdf). Any student who willfully refuses to wear a face covering and does not have a noted accommodation may be subject to disciplinary action.
* **Physical Distancing may be required per the instructor**: If university policy and healthcare professionals designates physical distancing students should observe appropriate physical distancing and follow all classroom signage/avoid congregating around doorways before or after class. If the instructional space has designated entrance and exit doors, you should use them. **Students should exit the instructional space immediately after the end of instruction to help ensure social distancing and allow for the persons attending the next scheduled class session to enter.**
* **Course Attendance**: If you are quarantined or otherwise need to miss class because you have been advised that you may have been exposed to COVID-19, Influenza, RSV, etc. you will be expected to develop a plan to keep up with your coursework during any such absences.
* **Course Meeting Schedule**: This course might not have a traditional meeting schedule in Spring 2025 semester. Be sure to pay attention to any updates to the course schedule as the information in this syllabus may have changed. Please discuss any questions you have with me.
* **Technology Requirements:** This course may require particular technologies to complete coursework. If you need access to additional technological support, please contact the AU Bookstore at aubookstore@auburn.edu.

*Disruptive or concerning classroom behavior involving the failure to wear a face covering, or any other guidelines that may be put in place for the safety of the class may be directed to administrators at Auburn University and could represent a potential Code of Student Conduct violation and may be reported as a non-academic violation. Please consult the* [*Classroom Behavior Policy* (Links to an external site.)](https://sites.auburn.edu/admin/universitypolicies/Policies/PolicyonClassroomBehavior.pdf). This is at the discretion of the instructor for the course instructor.

In addition, misuse and disruptive use of technology (e.g. cell phone, laptop), *may be directed to administrators at Auburn University and could represent a potential Code of Student Conduct violation and may be reported as a non-academic violation. Please consult the* [*Classroom Behavior Policy* (Links to an external site.)](https://sites.auburn.edu/admin/universitypolicies/Policies/PolicyonClassroomBehavior.pdf). This is at the discretion of the instructor for the course instructor.

**Plan B**

**In the event that AU and assigned school placements have to transition to remote/online/virtual learning only students will continue their field placements and all field placement responsibilities. If the school placement site closes or does not allow clinical residents or teacher candidates to continue the field placement remotely/online/virtually then the instructor for the course may be able to designate an alternative field placement (with approval of the COE Deans office). If the instructor cannot assign an alternative field placements (due to COVID-19 restrictions, etc.) then the students may have to be assigned an incomplete for the semester. Dr. Schnittka or another instructor will be the “back up plan” instructor for the course in the event that the instructor assigned for the course cannot attend or conduct classes.**

**Course Delivery Changes Due to COVID-19**

Please be aware that the situation regarding COVID-19 is frequently changing, and the delivery mode of this course may adjust accordingly. In the event that the delivery method is altered, please be assured that the learning goals and outcomes of the course will not change; however, some aspects of the course will change in terms of the mode of delivery, participation, and testing methods. Those details will be shared via Canvas as soon as possible. Please be prepared for this contingency by ensuring that you have access to a computer and reliable Internet.

Please signature that you have read this document in its entirety and understand the contents and guidelines outlined in the document. Failure to comply with all of the guidelines outlined in this document may result in immediate dismissal from the Science Education Program at Auburn University. Upon completion of reading and reviewing this document for the class you you have read, understand, and agree to follow all of the guidelines outlined in the syllabus and A Healthier U policies and procedures. Please sign and date that you agree to follow all guidelines outlined in this document: Print name\_\_\_\_\_\_\_\_\_\_\_\_\_Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_