Q3: Which 2 courses were the most valuable to you? Why?

1 Introduction to atmospheric sciecne and Quantitative methods of data analysis. Even though these two classes have little to do with my major/minors, I picked these them because they were two of the few classes I've taken in DEES where the professors were good teachers. You get very little out of classes where the professor really doesn't want to be there and puts little effort into teaching, or just isn't a good teacher. To perhaps soften the above comments, the classes I've taken are not representative of all subdivisions in the department.

2 Ocean Circulation (Visbeck) and Atmospheric Dynamics (Rind). They offered fundamental knowledge in a setting where it was clear how to apply it to research problems I'm interested.

Although, I've got to say that the word "valuable" is a bit tricky here. I thought that two of the BEST courses I took were Nick's Neo-proterozoic course and Mark Anders' Adv'd Gen'l Geol. course. The first because it was so well organized that with virtually no background in paleo-climatology, I could get somewhat immersed in the controversial issues of that field. The second for similar reasons, and because it was about the only course I've had here that took ome time out to discuss the philosophy of science.

3 1) atmospheric dynamics Three reasons: (a) The material covered is essential to tying my field of research (ecophysiology) to broader issues in environmental science. (b) The mathematical tools developed are applicable to a wide range of environmental science (e.g., boundary layer turbulence). (c) The intellectual challenge of the class helped to develop my scientific reasoning skills. 2) data analysis Again, reasons (b) and (c) from above are applicable. In addition, the class forced me to learn practical computer skills.

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6 marc spiegelman's modeling course, martin visbeck's GFD experiments seminar, and geophysical theory stand out.

7 Sedimentary basins--it was the class most directly related to my research, but also the combination of lectures & seminars made me think critically about the current debates/issues. Marine seismology--the focus was rather narrow, but I learned a great deal about the topic at hand.

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9 Plate tectonics. From this course, one can learn a lot about facinating history and current progress of this revolutionary theory in earth science which Lamont community has made great contributions. Data Analysis. One can learn the useful analyzing techniques needed in the research work.

10 data analysis because it is a "tools" class and it is applicable in every discipline advanced general geology because it gives a wide yet detailed exposure to the subject chemistry of continental waters also gets an honorable mention because of its interdisciplinary nature

11 DATA ANALYSIS (PROVIDED TOOLS I USE DAILY) SUBMARINE GEOLOGY (EXCELLENT INTRO WHEN I FIRST ARRIVED AT LAMONT)

12 So far, I am finding quantitative methods of data anlaysis the most useful and geophysical theory useful (it's stretching my mind). I like the applied approach of qmda.

13 Atmospheric Science--- Tony Del Genio Isotope Geology ---- Peter Schlosser
Both of these courses were well organized, reasonably well taught, and content was clear.

14 Water and Infectious Disease, Public Health EESJ Case STudies, first semester

15 Del Genio's atmospherics class and I'm guessing Dick Oh's ocean dynamics class, although I wouldn't really know because it hasn't been offered yet, but since it's really the only dynamics class and that's what oceanography is really about, I'm guessing it'll be valuable.

16 Intro to Atmos Sci.--got me back in the swing of science, forced me to think, was very well taught and organized. Quantitative Methods--equipping me with very useful tools

17 Plant ecophys, it's my adviser's and what I study. Data analysis seems a candidate.

18 Isotope Geology II (Steve's class). Though this was not directly relevant to my own fields of interest, it was a great overview of the issues in mantle geochemistry, and a complete challenge for me as I previously had known very little about it. Field classes (Dave's and Nick's) - though short and seldom offered, these are invaluable opportunities to learn a lot AND interact with others who are in very different fields.

