



PLATE TECTONICS OF THE APPALACHIANS: A TRAVELING GEOLOGY COURSE, MAINE TO QUEBEC

June 19 - June 25, 2016

The Appalachian mountain belt records the life cycle of the Iapetan Ocean that once separated Laurentia, the ancient core of North America, from Gondwanaland, the supercontinent comprising South America, Africa, India, Australia, and Antarctica. As we traverse the wreckage of Iapetus, from the coast of Maine across the Boundary Mountains to Quebec City, we will examine nearly the full spectrum of rocks and structures found on Earth. After decades of research, this rich geologic record reveals a coherent story of continental rifting, seafloor spreading, subduction, and collisions between the ancient Appalachian margin of North America and volcanic island arcs and microcontinents peeled from Gondwanaland. Participants will have the opportunity to acquire a variety of field skills as they decipher this fascinating episode of Earth history. We will also discuss the intriguing ways in which tectonic processes interact with the carbon and climate systems. (Total cost between \$912 and \$1027 depending on selection of housing in Quebec City. For more information, contact Marilyn, marilyn@eaglehill.us, 207-546-2821 x1)



about the instructor

Dr. Douglas Reusch (reusch@maine.edu), Associate Professor of Geology at University of Maine Farmington, is interested in the origins and significance of mountains, notably the New England Appalachians, and also how tectonic processes affect carbon cycling and the Earth's climate. He has participated in Antarctic research, Ocean Drilling Leg 183 to the southern Indian Ocean, and mapping projects in coastal Maine, west-central Maine and Newfoundland. Along the way, he has taught 9th grade earth science and was a National Science Foundation Postdoctoral Fellow in Science, Mathematics, Engineering, and Technology. At UMF, Dr. Reusch teaches Field Introduction to Geology, Oceans: Ancient and Modern, Structural Geology and Tectonics, Geochemistry, and Carbon Fundamentals. He has also engaged UMF students in geologic research, including mapping of the nearby, spectacular Bald Mountain field site.