Lab 6: Pelitic AFM Mineral Assemblages  

- **Skills**  
  - Knowledge needed by the students:  
  - Petrographic identification of common pelitic and amphibolic pelitic minerals from thin sections  
- **basal rock:**  
  - Metaluminous AFM diads covered in the metamorphic petrology class  

- **Goals:**  
  - For students to understand that metamorphic mineral assemblages are highly dependent on bulk composition  
  - To reinforce petrographic skills at identifying metamorphic minerals  

- **Potential:**  
  - Students will be able to recognize different sets with this lab, but I only have the bulk chemistry and mineral compositions for the Dutchess County set;  

- **anticipations:**  
  - Students are asked to go through a sequence of actions for dataset one & two to learn more about what is possible with GBT  

**Lab 7: Geothermobarometry with GBT**  

- **Basics:**  
  - **Basics**  
  - **Basics**  

- **Goals:**  
  - Students should understand the main principles of petrology and the basics of geothermobarometry  
  - Students should be able to use the software GBT to determine PT conditions  

- **Options:**  
  - Students may choose to use a combination of Thompson diagrams, geothermobarometry, and pseudosections in "real" research  

**Lab 8: Pseudosections with Perple_X**  

- **Basics:**  
  - **Basics**  

- **Goals:**  
  - Students should understand the basics of petrology and be able to discuss the assumptions, interpretations, and conclusions intelligently  
  - Students should be able to understand how petrologists may use a combination of Thompson diagrams, geothermobarometry, and pseudosections in "real" research  

- **Options:**  
  - Some students may choose to use pseudosections in the lab to compare and contrast Thompson diagrams with the pseudosection method