

## SYLLABUS – BIOZ 317 – Ecology Lab – Fall 2019

**Instructor:** Spencer Bissett, Ph.D.

**Office:** [Removed]

**Phone:** [Removed]

**E-mail:** See TA e-mail addresses below

**Office hours:** Specific to your TA; see below

**Teaching Assistants:**

[Removed]

**Required Materials:**

- *A Student Handbook for Writing in Biology*, 4<sup>th</sup> Edition, Karin Knisely, Sinauer Associates Inc., W.H. Freeman & Co.
- 3–ring binder / folder / clipboard (for lab / recitation handouts, etc.)
- Field Notebook and Pencils (“write-in-the-rain” notebooks are suggested as it may get wet and dirty throughout the semester)
- USB Storage Device / Cloud storage / Means to save and share lab data

**General Course Information**

Prerequisites: BIOL and BIOZ 151 and 152, and UNIV 200 or HONR 200; all with minimum grades of C. Pre- or corequisite: BIOL 317. A field-oriented course that provides experience in ecological research, including experimental design, instrumentation, data collection and data analysis.

This course is comprised of a lab *and* recitation. Labs meet [Removed]. **Your attendance at both lab *and* recitation are mandatory. Part of your final grade will be based on your attendance in both lab and recitation.** The recitation period on [Removed] is when you will receive information on the lab exercise to be performed during the following week. You are expected to review the methods, protocol and purpose of the lab assignment BEFORE recitation *and* to be prepared before heading out into the field the following week. You will be told what items (such as printouts, etc.) you need for each lab. Please bring what you need because TA’s do not provide extras. Also, you will be told what to expect in the field so that you can dress accordingly. Failure to be properly prepared and equipped upon arrival may result in dismissal from the lab exercise.

## Attendance

Attendance at all recitations and labs is mandatory. Ecology is primarily a field science, and most labs will be conducted outdoors at various locations near the Richmond area. **Arrive ≈15 minutes before the departure time. You *must be present* at roll call before the scheduled departure time in order to participate in the field exercise and to be eligible to submit a lab report assignment.** We *cannot and will not* wait more than 5 minutes beyond the scheduled departure time from campus. **Missed field trips cannot be made up *and* you cannot turn in a lab write-up for a lab you did not attend. Miss 1 lab and you lose 100 points; miss 3 labs and you will receive a failing grade for BIOZ317.**

## Assignments

BIOZ317 is a 2-credit, writing intensive course, so be prepared to write. Written assignments will consist of short writings, formal lab reports, and a final synthesis paper. All assignments will be graded primarily on content; however, properly written form (*i.e.* formatting, sentence structure, paragraph cohesion, spelling, punctuation, and overall conveyance of concepts) is expected and will also be considered in evaluation. If writing is a weak area for you, help is available through the University Writing Resource Center (828-4851). This is located in room 4203 of the new Academic Learning Center building behind the library. Help is also available through various style manuals at the library and the bookstore. For example, *The Elements of Style* by Strunk and White is highly recommended. Feedback and suggestions on your writing will be included in your graded assignments. Please be aware that the objective of this course is to familiarize you with ecological field work and scientific techniques; therefore, you are expected to improve any writing shortcomings independently.

You will also be required to support your reports by citing primary scientific literature. Each half report requires a minimum of three primary sources, while each full report requires a minimum of five primary sources. Appropriate sources can be accessed through the VCU library databases at <https://apps.library.vcu.edu/dblist/>.

## Schedule

The following page is the full semester schedule of field trips and assignment due dates. The schedule is tentative and subject to change depending on weather conditions as the semester progresses. All lab sections will attend field exercises unless the weather is severe or precludes the success of the proposed lab exercise. Print out this schedule and note any subsequent changes as the semester progresses because the schedule can change at any time and assignment due dates and guidelines are strictly enforced.

Add / Drop Deadline: [Removed]

Last Day to withdraw: [Removed]

Deadline to notify instructor and T.A. of special observances / schedule accommodations: [Removed]

WEEK	LAB EXERCISE	ASSIGNMENTS DUE
[Removed]	None 1 <sup>st</sup> Recitation [Removed]	Due in Lab ([Removed]): Permission & Liability Form; Academic Integrity Module, Lab Safety Module
[Removed]	Field Trip – Deep Run Park <b>1. Lichen/Experimental Design</b>	Due in Recitation ([Removed]): Analytical Exercise
[Removed]	[Removed] <b>2. Manuscript Prep./Review</b>	<b>Assignment #1: Paraphrasing &amp; Primary References/Article Critique due in Lab</b>
[Removed]	[Removed] <b>3. Statistics Review</b>	<b>Assignment #2: Statistics Worksheet due in lab</b>
[Removed]	Field Trip – VCU Rice Center <b>4. Point-Quarter</b>	<b>Lichen Lab Report<sup>(SA)-Full</sup></b>
[Removed]	Field Trip – James River Park <b>5. Mark-Recapture</b>	<b>Point Quarter Report<sup>(SA)-Half</sup></b>
[Removed]	[Removed] <b>6. Plant ID</b>	<b>Mark-Recapture Report<sup>(SA)-Half</sup></b>
[Removed]	Field Trip – VCU Rice Center <b>7. Seral Stage – Plant Diversity</b>	<b>TBA</b>
[Removed]	Field Trip – Pocahontas State Park <b>8. Species-Area Curve</b>	<b>Lichen re-write + original graded report<sup>(SA)-Full</sup></b>
[Removed]	No recitation	
[Removed]	Field Trip – James River Park <b>9. Salamander Polymorphism</b>	<b>Species-Area Curve Report<sup>(SA)-Half</sup></b>
[Removed]	Field Trip – Pocahontas State Park <b>10. Plant Association</b>	<b>Salamander Lab Report<sup>(SA)-Full</sup></b>
[Removed]	Field Trip – Hollywood Cemetery <b>11. Life Tables</b>	<b>Plant Association<sup>(SA)-Half</sup></b>
[Removed]	Field Trip – Herring Creek <b>12. Stream Ecology</b>	<b>Life Tables Report<sup>(SA)-Half</sup></b>
[Removed]	[Removed] <b>13. Synthesis paper analyses</b>	<b>Stream Ecology Report<sup>(SA)-Full</sup></b>
[Removed]	Fall Break	
[Removed]	Field Trip – Maymont Park <b>14. GPS-Exercise and Geocaching</b>	GPS assignment due at conclusion of lab
[Removed]	<b>Last day of class</b>	<b>Synthesis paper due Dec 11th</b>
[Removed]	<b>FINAL SYNTHESIS PAPER <sup>(SA)</sup> DUE BY [Removed] - NO LATE SUBMISSIONS ACCEPTED!</b>	

