

# Environmental Geology schedule, Fall 2016

Last updated: Wednesday August 17 2016

<i>Date</i>	<i>Events</i>
—Week 1—	
We 31 Aug	Introduction: Why study environmental geology? <i>Readings:</i> Pipkin Ch. 1
Fr 02 Sep	Origin of our Earth and solar system
—Week 2—	
Mo 05 Sep	Earth's building blocks: minerals <i>Readings:</i> Pipkin Ch. 3, 'Earth Materials' <i>Lab:</i> Minerals
We 07 Sep	Alfred Wegener and the theory of continental drift <i>Readings:</i> Pipkin Ch. 3, 'Case Study 3.3'
Fr 09 Sep	Accumulating evidence for mobile continents <i>Readings:</i> Pipkin Ch. 3, 'Earth's Deep Interior and Plate Tectonics'
—Week 3—	
Mo 12 Sep	Plate tectonics and plate boundaries <i>Lab:</i> Topographic maps
We 14 Sep	Building mountains: Plate boundaries and hot spots
Fr 16 Sep	<b>No class: Nick on regional geology trip</b>
—Week 4—	
Mo 19 Sep	Igneous rocks <i>Readings:</i> Review Pipkin Ch. 3, 'Earth Materials' <i>Lab:</i> Igneous rocks
We 21 Sep	<b>Exam 1</b>
Fr 23 Sep	From rocks to sediment: weathering <i>Readings:</i> Pipkin Ch. 6, 'Weathering'
—Week 5—	
Mo 26 Sep	<b>No class: Nick at GSA conference</b>
We 28 Sep	<b>No class: Nick at GSA conference</b>
Fr 30 Sep	Sedimentary rocks and environments <i>Readings:</i> Review Pipkin Ch. 3, 'Earth Materials'
—Week 6—	
Mo 03 Oct	Reconstructing geologic history <i>Readings:</i> Pipkin Ch. 3, 'Geological Time' <i>Lab:</i> Sedimentary rocks
We 05 Oct	Soils and soil formation <i>Readings:</i> Pipkin Ch. 6, 'Soils'
Fr 07 Oct	<b>October break: no classes</b>
—Week 7—	
Mo 10 Oct	Soils and the environment <i>Readings:</i> Pipkin Ch. 6, 'Soil Problems'

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	<b>Field trip: Palouse loess</b>
We 12 Oct	Volcanoes and volcanic eruptions <i>Readings:</i> Pipkin Ch. 5, pp. 133-152
Fr 14 Oct	Volcanic hazards and monitoring <i>Readings:</i> Pipkin Ch. 5, pp. 153-176
	—Week 8—
Mo 17 Oct	Seismic waves and earthquakes <i>Readings:</i> Pipkin Ch. 4, pp. 89-98 <i>Lab:</i> Metamorphic rocks
We 19 Oct	Seismic hazard <i>Readings:</i> Pipkin Ch. 4, pp. 99-132
Fr 21 Oct	<b>Exam 2</b>
	—Week 9—
Mo 24 Oct	Mass wasting <i>Readings:</i> Pipkin Ch. 7 <i>Lab:</i> Mass wasting
We 26 Oct	Coastal processes <i>Readings:</i> Pipkin Ch. 10
Fr 28 Oct	River systems in the hydrologic cycle <i>Readings:</i> Pipkin Ch. 8, 'Freshwater at Earth's surface'
	—Week 10—
Mo 31 Oct	River evolution in space and time <i>Lab:</i> Stream table
We 02 Nov	Groundwater <i>Readings:</i> Pipkin Ch. 8, 'Freshwater Underground'
Fr 04 Nov	Water as a resource <i>Readings:</i> Pipkin Ch. 8, 'Water quality'
	—Week 11—
Mo 07 Nov	Floods <i>Readings:</i> Pipkin Ch. 9 <i>Lab:</i> Floods
We 09 Nov	Environmental Geology and EIS projects
Fr 11 Nov	<b>Exam 3</b>
	—Week 12—
Mo 14 Nov	Ores and mining <i>Readings:</i> Pipkin Ch. 13 <b>Field trip: Hydrology and flood control</b>
We 16 Nov	Geologic occurrence of fossil fuels <i>Readings:</i> Pipkin Ch. 14, pp. 503-528
Fr 18 Nov	Fossil fuels: energy supply and the environment <b>EIS project proposals due by beginning of lecture</b>
	<b>November 19-27: Thanksgiving Break</b>

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—Week 13—	
Mo 28 Nov	Alternative energies: solar and nuclear sources <i>Readings:</i> Pipkin Ch. 14, pp. 529-560 <i>Lab:</i> Structure
We 30 Nov	The atmosphere and storms <i>Readings:</i> Pipkin Ch. 2, pp. 21-27
Fr 02 Dec	Ocean circulation and climate patterns <i>Readings:</i> Pipkin Ch. 2, pp. 28-46
—Week 14—	
Mo 05 Dec	Geologic setting of the Pacific Northwest <b><i>Field trip: Wallula Gap</i></b>
We 07 Dec	Reconstructing climate
Fr 09 Dec	The Pleistocene ice age and climate change <i>Readings:</i> Pipkin Ch. 11 <b>EIS projects due by beginning of lecture</b>
—Week 15—	
We 14 Dec	<b>Fourth exam: Wed 14 Dec, 9-11 am</b>