

GEOG/NRM 483W – RESEARCH DESIGN, WRITING, AND
PRESENTATION METHODS (3 credits)

Fall 2014

SYLLABUS

INSTRUCTOR	Dr. Chris Maio
OFFICE	Reichardt Building, Room 368
OFFICE HOURS	Tuesday 10:00 am – 12:00 pm Wednesday 2:00 pm - 4:00 pm And by appointment
CONTACT	907-474-5651 cvmaio@alaska.edu
LECTURES	Murie Building, Room 330 Tuesday & Thursday Tentative Class Time: 2:00 pm -3:30 pm

BOOK

Required: *Elements of Style* by Strunk and White (4th edition).
Other relevant readings will be assigned and distributed via Blackboard or in class.

PREREQUISETS

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

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 course will provide real world active learning assignments that seek to integrate the knowledge and skills gained through undergraduate course work, and will prepare you for graduate and professional level projects. This course emphasizes applying integrated knowledge toward activities that enhance professional and research career opportunities. The course is writing intensive and will focus on scientific writing, and the oral, written, and graphical presentation of data and research results.

COURSE GOALS

This course will provide a real world opportunity to conduct background research, complete a formal proposal, develop job or graduate school application materials, and present work. This course will provide a capstone opportunity for students to integrate their course-based knowledge with practical skills that will help in the professional or research setting. Students will gain practice in the challenges of thinking critically, dealing with the unexpected, and overcoming hurdles not typically encountered in the controlled classroom. Of most importance, this course is writing intensive and emphasizes written and oral communication skills. Students will become better writers and overall better communicators as they prepare to move into a professional or graduate setting.

TEACHING METHODS

This course centers around individual research projects and will emphasize all aspects of applied research from initial project design, methods, data analysis, graphics, and final presentation. Student's written and graphical work will go through drafts and receive feedback from peers, instructor, and mentor. There is a heavy emphasis on writing and on the critical review of your own work and other students in the class. Lectures will cover basic principles of scientific research, writing, and presentation. Specific assignments provide practice in important professional skills and will teach the fundamentals of the written and graphical presentation of scientific research. This course is meant to mimic a professional/graduate experience, and will require a substantial investment of time, with numerous assignments and deadlines that must be met for success.

LEARNING OUTCOMES

- Students will learn to develop and write a complete research proposal (including an abstract, project narrative, figures, collaborative support, etc.).
- 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 improve the quality of their writing through assignments of varied length and purpose (abstracts, proposal, reviews, and cover 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 how to develop a curriculum vitae (CV) for use in job and graduate school applications.
- Students will learn and practice how to produce publishable figures using Adobe Illustrator and ArcGIS software.
- Students will learn and practice 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.

COURSE POLICIES

EXPECTATIONS

Students are expected to come to class prepared and on time. This includes reading the assigned readings, having completed all assignments that are due and prepared to discuss the course material. There is also an expectation that students will act with professionalism and be respectful to other students, the instructor, and guests. A failure to meet these expectations will result in a lowering of the final course grade and dismissal from the class in which the expectations were not met.

PARTICIPATION AND PROFESSIONALISM

In class, participation and professionalism will be worth a total of 5% of the final grade. Attendance will be taken at the beginning of every class and be worth 2.5 points. Participation during class discussions and peer reviews is also required and will be worth 2.5 points. If there is an emergency or other important obligation which prevents a student from attending class they are expected to email the instructor prior to the absence. If students do not email prior to the absence, points will be deducted from the participation grade and other related course work.

STUDENT CONDUCT

UAF students are subject to the Student Code of Conduct. UAF will maintain an academic environment in which freedom to teach, conduct research, and administer the university is protected. Students will benefit from this environment by accepting responsibility for their role in the academic community. The principles of the student code are designed to encourage communication, foster academic integrity and defend freedoms of inquiry, discussion and expression across the university community. For a complete description of the University's Code of Conduct please go to http://www.uaf.edu/catalog/catalog_14-15/pdf/04_Academics.pdf and see Academics and Regulations.

