

# Fall 2020 Course Syllabus

## ISCI 3103: Natural History of Georgia for Middle Grades Education Majors

Department of Biology, College of Science & Mathematics, Valdosta State University

### Dr. Leslie S. Jones

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### Student Hours will be in Room 1043 BSC:

MW 11:00-12:00 in 1043 BSC  
MW 4:30-5:00 in 1043 BSC  
TR 11:00-11:30 in UC

Graduate Teaching Assistant: Kearsten Jones – [keajones@valdosta.edu](mailto:keajones@valdosta.edu)

**1. A Very Important Message to Students:** I am making a default assumption that you are in college to get an education. Becoming an educated person takes work, and I expect you to make a sincere effort to learn. The most important contribution to your success will be your personal work ethic because the grade will be based on assignments that will be consolidated in your final Electronic Journal. Every assignment has been developed to help you build a deeper understanding of the scientific content that is presented in the class sessions. You are expected to show conceptual knowledge, which requires far more depth than just memorizing factoids. I set the bar high in my courses because I know you can learn science. I want you to learn both the scientific content and the satisfaction of achieving something that took resolve and hard work. You need to take the time to read this document because it spells out important information about the course. If you do not try to apply these guidelines, you are putting yourself behind everyone in the class who does so because they will understand more than you about what to expect within the nontraditional format of the course...

### **2. Emails: Please Use My Blazeview Email for All Class Matters!!!**

My VSU email: [lesliesj@valdosta.edu](mailto:lesliesj@valdosta.edu) should only be used if it is urgent

*To be safe, you need to **Check Your Blazeview Email OFTEN** (several times per week) for updates*

Class emails are not text messages and are expected to be written coherently.

My title is **Dr. Jones** and you should start any email with that included in a greeting.

The first thing you should do is tell me **which of my classes you are in** because I have several.

The next sentence should contain the **reason for your message**.

After you explain yourself, you should close the message properly.

**3. Course Format:** We will start Face-to-Face, but be prepared if circumstances make it necessary to move to what VSU calls the HY-FLEX format. We could also move very quickly to Online delivery depending on what happens.

**4. Online Etiquette:** Given the limits to the VSU bandwidth, if we go online, when you join the class online, please mute your microphone and turn off your camera. If you would like to speak, raise your hand on the Collaborate Ultra program and we will call on you. There will be break out discussions with your classmates where you will be expected to participate and that is a good time to use your camera if you want.

**5. Face to Face Class Decorum** – You will be expected to behave like an adult in class and I will not tolerate negative behavior. If I have stopped teaching and am looking at you, you are not doing what is expected - Apologize and stop doing whatever it was. Please read the class rules in this document so that you do not have to be embarrassed for violating them. Seats will be assigned and changed on a regular basis. If you are ever in seat that is not comfortable for you, let me know so that I can change it.

**6. Personal Responsibility** – You must keep track of all assignment deadlines because late work will not be accepted!! Your grades will be posted in Blazeview all semester so that you will know where you stand. If that is not the grade you want at the end of the semester, make more effort on the assignments!

## Official Information

**Course Objectives:** This science content course provides an integrated overview of Life Science content in preparation for teaching science at the Middle School grade levels. Topics covered in both the K-12 Georgia Science Standards of Excellence and the Next Generation Science Standards will be addressed in lessons that allow Education majors to learn science in the non-traditional ways they will eventually be expected to teach in their own classrooms.

**Instructional Philosophy:** *ISCI 3103* will bridge the gulf between scientific and educational disciplinary training by allowing future teachers to learn new scientific information through a variety of instructional innovations. The course employs methods that enact the rhetoric of science education reform. By teaching for constructivist learning, emphasis will be placed on the acquisition of conceptual understanding of scientific information rather than mere memorization. An alternative assessment strategy will be used this semester. This nontraditional approach to college science helps prospective elementary school teachers make connections between methods of teaching and learning science.

**Academic Honesty:** Members of the class are expected to maintain high standards of integrity. This course will use the VSU Handbook Code of Ethics as a basic standard of behavior, and everyone in the class is required to read the Biology Department Plagiarism Policy posted at: <http://www.valdosta.edu/colleges/arts-sciences/biology/documents/resources/PlagiarismPolicy.pdf> Evidence of dishonest conduct or cheating will result in no credit for the assignment and depending on the case, a grade of “F” for the course. Do not expect leniency for claims on the grounds of not knowing better. You will be reported to the Dean of Students and letter of concern documenting the problem will be sent to the College of Education. Be aware that employers such as school systems do call that office at VSU to check on whether you have a record of infractions.

