

HISTORY OF NEVADA – GEOL 730

Topics to be covered – approximately in this order...

Contemporary Strain

- San Andreas System

- Eastern California Shear Zone, Walker Lane, and Sierra NV

- Basin and Range and Wasatch

Contemporary Seismicity

Glacial and Pluvial History

- Oxygen-Isotope Record

- Basin and Range Glaciation

- Sierran Glaciation

- Ruby-East Humboldts

- Pluvial Lake History

PActive Faults and Recent Quakes

Mojave

Southern Walker Lane

- Death Valley and Fish Lake Valley fault zones

- Panamint Valley, Hunter Mountain, and Saline Valley

- Owens Valley and Mono Basin

Central Walker Lane

Northern Walker Lane

Basin and Range

Wasatch

Late Cenozoic Deformation: Inception and Offset

- Mojave/Eastern California Shear Zone

- Southern Sierra

- Southern Walker Lane

- Death Valley

- White Mountains

- Panamint-Saline Valley

- Central Walker Lane

- Northern Walker Lane

- Basin and Range

- Appearance of fault controlled basins

Lack of relief prior to basin and range faulting (ash flow sheets and stratigraphy)

Geologic constraints on amount of extension/displacement

Other Characteristics

Cenozoic Volcanism

Plate Tectonic Models

Core Complexes and Early Cenozoic Extension

Mesozoic: Sevier Orogeny

Paleozoic: The Antler and Sonoma Orogenys (Roberts Mtn and Golconda Allochthons)

Sonoma Orogeny and Golconda Allochthon (latest Permian)

Antler Orogeny and Roberts Mtn Allochthon (Mississippian)

PreCambrian Continental Margin and Evolution