ACADEMIC HONESTY WILL BE STRICTLY ENFORCED WITHIN THIS COURSE. CHEATING AND PLAGIARISM WILL NOT BE TOLERATED. ANY STUDENT CAUGHT PLAGIARIZING OR CHEATING WILL RECEIVE AN AUTOMATIC ZERO ON THE ASSIGNMENT IN QUESTION AND MAY BE REPORTED TO THE UNIVERSITY AUTHORITIES TO FACE FAILURE IN THE COURSE OR EXPULSION.

STUDENT SUPPORT SERVICES

STUDENTS WITH DISABILITIES

UAF is committed to equal opportunity for students with disabilities. Students with disabilities are encouraged to contact the coordinator of Disability Services (Mary Matthews) at the Center for Health & Counseling (x7043). If you need classroom accommodations or other support, please make an appointment with Mary K. Matthews at the Office of Disability Services at (uaf-disabilityservices@alaska.edu), to enlist the appropriate support. I will collaborate to provide accommodations and support or services to assist students in meeting the goals of the course.

OTHER SUPPORT

I encourage you to make use of the Writing Center (8th floor, Gruening Building) where you can take a draft of any writing and be helped with editing.

<http://www.uaf.edu/english/writing-center/>

VETERAN SUPPORT

Walter Crary is the Veterans Service Officer at the Veterans Resource Center, 111 Eielson Building. 474-2475.
Email: wecrary@alaska.edu

Fairbanks Vet Center 456-4238. VA Community Based Outpatient Clinic at Ft. Wainwright is 361-6370.

STUDENT EVALUATION

Assignment	Points	Total Percent Course
<i>Proposal</i>		40%
Outline/Concept Map	5	
Abstract	3	
Literature Review/Bibliography	4	
Draft 1	6	
Draft 2	6	
Final Draft	4	
Figures (2)	5	
Final Draft Submission	7	
<i>Peer Reviews</i> (your review of others' work)		20%
Draft 1	5	
Draft 2	5	
Poster/Presentation	4	
Abstract/Summary	3	
Cover Letter	3	
<i>In-Class/Public Presentations</i>		20%
Poster	9	
Poster presentation	5	
<i>Elements of Style</i> Rules (4-6 each)	6	
<i>Career Development</i>		10%
Cover Letter - Application	4	
Curriculum vitae (CV)	6	
<i>Course Portfolio and Evaluation</i>		5%
Objectives Statement	2	
Portfolio and Course Evaluation	3	
<i>Participation and Professionalism</i>	5	5%
<u>Grading Scale</u>		
A = 90-100 %		
B = 80-89 %		
C = 70-79 %		
D = 60-69 %		
F = < 59 %		
		<u>CRITICAL NOTE:</u> Printed hard-copies of all assignments are required. Deadlines in class are concrete and absolute. <u>Late work will receive a ZERO.</u> Submitted work lacking required peer and/or mentor reviews, and your revisions, will lose up to 30% of possible points. Upon instructor approval there will be accommodations made for students who have specific research/academic needs not included in the existing course evaluation criteria.

ADDITIONAL ASSIGNMENT INFORMATION

- 1) **Outline/Concept Map:** this should be a sound outline of the purpose and scope of the individual project. Must include all proposal components.
 - a) Introduction (brief)
 - b) The question or problem
 - c) Working Hypotheses
 - d) Background information/previous work
 - e) Objectives
 - f) Methods
 - g) Expected results
- 2) **Draft 1:** First cut at what your proposal is going to look like. Must include well developed introduction, 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).
- 3) **Draft 2:** Complete with abstract, project description, bibliography, figures, tables, budget and timeline. Peer – Mentor – Professor reviewed
- 4) **Final Draft Submission:** Submission-ready, e.g. quality writing, figures, maps and references.
- 5) **Peer Review:** There are a total of 5 Peer Review assignments. Each assignment will require two components including, 1) detailed editing corrections and comments on the document itself (Care should be taken to make these on-page edits legible and concise), and, 2) a 100-150 word paragraph providing detailed constructive feedback on the author's work. This paragraph (typed or written) should be on a separate piece of paper and summarize the on-page corrections and comments.
- 6) **Presentations:**
 - a) Poster – Detailed instructions will be given on the design and development of a poster in class. Scientific posters will follow standard format and be approximately 32 inches by 48 inches. Posters will be printed on the Department of Geosciences printer at no charge to students (1 free per semester). Posters will be presented in a public forum at the end of the semester.
 - b) Elements of Style – On four occasions, students will present material to the class from *The Elements of Style*. Each presentation will cover either, 1 Rule from Chapters II or V, 7 misused words/expressions from Chapter IV, or 7 words from the Glossary. Presentations should be 5-10 minutes long and consist of clearly stating the rule/topic, providing examples from the book, and providing student examples. Students can use a presentation media of their choice including, but not limited to, PowerPoint, chalk board, paper, etc. Writing Rules and vocabulary should be clearly stated with examples provided for their use and misuse. A brief discussion of the material covered will follow each presentation.
- 7) **Career Development:** Two assignments will be used to prepare students for entering graduate school and professional careers. A CV will be developed, instructor reviewed, and refined for use and dissemination. Additionally, a cover letter for graduate school/job application will be developed and peer reviewed.
- 8) **Portfolio:** Your 'package' of course accomplishments including: objective statement, all assignments, reviews and comments, papers, presentations, and course evaluation.

