

**Course Syllabus**  
**ATMS 241**  
**Geography in Meteorology**  
**Spring 2008**

- Description:** An introduction to cartography, geographic visualization, and elementary spatial statistics, with an emphasis on meteorological applications. (*1 Credit; Corequisite:* ATMS 103 or 105)
- Key Topics:** Physical Geography: Basics of physical geography with emphasis on climate.  
Cartography: Fundamental of map drafting, compilation, symbolization, scales, projections, and map classification.  
Spatial Statistics: Distributions, correlation, regression, uncertainty, and hypothesis testing.  
Visualization and Communication: Using maps to convey meteorological content.
- Instructor:** Mr. Tim Owen, RBH 236B, Department of Atmospheric Sciences  
 (828) 232-5159 (department office); (828) 258-9668 (home; no calls after 9 pm please)  
 towen@unca.edu (e-mail)
- Hours:** Course: 12:45 – 2:25 pm Monday; Office: After class or by appointment.
- Text:** None. Handouts provided by instructor. Colored pencils and spiral notebook strongly suggested.
- Grading:** Assignments (45%); Quizzes (45%); Class Participation (10%)
- Grade Scale:** (Final grade rounded) A:  $\geq 90\%$ , B: 80-89%, C: 70-79%, D: 60-69%, F:  $<60\%$ ;  
 +/- Added to Numeric Grades within 2% and 1% of a Grade Threshold, respectively (D and F excepted)
- Notes:** Assignments: Time will be provided in class to start each assignment, which will be due at the beginning of the next class. Late assignments will be penalized 50% if turned in within one week of due date; otherwise, they will not be accepted.  
Quizzes: Three non-cumulative quizzes (each worth 15% of the course grade) will be given. Quizzes will be 45 minutes in length and based on handouts, assignments, and class lectures.  
Class Cancellations: If class is cancelled for any reason, handouts and assignments will be provided by e-mail and will be completed during the next class period.

Class	Date	Assignment	Quiz	Subject
1	Jan 14	1		Introduction to Maps and Physical Geography
	<i>Jan 21</i>			<i>Martin Luther King, Jr. Holiday – No Class</i>
2	Jan 28	2		Statistics Primer for Mapping
3	Feb 4	3		Tools of the Cartographic Trade
4	Feb 11	-		Fundamentals of Cartographic Design
5	Feb 18	4	1	<i>Quiz</i> , Four Colors Suffice
6	Feb 25	-		Map Projections
	<i>Mar 3</i>			<i>Spring Break – No Class</i>
7	Mar 10	5		Graphing Spatial Data
8	Mar 17	6		Spatial Correlation
9	Mar 24	-		Mapping and Regression Techniques
10	Mar 31	7	2	<i>Quiz</i> , Traveling Salesman Problem
11	Apr 7	8		Characterizing Uncertainty in Maps
12	Apr 14	9		Spatial Hypothesis Testing
13	Apr 21	-		Spatial Communication
14	Apr 28	10	3	<i>Quiz</i> , Course Wrap-Up