NOTE: The petrographic microscopes are very expensive (approximately $7,000 to replace) and very sensitive pieces of equipment. Do not use force on any of the microscope adjustments. If you can’t figure out how to work the scope, find your instructor or TA.

I. Observe the following mineral thin sections provided in room 340 (microscope lab): Epidote, Sillimanite, Hypersthene, Hornblende (green), Riebeckite

For each of the above minerals turn in a description of each of the below properties:
1. Cleavage (if none use N/A)
2. Color/Pleochroism (if no color use “colorless”)
3. Relief (High, moderate, low)
4. Birefringence (maximum interference color; ex. 2nd order blue)
5. Twinning (if none use N/A)
6. Extinction Angle/ Symmetrical extinction/ Undulose Extinction

II. Identify the minerals in assigned thin section:

For the thin section assigned to you list the minerals that you can identify in the thin section. If you identify more than 5, just list the 5 most abundant minerals. For each mineral identified, list beside it the optical properties that you used to identify the mineral.