[](http://classes.warnercnr.colostate.edu/g454/files/2011/01/mount-cook-new-zealand.png)**Lab Syllabus**

**Instructor**: Annette Patton

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**Lab time**: M (1-4 pm) or W (1-4 pm) in NR 316

**Office**: NR 317

**Office Hours**: 11-12M, 11-12W; by appointment

| **Week of** | **Lab** | **Lab Topic** | **Assignment/Report Due On** |
| --- | --- | --- | --- |
| Jan 15 | – | No lab, readings assigned in class | N/A |
| Jan 22 | 1 | Topographic Maps: [Intro](http://classes.warnercnr.colostate.edu/g454/files/2014/01/Lab-1-Topo-Intro1.pdf), [Exercises](http://classes.warnercnr.colostate.edu/g454/files/2014/01/Lab-1-exercises.pdf). | Jan 29 / 31 |
| Jan 29 | 2 | [Aspect Lab Field Trip](http://classes.warnercnr.colostate.edu/g454/files/2014/01/Lab-2-Weathering.pdf); [ALTERNATE LAB](http://classes.warnercnr.colostate.edu/g454/files/2013/01/GEOL-454-Aspect-Lab_Final.pdf); [(How to write a scientific report)](http://classes.warnercnr.colostate.edu/g454/files/2014/02/How-to-write-a-scientific-report.pdf) | Feb 5 / 7 |
| Feb 5 | 3 | [Slope Morphology Lab Field Trip](http://classes.warnercnr.colostate.edu/g454/files/2011/01/Lab-3-Greyrock.pdf) (***be prepared***) [Survey Methods](http://classes.warnercnr.colostate.edu/g454/files/2011/01/Surveying_methods.pdf) | Feb 12 / 14 |
| Feb 12 | 4 | [Drainage Basin Morphometry](http://classes.warnercnr.colostate.edu/g454/files/2014/02/Lab4_Basins_revised.pdf) | Feb 19 / 21 |
| Feb 19 | 5 | [Quaternary Stratigraphy Lab](http://classes.warnercnr.colostate.edu/g454/files/2013/01/Lab-5_QtStrat_final.pdf) Field Trip ([powerpoint](http://classes.warnercnr.colostate.edu/g454/files/2013/02/454Quatstratlab.ppt)) | Feb 26 / 28 |
| Feb 26 | 6 | [Flume Lab](http://classes.warnercnr.colostate.edu/g454/files/2015/03/Lab-6_DS.pdf) ([powerpoint](http://classes.warnercnr.colostate.edu/g454/files/2014/01/Lab6_Presentation.pdf)) ([Grading Rubric](http://classes.warnercnr.colostate.edu/g454/files/2015/03/Grading-System-for-Flume-Posters.pdf)) | proposal Feb 26 / 28; completed March 5 / 7; **poster due March 19 / 21** |
| March 5 | 7 | [Fluvial Landforms](http://classes.warnercnr.colostate.edu/g454/files/2014/03/Lab-7_NS-edits.pdf) ([powerpoint](http://classes.warnercnr.colostate.edu/g454/files/2015/03/Lab7_powerpoint.pdf)) | March 19 / 21 |
| March 12 |  | \*Spring Break-Contemplation of Geomorphic Processes in Various Environments | N/A |
| March 19 | 8 | [Fluvial & Karst Landforms](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-8-DS.pdf) ([Lab8 data](http://classes.warnercnr.colostate.edu/g454/files/2014/01/Lab8.zip)) | March 26 / 28 |
| March 26 | 9 | [Arid & Eolian Landforms](http://classes.warnercnr.colostate.edu/g454/files/2014/03/Lab-9_DS.pdf) ([Lab9 data](http://classes.warnercnr.colostate.edu/g454/files/2014/03/Lab-9-Data.zip)) | April 2 / 4 |
| April 2 | 10 | [Glacial Lab](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-10_DS.pdf) ([Lab10 data](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-10-data.zip)) | April 9 / 11 |
| April 9 | 11 | [Poudre River Field Trip](http://classes.warnercnr.colostate.edu/g454/files/2011/01/Lab-11-Poudre.pdf) [Van Haveren 1986](http://classes.warnercnr.colostate.edu/g454/files/2015/04/VanHaveren_1986.pdf)  (***be prepared***) | N/A |
| April 16 | – | Fluvial Data Analysis | April 23 / 25 |
| April 23 | 12 | [Coastal Processes](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-12-DS.pdf) ([Lab 12 data](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-12-data.zip)) | April 30 / May 2 |
| April 30 | – | **Final Lab Exam (**[**Study Guide**](http://classes.warnercnr.colostate.edu/g454/files/2014/04/Lab-exam-study-guide-2014.pdf)**)** | N/A |

**Purpose and Emphasis:** The purpose of this lab is to familiarize students with the principal landforms and processes that shape Earth's land surface, and to introduce selected tools that geomorphologists use to investigate these landscapes. Our approach will be largely quantitative and exercise oriented. *Prior to each lab*, print a copy of the appropriate exercise worksheet, available on the lab webpage. Lab exercises are due at the *beginning* of lab the following week.