19 Doug Martinson's 'Data Analysis' G6908 - Is well organized and covers the material needed to begin doing solid statistical research The course is both comprehensive and sufficiently rigorous. Tony Del Genio's 'Intro. to Atmospheric Science' - Is very well taught and covers a wide range of topics while maintaining a level of consistency that allows you understand how the different ideas are related to each other. (Dr. Rind's did not have this and so it was difficult to put the whole course together) In addition Dr. Del Genio is an exceptionally good teacher.

20 1) ADVANCED GENERAL GEOLOGY (Scholtz): I really needed to learn that stuff in an expeditious hands-on way. The course gives an excellent overview of Earth Science across the full spectrum of spatial and temporal scales, from a unifying perspective. Some topics were given cursory, out-dated treatment, e.g. glaciation/ocean circulation/climate feedbacks/carbon cycle, but overall it's a good effort. 2) DYNAMICS OF CLIMATE (Rind): Coherent and exhaustive treatment of a physical system, i.e. climate.

21 TECTONOPHYSICS II WITH ROGER BUCK, AND THERMAL HISTORY BY MARCUS LANGSETH. I WANTED AN IN DEPTH BACKGROUND IN LITHOSPHERIC DYNAMICS

AND HEAT FLOW AND GOT THAT IN THOSE TWO COURSES.

22 Advanced general geology- good basic course for geology Atmospheric Dynamics - another course look at conceptual basics Time series analysis- another course of basics that form "toolbox" useful for all subject areas at Lamont.

23 Advanced General Geology As a Physics Major, this class really gave me a good introduction to Geology and Geophysics. Quant. Meth. of Data Analysis: Very well taught, useful for everyone who has to deal with data (probably everybody)

24 Advanced General Geology, Tectonophysics II. AGG because it covered a broad range of general geology & filled a lot of gaps in my previous education - this is basic stuff one should learn, esp. in my discipline, I feel much more prepared if I should end up teaching an intro class. Also I learned a little about identifying rocks. Tect II because it's tied to my specialty. Yep, my advisor teaches it.

25 Seminars in stratigraphy (Basin analysis and facies analysis) and Tectonophysics I. The courses were valuable because they were exactly what I needed (in terms of topics covered), and were tought properly.

26 Quantitative Methods of Data Analysis, because it's one of those courses that can be applied to any discipline. Also, Plant Physiological Ecology, obviously, because it's the main offering for my major. I also thought Wally Broecker's Climate Change class was very good for putting a lot of the science conducted at Lamont in a more global perspective.

27 so far, plantecophysiology & wetlands and climate change

28 1. Brocker's carbon cycle (important topic, good teacher, and a very good book has been written specifically for the course) 2. Martinson's data analysis (same reasons as above)

29 petrology (fundamental, broad application)/isotope geology I and II (ditto)

30 -- quantitative methods of data analysis, because it's a good introduction to some of the data analysis techniques out there -- ocean-atmosphere interaction, because it's the stuff i like most

31 Climatic change: Because I knew nothing about isotope based paleo-climatology. Basically I still don't, but at least now I am aware of the subject and its usefulness and folly. Atmospheric radiation: Again I had never studied radiative transfer in any detail. So now I at least understand the greenhouse effect and basic remote sensing.

32 Vert Paleo (Yale!!!) Sed basins (Nick), biological systematics (CERC), sed facies (Nick)

33 Quantitative Methods of Data Analysis Tectonophysics I I use what I learned in these classes on an almost daily basis.

34 Tony del Genios class. He covered a lot of material and did it very efficiently. I probably learned the most in that class than in any other one at Lamont. Also General Geology, because I had never had a geology class before and so it was very interesting.

35 Quantitative methods of data analysis -- It taught basic methods that I use almost everyday (not to mention MatLab). Cochran's gravity course -- He combines theory, data acquisition, data analysis, and application to geological problems all in one course

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38 Intro to Atmospheric Science and Quantitative Methods of Data Analysis These courses were valuable as courses because I learned way more through attending the lectures and doing the problem sets than I ever would have learned on my own reading a book. The instructors were excellent and were able to apply their knowledge and insight towards teaching the material in a thorough way that was both basic AND advanced. I also found 'The Carbon Cycle' useful, because it was integrative and discussed many topics in climate change at an advanced level.

