



**Course Syllabus
(Winter 2016)**

Last Date Revised: [12/5/2015](#)

I. COURSE NUMBER AND TITLE: Geospatial Field Methods (Hybrid)

Winter Term 2016

OCMB 4001 Geospatial Field Methods (Hybrid)

Lecture: Online and class meetings

January 4 through March 25th First Session OC

Lecture classroom assignments can be found at the following website:

Course/section Number(s):

OCMB-4001-OD1 Marine Biology electives

MEVS-4001-OD1 Marine Environmental Sciences electives

CZMT-4001-OD1 Coastal Zone Management electives

BMME-4001-OD1 Biological Sciences electives

Days: **Thursdays 6:30-9:30 PM**

Building & Room: **e.g. Forman Computer Lab**

II. INSTRUCTOR:

[Paul Baldauf, Ph.D.](#)

Phone: [954-262-7671](#)

Email: pb501@nova.edu

Office: [Parker 356](#)

Office Hours: [By appointment.](#)

III. COURSE DESCRIPTION:

This course teaches students to collect and georeference field observations, photos, and data for analysis and reports. Students are introduced to geospatial technology used for field data gathering and basic statistical techniques for analyzing data. The course consists of lecture, computer laboratory, student presentations, and field trips for data collection.

No prerequisite.

IV. COURSE LEARNING OUTCOMES*:

At the conclusion of this course the student will:

1. Understand the use of a professional and navigational-grade GPS units
2. Apply essential GIS concepts to field studies
3. Use satellite and aerial imagery for geographic referencing
4. Understand geospatial mapping concepts including establishing transect lines, boundary lines and buffers, ecosystem delineation
5. Apply basic statistical techniques to analyze field data
6. Develop expertise in the effective use of statistical and geospatial analysis in presentations and reports

*These are directly related to the Program Learning Outcomes for Marine Biology, Coastal Zone Management and Marine Environmental Science.

V. REQUIRED TEXTS AND MATERIALS:

Rite in the Rain field notebook

Selected Readings. Assignments are posted in Blackboard.

VI. COURSE SCHEDULE AND TOPIC OUTLINE:

- No pre-class assignment

Lecture Schedule

Week	Date	Class/lecture	Class assignment
Week 1 Jan 4 - 8	1/7	Lecture - Introduction to Mapping using GPS and DNR Garmin Field Exercise	Basic GPS and DNR Garmin Exercise
Week 2 Jan 11 - 15		Basics of Geographic Information Systems Data management strategies Creation of project geodatabase Introduction to R statistical software Pre-trip planning	Read ESRI Mobile GIS Projects and overview of Ecuador Cloud Forest Biogeography
Week 3 Jan 18 - 22		Volcano lecture	Loading layers into GIS projects.
Week 4 Jan 25 - 29		Ecology of tropical forests and ecological succession	Loading layers into GIS projects
Week 5 Feb 1 - 5		Independent work on GIS project	
Week 6 Feb 8 - 12		Independent work on GIS project	
Week 7 Feb 15 - 19		Field exercise in biological survey using GPS	Survey OC locality
Week 8 Feb 22 - 26			
Week 9 Feb 29 – March 4		Field data gathering trip to Ecuador Introduction to ESRI's ArcPad and the Trimble Juno Ecosystem delineation Ecological transect and data survey	Read ESRI Mobile GIS Example project
Week 10 March 7 - 11		Field trip wrap up In class working with GIS data, layers, and analysis In class statistical data analysis with R	
Week 11 March 14 - 18		Independent work on presentations	Work on presentations Submit draft projects
Week 12		Student presentations	Student presentations and final projects due

Note: This is a tentative schedule that may be changed. Students will be provided a minimum one week advance notice of any change when possible.

VII. GRADING CRITERIA

Research Project:	50%
Presentation:	50%

VII. COURSE REQUIREMENTS AND POLICIES:

ATTENDANCE

FYI: Section 3.8.4 from the Oceanographic Center Catalog:

As a requirement for accreditation, regular attendance is necessary. Each professor has the responsibility to enforce class attendance. To fulfill this requirement, students must have logged in, accessed, and/or interacted with the majority of online course requirements (e.g. assignment submissions, asynchronous discussion) by the first week of the session or they may be withdrawn from the course by the instructor through the Program Office. For this reason, if students anticipate or encounter any reason why they may be unable to engage with their online coursework for an extended period during a term, they must communicate this to their instructor and the Program Office as soon as possible. Students do have the option of requesting an Incomplete; if this is granted by their instructor, they then have 3-months from the end of the term date to submit the required course work as decided with the instructor. An incomplete grade agreement form must be completed and filed with the distance education office. An instructor reserves the right to request original written documentation to substantiate any such absences. A falsified excuse is cause for disciplinary action. An Incomplete course graded I must be completed in one semester or the grade is changed to F. All students are referred to the section 3.5.2. of the Oceanographic Center catalog (<http://nova.edu/ocean/forms/nsuoc-2014-2015-catalog.pdf>) for details on course withdrawals and refunds.