EVALUATION SCHEDULE

Due Date	Assignment	Course Points
9/11	Course Portfolio: Objectives Statement	2
9/16	Proposal: Outline/Concept Map Draft 1	2.5
9/23	Proposal: Outline/Concept Map Draft 2	2.5
9/25	Proposal: Abstract Draft 1	1.5
9/30	Peer Review: Abstract	3
10/2	Proposal: Literature Review/Bibliography Draft 1	2
10/7	Proposal: Abstract Draft 2	1.5
10/14	Proposal: Draft 1	6
10/16	Proposal: Figures Draft 1 Proposal: Literature Review/Bibliography Draft 2	2.5 2
10/21	Peer Review: Draft 1	5
10/28	Proposal: Draft 2	6
10/30	Peer review: Draft 2 Proposal: Figures Draft 2	5 2.5
11/4	Career Development: Cover Letter Draft 1	2
11/6	Career Development: CV Draft 1	3
11/11	Proposal: Final Draft	4
11/13	Peer Review: Cover Letter	3
11/18	Proposal: Final Submission Career Development: CV Final	7 3
11/20	Career Development: Cover Letter Final Presentation: Poster Draft 1	2 4.5
11/25	Peer Review: Poster	4
12/2	Presentation: Poster Draft 2	4.5
12/4	Presentation: Poster Presentation	5
12/9	Course Portfolio and Evaluation	3
9/4-12/11	Presentation of <i>Element</i> Rules (4 each)	6
9/4-12/11	Participation and Professionalism	5
	TOTAL POINTS	100

TENTATIVE COURSE SCHEDULE UPDATED 10/21

Week	Date	Lectures	In-Class Activity	Assignments Due
1	04 Sept Th	<i>Lecture 1: Course introduction and the Syllabus</i>	<ul style="list-style-type: none"> • Student introductions, background, and course expectations 	
2	09 Sept Tu	<i>Lecture 2: Navigating the post-undergraduate world</i>	<ul style="list-style-type: none"> • Syllabus review/questions • Objective statement 	
	11 Sept Th	<i>Lecture 3: Developing a research project, setting realistic expectations, and building a framework for success</i>	<ul style="list-style-type: none"> • URSA Proposals • Independent study 	Presentation: <i>Elements Rule Selection Objectives Statement</i>
3	16 Sept Tu	<i>Lecture 4: The mechanics of proposal writing Part 1: The funding environment, high stakes writing, and your future</i>	<ul style="list-style-type: none"> • <i>Elements 1</i> • Individual discussions on student objectives 	Proposal: Outline/Concept Map Draft 1
	18 Sept Th	<i>Lecture 5: The mechanics of proposal writing Part 2</i>	<ul style="list-style-type: none"> • Individual feedback on Outline/Concept Map 	
4	23 Sept Tu	<i>Lecture 6: Peer reviews: The importance of getting and providing critical feedback</i>	<ul style="list-style-type: none"> • <i>Elements 2</i> • Independent study 	Proposal: Outline/Concept Map Draft 2
	25 Sept Th	<i>Guest Lecture 7: Conducting a literature review and utilizing library resources</i> Dr. Steven Hunt , Director UAF Research Library, Rasmuson Library (room TBA)	<ul style="list-style-type: none"> • Literature review 	Proposal: Abstract Draft 1
5	30 Sept Tu	<i>Lecture 8: Developing a bibliography and properly citing sources within text</i>	<ul style="list-style-type: none"> • <i>Elements 3</i> • Literature review group discussion 	Peer Review: Abstract
	02 Oct Th	<i>Lecture 9: The art of producing effective and publishable figures using Adobe Illustrator</i> Reichardt Building, Room 316	<ul style="list-style-type: none"> • Making figures with Adobe 	Proposal: Literature Review/Bibliography Draft 1
6	07 Oct Tu	<i>Lecture 10: Producing publishable maps using ArcGIS</i> Reichardt Building, Room 316	<ul style="list-style-type: none"> • Study site figures 	Proposal: Abstract Draft 2
	09 Oct Th	NO – CLASS Mentor meetings/work on proposals		
7	14 Oct Tu	<i>Guest Lecture 11: Barbara Taylor (URSA) presents: Developing an “elevator” talk</i>		Proposal: Draft 1
	16 Oct Th	Peer Reviews & PIZZA!	<ul style="list-style-type: none"> • Peer reviews 	Proposal: Figures Draft 1, Proposal: Literature Review/Bibliography Draft 2
8	21 Oct Tu	<i>Lecture 12: Cover Letters and Emails</i>	<ul style="list-style-type: none"> • <i>Elements 4-5</i> • Peer reviews 	Peer Review: Draft 1
	23 Oct Th	<i>Lecture 13: Developing synergism through collaborative research and education projects</i>	<ul style="list-style-type: none"> • TBA 	