**Statement of Student Support:** I support all students regardless of immigration status or country of origin. As a Dreamer Ally, I support Dreamer students and promote their sense of belonging and safety as they pursue their higher education goals. For more information and resources about higher education visit a website for another university until we have something this on our VSU website: [https://international.uoregon.edu/immigration\\_faq](https://international.uoregon.edu/immigration_faq). I commit to not sharing your status with anyone if you reveal it to me. I also remind you that **when interacting with faculty, staff, and offices around campus you are never required to reveal your immigration status.**

**Access Statement:** Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU’s Access Office or email: [access@valdosta.edu](mailto:access@valdosta.edu).

**Title IX Statement:** Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity [titleix@valdosta.edu](mailto:titleix@valdosta.edu), 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 333-5463.

**Family Educational Rights & Privacy Act:** Grades cannot be posted by Name or Social Security Number. Scores and student work will not be given over the telephone, by email or to another student.

## SCI 3103 – Course Design: Guidelines for Content & Evaluation

### Enduring Understanding:

Science is the systematic study of the natural world which includes the totality of the physical and biological factors that have and continue to influence the evolution of living organisms.

### Essential Questions:

How does the Theory of Evolution explain the history of life?

How have significant features of physiogeography of Georgia influenced the vast biodiversity of the state?

How does Inquiry-Oriented, Activity-Based pedagogy influence the teaching and learning of Life Science?

### Basic Knowledge & Skills Students Will Acquire:

The Nature of Science as both a Body of Knowledge and Set of Processes

Principles of Ecology

Biodiversity: Taxonomic Classification, Functional Roles, & Patterns of Interaction

Evolutionary History of Living Organisms

Essential Subject Matter Covered in the 7<sup>th</sup> Grade Life Science Section of the GPS

Techniques & Standards for Field Study of Living Organisms

Strategies for Teaching 7<sup>th</sup> Grade Life Science Based on the Georgia Performance Standards

### Students in ISCI 3103 will be expected to:

I. Display a collection of information documenting personal growth through experiences.

II. Describe the evolutionary processes responsible for biodiversity and explain the characteristics of major Taxa.

III. Compare and contrast how the abiotic factors influence the biotic features of a community of ecosystems in Georgia.

IV. Characterize environmental issues in Georgia, with emphasis on land preservation & loss of biodiversity.

V. Indicate the possession of conceptual understanding of the Nature of Science & the Life Science GPS.

### Proof of mastery for each will be demonstrated by the knowledge & skill shown in:

I. Short Assignments to be Submitted in Blazeview

II. Familiarity with the 7<sup>th</sup> Grade Life Science Standards – Both National and Georgia

III. Georgia Natural History PowerPoint Report – Summary of State Ecology

IV. Oral Participation – Active Efforts in Class and Short Research Reports

V. Electronic Journal – A summative, comprehensive evaluation of Pedagogical Content Knowledge

### The Georgia Standards of Excellence cover these topics and will be discussed:

S7L1. The diversity of living organisms and how they can be compared scientifically.

S7L2. How cell structures, cells, tissues, organs, and organ systems interact.

S7L3. How organisms reproduce either sexually or asexually and transfer genetic information.

S7L4. The interdependence of organisms with one another and their environments.

S7L5. The theory of evolution of living organisms through inherited characteristics.

### The following facets of understanding will be built into the course assessments:

Explanation – Description of subject matter and pedagogical practices

Interpretation – Demonstration of astute reasoning and ability to make meaningful connections between concepts

Application – Explanation of the links between subject matter and science instruction

Perspective – Identification of the nature of science in our formulation of an understanding of the natural world

Empathy – Indication of the recognition of the value and need to sustain state environmental resources

Self-Knowledge – Illustration of personal reflection on the process of learning and teaching science

# Writing Requirements

**Objectives:** You will be required to produce at least one summary paragraph on each daily lesson, a composite paragraph for each weekly topic, and a comprehensive essay on the unit topic as part of each test. These assignments also have been designed to help you to learn, outside the classroom, through your own writing. Writing is an important way to learn because if you can construct sentences about something, it will organize your understanding in your mind or let you know that you need to seek more information about a subject. Notebook entries are also an opportunity to display your knowledge through more than just exams. These assignments also allow you to pursue the connections between your own personal interests and what we cover in class, so you should take pride in them.

