

Geology 261 -- Physical Geology

Exam 3 study guide

You should do fine on exam 3 if you study the following:

three types of strain shown by rocks.
what kind of strain is involved in earthquake formation.
properties of P waves and S waves.
how one locates an earthquake's epicenter with three seismic stations.
facts about Richter Magnitude and Mercalli Intensity scales.
what P and S waves can tell us about the Earth's core.
Wegener's evidence for continental drift.
characteristics of the Earth's magnetic field.
how remnant magnetism works.
what a magnetometer reads and how the results are interpreted in the ocean floor.
simple map relations of folded rocks (ages of rocks based on map symbols (e.g D = Devonian)).
types of faults and how to name them.
evidence for surface uplift.
differences and similarities between Himalayan and Andean type orogenies.
tectonic versus isostatic uplift.
how isostatic uplift works.
consequences of isostatic uplift.
facts regarding the origin of the Rocky and Appalachian Mountain ranges.
shape of the water table and flow of groundwater above and below it.
controls on shapes of cones of depression.
how to determine the direction a contaminant might move in the groundwater.
rock types associated with cave & karst topography formation.
chemical reaction that controls cave formation and speleothem formation.
location of cave formation in the ground.

Terms:

declination
strike, dip magnitude, dip direction
aquifer, aquaclude
orogeny
secondary porosity
saturated zone
influent stream / effluent stream
Darcy's law.
stalagmite
stalactite