Preliminary List of Topics

0. Introduction
   Models and their significance
   Scientific locus of the study of communication

1. Behavior of Isolated Systems
   States; Transitions; Trajectories
   Fields; Behavior spaces
   Deterministic vs. probabilistic behavior
   Markov Processes and flow models of communication
   Equilibria

2. Coding and Information Processing
   Semi-isolated Systems: parameters, variables
   Coding and codes

3. Decomposition of Dynamic Systems and Communication
   Deductions from Protocol: Diagram of immediate effects, independence, feedback
   Individual and joint equilibria
   Process diagrams and programs
   Memory and communication structure

4. Representational Information
   Combinatorial possibilities and uncertainty
   The idea of information; Types of theories
   Information derivative of messages

5. Variety, Uncertainty, and Incessant Transmission
   Statistical constraints and structure
   Uncertainty analysis
   Multivariate transmission of variety

6. Purpose, Requisite variety and Control
   Intelligence, its manifestation in selectivity
   Forms of control: steering, positive and negative feedback
   Limits on intelligent behavior; The law of requisite variety

7. Very large Systems, Organization and Constraint
   Decomposition of complexity: constraint analysis, subsystem-hierarchies, factors
   Regulation of very large systems
   Structure of organizations and the architecture of complexity

8. Some Properties of Large Systems
   Evolution and adaptation
   Self organization, morpheostasis and morpheogenesis
   Reproduction

9. Some Implications of Cybernetics
   Epistemological: consciousness and mind, limits of knowing
   Social: information processing, social control and survival
   Methodological: Limits of science