

GEOG/NRM 483W Syllabus
Research Design, Writing, and Presentation Methods
Fall 2014 *TR 11:30-1:00* *REIC 204* *3 Credits*

Instructor: *Daniel Mann, Ph.D.*
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Office Hours: *8-10am MW*
Credit: *3 credits, meets University Core Writing Intensive requirement*

Course Description: This course is designed as a capstone research course for Geography and Natural Resources Management majors. It can also serve as a Research Methods course for undergraduates in other programs or for beginning graduate students. Students will focus on designing an individual research project or thesis in coordination with a faculty mentor. The overall purpose of the course is to integrate the knowledge and skills you have gained through undergraduate course work, and to prepare you for graduate research or professional level projects. This course emphasizes scientific method, research design, proposal writing, development of field and analytical methods, scientific writing, and the oral, written, and graphical presentation of data and research results.

The work done in this course can also serve as a foundation for completion of a Senior Thesis for students who choose this option. To pursue the Senior Thesis option, you must enroll in NRM 484W Senior Thesis subsequent to successful completion of GEOG/NRM 483W.

Course Prerequisites: ENGL F111X; ENGL F211X or ENGL F213X; at least one writing intensive course designated (W); junior standing in Geography or Natural Resources Management; or permission of instructor.

Suggested Text: *Elements of Style* by Strunk and White.

Other relevant readings will be assigned and distributed via Blackboard or in class.

Course Goals: This course will provide you a ‘real-world’ opportunity to conduct background research, define a research problem, define a scope of work, complete a formal proposal, and present your work. Many students arrive at graduate school or on the job market with sound ‘book knowledge,’ yet limited practical research preparation and presentation experience. Or put another way, you have learned to follow instructions and study for tests, but have little experience initiating your own project or working independently. This course will provide a capstone opportunity for students to integrate their course-based knowledge with practical skills that will help you in the professional or research setting. You will gain practice in the challenges of thinking critically, dealing with the unexpected, and overcoming hurdles not typically encountered in the controlled classroom. Most important, this course is writing intensive and emphasizes writing, communication, and presentation skills. You will become better writers, and overall better communicators as you prepare to move into the professional or graduate setting.

Instructional / Teaching Methods: This course centers around individual research projects and will emphasize scientific method, critical thinking, project design and proposal writing. However, all aspects of applied research from initial project design, data analysis, graphics, and final presentation will go through drafts on which you’ll receive feedback from the instructor, your mentor, and/or the other students in the class. There is heavy emphasis on writing, and on critical review of your own work and the work of your peers. Lectures will cover basic principles of scientific research, writing, and presentation. Specific assignments provide practice in research and will teach you how to: 1) find, read,

review/discuss, evaluate, and cite the scientific literature, 2) develop sound research questions and design a project, 3) participate in a working group, 4) critically and constructively evaluate the work of your peers and your own work. Finally we will spend some time and effort preparing you to investigate and pursue graduate school or employment opportunities.

Learning Outcomes:

- Students will gain practice in the scientific method via the development of sound research questions and a project design.
- Students will learn how to find, evaluate and use the scientific literature for research.
- Students will learn how to review and present journal articles and lead a group discussion.
- Students will learn to develop and write a complete research proposal (including budgets, timelines, collaborative support, etc)
- Students will improve the quality of their writing through assignments of varied length and purpose (abstracts, proposal, reviews, application letters).
- Students will improve the quality of their writing through the evaluation of the work of peers, and the critical evaluation and revision of their own writing.
- Students will learn, practice and evaluate (self and peer) various presentation styles including data presentation /graphics, poster presentations, and oral presentations.
- Students will gain experience participating in a working group where deadlines, cooperation, professionalism, and quality of work are of paramount importance.

Student Projects, Assignments, and Grading:

Individual student projects will vary from student to student in terms of scope, types of data (field vs digital), types of analyses, and the format of the proposal. However, all projects will require background research, project design and development of a proposal. Students will have benchmark deadlines to submit work. Peer evaluation and multiple drafts *are required* on most written assignments. Students will construct a portfolio of their individual work, group work, peer reviews and self-assessment and will meet with the instructor and their faculty mentor during the development, write-up, and evaluation stages of the project and course. Faculty mentor review of proposals, portfolios and self-evaluations will be used at times during the course and in assessment of your final grade.

Faculty Mentor: You will choose a faculty mentor based on the mentor's expertise in your chosen area of research. The faculty mentor will serve primarily as a content and project design advisor, whereas the course instructor and student peers will serve as reviewers and editors to help you improve the quality and polish of your final product. If you decide to go on to turn your project into a Senior Thesis, you will most likely continue that work in consultation with the same faculty mentor.

