

# The New Universal Axiomatic System An Outline

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## I. The Universal Axiomatic System: Axioms and Theorems

### A. Axioms and Theorems of Form

1. Logic (deductive and inductive)
2. Mathematics
  - a. deterministic mathematics
    - 1) finite quantities: algebra
    - 2) infinitesimal quantities: calculus
  - b. stochastic mathematics
    - 1) probability
    - 2) statistics

### B. Axioms and Theorems of Content

1. Non-space-time--metaphysical existents
2. Space-Time
  - a. individual units of space-time
  - b. collection of units of space-time—geometry
3. Physical Existents
  - a. individual physical existents and space-time
    - 1) material displacements
      - a) photons
      - b) subatoms
      - c) atoms
    - 2) cosmic displacements
      - a) photons
      - b) subatoms
      - c) atoms
  - b. interaction of physical existents
    - 1) material displacements
      - a) interaction of photons
      - b) interaction of photons and subatoms
      - c) interaction of photons and atoms
      - d) interaction of subatoms
      - e) interaction of subatoms and atoms
      - f) interaction of atoms
      - g) interaction of large collections of atoms: stellar systems
    - 2) cosmic displacements
    - 3) interaction between material and cosmic sectors

4. Biological Existents
  - a. subcells
  - b. cells
  - c. interaction of cells with each other
    - 1) interaction of independent individual cells
    - 2) interaction of dependent individual cells:
      - multicellular organisms
    - 3) interaction of independent individual cells
      - with multicellular organisms
    - 4) interaction of multicellular organisms
      - a) same species
      - b) different species
  - d. interaction of cells with physical existents
  
5. Human Existents
  - a. individual humans
    - 1) physiology and development
    - 2) behavior: ego states
  - b. interactions of humans
    - 1) spoken and written transactions
    - 2) rituals, pastimes, games, activities, intimacy
    - 3) marriage, family, and kinship
    - 4) social, political, and economic organization
  - c. interactions of humans with metaphysical units (ethics, intuition, aesthetics)
  
6. Technological Existents
  - a. interaction of humans with physical existents
    - 1) photonics: control of photons
    - 2) subatomics: control of electrons, neutrons, protons, etc.
    - 3) atomics: control of atoms
      - a) microatomics
        - (1) chemical/materials synthesis
        - (2) atomic power generation
      - b) macroatomics
        - (1) structural design
        - (2) motion control (dynamics)
        - (3) energy generation/transformation
    - 4) systematics (combined photonics, subatomics, atomics)
  - b. interaction of humans with biological existents
    - 1) genetic manipulation
    - 2) agriculture
    - 3) medicine

## II. The Universal Axiomatic System: Meta-Axioms

- A. Independence of Axioms of UAS
- B. Consistency of Axioms of UAS
- C. Completeness of UAS
- D. Decidability of UAS

*Last updated 12/14/2012*