ATM F401 / 601 - Introduction to Atmospheric Sciences. CHEM F601 Cross listed with the Department of Chemistry

Instructor: Dr. Javier Fochesatto. Professor of Atmospheric Sciences

Email: qjfochesatto@alaska.edu

Office: Reichardt Building Room 371 (474-7602)

Grading Policy:

Homework:

Includes problem solving with a due date of one-week period. No late homework will be accepted (except in excused absences). Homework should be submitted in any platform using Jupyter Notebook or Live Scripts in Matlab. Late homework will not be accepted unless you make prior arrangements with the instructor. It is your responsibility to prepare homework on time. It is suggested that you plan and schedule your work.

Ouizzes:

Scheduled after the due date of the homework and summarizes the homework through one problem or to develop a description/explanation of a given atmospheric process.

Practicum:

The practicum consists on examining a set of data form the AFARS instrumentation or using reanalysis datasets available or data provided by the students research. The student will perform a scientific analysis guided by the development of a research hypothesis that will be discussed with the instructor during the course. The practicum will be summarized in a short research presentation.

Examinations:

Two Mid-Term exams and a Final exam.

Final presentations:

Take place in the final week of classes. You'll have to attend all final presentations given by graduate students enrolled in ATM-601. Only in case of emergency (e.g. field research, conference attendance or sports competitions) you can be excused. Such emergencies have to be brought to the instructor's attention as soon as you find out about them.

Difference between ATM401 and ATM601/CHEM601:

The instructor will try to balance the interests of undergraduate and graduate students. Therefore, the instructor will assign special tasks for graduate students that probe the material assigned at the graduate level. This means there are differences in the degree of difficulty in the assignments as function of the different goals of the learning outcome. Graduate students: 1) will have additional reading and assignments to achieve the learning outcomes, 2) will be required to discuss results under a given aspect (while undergraduate students are not asked to do so), 3) will be required to read a research review paper relevant to the topic of the respective unit, 4) will always be assigned different or additional homework problems at a higher degree of difficulty that will probe applying methods discussed in the additional readings, and/or 5) will have to answer additional or different questions on the questionnaires, 6) will be required to summarize the material in less than 200 words in the questionnaire, 7) will be asked to program simple concepts, and 8) will get quizzes and exams that also probe for the material related to the additional learning outcomes. In other words, tasks designed for graduate students will require skills that undergraduate students usually do not have yet (e.g., programming) and/or that are not an expected learning goal at the undergraduate level (e.g., making reasonable assumptions, justify assumption, testing of the limits of assumptions, identify data not needed to solve the question, etc.). Exams and guizzes will have additional tasks to be solved at the graduate level.

Difference between CHEM601 and ATM601:

There is no difference between the grading scheme for any of the reporting function (e.g., quizzes and exams). The instructor will balance the interests of chemistry and atmospheric sciences students and the importance of the material taught for their discipline by assigning relevant applications to their discipline as much as possible. Thus, the instructor will occasionally assign ATM601 and CHEM601 students different applications, or parts of exams or quizzes. Students can gain extra credit for also doing the tasks not assigned to them. A difference on an application task could be that ATM601 students have to plot the results of a problem for various quantities, while CHEM601 students have to discuss what the results of the problem mean for the chemical distribution in the atmosphere.

Additional policies:

- 1. No weapons allowed in class.
- 2. Due dates are firm, with the exceptions mentioned above as well as documented emergencies.
- 3. The instructor will work with the UAF Center for Health and Counseling's Disability Services Program (http://www.uaf.edu/chc/disability.html) to accommodate students with disabilities.
- 4. Any student who is an UAF sponsored athletic or who has other personal or situational difficulty that might affect class performance is invited to contact me in the first week of the semester (or as soon as such matters emerge) so that ways of accommodating the difficulty may be anticipated.
- 5. Please also let me know if you have condition that could require direct medical attention (e.g. pregnancy, allergies, diabetes, other chronic diseases).
- 6. If you are to attend a conference and/or participate in a field trip, please let me know in the first week of class so that arrangements can be made to make up for the classes missed and how to submit homework assignments.

Academic integrity, honor code and plagiarism:

The instructor expects students to submit own original work and reference all other work and intellectual ideas with appropriate reference and citation. You are subject to the code of conduct http://www.uaf.edu/catalog_09-10/academics/regs3.html#student_Conduct.

Other important information:

It is essential that you (1) keep up with the assigned readings, (2) budget your time wisely to complete all of your assignments, and (3) seek clarification on any material, which you do not understand, during business or class hours. If the instructor is not covering subjects adequately, or the in-class exercises are confusing or difficult, or if you do not understand the questions/tasks/expectations, please let the instructor know about it. The instructor wants you to understand the material.

Information for Students related to COVID-19:

Students should keep up-to-date on the university's policies, practices, and mandates related to COVID-19 by regularly checking this website:

https://sites.google.com/alaska.edu/coronavirus/uaf/uaf-students?authuser=0

Further, students are expected to adhere to the university's policies, practices, and mandates and are subject to disciplinary actions if they do not comply.