Questions to help you review the material and comprehend important points.

1. Define Ecology.
2. How do biotic and abiotic components of ecosystems differ? How do they interact?
3. Why do we say that energy flows but material cycles?
4. Can you draw a figure that explains why we have seasons in Tucson?
5. Why is the rate of net primary productivity more important for understanding ecosystem energy flux (aka ‘flow’) than gross primary productivity?
6. What is the difference between net and gross?
7. What are the two parallel food chains?
8. What are the two or three main determinants of plant biomes in any given part of the planet?
9. How are climate and weather different?
10. How are adiabatic cooling and annual rainfall on Mt Lemmon related?
11. Can you draw a figure that explains what a rain shadow is?
12. When does 1000’ = 300 miles?
13. What was the invasive species that we talked about that has the potential to dramatically alter the Sonoran Desert plant community? Why?
14. What is an ecological community? Are they always the same? When and why do they change? Are there some consistent patterns of change?
15. What is meant by species richness? How can we measure this parameter?
16. What determines what species are part of a given plant community? Is this answer more consistent with Clements (Interaction) or Gleason (Individualistic)? Which local mountain (and which local hill) played a large role in determining the answer to this question?
17. Are the species in a plant community more the result of interspecific interactions or abiotic variables?
18. If your answer to 17 was ‘abiotic variables’ then why do we tend to see the same set of plants many places in the Sonoran Desert?
19. How is disturbance potentially related to succession? Can you provide some examples of disturbance?