

2 IØFHØFDVNRQ \$NDVRIX

3 KRQHb

' HØYHU P RGH 2 QØQH

3 KRQHFRQIHUHQFH/b8 SVR VKUHHG XØQ VØHVHP HMMU7%\$ P DQG DRW3)

7HDFKIQJ DMLVWQW1 RQH

3 UHTXLVMMV * UDG ØMMVWQGGQJ LQ67(0 ØHØG VSK VEFV FKHP LMM FLYØHQJHQHUQJ
HQJHQHUQJ JHRJUDSK JHRSK VEF VK G ØØJ\ WFKQØØJ\ HQJHQHUQJ P DMHP DMFV
LQMMKF ØU

&RXUH' HMFUSMRQ ,QMRG Ø MRQR\$ VØ RVSKHUF6F HQF MFRP SULVMMKHSK VØDOFK
G QDP LF ØSURF MMVRI VØWRSRVSKHUH 7KHJRYHUQJQJ FRQMHYDMRQ E DØFH HTXDMF
F ØMMVXHQW G UDLUZ DMUJXE VØQF M VØVØP DW HT ØMRQRI FRQMQXW HQHU\
VKHP RG QDP LF VHQMRS\ ØZ RI VKHP RG QDP LF VDQGP RP HQMP 1 HZ VØQØV Ø
SVMHQMGDQGH\ SØLQHG

6XEMFW\$ GGUHMHG

Ø VØQØØ\ VØVØKØUE ØHVEØYØ V

' LIHUHQFHEHVZ HHQ\$70 DQG\$70 &+(0 ,W VRE DDQF WKHLQMUHWRI XQG HJUDG XMM
DQJJDG XMMWXG BW 7KHUHRUH , ZLODMWJQVSHFDQVW MIRUJUDG XMMWXGHQVVKDVSUREHVKH
P DMUDDWJQHGDVVKHJUDG XMMOMHO7KHVDP HDSSOHMIRUMHXQG HJUDGXDMOMHO7KLP HDQVVKHUH
DUHG WADQF QILHUHQF MLQVKHG HUHRI GIQFXOV LQVKHDMWJQP HQWLDFFRUGZ LKVKHGLIHUHQWRDORI
VKHODUQJ RXVF IR H 7KLP HDQVDP RQJ RVKHUMKQVVKDWRVHUMKHMV HIUDP HRI VKHFOW JUDGXDM
WXG BW ZLOKDYHDG QMRCQJHDGQJ DQG RUYLG RZ DMFKLQJ DMWJQP HQWVRDFKLYHVKHODUQJ
RXVF IR HVDVVKHJUDG XMMOMHO ZLOE HUHT XUHGVRG VEXWUHXOVXQG HDJLYHQDVSHFWZ KLOI
XQG HJUDG XMMWXG BVDUHQRVDMHGVRG RR ZLOE HUHT XUHGVRUHDGDUHMDFK UHMLZ SDSHU
UHOMDQVVR VKHVRSLFRI VKHUHSHF VHXQW ZLODZ D VE HDWJQHGG IILHUHQWRUDGGVRCQDOKRP HZ RUN
SURE IE IOJ D @

2 V\HUFUXUHURXUFHV\B\ODVH\DD\HMDV\KHQW\XG\BWHQ\RO\QXQ\YH\XQ\YH

\$OSURE IP VKDYHRE HROHGLQUHDG DIEWOI VFDQHGLODGGVE RWMGE\ HP DLOZ LK FODU
LG EMZF MRQRI VHXQVXP E HDGG\ RXUCP HÍ5HDG DIEWOI P HDQ/HMKHUFODUKDGGZ UMQJ RU
WSHG G RE IOVSDF IG XLQJ DWDWD IHI

HP DQDV, F DQRWJDQMHHP DQDF FWH

\$QWKG EWLQVHF DVZ HULQRUP HGDE RVMHSRQFLH/DVWHE HJQQQ RI VHFQWDQGLQVH
V DE X' DQGLVZ RXGE HKQDLVRHYHU RQHHDHVRJLYHRQSHURQDQH FHSVRQ

5HTXLHG7HFKQRQJ\ 6RIVZ DUH 6VXG EWP XWKDYHUHXQDF FVVRDFRP SXMUDQGVKH, QMLQHVR
DF FVRQQHP DMUDYRQVLF DMURRP SDJH 6VXG EWHHGDO SVRS 3& 0 DFRUMZEMZ LMKD
E BZVHUD8\$) HP DQDG GHUVRDF FVWVHT XMRQQDLH/DQGT XJ] HV DQGDFFHVVVR VHLQMLQHW2 Q
VHG MF HRIVZ DUVRZ DMF KPS YLGRVKDVR E HQWQDG, H] S IFVWVW RX FDQKQGGDQZ RUNZ LMK
\$G E HUDG HJRRJQIRUP V JRRJQIG R JRRJQVHW DQGH FHC