**Focus:** Well-crafted writing always has a specific purpose. You can brainstorm ideas by writing down any of the terminology you can think of, or using the key words in your notes. Decide on a specific point or argument you want to make - before you start writing. Every composition should have a central idea that is contained in a thesis that should directly address the nature of the writing assignment. Write the thesis down, include it in your introductory & concluding sentences, and check throughout the writing process to be certain that the body of your work supports it. Starting a paper can be the hardest step, so if you feel blocked, try expanding your brainstorming with Google searches on the subject. Take a blank sheet of paper without lines, and just write down any ideas you have or do some reading in the text to get ideas. Then, create an original title for your eNotebook entry or test essay.

**Organization:** Before you begin to write, think through how you plan to develop your thesis and use an outline to structure your thoughts with a sequence that makes sense. An Introduction and Conclusion will be the first and last sentences or paragraphs, but they can actually be written last. Start paper with something catchy in the first sentence to interest the reader. Make it perfectly clear, in the introductory statement or section, what your point or central idea will be. Support that concept throughout the body of your paper. Paragraphs in the middle will be the Body of your text. Quotations & Subheadings are not to be used in these short assignments; let the topic sentences of the paragraphs serve that purpose. Avoid using phrases such as "In this paper I will discuss..." since it is much more sophisticated to avoid this type of "crutch statement."

**Paragraphs:** These assignments will be single-spaced. The first sentence of each paragraph is a topic sentence that shows what the paragraph covers. ONE SENTENCE IS NEVER AN ENTIRE PARAGRAPH because there should be at least 3 sentences elaborating any idea that is significant enough to be separated from the rest.

**Format:** Always have an original title on your paper, centered at the top of the page. Think of something that summarizes the unique slant you are taking because we have to read many of these. It should catch our interest. Your papers are to be typed using something comparable to 12-point Times New Roman type, single-spacing, and 1 inch margins. Other professors often expect double-spacing, but I prefer to read single-spacing and require your papers to be single-spaced. After a draft, if the paper is too long, go back through and shorten it up by taking out the less important aspects. If it is too short, go back and incorporate more support or add more detail to what you are saying. When I say 1-page that means substantial text or no less than 800 words.

**Grading:** These short papers and test essays will each be worth 10 points. Outstanding papers will receive an additional 2-5 points. Assignments will be described in class, so listen carefully and be sure that you know what is expected or ask about anything that is unclear. There will also be a description on the Dropbox in Blazeview. Focus on the objective of the assignment and address it clearly in thesis of your paper. You can dramatically improve your work if you critique your own rough draft and revise it at least once. Outside feedback by other people who write well or even a visit to the Academic Success Center (ASC) in the library can also make a difference. You do not need a science tutor to read these papers. Ask for an English or Writing tutor at the ASC. Proofread your own work to avoid careless errors. Spelling, Punctuation, and Grammar do effect the quality of your work and your grade. These papers will be graded on Effort, Quality, Organization, Content, and whether or not you followed these directions. We will look specifically at your coverage of the topic and the clarity and thoughtfulness of your presentation. Do not complain about your grade because it is very unlikely that it will be changed. Instead, learn from the feedback and improve your next paper.

## Automatic Grade Reductions:

- Failure to single-space & Missing a clear thesis or title
- Lack of Organization (Equal Introduction & Conclusion) Solid Body with logical flow
- Poor paragraph structure - no topic sentences, uneven lengths, no transitions
- Lack of focus, failure to compile a convincing argument, or make a good case
- Inaccurate or deficient scientific content
- Typographical Errors & Grammar, Spelling, & Punctuation (GSP) Mistakes
- Not the assigned length which will be from 1/2 to 2 pages, but is usually limited to 1 page (which is no less than 3/4)
- Failure to follow these writing instructions

## Requirements for Submission:

Submit your work on Blazeview in the designated assignment box as a PDF because this will ensure that the formatting will be preserved. The due date will be announced in class, is posted on the class schedule, and listed in Blazeview. If you fail to submit your work by the time the box closes, it will not be accepted FOR ANY REASON, so that is the reason to turn assignments in early. If you miss the final deadline, accept your penalty and do better next time!

