- ☐ Meeting 5: Signal Processors
  - ☐ Equalization (EQ)
    - ☐ Common applications
      - ☐ trimming off frequencies to avoid overloading a frequency range with too much content
      - ☐ highlighting a specific frequency to accentuate an ingredient without turning its overall level up
      - ☐ reducing a specific frequency band to make room for another channel that has an abundance of the same band
    - ☐ Two EQ Rules to Live By
      - ☐ #1: Divide the spectrum among the ensemble
      - ☐ #2: Cut first, boost second
    - ☐ EQ Types
      - ☐ Fixed Frequency
      - ☐ Graphic
      - ☐ Parametric
    - ☐ Filter Types
      - ☐ High-pass filter (HPF) - cuts low end
      - ☐ Low-pass filter (LPF) - cuts high end
      - ☐ Band-pass filter - cuts lows/highs surrounding a specified band
      - ☐ Shelving EQ - common filter control
  - ☐ Dynamic Processors
    - ☐ Dynamic Range
    - ☐ Processor Types
      - ☐ Compressors/Limiters
      - ☐ Expanders/Gates
    - ☐ Processor Controls
      - ☐ Threshold
      - ☐ Ratio

- ☐ Attack & Release
- ☐ Knee
- ☐ Output control
- ▼ ☐ Applications
  - ▼ ☐ Live
    - ☐ Channel inserts
  - ▼ ☐ Recording Studio
    - ☐ Special effects (e.g. Pumping)
    - ☐ Mastering
  - ☐ Broadcasting
- ▼ ☐ Effects
  - ▼ ☐ Considerations
    - ☐ Type of music/nature of the performance
    - ☐ Venue
    - ☐ Taste
    - ▼ ☐ Do not apply delay/reverb effects to…
      - ☐ stage banter, lectures, or presentations.
      - ☐ monitor mixes.
    - ☐ Caution: mixing in stereo
  - ▼ ☐ Delay
    - ☐ an effects unit which records an input signal and then plays it back after a period of time
    - ☐ typically a hardware unit plugged into the mixer's aux bus
    - ☐ "wet" and "dry"
    - ▼ ☐ Slapback
      - ▼ ☐ Simple delay type
        - ☐ Often used to reinforce a musical groove
        - ▼ ☐ Programmed by tapping a button or

- ☐ 60,000 ÷ BPM = one beat in ms
- ☐ divide by 2 for 8th notes, 3 for 8th triplets, 4 for 16ths, etc.

▼ ☐ Reverb

- ☐ Multi-surface delay simulation

  ▼ ☐ Common types

  - ☐ Hall
  - ☐ Room
  - ☐ Plate
  - ☐ Gated

  ▼ ☐ Chorus Effects

  - ☐ A short delay or several short delays modified and combined with the original signal

    ▼ ☐ Common types

    - ☐ Chorus = ca. 35 ms
    - ☐ Flange = ca. 10 - 20 ms
    - ☐ Phase shift = ca. 1 ms

    ▼ ☐ Common Effects Settings

    - ☐ Room type
    - ☐ Delay time
    - ☐ Pre-delay time