\$ FDGHP LF ,QMUUW + RGRU&RGHDQG3 OJLDULP , H SHF WXXG BMMR VXE PLRZ QRUIQDOZ RUNDQG
UH HUHCF HDORMHUZ RUNDGGI QMDF XDOG BVZ LMK DSSURSUDM UH HUHCF HDGGFVDMRQ \$ VGHMUEHGE
8 \$) VF IRDMF GVKRQHW F RMMXMM/YRDMRQRI VHXQYHULW UKDMV DGGUHXDMRQ/DGGIV
SXQLKDE IDF FUBQ VR VHSURF B XHVRXVCHGE\ 8 \$) 6FKRDMF GVKRQHW LQFOXGHV EXWVQRW
OP LMGVR F KDMQ RQDQH DP SOJLDULP DGGFRDMRQ &KDMQ LQFOXG MSURYLGQJ DQZ HUVVRU
VNLQJ DQZ HUVIURP DQRMHUMXG B3 OJLDULP LQFOXG MXVHRI DQRMHUXMRE/Z RUGVRUDJXP HQW
Z LMKRXVMMIE XMRQ &RDMRQLQF XG MXQDXMRUJ HGFROE RDMRQZ LMK DQRMHUSHURQLQSUSDUQJ
Z UVMQZ RUNIRUIXO@W

Introduction to Atmospheric Sciences

Number: ATM401

Instructor: Carmen N. Moelders, aka Nicole Mölders

Email: cmoelders@alaska.edu

Office hours: Thursday 1-2 pm on google hangout

Office location: Akasofu 309

Phone: +1 907 474 7910

Delivery mode: Online

Phone conferences: Up to three during the semester TBA (mandatory P/F)

Teaching assistant: None

Prerequisites: Upper class standing in STE

- Solar and terrestrial radiation, radiative equilibrium, radiative-convective equilibrium
- Basics of meteorology
- Satellite remote sensing
- Greenhouse effect
- Ocean circulation
- ... and their influence on general circulation

So, after, all students will be able to

1. ... thinking
2. ...ation (balance) equations for aerosol mass (equation of continuity), energy dynamics, and momentum (Newton's ...)

want to take this class. The application assignments are tailored to the different student groups (ATM401, ATM601, CHEM601). However, in the discussion group the students at both levels are in the same cohort. There might be up to three phone conference during the semester where I will call you to discuss class material.

Suggested Readings/Textbooks: All reading and application assignments are available on Canvas.

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to program

All problems have to be solved in readable style, scanned in and uploaded to the problem sheet.

“Readable style” means either clear hand writing or typed, double-spaced, using at least a 12-point font, one-inch margins, and in hard copy format. Latex is a great software to write equations. If ya

equation sheets. Moreover, there will be tasks that are ONLY designed for graduate students and these tasks are indicated as such. These tasks require skills that undergraduate students usually do not have yet (e.g., programming) or that are not an expected learning goal for them right now (e.g. making reasonable assumptions, justify assumption). The undergraduate students will be assigned a task at the undergraduate level to work on at that time.

Required Technology Software: Students must have regular access to a computer and the Internet to access online materials on this classroom page. Students need a laptop, PC, Mac or tablet with a browser, a UAF email address to access the questionnaires and quizzes, and access to the internet. On the device software to watch mp4 videos has to be installed. I expect that you can handle and work with Adobe reader, google forms, google doc, google sheets, and excel. ●

All problems have to be solved in readable style, scanned in and submitted by email with clear identification of the unit number and your name. "Readable style" means either clear hand writing or typed, double-spaced, using at least a 12-point font, one-inch margins, and in hard copy format. Latex is a great software to write equations. If you have not met these stipulations, I will return it to you ungraded. Submission will not be accepted via fax unless you make prior arrangements with me. When programming tasks are assigned the code has to be submitted as part of the assignment, i.e. it is not sufficient to just submit the results. I want to see how you got there. All results of problem tasks will have to be discussed what they mean for the water cycle.

yss

It is the student's responsibility to submit the assignments and participate in the discussion group in time. I strongly suggest that you plan and schedule your work and start working on your assignments before they are due. I recommend having backup systems in place so you can have all work completed on schedule. Getting work done on time is a key to early success in your business or scientific career. A major complaint of employers is that faculty do not instill a sense of responsibility in students.

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, # & \$ # & \$ %-

G m ` ` UVA (g\$ %' p ' = b h f c X i Wh] c b ' h c ' 5 h a c g d \ Y f] W ' G W] Y b W

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\ h h d g . # #] b h f c ! U"hiaLzq"! YgXW] #' gVc`a`aU Voi] gh!mU h a (\$ % #

- # %

Explanation of NB/I/W grades

This course adheres to the UAF regarding the granting of NB Grades The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.

helpful resources, and maximize their distance learning experience. Contact the UAF eCampus Student Services staff at 907.455.2060 or toll free 1.800.277.8060 or contact staff directly – for directory listing see: <https://ecampus.uaf.edu/contact>

UAF Help Desk: Go to <http://www.alaska.edu/oit/> to see about current network outages and technology news. For technical questions, contact the Help Desk at: e-mail at helpdesk@alaska.edu, phone: 450.8300 (in the Fairbanks area) or 1.800.478.8226 (outside of Fairbanks)

Effective communication

Students who have difòculties with oral presentations and/or writing are strongly encouraged to get help from UAF.Department.of.Comm@com _____

Unit schedule and form due times

This schedule lists what will be covered by the class and applications, and which units has to be completed in which week. Note thatⁿ