**Please follow these guidelines in order to get the best grades.**

## Personal Electronic Journal (eJ) Requirements

The reason you are creating these eJs is to articulate what you are learning in a way that is a radical alternative to the usual science tests. To ensure that you stay up to date with what we are doing in class there will be due dates for assignments that are submitted in Blazeview on a regular basis. The grades on these assignments will be an indication of how well you are doing. All it takes to pass this course is a solid work ethic and willingness to learn the science. If you do not remember much from your K-12 science classes, it does not matter. As long as you are willing to make an effort to do the work, you can succeed in this class. Each session constitutes one lesson and after the classes you need to ask yourself if you understand the subject we covered. If you do not feel confident that you grasp the scientific content, it is your responsibility to ask for help and work harder on this topic for your eJ entries. You will do well in the class if you keep up with the science and think about what and how you are learning it as we go along. Since there are no tests, you must document what you have learned from class, through web research, discussions with your classmates, or by asking one of the instructors.

The eJ document will be one continuous PowerPoint that is constructed in Office 365. The first thing you want to do is set up that file and submit the link to your file to the Blazeview dropbox in the course content section. These must be in landscape orientation and the widescreen (16:9) slide size format. The background colors should not detract from the images you display. You may select any reasonable, serif or sans serif font and should use only one for all captions throughout the entire presentation (unless you are doing something creative on a particular page). You may vary the size of the font in different places if it is fairly consistent, especially in the headings. Any long sections of text must be black type on a white background, with left-justification. Anything over 2-3 lines should not be centered. You can compose longer narratives in Word and insert them as text boxes on your slides. These must follow the Writing Guidelines that are in this syllabus.

You must have clear divisions for the different sections of the course and each of them should have both a photographic Cover Page followed by a one page (600-800 word) Summary that is written after the lessons for the unit evaluation. That summary should employ the new vocabulary words you have learned in defining sentences that are composed in your own words. Nothing needs to be cited in the text because it is all general information. Use the GPS - Georgia Performance Standards for 7<sup>th</sup> Grade and connect how these relate to what we did in class: <https://www.georgiastandards.org/Standards/Pages/BrowseStandards/BrowseGPS.aspx> OR you can look at the NGSS - Next Generation Science Standards for the same thing <https://www.nextgenscience.org/>

Since this science content course is part of the major in Middle Grades Education, students are expected to focus on the “art and science of teaching” as well as the scientific subject matter. Part of the purpose of this course is thinking about your own learning and working to develop the ability to translate scientific subject matter into interesting and effective lessons that are appropriate for young children which is known as Pedagogical Content Knowledge [PCK]. Discuss how the course content and lessons relate to Science Education. This section should indicate which of the Georgia Science Standards or NGSS National Standards are most closely related to what we did.

The electronic format will give you a great deal of creative freedom. Slides should include substantial scientific terminology and show what you learned in the form of cell phone pictures or photos and diagrams from the web. Any image must be explained with a statement in your own words. We are going to evaluate your pedagogical content knowledge in these entries, so use first person and discuss teaching strategies related to the lessons. Read the page about writing in this syllabus carefully. If you are not a strong writer, get help from someone by asking them to read over what you have written.

### Electronic Journal Grading:

**Analytic Short Assignment Scores:** These 10 point grades will always depend partially on the effort you make and partially on the accuracy of the science. 10 = Excellent, 8-9 = Good, 7 = Adequate, <5 = Incomplete and Seriously Deficient 12 = Exceptionally Good

**Holistic Evaluation:** Every time you are required to submit your complete journal, the overall quality will be rated.  
 60's- Poor -Needed substantially more effort, thought, & synthesis - Lacking vocabulary, and/or scientific information  
 70's – Adequate – Every weekly summary revised & included - More depth of thinking to show mastery of content  
 80's- Good Work – Substantial visual record of lab activities with detailed explanations  
 90's+ Great Effort – Polished consistent presentation throughout  
 125% - Above and beyond my expectations!!!

Serious Deficiencies:

0 – Any assigned slides missing or a sloppy overall presentation lacking effort  
 50's – Insufficient - Needs much more effort