**TA's Teaching Philosophy:** I'll do my best to make the labs challenging, effective, and interesting. My purpose is to engage you and facilitate your learning, not to hold your hand. As such, I will do my best to refrain from giving you direct answers to questions when possible, and instead guide you towards finding the answer on your own. I will hold you accountable for working hard and wanting to learn while in class.

I see teaching as an adaptive process, and I welcome frank and honest criticism at any time. I will provide a mid-semester evaluation to help me improve my teaching ability.

**Help for the Asking:** Please feel free to ask questions! I will be available for assistance with all aspects of the class assignments, including data processing. If you have never used a spreadsheet, or need a refresher, you may want to ask for help on some of the larger data sets. Please utilize office hours and feel free to e-mail if you have any questions (Please include 'GEOL454' in subject). Email responses are typically quick. If my weekly office hours conflict with your schedule, I am happy to make appointments at other times. However, for the sake of my own productivity, you must contact me in advance to schedule an appointment outside of my regular drop-in hours.

**Field trips:** We will take four (4) field trips during regular lab hours. Transportation will be provided and we will leave promptly at the beginning of the lab session. Please do not be late. Due to travel times, you can expect the lab to run over about an hour on field trip days. If you have a conflict with the end of lab you may be able to take your own vehicle to the field trip only with consent from me ahead of time, because parking is extremely limited at some of the field sites. ***Be prepared for rough terrain and bad weather!***([Field Trip Report Guidelines](http://classes.warnercnr.colostate.edu/g454/files/2012/02/GEOL454_Field-Lab-Guidelines.pdf))

**Attendance and Class Time:** Attendance is expected at each lab. If an emergency arises and you must miss lab, contact me as soon as possible. There is some flexibility if you contact me well before the scheduling conflict. There will be less flexibility if you contact me immediately before the conflict. There will be absolutely no leniency if you inform me of the conflict after having missed lab. There are many ways to get in touch with me, so there is no excuse for not being able to contact me. Please put all cell phones away (no calls or text messaging) and either on silent or turned off during lab time.

We have a limited number of maps, van seats, and supplies — so, please attend your regularly scheduled lab unless you have been given advance permission to attend the other section. While in lab, take advantage of the opportunity to ask questions and complete work. Many lab assignments and all of the fieldtrips will require additional writing, data processing, and other work beyond the lab period.

**Late Assignments:** All lab exercises are due at the beginning of lab one week after the lab in which they are assigned. Field trip reports are due in lab the week following the field trip. Late assignments will be penalized 10% if they are one day late, and 20% if they are two days late. After two days, they will not be accepted for credit. Unless I give advance permission due to schedule conflicts, there will be NO exceptions to this policy. In most cases, assignments will be graded and returned one week after they are due.

**Equipment and Supplies:** The lab does not require a laboratory manual or text. All relevant readings and texts, including assignments, will be available on the web. However, you will need the following at **EVERY** lab session (including field trips): ruler, pencil, colored pencils, calculator, and graph paper (1/10" or 1 mm divisions). You will need a field notebook (rite in the rain or similar) for the field trips. All other field equipment will be provided by the department. **Please note that the first field trip will take place during the second lab session.**

**Grading:** Lab and fieldtrip reports must adhere to the guidelines for reports (see Lab Webpage). All reports and assignments will be graded based upon the following criteria:

1. Completeness
2. Accuracy
3. Adherence to Format and Due Date
4. Neatness, Spelling, and Grammar
5. Logic and Reasoning

Each assignment and field trip report will receive a score on a scale of 0 (minimum) to 100 (maximum). Pay close attention to specific requirements for each assignment. ***Read the labs carefully*** to make sure all required information is included in your answers or reports. Grades from lab assignments and exams will be combined with grades from the lecture portion of the class in determining your overall grade. As stated in the lecture syllabus, labs are worth 25% and the lab exam is worth 15% of the overall grade. The 25% lab grade will be broken down into the following categories:

-5% each for labs 1, 2, 4, 5, 7-10, and 12  
-10% each for labs 3 and 6  
-15% for lab 11  
-5% each for participation and attendance

**Ethics:** Each student is responsible for his or her own work. Cheating will not be tolerated in any form. Make sure that you are clear on the definition of plagiarism. Submission of any work other than your own as your own, without proper citation is considered plagiarism. Group assignments will require joint accumulation and processing of data, and you are encouraged to discuss data analysis and interpretation within your group. In compiling group reports, the active participation of each member is expected and required.