39 Steve Goldstein's Isotope Geology. Steve is an outstanding teacher, and the material relates directly to my research. Nick Christie Blick's seminar on late Proterozoic Climate Change. It brought together a wealth of geologic and climate information and was very engaging and provocative

40 Geophysical Theory & Advanced Seismology

41 --David Rind's Atm Dyn course: I learned and understood more fluid dynamics than in all the physical oceanography courses i've taken combined. Quant Meth Data Analysis: though it's not over, I can tell (and I've heard from other students further long in the PhD process) that it will be extremel useful.

42 I've only taken two -- Sedimentary Geology and Intro to Atmospheric Science. So they're both the most and least useful to me.

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45 (1) Introductory seismology (Menke) -- A very well taught course and extremely useful. I found the lectures easy to follow and the course was well-structured. An excellent course for someone without a heavy seismology background. (2) Data Analysis (Martinson) -- Although it is quite an intense and rigorous course, it is well worth the time that it requires. An excellent overview of many of the most widely used methods of data analysis. The homeworks which require writing programs in matlab do a great job of bringing together the theory learned in the class together with actual data sets.

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47 Myths and Methods in Modeling, Ocean-atmosphere interaction
Research - I study tropical climate using simple models.

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49 BTW, course 1,2,3 are excellent ones.

50 1) Paleoceanography (completely new subject material to me and essential for my emphasis; current topics and research were presented as well as principles)
2) Dynamics of Climate (approach and teaching strategy: qualitative treatment of fundamental principles during lectures, current issues/research covered in a set of papers assigned for reading outside class (with short synopses due regularly.))

51 Quantitative methods of data analysis would have been extremely useful, but unfortunately I didn't have the required math background at the time and didn't complete the course. I think that 2 levels of this course (perhaps comparable to the Principles of geophysics/geophysical methods setup) would attract and be useful for a much larger audience, crossing pretty much all subdisciplines represented in out department. The paleoceanography/carbon cycle/chemical oceanography trio was also very useful, and included lots of cutting edge research results and ideas, but again could have been consolidated.

52 Submarine geology and Advanced geochemistry (I hope this is the right name. I thought it was called Advanced isotopes). Submarine geology is an excellent course that I think every Lamont student should take. Submarine geology is a perfect example of a survey course. Bill Ryan obviously has put a lot of effort into the course. We not only have readings from a text book but also from journals where we are exposed to the new and exciting ideas in submarine geology. I must admit was interested in parts of the course more than others, but Bill did a great job of spending equal time on various aspects of submarine geology (i.e., not focusing only on his area of expertise). It would be nice if there were 3 survey courses that all students were required to take. I survey courses offering two important things. First, it provides new students a time to bond with their peers in an academic setting. Later in their graduate careers, students would be better able to tap their resources and expertises of their fellow graduate students. Second, survey courses provide a unique opportunity to be exposed to a wide variety of subjects from leading experts in the respective fields. Lamont always touts its breadth, yet I feel like it is incredibly difficult to tap into this wonderful, broad base of knowledge. Also being exposed to what is available at Lamont may shift one's interests and spark interdisciplinary projects. If we don't know what other people are working on then how can we make connections with our own work? Finally, being exposed to other fields at an introductory level, in my opinion, would greatly improve colloquium. Colloquium brings in researchers to talk about current projects. When these lectures fall outside of our area of expertise, it is often difficult to follow what the speaker is talking about. The second course I thoroughly enjoyed was Advance geochemistry/isotopes. This is an example of a course that is more focused. It is not valuable for everyone at Lamont to take it, but it is an important course nonetheless. This brings up the point that while I am strongly in favor of revamping courses and offering 3 or so more general courses, we must be careful not to do away with too many.