

## NRRM 231: Nature Study (3 Credits)

### Course Syllabus – Fall 2018

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<b>Instructor:</b>	David A. Graefe, Ph.D.	<b>Class Meets:</b>	T/R	11:00 – 12:15
<b>Office:</b>	201 Prichard Hall	<b>Classroom:</b>	Morrow Library Commons	
<b>Phone Number:</b>	(304) 696-2608	<b>Office Hours:</b>	Monday	9:00 – Noon
<b>E-Mail:</b>	graefe@marshall.edu		Wednesday	10:00 – 1:00
			Or by appointment	

#### **Course Description (from catalog):**

“Designed to provide students with the fundamental understanding of and for the delivery of nature-based educational programs offered through an experiential framework.”

#### **More Description:**

In this course we will study the land, the animals, and the plants of the Marshall University campus and surrounding areas as a way of understanding the nature and scope of biological diversity and the impacts that humans have had on the natural world. The course will involve extensive field work identifying plants and animals, natural systems, and human influences. Students should be prepared to work outdoors in all manner of weather conditions. Only extreme weather conditions will prevent us from going into the field for scheduled outings. Students should also be prepared to think critically and apply abstract concepts to their field observations to gain a deeper understanding of natural phenomena. Some concepts of evolutionary biology and ecology will be learned through direct observation. No biology background is required, but prior interest in natural history will be helpful.

#### **Course Format:**

Class will meet on Tuesday and Thursday each week, unless otherwise specified by the instructor or course schedule. Materials will be presented and discussed using lectures, in-class discussions, and class projects and presentations. Students will be expected to attend each and every class and participate in class discussions, complete written homework assignments, and spend a considerable amount of time in the field (outdoors), both during and outside of class meeting times.

#### **Required Texts, Additional Reading, and Other Materials:**

The following textbooks are required for the course:

- Leopold, A. (1949). *A Sand County Almanac*. New York, NY: Oxford University Press.
- Kricher, J. & Morrison, G. (1998). *Eastern Forests: A Field Guide to Birds, Mammals, Trees, Flowers, and More*. New York, NY: Houghton Mifflin Company.
- Other readings as assigned and provided by the instructor. Additional readings will take the form of short excerpts from various books and field guides, and are only to be used for educational purposes in this course. You may not share or redistribute these readings.

Assigned readings are an essential component of this course and provide students with a baseline of knowledge that will be expanded upon through more detailed and complex in-class lectures and

discussions. Students will be required to complete assigned readings prior to the class period in which the material will be discussed.

Supplemental course materials (e.g., handouts, reading assignments, etc.) will be posted to Blackboard (<http://www.marshall.edu/muonline/>). I will be sending class announcements, updates, etc. to your Marshall University email address, so be sure to check your account daily.

**Suggested readings for further study (not required):**

- Law, J. M. (2016). *The Laws Guide to Nature Drawing and Journaling*. Berkely, CA: Heyday
- Leslie, C. W. & Roth, C. E. (2000). *Keeping a Nature Journal*. North Adams, MA: Storey Publishing.
- Willenbrink, M. & Willenbrink, M. (2013). *Drawing Nature for the Absolute Beginner*. Cincinnati, OH: North Light Books.
- Field guides focused on the various topics covered in this course (e.g., Peterson, Audubon, Smithsonian).

**Course Objectives / Student Learning Outcomes:**

Students who complete this course will have the ability to accomplish the following:

<b>Student Learning Outcomes</b>	<b>How Practiced in this Course</b>	<b>How Assessed in this Course</b>
Students will show understanding of natural systems and how they relate to plant and animal communities	Discussion of Sand County Almanac readings, field exercises, field guide and identification key exercises	Journal entries, homework assignments, quizzes and exams
Students will become proficient in common techniques used for classifying and identifying plants and animals in the field	Field guide and identification key exercises, field practice	Journal entries, homework assignments, quizzes and exams
Students will identify common habitat and community types in West Virginia and the surrounding region	Field exercises	Journal entries, homework assignments, quizzes and exams
Students will be able to describe the importance of observation and show how to take careful, clear field notes	Field notebook practice, discussions of Sand County Almanac	Field notebooks, Sand County Almanac review
Students will articulate the historical context of conservation and land ethics in America	Sand County Almanac discussions, field exercises	Sand County Almanac review, Homework assignments
Students will identify ways that human activities have shaped the natural world around us	Field exercises, Sand County Almanac discussions	Book review, field notebooks

**University Policies:**

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to [http://www.marshall.edu/academic-affairs/?page\\_id=802](http://www.marshall.edu/academic-affairs/?page_id=802)

Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

**Attendance Policy and Make-up Work:**

In-class participation is an essential component of this course and students will be expected to attend each and every class unless they have a valid excuse (see university excused absence policy). I will be happy to meet with students who miss class with a valid university excused absence to discuss course material and how missed work can be made up. However, I will not re-lecture to students who miss class during office hours, and it will be the students’ responsibility to catch up on missed material (e.g., readings, in-class exercises, etc.).

