**Syllabus for ATMS 261 – Computer Applications in Meteorology – Spring 2008**

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Project*</th>
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<tr>
<td>F 18 Jan</td>
<td>Intro/ MS Word &amp; PowerPoint</td>
<td>Group Project #1</td>
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<tr>
<td>F 25 Jan</td>
<td>MS FrontPage</td>
<td>Group Project #2</td>
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<td>F 1 Feb</td>
<td>MS Movie Maker</td>
<td>Group Project #3</td>
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<td>F 8 Feb</td>
<td>Moving data</td>
<td>Group Project #4</td>
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<td>F 15 Feb</td>
<td>Excel</td>
<td>Group Project #5</td>
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<td>F 22 Feb</td>
<td>DOS command window</td>
<td>Group Project #6</td>
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<td>F 29 Feb</td>
<td>Minitab/Matlab</td>
<td>Group Project #7</td>
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<td>F 14 Mar</td>
<td>GIS</td>
<td>Group Project #8</td>
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<td>F 21 Mar</td>
<td>Linux command window</td>
<td>Group Project #9 @ RBH238</td>
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<td>F 28 Mar</td>
<td>Online weather data resources</td>
<td>Group Project #11 @ RBH141</td>
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<td>F 4 Apr</td>
<td>GARP</td>
<td>Group Project #10 @ RBH238</td>
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<td>F 11 Apr</td>
<td>VIS5D/IDV</td>
<td>Group Project #12 @ RBH238</td>
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<td>F 18 Apr</td>
<td>Moving data</td>
<td>Group Project #13 @ RBH238</td>
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<td>F 25 Apr</td>
<td>Compiling a program</td>
<td>Group Project #14 @ RBH238</td>
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*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%
Total                                                             100%

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 be 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
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232-5158
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.