Session 3

1. Nuclear Reactions (collisions)
    [Harms, Chapter 2, pp. 27-30]
    - neutron capture/absorption
    - fission
    - fissile fuel breeding
    - fusion
    - Q value, energy release by fission and fusion

2. Nuclear Decay
    [Harms, Chapter 3, pp. 34-47, Appendix B]
    [Unlocking, Appendix A, pp. 260-266]
    - probabilistic approach to decay
    - particle accounting concept
    - decay constant
    - half-life
    - mean life
    - definition of Becquerel and Curie
    - activity and activity calculations
    - isotope production calculations
    - nuclear decay chains