By the end of this lecture, you should be able to. . .

- Draw the phylogeny of plants
- List several unique characteristics of angiosperms
- Identify the parts of the flower
- Draw the angiosperm life cycle (esp. know double fertilization)
- Describe major “pollination syndromes” and major methods of fruit dispersal
- Differentiate between the major groups of angiosperms
- List major trends in the evolution of angiosperms
- Describe ecological consequences of different root architectures
- Explain how the xylem and phloem of angiosperms differ from that of less derived tracheophytes

Inside the ovary, the ovule develops into a seed consisting of:

- The developing embryo (2n)
- The endosperm (3n), which provides nutrition to the growing embryo
- Additional food storage tissue formed from the megagasporangium, called perisperm
- Outermost layer of tissue, the integument, develops into the seed coat

The ovary itself develops into a fruit.

- The ovary wall, called the pericarp, often thickens and separates into distinct layers.

Pollination Syndromes

(suites of floral traits that reflect adaptations to a particular type of pollinator)

- Beetle flowers: dull color, strong odor
- Bee flowers: blue or yellow with nectar guides
- Moth and butterfly flowers: long corolla tube
- Bird flowers: lots of nectar, red, odorless
- Bat flowers: lots of nectar, dull colors, strong odors
- Wind: no nectar, dull colors, odorless

Fruit & seed dispersal

- Wind: fruits & seeds have “wings”
- Water: fruits & seeds float
- Animal (endozoochory): fleshy, edible fruits
- Animal (exozoochory): bristles, hooks, or sticky substances