

**Laboratory Exercises in Forensic Geology
Fall 2006: Geology 014F – 91/L (94531)**

**Nehru E. Cherukupalli
Geology Department, Hofstra University, Long Island, NY**

Laboratory Exercise 1: The art and science of observation

Laboratory Exercise 2: a. Minerals
b. Gems and artificial minerals

Laboratory Exercise 3: Introduction to Rocks
3a: Igneous Rocks
3b: Sedimentary Rocks
3c: Metamorphic Rocks
3d: Artificial rocks – bricks, cement concrete and others
3e. Extra-terrestrial materials

Laboratory Exercise 4: Soil analyses techniques

Laboratory Exercise 5: Demonstration experiments
5a. Microscopic techniques.
5b. Polarizing microscope techniques.
5c. X-ray diffraction analyses techniques .
5d. XRF analyses techniques
5e. Electron Microprobe techniques
5e. Scanning Electron microscope techniques.

Laboratory Exercise 6: Collection of forensic evidence

Laboratory Exercise 7: Visit to Forensic labs in Nassau County

Laboratory Exercise 8: Presentation of student projects

Notes:

- a. The laboratory class meets once a week for fourteen weeks
- b. The first six exercises will be covered in twelve to thirteen weeks of class meetings
- c. There will be one or two short quizzes during laboratory class time
- d. Visit a forensic lab
- e. The last two weeks will be class presentation of student projects