BIO 485-006
Spatial Ecology
Spring 2015

Instructor
Dr. Damian M. Maddalena
Office: Teaching Lab 2106
Email: maddalenad@uncw.edu
Webpage: http://people.uncw.edu/maddalenad
Office Hours: Tuesday 13:00-14:00, and by appointment

Course Meetings
Lecture Time: Tuesday & Thursday 09:30-10:45
Lecture Room: FR 3020
Lab Time: Thursday 13:00-15:50
Lab Room: FR 2041

Course Description
Examination of the spatial relationships and patterns of ecological phenomena at local, regional, and global scales. Lecture and lab. Labs will offer instruction on analysis of ecological data and some field methods.

Course Objectives
• To become familiar with the theory and methods of spatial ecology through review of foundational and current peer-reviewed literature and texts.
• To understand the use and application of R as a GIS for spatial analysis and modeling.

Course Structure
This class consists of a seminar that meets twice a week for an hour and fifteen minutes and a lab that meets once a week for three hours.
Seminar
During the seminar section of this course we will discuss the theory and methods of spatial ecology, highlighting how the course content can be applied to your work.

Reading Responses
You are required to write a 1-page response for each week’s readings. This is due at the start of class on Tuesday (for that week’s readings), and is to be submitted via Blackboard. (See below for details about Blackboard.) Your written response will consist of two parts: 1.) 1-2 paragraphs summarizing and synthesizing the readings, and 2.) a 1-2 paragraph response to the readings that puts them in the context of your interests, adds relevant arguments/studies/facts, or brings in material from your other classes (past and present).

Formatting: 12-point, Times New Roman or similar. Margins should be one inch—top, bottom, right and left. These will be turned in via Blackboard.

Lab
During the lab portion of the course, I will introduce theory and techniques for the lab exercise and then you will work on it during the allotted time. Most assignments will be completed during the lab time, but the material covered should be reviewed and practiced outside of class. I will be in the lab answering questions as they arise while you work on the assignment. You are also encouraged to work with your classmates, BUT each student is required to turn in their own materials. Lab assignments will be due by the start of lab a week after they are assigned (regardless of whether UNCW is in open or closed).

Lab Assignments
Each week you will be required to turn in evidence that you have completed the lab exercise. The requirement will vary by assignment, and may include, but not be limited to: responses to short-answer questions, executable R scripts, graphic exports, et cetera. These will be turned in via Blackboard. Please be sure to read the lab assignment documents carefully for each assignment. Turn-in requirements will vary by assignment, and points will be deducted if you fail to follow the assignment parameters.

Take-Home Exams
You will have three exams total. (See course schedule for dates.) You will be give a multi-part question based on the readings and lab exercises.

Formatting: 12-point, Times New Roman or similar. Margins should be one inch—top, bottom, right and left. Points will be deducted for failure to include a proper heading on your document.
After an exam is graded and returned, you have the option to meet with me to discuss the results. Meetings MUST take place within one week of it being returned to you (physically or digitally). Any student who meets with me to discuss his/her exam will be given the option to rewrite his/her response(s) to improve his/her grade, as long as he/she earned a “D” or better on the assignment. The purpose of the meeting is to allow the student to incorporate feedback into the next assignment, as well as the rewrite option if chosen. All rewrites are due the last scheduled day of class. **No late exams will be accepted for either the initial due date or the rewrite deadline.**

**Grading of Writing**

All assignments will be graded on clarity, pertinence, organization, and formal presentation. A rough outline of grading criteria follows:

A: This is an outstanding essay that reflects a command of the entire set of assigned reading. It is well organized, contains pertinent references to key concepts and arguments contained in the readings, and offers insightful commentary on the literature. Finally, the essay is nearly flawless in the mechanics of writing. That is, it follows the standard rules of English grammar, sentence construction, etc.

B: This is a very good essay that fulfills most the requirements of the assignment but falls short in one of the areas mentioned above: a demonstrated command of the entire set of readings, insightful commentary, or writing mechanics.

C: This is a satisfactory essay that fulfills the assignment but often falls short on two or more of the areas mentioned above. Typically this is an essay that focuses on a fraction of the readings; contains fundamental problems with writing—sentence construction, paragraph usage, and grammar; and/or offers nothing in the way of critical thinking about the question.

D: This is a below-average essay that falls short on all areas of the assignment. The writer appears to be only vaguely familiar with the assigned readings, the mechanics of writing, and the subject matter of the course. Chances are the author of a “D” essay has not yet read assigned materials, is not completing the weekly writing assignments, and has trouble finding the classroom.