Course Assignments and Grading:

Proposal		40%
Outline & Concept Map	5	
Bibliography I & II	5	
Expanded Outline / Draft	5	
1st Draft	10	
2nd Draft	10	
Final Draft	5	

Peer Reviews (your reviews of *other* work, ~3 pts ea) 20%

1 Pager	
Draft 1	
Job/Grad App	
Draft II	
Article Presentations	
Speaker Evaluation	
Total:	20

Misc. Assignments 30%

1 pager, executive summary	5
Article Reviews/Discussion (n=2)	10
Job Grad Application	3
Group Dynamics (part)	2
Poster	5
Presentation	5

Course Portfolio and Self Evaluation 5 5%

Participation and Professionalism 5 5%

Totals: 100 pts 100%

Grading Scale

A = 90% - 100%

B = 80% - 89.9%

C = 70% - 79.9%

D = 60% - 69.9%

Note on Participation and Professionalism

Students are expected to participate in all aspects of the course and to be **contributing members of a working group**. This includes timely submission of materials, constructive reviews of other's work, and professional behavior in class discussions/activities. Doing homework, texting, or other distractions in class are considered poor form. Your participation in group projects, classroom participation, and overall professionalism will be evaluated by group members.

CRITICAL NOTE: To prepare you for the cruelties of the 'real world,' proposal deadlines in this class are concrete and absolute. Late work will receive a ZERO grade. For purposes of informing future drafts, late drafts *may* still be evaluated and commented on by faculty *if timing allows*. Submitted work lacking required peer and/or mentor reviews, and your revisions, will lose up to 30% of possible points. All major assignments must be completed to receive a passing grade.

Additional Information on Course Assignments (*full assignment details and expectations in course packet*):

- 1) Expanded Outline: this should be a sound outline of the purpose and scope of the individual project. Must include all proposal components and have a strong literature review.
 - a) Introduction (brief)
 - b) The Question or Problem,
 - c) Multiple Working Hypotheses
 - d) Background information/previous work
 - e) Objectives
 - f) Methods
 - g) Expected results
 - h) Concept map
- 2) First Draft: First cut at what your proposal is going to look like. Must include well developed intro, literature review, methods; and a decent outline of what the Results and Discussion section will look like. Must include list of potential figures, maps, tables (with draft figures where possible). Peer Reviewed.
- 3) 2nd Draft Proposal: Complete with figures, tables, maps included; Budget and timeline. Must submit for at least two peer reviews.
- 4) Final Report: Submission-ready, e.g. quality writing, figures, maps and references. Must include all drafts and peer/instructor reviews.
- 5) Presentations: Oral presentation (15 minutes); Poster Presentation to be discussed in group.
- 6) Portfolio: Your ‘package’ of course accomplishments including: objectives, all assignments, peer/instructor/panel reviews and comments, papers, presentations, and self evaluation.

Course Schedule (*subject to change, but with ample notice. Deadlines are absolute*)

wk	Date	Lectures	In-class Exercises	Assignments DUE
1	Sep 11	Introduction / Scientific Method	Student Learning Objectives	** ORAL/WR PROGRESS REPORT DUE EACH WK**
2	Sep 18	Project Design / Proposal Writing	Project Design / Group Disc.	student objectives / contract
3	Sep 25	The Scientific Literature	Project Bibliography	project design / concept map
4	Oct 2	Leading Discussions / Budgets	Article Reviews	Select/submit articles to group for next wk
5	Oct 9	Article Presentations /Discussions	Article Discussion	Article Pres & Questions
6	Oct 16	Collecting and Managing Data	Proposal Reviews	Proposal Draft to inst & peers
7	Oct 23	<i>Work Individually</i>	Proposals	Peer Reviews Due Classified Bibliography (elec)
8	Oct 30	Graphs, Maps, and Data Analysis/	The Good the Bad the Ugly	F. Proposal Due (to Instr. / Panel) Graphics Ex
9	Nov 6	Graduate School and Job Apps	Cover letter/resume	Report Draft/ Results Outline
10	Nov 13	Working Group Dynamics	Group Communication	Cover ltrs, Resume (to reviewers) Maps & Figs
11	Nov 29	Oral and Poster Presentations	Posters and Talks / Reviews	Draft Report (to peer/instr) Appl reviews due
12	Nov 27	---No Class Thanksgiving---	Project Draft	Report Reviews DUE to authors
13	Dec 4	Portfolios / Self Evaluation	Project/reviews/portfolio	“Optional” 2 nd draft to instructor
14	Dec 11	PRESENTATIONS	Present / peer evals	PRESENTATIONS (ppt and poster)
15	Dec 18	Group / Individual Meetings	Course and portfolio eval	FINAL DRAFT to Panel
	Dec 21			Complete Portfolios and Self Evaluations DUE

Plagiarism/Academic Integrity: Academic dishonesty of any type will not be tolerated. Plagiarism is considered academic dishonesty and will be treated as such. If you are unsure of what plagiarism is, please consult information provided on Blackboard, or ask your instructor *before* handing in any work for grading. University Standards and Policies apply (see UAF Catalog).

Grades: Course grades will be assigned as indicated in “Academics and Regulations” section of UAF 2007-2008 Catalogue.

Support and Disabilities Services: The UAF Office of Disability Services (208 Whitaker Bldg, 474-5655) implements the Americans with Disabilities Act (ADA), and ensures that UAF students have equal access to the campus and course materials. The course instructors will work with the Office of Disabilities Services to provide reasonable accommodation to students with disabilities. Please notify the instructor of any special needs.