ACADEMIC HONESTY

In order to ensure the highest standards of academic honesty and ethical behavior, the NSU policies on cheating and plagiarism will be strictly enforced. See the NSU Student Handbook for more information at <http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf>. I am empowered by the policy to penalize a student suspected of academic dishonesty, plagiarism, or otherwise misrepresenting work and I will do so and report that student to the Dean of the OC. Nova Southeastern University has contracted with **turnitin.com** to provide plagiarism detection services, and I will submit any suspicious documents to this service.

The use of cell phones, or any other electronic devices not specifically allowed by me, during an exam is not permitted. The use of such devices for any reason will be assumed to be for the purposes of cheating and will result in your dismissal from class and administrative action up to permanent expulsion from all NSUOC programs. If you need the phone for emergency notifications, or the like, leave the phone with me or the proctor at the start of class. You will be immediately notified if there is an incoming call.

EXPECTATIONS

You can expect that I will arrive on time for lectures and be well prepared. You can expect that I will be clear about my expectations and the criteria I use in assigning grades and that I will be fair and equitable. I will treat everyone in the class with consideration and respect.

I expect you to come to class, arrive on time, and be prepared for lecture and lab. I expect you to turn off your cell phones, pagers, and hand-held electronic devices as a gesture of reciprocal respect. If you bring a computer to class, I expect you to use it to take notes and record classroom information. I expect you to stay awake, take notes, participate in discussions and ask questions. I expect you to turn in your assignments on time and in good condition.

X: UNIVERSITY-WIDE POLICY STATEMENTS

A. Academic Misconduct: Academic misconduct appears in a variety of forms (including plagiarism). It is a violation of NSU academic policy and may be punished in a variety of ways, from failing the assignment and/or the entire course to academic probation, suspension or expulsion. If you have questions about what constitutes academic misconduct before handing in an assignment, see your instructor or the NSU Student Handbook at <http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf>.

B. ADA Policy: Nova Southeastern University provides accommodations for students with documented disabilities. If you have a disability for which you believe you require accommodation, please contact Academic Services (<http://www.nova.edu/disabilityservices/>, 954-262-7189).

C. Last Day to Withdraw: Due to the compressed nature of this course you will be able to obtain a full refund of your tuition up to **Date Changes per TERM**. There will be no refund after that

date. None of the lab fee is refundable; however you will own the airline ticket that was purchased for you. It is your responsibility to formally withdraw by completing the appropriate forms to obtain a refund (<http://www.nova.edu/ocean/coursepolicy.html>). A request for tuition refund must be made in writing at the time of withdrawal. Refunds will be made solely at the option of the university and will be based on the legitimacy of the reason for withdrawal. Should you fail to appropriately withdraw from this course, and then earn a grade below your expectations, I will do what I can to see that the grade is reported on your transcript. I will **NOT** backdate paperwork so that you can avoid earning a grade lower than you like.

D. Email Policy: All email communications between students and faculty must be conducted via NSU email accounts (<http://www.nova.edu/common-lib/policies/emailcomm.policy.html>). This requirement will assist NSU in communicating more effectively and protecting your privacy. Emails sent to faculty from non-NSU accounts will be returned to the sender with instructions to resend the communication from your NSU account. To set up an NSU email account or to get help with an existing account, go to https://www.nova.edu/sbin/account_request. Also, the computer help desk is available to assist you with questions regarding your NSU email account. It can be reached at 954-262-HELP (4357).

E. Student Course Evaluations: Student comment and feedback evaluating each college class is an important tool to evaluate program effectiveness. Participation in this process is a responsibility of each student.

F. Grading System

From the Oceanographic Center Catalog Section 3.9.1

The following system is used to grade academic performance:

GRADE	DESCRIPTION
A	Excellent
B	Satisfactory
C	Marginal Pass
D	Poor
F	Failure
W	Withdrawal: Given after the third class week or termination by the instructor for non-completion of the course by the student.
I	Incomplete: Given when most (80 percent), but not all, work has been completed.
Au	Audit
P	Pass

Professors may use + or – in grading. **However, the grading scale ranges from A to D-, no A+ or F+ are awarded.** A grade of incomplete (I) must be requested from the instructor, have the Associate Dean’s approval, and be accompanied by a **completed contract specifying outstanding course requirements and completion dates.** Completion of the course graded incomplete must occur within one semester (or 3 months) of the end of the course and the incomplete be changed to a different grade. If the course is not completed in 3 months, or the student has not withdrawn and received a W, the incomplete will automatically be converted to a grade of F. Under unusual circumstances students may request a time-extension to complete the course. Such requests must be submitted to, and approved by, the Associate Dean of Academic Programs prior to the end of the 3-month time limit. **There are no exceptions to this rule. Securing the completed and signed incomplete contract forms is the responsibility of the student.**