F: This is an essay that fails to convey any evidence of familiarity with the assigned readings, or violates rules of academic honesty (see below for UNCW academic honor code).

**Course Materials**

**Texts**

Symboled books are available as full-text eBooks from the UNCWLibrary (*) or on the Internet (+).


**Academic Papers**

We will be reading peer-reviewed papers each week as part of our studies. These papers are linked in the course schedule on the course web page.

**Peripheral Materials**

**Data Storage**

We will be discussing data organization and file naming conventions explicitly in this class, and scripting assignments will assume an very explicit directory structure when they are being graded. Further, keeping an organized workspace will facilitate your success this semester and in your future data analysis endeavors.

**TIMMY:** TIMMY, the student file server at UNCW is a very convenient way to have access to your work across all university computing resources. You should keep an organized TIMMY workspace on the university servers.
Please take the time to review usage restrictions, size limitations, and related information here: http://uncw.edu/ITSD/learning/TimmyFileStorage.html

Review instructions for connecting to the university VPN server for remote access to campus resources here: http://uncw.edu/ITSD/help/VPN.html

**USB Storage Device:** You are required to have a USB storage device that is capable of holding at least 1GB of data. This can be a portable thumb drive, an external hard drive, an SD card on your cell phone, or something similar. You can use this as your primary workspace or as a backup for TIMMY.

**Course Communications**

**Course Webpage**

The syllabus and class schedule, including announcements, deadlines, and links to your readings and lab documents will be posted on the class webpage. This will be your main resource for keeping up with the class and accessing course materials.

The class webpage is accessible here: http://people.uncw.edu/maddalenad/classes/BIO/spatial

**Email**

UNCW email will be used as the primary means of communication for this class. It is your responsibility to check this account regularly. If you use another email address as your primary account, please be sure to set up email forwarding for your UNCW account.

Please put BIO 485-006 and a brief description of your query in the subject of all emails you send me. This will ensure a prompt response to your inquiry. For example, “BIO 485-006: Assignment 1 Grading.”

**Class Listserv**

We will use a UNCW listserv for digital conversations regarding logistical, technical, and theoretical discussion around class materials and assignments. (Please use a private email for all personal questions and concerns.) All questions about the course, the assignments, and the software should be sent to the class listserv so that your classmates can benefit from them and we can have a larger conversation with your peers. If you email me with a question that is best asked on the listserv I will likely reply “Please send this to the listserv and I will answer it there so everyone can benefit.”

Course listserv address: spatial@lists.uncw.edu
General listserv info (subscribe, unsubscribe, archives, password help, etc): http://lists.uncw.edu/mailman/listinfo/spatial

All subject lines for emails sent to the course listserv will be automatically appended with the prefix [Spatial]. There is no need to put the course name or number in the subject of emails sent to the listserv, but please do make sure that your subject line is descriptive so that all users can quickly assess the contents and relevance of the email.

Students are encouraged to answer any emails on the listserv that they feel they are able to. Teaching others is part of learning. Please respect your colleagues by refraining from criticizing others, using profanity, or failing to follow the UNCW rules of student conduct (see below). Virtual spaces should be treated similarly to physical spaces.

Blackboard

The course will use Blackboard for the submission of assignments, to post grades, and for the distribution of assignment data that are too large for the class webpage server. Please contact me immediately if you are not able to access the course on Blackboard.

Blackboard access: https://learn.uncw.edu/

Attendance & Participation

Attendance will be taken during each seminar and lab meeting and student participation will be noted. Participation in class discussion will demonstrate your reading efforts, help us all synthesize each week’s materials, and aid in your execution of the take-home exams. If you are not in attendance, you cannot participate. If you do not participate, your learning will be limited.

Each class session is worth 10 points total. You will receive 8.5 points for showing up on time and staying the whole class period. The remaining 1.5 points are allocated based on participation.

Schedule

See course web page for the tentative schedule. Please be aware that that this schedule may change as needed. Always refresh your web browser’s cache to ensure that you are viewing the most current version.

Grading Policy

Your grade will be determined on a points-based system. You can calculate your grade in the course at any time by calculating the percent of the total currently available points you
have earned.

Your final grade will be determined as:

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<thead>
<tr>
<th>Item</th>
<th>Points per Instance</th>
<th>Total in Category</th>
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</thead>
<tbody>
<tr>
<td>Exams</td>
<td>100</td>
<td>300</td>
</tr>
<tr>
<td>Reading Responses</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Lab Assignments</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Daily Attendance</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

All exams are cumulative.

No extra credit will be provided.

