ATM F673, Introduction to Micrometeorology

Course Description: This course gives a comprehensive explanation of micrometeorology, its basic theories of physics, mechanic measurement procedures and methods, and how micrometeorological processes interact and affect the meso and large scale atmospheric motion. This class will deal with weather conditions on small scales of space and time. Example applications of this course can be the weather conditions lasting less than a day in the area immediately surround a smokestack, a building, air flow in street channels, or a small air shed, seasonal series of ecosystem fluxes in Arctic Tundra and Sub Arctic Boreal forest and calculations of heat and momentum fluxes in glaciers and on sea-ice surfaces

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Class Days: TBD (usually Tuesday and Thursday)
Class time: TBD (usually 2:00 PM to 3:30 PM

them into equations; solve fundamental problems related to the basics of micrometeorology and quantitatively describe how they typically occur in micrometeorological applications (e.g. surface and trace gas fluxes, air evapotranspiration, turbulence, Bowen ratio and eddy covariance methods). Fundamental goals are that you develop skills to analyze and interpret micrometeorological data and identify micrometeorological processes. This includes application of learned material into different problems or putting learned material together in a new context to solve a problem where micrometeorological variables plays a fundamental role.

Student Learning Outcomes: (1) Understand the micrometeorological processes and put them into equations, (2) Solve fundamental problems related to the basics of micrometeorology, (3) Learn to develop skills to analyze and interpret micrometeorological data, (4) Identify micrometeorological processes, and (5) Know how to write a research paper.

Blackboard: You need to download and are the material posted. It is your responsibility to apply for an UAF gmail account because Blackboard access is only available with that account. You will be hooked up automatically for access to Blackboard when you register for this class. However, if problems occur with this automatic procedure and you cannot log in, send the instructor an email so that the instructor will verify the email address, enroll you into Blackboard manually, and set up your Blackboard account for this class.

Attendance: You must attend class regularly and use the required book. Class attendance and participation in class in exercises/discussions are required and will be a part of your grade. Missing 50% of the classes will result in an F. Unexcused absence results in loss of attendance points. If you miss class you will also miss discussion of homework. Excused absences are approved in advance or absences due to a documented emergency. Such documentation must be made immediately upon the student's return to class. Please understand that this is a college course you are expected to be on time for class and have all the required material unpacked.

Computer Simulation Classes:

the homework. If you cannot present or do not have the homework when you are chosen to be the presenter, you will get an F. If homework is assigned as a group task, every group member must be able to answer questions related to the presentation or presentation. The group homework will be graded for completeness, correctness, understanding, presentation, discussion (50%) how the group worked as a team (50%). This grading on group work is to learn efficient teamwork, because future research ques will require more and more teamwork.

No late homework will be accepted (except in excused absences). Late homework should be submitted in readable style. "Readab style" means typed, double-spaced, using at least a 12-point font, one-inch margins, and in hard copy format. It is simply too tricky to yi-8(r

office center can be reached at 474-5655. I will work with the office to provide reasonable accommodations for 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, and other chronic diseases).