Week	Date	Lectures	In-Class Activity	Assignments Due
9	28 Oct Tu	<i>Guest Lecture 15: Laura Bender from Graduate Studies presents: Applying to graduate school and professional careers</i>	<ul style="list-style-type: none"> Peer reviews 	Proposal: Draft 2
	30 Oct Th	<i>Lecture 15: Applying to Graduate School and Professional Careers</i>	<ul style="list-style-type: none"> CV's 	Peer Review: Draft 2 Proposal: Figures Draft 2
10	04 Nov Tu	<i>Lecture 16: CV and Resume development; how to effectively portray yourself on paper</i>	<ul style="list-style-type: none"> Elements 6 	Career Development: Cover Letter Draft 1
	06 Nov Th	<i>Lecture 17: Presenting at conferences; networking, social interaction, and synergy</i>	<ul style="list-style-type: none"> Peer Review 	Career Development: CV Draft 1
11	11 Nov Tu	NO CLASS Schedule individual meeting with Professor/mentor		Proposal: Final Draft
	13 Nov Th	<i>Lecture 18: Making scientific posters; finding the middle, not too much, not too little</i>	<ul style="list-style-type: none"> Elements 7 Peer Review 	Peer Review: Cover Letter
12	18 Nov Tu	COMPUTER LAB Reichardt Building, Room 316	<ul style="list-style-type: none"> Poster development 	Proposal: Final Submission Career Development: CV
	20 Nov Th	COMPUTER LAB Reichardt Building, Room 316	<ul style="list-style-type: none"> Poster development 	Career Development: Cover Letter Final Presentation: Poster Draft 1
13	25 Nov Tu	<i>Lecture 19: Educational outreach: Bridging the gap between scientists and the rest of the world</i>	<ul style="list-style-type: none"> Elements 8 Poster feedback 	Peer Review: Poster Draft 1
	25 Nov Th	NO CLASS THANKSGIVING HOLIDAY		
14	02 Dec Tu	<i>Lecture 20: Portfolio and course evaluations</i>	<ul style="list-style-type: none"> Poster feedback 	Presentation: Poster Draft 2
	04 Dec Th	<i>Lecture 21: TBA</i>	<ul style="list-style-type: none"> Printing Posters 	Presentation: Poster final draft
15	09 Dec Tu	<i>Lecture 22: Action based research: bringing benefits to society through science</i>	<ul style="list-style-type: none"> TBA 	Course Portfolio and Evaluation
	11 Dec Th	<i>Research Presentations PIZZA PARTY!</i>	<ul style="list-style-type: none"> Presentations and Discussion 	Presentation: Public Presentation

Students will be notified and the syllabus will be updated on Blackboard if there are any changes to the above schedule. Gray dates indicate that class will be held in a different location.

DON'T BE SHY!!!

ASK QUESTIONS!!!