

## **2021 GEO-310 Structural Geology focus topics for Exam 1**

The morphology of antitaxial and syntaxial mineral veins

What are surface asperities?

Does Earth's crust mostly behave as brittle or ductile media when stressed?

Know the difference between strike, dip, and dip azimuth.

Do shear fractures or tensile cracks form first in brittle media when stressed?

What is a hiatus and an unconformity?

Know the two types of general shear.

What are Griffith cracks?

The difference between isotropic and anisotropic stress.

The difference between homogenous and heterogenous strains.

What are wing cracks?

What is sedimentary compaction and what it does to material porosity.

Why do stresses accumulate at fracture/fault tips?

Anderson theory of faulting.

What is mean stress?

That does rheological stratification occur?

What are stress trajectories?

Rock competency and yield strength.

The typical orientation for the maximum principal stress ( $\sigma_1$ ) at Earth's surface.

What is hypsography?

An average density of granite, basalt, quartzite, and mudrock.

The difference between principal stress and strain axes.

What causes traction on a geological fault surface?

What does a creep curve represent?

What is deformation?

What is cataclastic flow?

Know how elongation, stretch, and shear strain are measured.

How does increasing pore pressure affect faulting / earthquakes?

What is rock competency?

The difference between brittle and ductile material behavior.