

**Syllabus for ATMS 261 – Computer Applications in Meteorology – Spring 2006**

Date	Topic	Project*
F 19 Jan	Intro/ MS Word & PowerPoint	Group Project #1
F 26 Jan	MS FrontPage	Group Project #2
F 2 Feb	MS Movie Maker	Group Project #3
F 9 Feb	Moving data	Group Project #4
F 16 Feb	Excel	Group Project #5
F 23 Feb	DOS command window	Group Project #6
F 2 Mar	Minitab/Matlab	Group Project #7
F 16 Mar	GIS	Group Project #8
F 23 Mar	Linux command window	Group Project #9 @ <a href="#">RBH238</a>
F 30 Mar	GARP	Group Project #10 @ <a href="#">RBH238</a>
F 6 Apr	Online weather data resources	Group Project #11 @ <a href="#">RBH141</a>
F 13 Apr	VIS5D/IDV	Group Project #12 @ <a href="#">RBH238</a>
F 20 Apr	Moving data	Group Project #13 @ <a href="#">RBH238</a>
F 21 Apr	Compiling a program	Group Project #14 @ <a href="#">RBH238</a>

\*assignment completed before class ends on this date

**Description**

A course designed to equip the student with tools for effective communication, and data analysis and manipulation with a focus on applications in the atmospheric sciences. These tools will be introduced for computers having Windows XP and Linux operating systems.

## Outline

Introduction

Applications within the Windows XP Operating System

Office Tools

MS Word

Communication Tools

Visualization

Powerpoint

FrontPage (Web)

Others

Data Manipulation Tools

moving data (push/pull)

Online weather data resources

FTP

telnet

ssh/kerberos

crunching data (making calculations)

Excel

Minitab

Matlab

IDL

displaying data

GIS

The DOS command window

Remote Logins

Applications within the Linux Operating System

The Linux command window

Office Tools

Communication Tools

Visualization

GARP/GEMPAK

McIDAS

NCAR-Graphics

VIS5D

Data Manipulation Tools

moving data (push/pull)

FTP

telnet

ssh/kerberos

LDM

crunching data (making calculations)

Compiling a program

Running an atmospheric model

## Grading

Projects	40%
Attendance	50%
Presentation	10%
<b>Total</b>	<b>100%</b>

92% < total score ≤ 100%	A
90% < total score ≤ 92%	A-
88% < total score ≤ 90%	B+
82% < total score ≤ 88%	B
80% < total score ≤ 82%	B-
78% < total score ≤ 80%	C+
72% < total score ≤ 78%	C
70% < total score ≤ 72%	C-
68% < total score ≤ 70%	D+
60% < total score ≤ 68%	D
total score ≤ 60%	F

## Projects

Projects will be assigned during each class and are intended to aid in improving your understanding of the course material contained in the lectures. Due to the limited number of computers in the RBH141 lab, projects will be worked on in groups that are assigned by the instructor. Each individual within the group will receive an identical grade.

## Exams

None.

## Final Exam

None.

## Presentation

Each student will be part of a two-person team that will be responsible for leading the class through a project designed to improve familiarity with a computer application listed as part of the course outline. Presentations and projects given during the semester will introduce new material and need to be approved by the instructor. Presentations and projects given during the final exam period will review course material. The presentation should be no longer than 15 minutes and the corresponding project should be capable of being completed before the end of the class period. As part of each presentation team, each team member will be responsible for making a contribution to the 15 minute presentation as well as designing the corresponding project. Written team member evaluations and presentation files are required to be handed in to the instructor as part of the presentation.

**Assignment/Quiz/Exam Policy**

Assignments are to be handed in before the end of class on the date they are due. Assignments handed in after the start of lecture are considered late until 5:00 pm on the date they are due and will have an automatic 10% deduction from their final score. Assignments handed in after 5:00 pm on the date they are due will receive no credit.

**Instructor**

Doug Miller  
232-5158

<http://facstaff.unca.edu/dmiller>  
[dmiller@unca.edu](mailto:dmiller@unca.edu)

**Textbook**

None required

**References**

Given as necessary

**Disabilities**

Contact Prof. Miller early in the course if you have a disability that requires special accommodation.

**Academic Integrity**

Cheating or plagiarism results in a failed assignment, quiz, or exam on the first infraction. A second infraction results in course failure and a report to the UNCA administration. See <http://www.unca.edu/catalog/academicregs.html> under “Student Responsibilities” for a refresher on the UNCA policy.