**Note: Syllabus is subject to change at the discretion of the instructor; therefore, awareness of any changes is the sole responsibility of each enrolled student.**

## Grading

Your grade in this course will be based on;

1. Your attendance in recitation and labs
2. Your level of participation in labs
3. Your ability to complete timely and accurate lab reports, assignments, and a final synthesis paper (again, which is due on Dec 11<sup>th</sup>, no later than 5pm)

The grading scale that will be used to determine your final grade is:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = < 60%

**Ten (10) points** per day will be deducted from all late hardcopy **and** *SafeAssign* assignments.

### Grading percentages

10% = Attendance (recitation & labs)

70% = Lab Reports

20% = Final Synthesis Paper

**The last day to withdraw from this course with a “W” is [Removed].**

### Final Synthesis Paper

In lieu of a final exam, completion of a semester long project will be required. Throughout this semester you will be investigating environmental characteristics, edaphic characteristics and biodiversity within four ecologically distinct communities in the process of secondary succession at the *Walter and Inger Rice Rivers Center for Environmental Life Sciences*. Each lab will be assigned to one of four ecological communities which vary since the time of anthropogenic disturbance. They are as follows:

- 1) “Old Field”; 5 years since disturbance
- 2) “Mid-Transitional”; 50 years since disturbance
- 3) “Late-Mixed Transitional Forest” 100 years since disturbance
- 4) “Climax Forest”; 150 + years since disturbance

### As a Group

Each lab will record observations within their respective seral stage at the Rice Center. It is suggested that a minimum of **TWO** individuals be responsible for writing down data AND making sure that the numbers collected are accurate (to be done on-site). Each lab will share the data collected from their site with the other labs.

### On your own

Each student (individually) will determine the appropriate statistical tests to use for data analyses, run the analyses, present results in figure and tabular formats, and write up a formal “synthesis” paper explaining successional processes occurring at the VCU Rice Center. For this paper you will need to cite a minimum of 10 sources (5 of which must be as recent as 2005). Use the handout “1C Research Report Writing” as a guide for your lab reports and your final paper. You must cite a minimum of 2 sources (both of which must be from the primary literature (not the internet!!!) for each lab report.

### **Additional Honor Code/Academic Integrity Protocol for BIOZ317**

- **NO ASSIGNMENTS WILL BE GRADED UNTIL YOU HAVE SUCCESSFULLY COMPLETED THE ON-LINE ACADEMIC INTEGRITY MODULE.**
- **ALL LAB REPORT ASSIGNMENTS AS WELL AS THE FINAL SYNTHESIS PAPER ARE NOT “GROUP EFFORTS”!!!**
  - **Lab report assignments are considered “tests and/or quizzes” for this course.**
- **ALL OUTSIDE SOURCE INFORMATION USED IN COURSE ASSIGNMENTS MUST BE CITED TO THE ORIGINAL SOURCE.**
- **ALL COURSE ASSIGNMENTS LABELED WITH ‘SA’ ARE TO BE TURNED IN ELECTRONICALLY TO BLACKBOARD *SafeAssign* BEFORE TURNING IN THE HARDCOPY. FAILURE TO DO SO WILL RESULT IN A 10-POINT GRADE REDUCTION PER DAY FOR THE REPORT, EVEN IF YOU TURN IN THE REPORT HARDCOPY ON TIME.**
- **IF YOU ARE RE-TAKING BIOZ317 AND HAVE SUBMITTED LAB ASSIGNMENTS BEFORE THIS SEMESTER, YOU ARE NOT ALLOWED TO “RE-USE” THE PREVIOUS WORK FOR THIS SEMESTER. ONLY YOUR OWN ORIGINAL, NON-SUBMITTED WORK WILL BE ACCEPTED.**

### **VCU Official Policy Statements:**

The required syllabus statements originally included here are maintained by the Office of the Provost and are regularly updated. To prevent the dissemination of information which may no longer be accurate or complete, the full text of the required syllabus statements have been removed from this document.

Students should visit <http://go.vcu.edu/syllabus> and review all syllabus statement information. The full university syllabus statement includes information on safety, registration, the VCU Honor Code, student conduct, withdrawal and more.