**BIOL 112 – OUTLINE # 4 – PLANT STRUCTURE, GROWTH AND DEVELOPMENT**

1. Characteristics that define the plant kingdom
2. Cell types
3. parenchyma
4. collenchyma
5. sclerenchyma
6. xylem elements
7. phloem elements
8. Tissue types
9. epidermal tissue
10. vascular tissue
11. ground tissue
12. meristem tissue
13. Vegetative organs and tissue organization
    1. roots
    2. stems
    3. leaves
14. Developmental flexibility and the function of meristems
    1. indeterminate vs. determinate growth
    2. de-differentiation
    3. location of meristems determines pattern of plant growth
15. Growth
    1. division
    2. expansion
    3. differentiation
    4. primary growth in roots
    5. primary growth in stems
    6. secondary growth