Course Number
GEO-307-01
Course Description
In Structural Geology we study the geometry and dynamics of deformed rocks, using detailed descriptions and kinematic analysis of field sites. If we wish to understand the formation of mountain belts, or their climatically controlled destruction, the relationship of one rock unit to another, or one mineral grain to the next is of fundamental importance. Students will acquire the tools necessary to describe and understand the geometry and dynamics of deformed rocks and the larger-scale orogenies they are a part of, with a practical focus on field work to understand the structural evolution of eastern New York. We will explore stress and strain, folding, faulting, cleavage formation, map interpretation, and the relationships between plate tectonic settings and crustal structure. There is a major emphasis on developing and sharpening of multi-dimensional reasoning skills. Students will also gain experience writing scientific reports which integrate observational data, field measurements, and the existing literature. In addition to several local field trips during lab, the course includes a weekend trip to explore key localities from the Taconic Orogeny in Massachusetts and Vermont.
Academic Term
22/SP
Instructor
Manon, Matthew
Location & Meeting Time
Olin Building-332+ M/W/F 11:45AM-12:50PM LEC
Credits
1.00
Capacity
10
Total Students
6
Additional Information
http://www.union.edu/Geology
Academic Department
Geosciences
Field Of Study
Geosciences (GEO)