

' 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 RVKHUMKQVVKDWRVYHUMKHMV 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 KE IOJ D @

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

HP DQDV, F DQRWXDUDQMHP DQDF FVW

\$QWXG EWLQVHF DVZ HUIQRUP HGDE RVMKHSRQFLH/DVMKHE HIQQQJ RI VHFQWDQGLQVKH
V DE X' DQGLVZ RXGE HKQDLVRHYHU RQHHDHVRJLYHRQHSUVRQDQH FHSVRQ

5HTXLUHG7HFKQRQJ\ 6RIVZ DUH 6VXG EWP XWKDYHUHXQUDF FVVRDFRP SXMUDQGVKH, QMLQHVR
DF FVVRQHP DMUDYRQKLVF DMURRP SDJH 6VXG EWHHGDO SVRS 3& 0 DFRUMZEMZ LMKD
E BZVHUD8\$) HP DQDG GHUVRDF FVVMHT XMRQQDLH/DQGT XJ] HV DQGDFFHVVVR VHIQMLQH2 Q
VKHG MF HRIVZ DUVRZ DMF KPS YLGRVKDVRRE HQWQDG, H]S IFVVKDW RXFDQKQGDQDQZ RUNZ LMK
\$G E HUDG HJRRJQIRUP V JRRJQIG R JRRJQVHW DQGH FHC

\$ FDGHP LF ,QMUUW + RGRU&RGHDQG3 OJLDULP , H] SHF WXXG EMMR VXE FWRZ QRUIQDOZ RUNDQG
UHJHQF HDORMHUZ RUNDGGIQQMDF XDOG BVZ LMK DSSURSUDM UHJHQFH DGGFVDMRQ \$ VGHMUEHGE
8\$) VF IRDMF GVKRQHW F RMMXMM/YRDMRQRI VHXQYHULW UKDMV DGGUHXDMRQ/DGGIV
SXQLKDE IDF FUBQ VR VHSURF G XHVRXVCHGE\ 8\$) 6FKRDMF GVKRQHW LQFOXGHV EXWVQRW
OP LMGVR F KDMQ RQDQH DP SOJLDULP DGGFRDMRQ &KDMQ LQFOXG MSURYLGQJ DQZ HUVR RU
VNLQJ DQZ HUVRUP DQRMHUMXG EMB OJLDULP LQFOXG MXVHRI DQRMHUXMRE/Z RUGVRUDJXP HQW
Z LKRXVMMIE XMRQ &RDMRQLQF XG MXQDXMRUJ HGFROE RDMRQZ LMK DQRMHUSHURQLQSUSDUQJ
Z UMMQZ 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 its influence on general circulation

Students who complete this course will be able to

1. Apply the conservation (balance) equations for aerosol mass (equation of continuity), energy (thermodynamics), and momentum (Newton's second law)

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

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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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 Cor@om](#) _____

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