**Course Requirements / Grading Policy:**

This will be an unusual course in many respects. Its main object will be to help you acquire a large body of factual knowledge about the animals and plants of our area, knowledge that will come to you through direct exploration of the grounds and hands-on attempts to identify as many species as possible. The course will demand much personal effort on your part during class, as it is not a traditional lecture course that will feed you information. Students who do not have some genuine interest in the subject matter and an active curiosity will have a hard time doing well. Students will be evaluated in this course based on their performance in the following categories:

- Nature Journal/Field Notebook: (25% of semester grade). Your field notebooks should develop into valuable records of what you have seen, and should aid you in studying for the exams. They should contain an entry for each field experience, and you should expect to spend time between classes adding details and filling in missing information for each entry (“working up” your entries). The entries do not have to be continuous prose. I am not necessarily looking for narrative descriptions of our time in the field. Rather, you should record the facts we uncover, the lay of the land, and descriptions of the animals and plants we see. You may include drawings, figures, leaf pressings, poems, quotes, or anything else you find useful. Field notebooks will be collected and reviewed by the instructor several times during the semester. Each student is required to complete at least ten entries throughout the semester. More details will be given in class.
- Sand County Almanac Reflections: (25% of semester grade). Throughout the semester, we will read Aldo Leopold’s *A Sand County Almanac*. Each student is expected to have read the required sections prior to class and come prepared to discuss. Students will write three critical reviews of the book (one for each section), analyzing the aspects of the text that they feel are important. Students should be prepared to discuss the contents of their reflection papers in class on each due date.

- **Group Teaching (20% of semester grade):** Each student will be required to work with fellow classmates to lead a class session focused on one of the following topics: birds, mammals, insects, reptiles and amphibians, fish, and rocks/gems. Each group will be required to thoroughly research their topic and deliver a complete lesson utilizing an entire class period. These group teaching sessions will provide the foundational knowledge needed for a topic-specific field experience that will be documented in your nature journals.
- **Exams: (20% of semester grade).** There will be two open-notebook (but not open textbook) exams during the semester. These will be cumulative, with an emphasis on new material presented after the previous quiz. The exams may involve both field and classroom components. Exams will be announced at least one week before they are given.
- **Class Attendance and Participation: (10% of semester grade).** Attendance is required and punctuality is also critical. Any absences due to illness must be documented according the Marshall University Policy. In addition to attendance, in-class participation will be evaluated at the end of the semester and can contribute significantly to this portion of the grade. This portion of your grade is not a given, and you will be expected to earn your grade beyond just “showing up.” This means speaking in class, asking appropriate questions, and taking adequate notes during lectures.

This class will employ a weighted grading system. To determine your grade in this course, fill in your percentage score for each evaluation category below, multiply each score by its weight, and then add the values in the final grade column to find your overall grade out of 100. In addition to handing graded assignments back to you in class, I will post grades for individual assignments and exams on blackboard. However, please remember that you **must** use the weighted grading system shown below to accurately calculate your overall course grade. I am happy to meet with you to discuss your course progress/grade during office hours throughout the semester.

<b>Evaluation Category</b>	<b>Your Score (out of 100)</b>		<b>Weight</b>		<b>Contribution to Final Grade</b>	
Participation	_____	X	.10	=	_____	
Group Teaching	_____	X	.20	=	_____	
Leopold Reflections (average)	_____	X	.25	=	_____	
Exam #1	_____	X	.10	=	_____	
Exam #2	_____	X	.10	=	_____	
Nature Journal	_____	X	.25	=	_____	
<b>Final Grade (out of 100)</b>					<b>=</b>	_____

Final letter grades are determined based on the following grading scale:

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

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

### **Assignment Submission and Late Policy**

All assignments must be turned in **at the beginning of class** on the specified due date. Except under special circumstances with written justification, assignments turned in after the due date will be penalized with a 10% reduction in points for each day late, including Saturdays and Sundays (i.e., one day late = 90% highest possible score, two days late = 80% highest possible score, etc.). University excused absences do not excuse the student from turning in course assignments on time (email them if you have to, or in cases where it is absolutely impossible to get your assignment to me, call me and leave a message explaining the situation).

