The Great Systems of the Earth – the Hydrosphere, Lithosphere, Atmosphere, and Biosphere – are the blood, bones, and organs of our planet. These systems are deeply interconnected in myriad ways. Seemingly small changes in one system, for example changes in atmospheric chemistry, can ripple through the entire Earth System with profound impacts. Intrepid explorers on voyages of discovery mapped and catalogued much of the physical earth, and formed the basis for much of our current knowledge about our home planet. Contemporary Earth Science seeks to understand how the earth works. What are the fundamental drivers of Earth’s dynamic systems? What are the regulating processes and interdependencies among Earth’s systems? How do these dynamics generate the patterns that we observe in our world, locally and globally? How does our physical world influence human activities, and how, in turn, are they affected by humanity? Through study of planet Earth as a holistic system, students will develop a comprehensive foundation for understanding Earth system processes, the geography of nature, and our place in it.

**LECTURES**: 9:05-9:55 AM MWF
**MANNING 209**
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