1) Sampling
   a) Introduction
      i) Mechanistics
      ii) Heterogeneity
      iii) Standardizing
      iv) Water Quality Variables
   b) Sampling Frequency
      i) Time Series Analysis / Fourier Analysis
      ii) Random Sampling (Normality Assumptions)
      iii) Trend analysis
      iv) Common Sampling Schema

2) Watershed Monitoring
   i) Scale
   ii) Hydraulic Structures
      (1) Flumes
      (2) Rating Curves
   iii) Monitoring Equipment
      (1) Mechanical
         (a) Float Stage Measurement
         (b) Evaporation Pans
      (2) Analog/Digital
         (a) Autosamplers
         (b) Pressure Transducers
         (c) Potentiometer/Flume Flow Discharge
         (d) Mass and Magnetic Switch Rain Gauges
         (e) Sonar
         (f) Dataloggers (A/D and Control)
         (g) Real-time WQ probes

3) Research and Development
   a) Real-time Monitoring – Biosensors
   b) Data analysis techniques