ES104 Lab Quiz 2 Study Guide

Review answer keys for Week 6 (Lab 5 Igneous Rocks), Week 7 (Lab 6 Volcanoes), Week 8 (Lab 7 Sedimentary Rocks), Week 9 (Lab 8 Take Home Rivers and Groundwater)

1. Go to the online rock and mineral study guides, view and know your rocks and minerals
2. Study the terms and concepts listed below, both from your lab exercise and textbook.
3. Review and study your pre-lab questions and weekly practice quiz questions

Key Terms and Concepts:

Igneous Rock Lab

phaneritic
aphanitic
porphyritic
felsic
mafic
magma
lava
pegmatitic
pophyritic
glassy
frothy
texture
mineral composition
felsic
mafic
intermediate
glassy
frothy
vesicular
important rocks:
granite
rhyolite
diorite
andesite
gabbro
basalt
pumice
scoria
obsidian

Volcano Lab

lava vs. magma
explosive vs. quiescent
lava-gas-pyroclastics
tephra
caldera collapse
pyroclastic eruption
cinder cones
stratovolcanoes
elevation
contour line
contour interval
index contour
hilltop contour patterns
map view
profile view

Sedimentary Rock Lab

Weathering
Erosion
Sediment
weathering
sediment
erosion
lithification
compaction
cementation
Sed. Rock types
Detrital
Biochemical
chemical
sediment size fractions
gravel
sand
silt
clay
grain shape
grain sorting
rock types
sandstone
conglomerate
shale
limestone
evaporites
mudstone
rock salt
crystalline vs. microcrystalline
coal
clastic / nonclastic
marine
nonmarine
fluvial
lacustrine
glacial

Rivers and Groundwater Take-Home Lab

Rivers / fluvial
stream gradient
channel
floodplain
oxbow lake
meandering
levees
cutoff
cutbank
floodplain
terrace
bedload
suspended load
dissolved load
braided
straight
dendritic
trellis
radial
alluvial fans
deltas
base level
watershed
drainage divide

Groundwater
porosity
permeability
permeable / impermeable
Zone of Aeration
Vadose Zone
Zone of Saturation
Water Table
well
confined aquifer
unconfined aquifer
spring / seep
perched aquifer
aquitard / aquiclude
potentiometric surface
artesian aquifer

Key Lab Concepts / Skills

What are the three main classes of rocks and how do each of them form?
Draw and label a diagram of the rock cycle. Be sure to show the three classes of rocks and how the relate with one another.
What is the difference between an extrusive and intrusive igneous rock?
Can you identify felsic, mafic, intermediate igneous rocks?
Can you use a rock identification key to make observations and name a rock according to a classification scheme?
What are the primary types of volcanos and how do they differ?
What is the difference between a composite volcano and a cinder cone?
What are contour lines and how are volcanoes depicted on topographic maps?
Can you draw a topographic profile from a contour map?
What types of magma (felsic, intermediate, mafic) result in what types of volcanoes?
What determines if a volcanic eruption is catastrophic and violent vs. quiescent?
What are the two main types of sedimentary rocks?
What is the difference between a detrital (clastic) sedimentary rock and a chemical sedimentary rock?
Which mineral and sedimentary rock material fizzes when a drop of hydrochloric acid is placed on it?
What is the difference between clay-silt-sand-pebbles?
What is the name of a clastic sedimentary rock with rounded pebbles? What about if it has angular pebbles?
What do fossils tell us about ancient environments in which sedimentary rocks were formed?
Rivers and Groundwater: what are the basic terms to describe a river and aquifer systems?