**MOHAWK VALLEY COMMUNITY COLLEGE**

**UTICA-ROME, NY**

**COURSE OUTLINE**

**GL 201, Introduction to Field Geology C-0, P-6, Cr-2**

1. COURSE DESCRIPTION:

This course provides students with an opportunity to experience various aspects of field geology.  It is an abbreviated field camp experience. In place of making geologic maps, students create a detailed photo journal. This course consists of a minimum of two weeks of geology immersion as the class travels throughout a selected region of the United States. These regions include the four corners region (CO, NM & UT), the northwest (WA & OR) and the northeast (NY, MA, VT, NH). Students work in the field with topographic maps for navigation and observation purposes.  Geologic structures are identified, and background knowledge applied to explain the development and formation of various geologic features.  Full days are spent in the field as the students hike through changing geology as they continually apply their knowledge along the way.

Corequisite: PE 151

Prerequisite: GL 101

1. STUDENT LEARNING OUTCOMES:
2. Apply concepts from GL101 to explain the laws and principles associated with identified features.
3. Explain the earth processes that govern the formation of identified geologic features
4. Demonstrate the ability to recognize/define geologic features in the field (Ex. Identify an anticline)
5. Demonstrate the ability to associate geologic laws and principles to defined geologic feature in the field (Ex. Explain the laws that govern the formation of an anticline, such as lateral continuity, original horizontality, etc.)
6. Demonstrate comprehension of topographic maps
7. Recognize and associate landscape features between the earth and topographic location maps.
8. MAJOR TOPICS:

* Hutton’s Laws of uniformitarianism
* Superposistion
* Lateral continuity
* Original horizontality
* Cross cutting relationships
* Backed contacts
* Unconformities
* Disconformities
* Non-conformities
* Angular unconformities
* Anticlines vs. Synclines
* Igneous Intrusion
* Dikes vs. sills
* Plutons
* Weathering and Erosion
* Geothermal events
* Development of hot springs
* Hydrothermal activity, associated minerals/features created
* Mineral deposits and identification
* Sediment transport
* Fluvial systems and associated features
* Rock identification
* Bedding features
* Metamorphic Grade
* Topographic maps