### **Communication:**

I will post course content on Blackboard (e.g., syllabus, assignments, readings, etc.), so be sure to check for new materials regularly. Your MU e-mail address will be used to make any general announcements, last minute schedule changes, etc. I recommend that you monitor your MU email and Blackboard accounts at least once a day. I will not check email through blackboard during the semester, so please refrain from trying to contact me this way. Instead, send all messages to my official MU email address ([graefe@marshall.edu](mailto:graefe@marshall.edu)).

In most cases, I will respond to emails within 24-hours. If emailed after 4:00 PM on a weekday, you should not expect a reply until at least 10:00 AM the next day (on weekends you should not expect a reply until Monday morning). I am happy to correspond with you concerning course-related matters via email, but I expect you to practice professionalism in your email messages. Below you will find a general template for composing emails:

*Subject: Regarding [Course name/number and a brief description of the issue or question]*

*Dear Dr. Graefe,*

*[Here is where you state your issue or express your concern in a professional tone and with academic diction. Be brief and be clear, so that I may respond to you in the same manner.]*

*Respectfully,  
[Your Name]*

Sending email messages without a subject or any text in the body of the message is unprofessional and is often perceived as rude. Please avoid sending attachments without clear information in the subject line and a brief message.

**Classroom Learning Environment:**

To maintain the best possible environment for learning, the following standards for acceptable behavior will be followed by all students in this class:

- Turn off all cell phones and pagers before entering class.
- Be on time for class and don't leave early.
- Don't have conversations during class that distract others.
- Don't disparage other students – treat all class members respectfully.
- Don't use profanity in class.

Students who violate these standards and policies will be asked to leave class and will lose participation points.

### Course Schedule and Due Dates (tentative):

<b>Date</b>	<b>Topic</b>	<b>Assignment</b>
8/21	Course introduction and overview	
8/23	Natural history and nature journaling	Nature journal handout, Leopold, part 1
8/28	Drawing Techniques	Beginner drawing handout, Leopold, part 1
8/30	Field experience – MU Campus	Journal entry #1, Leopold, part 1
9/4	Biology primer and taxonomic classification	Ten themes in the study of life, Leopold, part 1
9/6	Eastern Forests Introduction, Field Marks	Eastern Forests: Preface, editor's note, pgs. 1-6, Leopold, part 1
9/11	Forest Field Marks	Eastern Forests: pgs. 8-57, Leopold, part 1
9/13	Group work	
9/18	Leopold discussion	<b>Leopold part 1 reflection due</b>
9/20	Review	
9/25	<b>Exam #1</b>	
9/27	Group work	<b>Status report for group activity, nature journal progress report</b>
10/2	Trees	Tree handout
10/4	Field experience – trees on MU campus	Leopold, part 2
10/9	Group teaching - birds	Bird handout
10/11	Group teaching – insects	Insects handout
10/16	<b>No Class Meeting– Journal entry on your own</b>	Leopold part 2
10/18	<b>No Class Meeting– Journal entry on your own</b>	Leopold part 2
10/23	Group teaching – mammals	Mammals handout, Leopold part 2
10/25	Group teaching – reptiles and amphibians	R&A handout, Leopold part 2
10/30	Group teaching – rocks and minerals	Rocks handout, Leopold part 2
11/1	Group teaching - fish	Fish handout, Leopold part 2
11/6	Popular film focused on topic chosen by class	Leopold part 2
11/8	Leopold discussion (part 2)	<b>Leopold part 2 reflection due</b>
11/13	Review	Leopold part 3
11/15	<b>Exam #2</b>	Leopold part 3
11/20	<b>No class – fall break</b>	Leopold part 3
11/22	<b>No class – fall break</b>	Leopold part 3
11/27	Nature journal discussion	<b>Final nature journals due</b>
11/29	Leopold discussion part 3	<b>Leopold part 3 reflection due</b>
12/4	Green Fire (Leopold)	
12/6	Wrap up	

Every student is responsible for all materials presented in class, including lectures, notes, and handouts. In case you are not present for a class, you should contact me to receive information about the material presented in that class. Class attendance is extremely important.