Any lab or reading response that is turned in late will receive a 10% (of possible points) penalty off the total earned grade for each day it is late.

No exams or papers will be accepted after the due date/time.

Grading scale:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>94-100%</td>
<td>A</td>
</tr>
<tr>
<td>90-93%</td>
<td>A-</td>
</tr>
<tr>
<td>87-89%</td>
<td>B+</td>
</tr>
<tr>
<td>84-86%</td>
<td>B</td>
</tr>
<tr>
<td>80-83%</td>
<td>B-</td>
</tr>
<tr>
<td>77-79%</td>
<td>C+</td>
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<tr>
<td>74-76%</td>
<td>C</td>
</tr>
<tr>
<td>70-73%</td>
<td>C-</td>
</tr>
<tr>
<td>67-69</td>
<td>D+</td>
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<tr>
<td>64-66</td>
<td>D</td>
</tr>
<tr>
<td>60-63</td>
<td>D-</td>
</tr>
<tr>
<td>&lt;60%</td>
<td>F</td>
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</tbody>
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Though you will be working closely with your classmates, each lab exercise, project, and write-ups will be submitted individually. All instances of plagiarism will be reported to student conduct.
Effective time management and early starts on assignments will help you be successful in this class. Catching up is not an option—assignments are cumulative in nature, take time to complete, and should not be held until the last minute!

**Academic Honor Code**

UNCW “is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved... According to UNCW’s Code of Student Life, “all students shall be responsible for conducting themselves in a manner that helps to enhance an environment of learning in which the rights, dignity, worth and freedom of each member of the academic community are respected” (page 4). The academic honor code also specifies that “no form of dishonesty among its faculty or students will be tolerated”. “Any member of the university community who has reasonable grounds to believe that an infraction of the Academic Honor Code has occurred has an obligation to report the alleged violation”. Plagiarism, bribery, and cheating are not allowed and will lead to disciplinary action. It is the student’s responsibility to conform to the academic honor code at all times. Read pages 6 and 7 of the Code of Student Life in order to clearly understand the definitions of plagiarism, bribery and cheating. Plagiarism is a form of academic dishonesty in which you take someone else’s ideas and represent them as your own. Academic dishonesty in any form will not be tolerated in this class.“

**Campus Respect Compact**

UNCW has recently instituted a Respect Compact to affirm our commitment to a civil community, characterized by mutual respect. That Compact may be accessed at: [http://uncw.edu/diversity/src.html](http://uncw.edu/diversity/src.html). Further information about the Respect Compact is available from the Office of Institutional Diversity and Inclusion.

**UNCW Statement on Diversity**

As an institution of higher learning, the University of North Carolina Wilmington represents a rich diversity of human beings among its faculty, staff, and students and is committed to maintaining a campus environment that values that diversity. Accordingly, the university supports policies, curricula, and co-curricular activities that encourage understanding of and appreciation for all members of its community and will not tolerate any harassment or disrespect for persons because of race, gender, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, political affiliation, marital status, or relationship to other university constituents.
Statement Regarding Violence and Harassment

UNCW practices a zero tolerance policy for any kind of violent or harassing behavior. If you are experiencing an emergency of this type contact the police at 911 or UNCW CARE at 962-2273. Resources for individuals concerned with a violent or harassing situation can be located at http://www.uncw.edu/wsrc/crisis.html

Students with Disabilities

Students requiring special accommodations to complete the assignments should contact the Office of Disability Services in Westside Hall (962-7555), or at http://www.uncw.edu/stuaff/disability.

Religious Observance Policy

In accordance with NC SL 2010-211, you are entitled to two excused absences for religious observances per academic year. You must inform me in writing the first week of class if you will be missing any classes due to religious observance and using one of the two permissible absences for the academic year. In addition, please inform the Registrar the first week of class who will then confirm your intentions to miss class with the impacted course instructors. Any absence for religious purposes will be considered unexcused unless you submit the request in writing the first week of class.

The University Learning Center

DePaolo Hall 1056 & 1003, first floor
910.962.7857
http://www.uncw.edu/ulc

The University Learning Center’s (ULC) mission is to help students become successful, independent learners. Tutoring at the ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students and include the following: Learning Services (University Studies) http://www.uncw.edu/ulc/learning/index.html

- Math Services: http://www.uncw.edu/ulc/math/index.html
- Study Sessions: http://www.uncw.edu/ulc/includes/StudySessions.html
- Supplemental Instruction: http://www.uncw.edu/ulc/si/index.html
- Writing Services: http://www.uncw.edu/ulc/writing/index.html