Sept. 13, 2007
PMB102/IB 102

- The Embryo
  - Introduction to a GENERALIZED pattern of Embryogenesis
    - demarcation of the embryo proper and the suspensor
    - development of an axis of polarity
    - de novo formation of meristems
  - Experimental embryogenesis and what it tells us about normal embryo development and when and how the embryo becomes more independent
- The Seed
  - defined as the embryo with associated nutritive tissues surrounded by the seed coat.
  - functions to
    - carry plant over periods of unfavorable growth
    - maintain a reserve food supply
    - disseminate plants
  - main food reserve is as starch, fats (oils) and proteins
  - accumulate secondary plant products
  - Dispersal
    - prevent competition
    - dispersal apparatus
      - animals, wind, water, insects
    - autonomous mechanisms
      - depend on creation of tension
  - Dormancy
    - characterized by a period of physiological inactivity
    - types of dormancy
      - due to embryo coverings (mechanical)
      - inherent to the embryo (chemical/physiological)
    - ending dormancy
      - cold (stratification) , heat, light, leaching, scarification, exposure to chemicals
    - seed viability
  - Germination
  - Fruits
    - understanding how they develop depends on
      - structure of flower
      - number of ovaries
      - number of carpels
      - nature of the fruit wall (pericarp)